



# 2025 Product Catalogue

Market leading solutions to **cool, heat,  
ventilate & control** the nation's buildings

[les.mitsubishielectric.co.uk](http://les.mitsubishielectric.co.uk)



# Welcome to Mitsubishi Electric

Mitsubishi Electric is a market leader in providing solutions to cool, heat, ventilate and control our buildings.

As a major manufacturer of some of these pivotal technologies, we hold the UK's energy challenges close to our heart. We want to help the nation achieve its climate goals; we want to help individuals and businesses reduce the energy consumption of their buildings, whilst also helping to reduce their annual running costs.

At Mitsubishi Electric, we are constantly evolving and today our areas of expertise go way beyond the advanced air conditioning systems that formed the foundation of our business. Here in the UK, we provide advanced solutions that cool, heat, ventilate and control buildings in the most energy efficient and cost-effective ways possible. Through technical expertise, experience and an innovative product range, we enable buildings everywhere to significantly improve energy efficiency, reduce running costs and adhere to increasingly tough legislation. **We also provide a variety of additional services and benefits to our customers which include:**

- Product training and technical support
- Contractor Partner Programme
- CPD guides and presentations
- Design and consultancy services
- Apps and tools

## Working towards a better use of energy in buildings

Mitsubishi Electric's global framework for realising a sustainable planet - **Environmental Sustainability Vision 2050** - is translated in the UK into our **Green Gateway philosophy**, which is central to the way we do business. With this initiative, we are seeking to use our position as a manufacturer of key technologies to increase awareness and improve energy use in the built environment.

By constantly challenging everyone involved to combat the issues we all face and encouraging constructive dialogue throughout the industry, we aim to help everyone address their energy use and to work towards a more sustainable future. Working within the construction industry in this way we are continually developing energy efficient cooling, heating and ventilation solutions - all managed by the most advanced control systems available.



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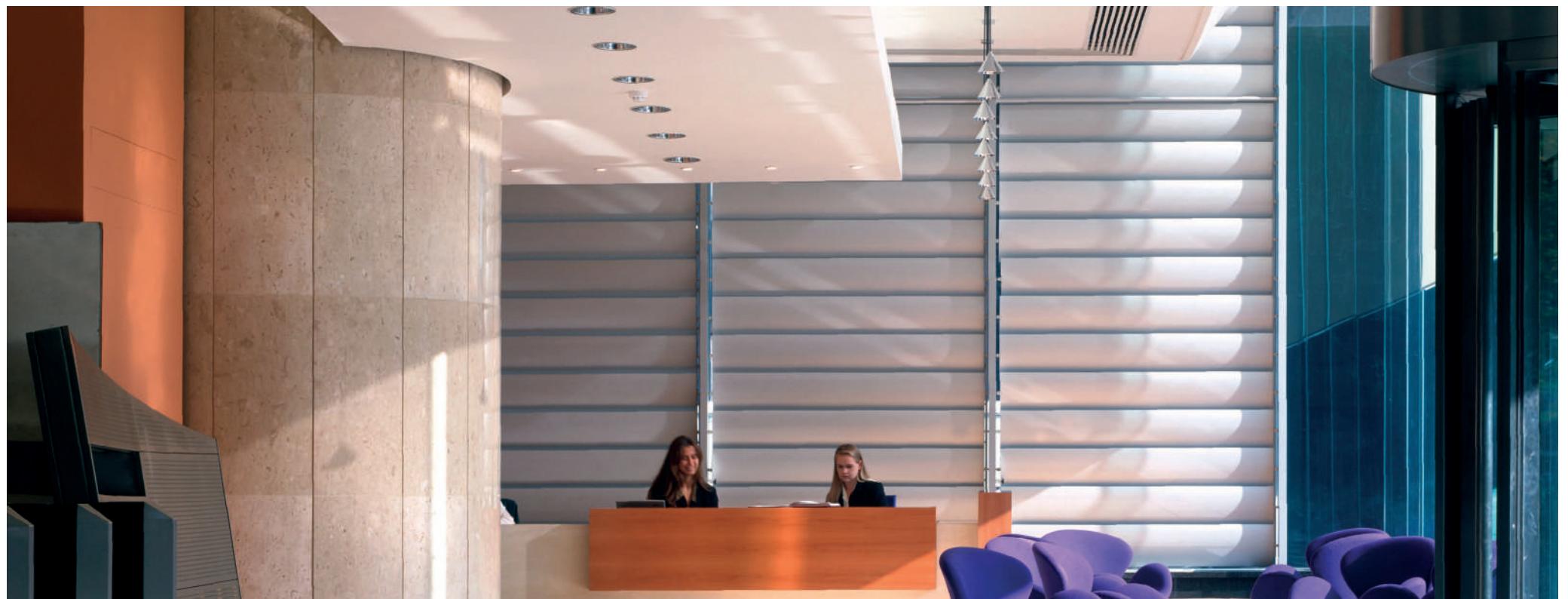


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# Air Conditioning

Designed to reduce energy consumption  
and running costs in the built environment





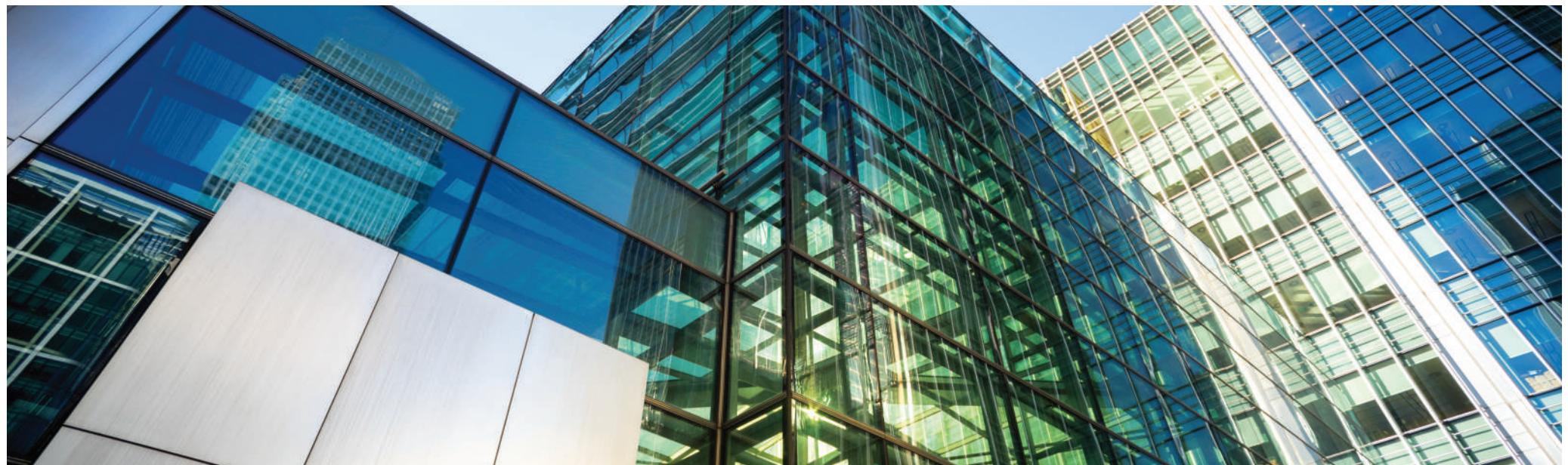
## **Energy Efficient Air Conditioning Systems**

# The need for Air Conditioning

Today's commercial buildings are increasingly air tight and filled with heat generating office equipment and lighting, which presents a problem for anyone trying to maintain a stable and comfortable internal environment. With buildings accounting for around half of all UK greenhouse emissions, legislation is demanding increased energy efficiency and higher standards of air quality.

To reduce the impact of the built environment, the challenge is to find cooling, heating, ventilation and control solutions that match energy efficiency with complete flexibility of design and control.

Our innovative and pioneering air conditioning systems offer more than double the efficiency levels of 10-15 year old systems and can also be far more efficient than traditional methods of cooling and heating buildings, resulting in reduced running costs and lower carbon emissions. Today's systems can simultaneously heat and cool different spaces to balance energy use across a building and sanitary hot water can even be supplied from the same system.



## Energy Efficient Air Conditioning Systems

### The benefits of our Air Conditioning Systems

As a market leader, we pride ourselves in providing high performance and competitive systems with low running costs.

By utilising heat pump technology, our air conditioning units not only provide cooling, but also heating and often sanitary hot water. Heat pump technology requires only a small amount of electricity to harvest, upgrade and move heat from one location to another, and providing heating and hot water as part of an integrated air conditioning system is far more efficient than traditional heating methods such as gas.

The 2014 F-Gas Regulations have and will continue to bring about significant changes to the air conditioning industry however, affecting end users, facilities managers, specifiers and installers alike. In February 2024, the European Union adopted an updated version of the F-Gas regulations, which put in place a steeper phase-down programme for higher GWP refrigerants than its predecessor. This landmark ruling has one key objective: to phase out the consumption of hydrofluorocarbons (HFCs) by 2050, by cutting the availability of HFCs with a high Global Warming Potential (GWP). Since the UK left the European Union, F Gas regulations have been overseen by DEFRA (the Department for Environment, Food & Rural Affairs). Although the UK has not yet adopted the 2024 EU F Gas regulation, it is important to consider the new programme of phase downs adopted across the EU as it will have an impact on systems specified and installed in the UK, and the UK government has stated that it will follow the EU path in future.

### It's time therefore to look at alternative, lower GWP refrigerants such as R32

Already making up 50% of the existing R410A refrigerant found in many current air conditioning systems, R32 has a GWP of 675 (one third that of R410A), is highly energy efficient and is easy to recycle. Plus, the volumetric capacity of R32 is around 20% higher than that of R410A, which means system refrigerant volumes are lower.

**R32 refrigerant is utilised in our newest, state-of-the-art products.**

#### Benefits of R32

- Lower GWP of 675
- High efficiency refrigerant
- F-Gas phase down compliant
- Less refrigerant volume requirement compared to R410A
- Affordable & readily available
- A single component refrigerant
- Easy to handle, reuse and recycle

**R32**



## Energy Efficient Air Conditioning Systems

### Ideal products that make a world of difference

There are two main types of air conditioning systems; **Split-Systems** which include the M Series and Mr Slim ranges, and **Variable Refrigerant Flow (VRF) Systems** which incorporate the City Multi range.

#### Split-Systems

Mitsubishi Electric Split-Systems were the first products in our range to begin the switch to the lower GWP refrigerant, R32. Consisting of our M Series and Mr Slim ranges of air conditioning, these systems are an ideal option for all medium sized premises such as offices, retail establishments or leisure facilities that have a heating or cooling requirement.

Our entire range of split-systems now utilise R32 refrigerant - these are made up of our M Series wall and floor mounted ranges, our MXZ Multi-Split range of products, and our Mr Slim Power Inverter, Standard Inverter and Inverter systems.

Split-Systems are also able to operate with up to six indoor units connected to a single outdoor unit, so with a full range of indoor units available in ceiling cassettes, ceiling concealed ducted, wall mounted, ceiling suspended or floor mounted types, the application options are considerable.



**MR SLIM**  
**Power Inverter,**  
**Standard Inverter**  
and **Inverter**  
models are  
available using

**R32**  
REFRIGERANT



## Energy Efficient Air Conditioning Systems

### Ideal products that make a world of difference

#### VRF & Hybrid VRF Systems

First developed 30 years ago, City Multi is the market leader in VRF (Variable Refrigerant Flow) technology and utilises R32 refrigerant. Specifically designed to deliver comfort and control for today's building requirements, it addresses all the key market issues.

VRF is a multi and direct expansion type air conditioning system where one outdoor unit is connected with multiple indoor units, intelligently modulating the flow of refrigerant depending upon the capacity requirements of each zone within a building. Its ultimate purpose is to regulate the internal air temperature and comfort levels in the most effective and efficient manner possible.

**The Hybrid VRF (HVRF)** system delivers optimum comfort and efficiency, using an innovative combination of unique 2-pipe VRF technology and water to provide simultaneous heating and cooling with heat recovery.

Providing a complete modern solution for a variety of applications, Hybrid VRF is quick, easy & flexible to design and install using the same control and network as VRF systems. With water at the indoor units, Hybrid VRF provides comfortable and stable air temperature control with no refrigerant in occupied spaces, meaning simple compliance to BS EN378 and removing the need for leak detection.



**City Multi**  
**VRF** the UK's  
first R32 Heat  
Recovery & Heat  
Pump Systems

**R32**  
REFRIGERANT



**City Multi**  
**HYBRID VRF**  
the World's  
first R32 Hybrid  
Solution

**R32**  
REFRIGERANT

### Plasma Quad Connect Air Purifying Device

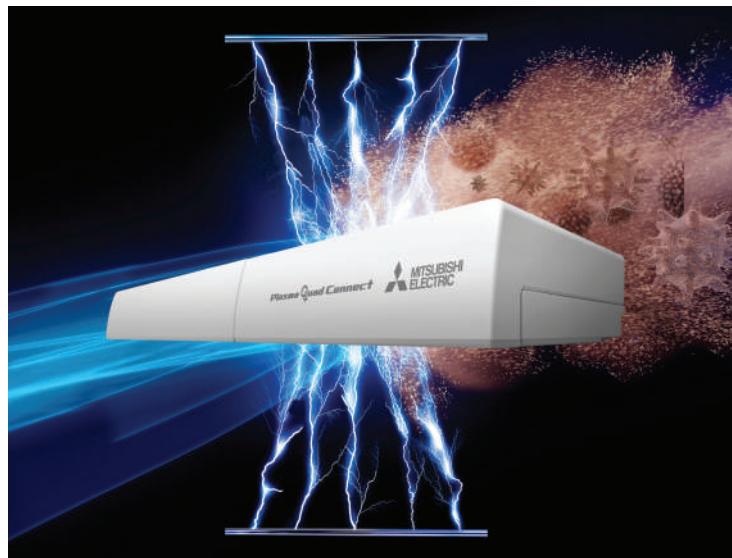
Good Indoor Air Quality (IAQ) is vital, and Mitsubishi Electric's powerful bolt-on air purifying device delivers Plasma Quad Technology to both new and existing installations of our **M Series**, **Mr Slim** and **City Multi** indoor units.

Plasma Quad Technology significantly improves indoor air quality by neutralising 6 key indoor pollutants, as well as inhibits 99.8% of SARS-CoV-2\*, providing peace of mind and reassurance for the physical and mental wellbeing of building occupants.

Plasma Quad Connect is the ideal solution for a broad range of applications; including hotels, education, healthcare, leisure and offices. It works like an electrical curtain to catch and neutralise even microscopic particles in the air, significantly improving indoor air quality.

#### Key Features & Benefits

- Plasma Quad Technology effectively neutralises 6 key indoor pollutants, as well as inhibits 99.8% of SARS-CoV-2\*
- Broad compatibility - allowing connectivity to a wide range of M Series, Mr Slim and City Multi indoor units
- Install flexibility - cost-effective bolt-on solution for new and existing air conditioning systems
- Premium construction allows for easy maintenance and low cost of ownership



#### How it Works

##### Stage One ➔

Produces plasma to:

- Inhibit viruses and bacteria
- Break down allergens and mould
- Electrically (+) charge dust and microscopic particles PM2.5

##### Stage Two ➔

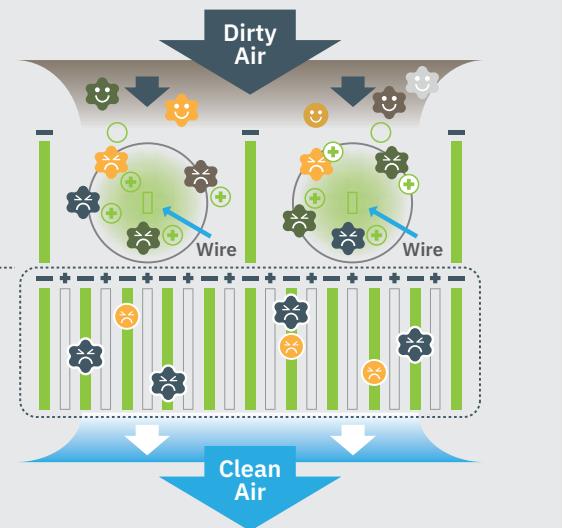
Creates a strong electrical (-) field to:

- Absorb dust and microscopic particles PM2.5

Notes: \* Derived from and subject to test results, for and on behalf of Mitsubishi Electric, conducted at the Microbial Testing Laboratory, Japan Textile Quality and Technology Centre, Kobe, Japan.

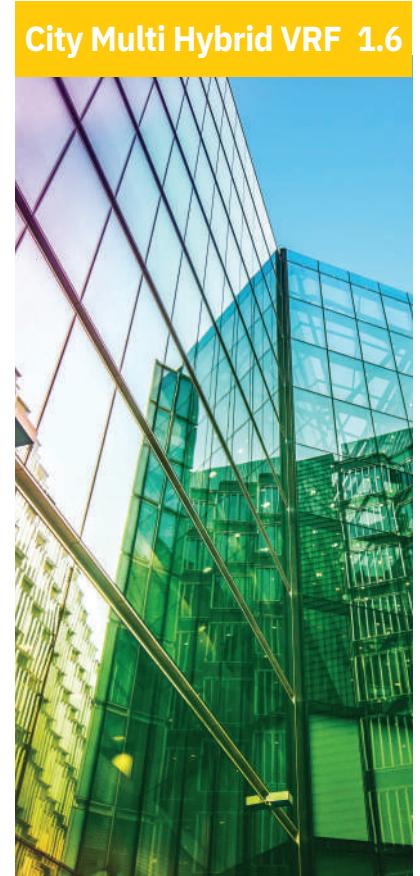


Plasma Quad  
Technology inhibits  
SARS-CoV-2 by  
**99.8%**



## Energy Efficient Air Conditioning Systems

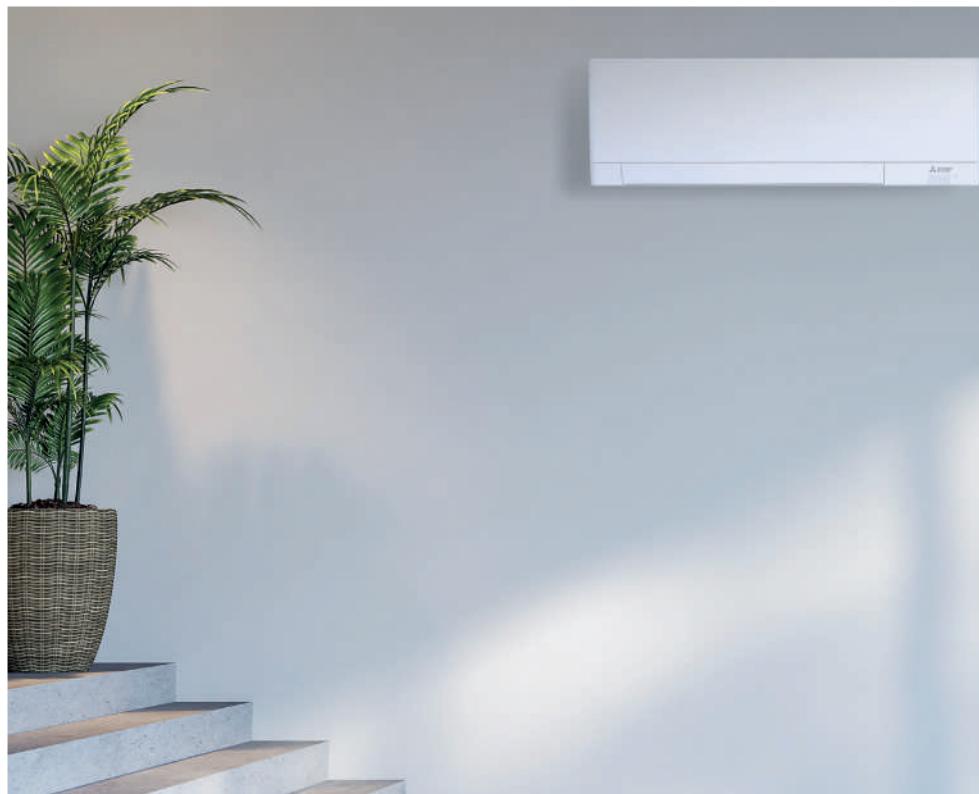
# Contents





# M Series

Room Air Conditioning





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**M** series**Room Air Conditioning**

# The Adaptable **M Series Range**

Designed to cool or heat small to medium sized spaces, such as residential, retail and small office applications, the M Series range provides a versatile, yet affordable air conditioning solution.

Quick to install, the range includes some of the quietest units on the market. Available in a variety of options, the M Series range fits in wherever it's needed, with a choice of wall or floor mounted indoor units.



**R290** **R32**

## Wall Mounted Systems

- Premium Plus Inverter series, utilising low GWP R290 refrigerant
- Premium Inverter series, available in red, black or white
- Stylish Zen Inverter series, available in black, silver or white
- Mid-range Elegance Inverter series designed to suit popular demand
- Cost effective Classic Inverter series



## Floor Mounted Systems

- Extremely versatile
- Designed for wall installation at floor level
- Compact design makes installation easy
- 3 models available from 2.5 - 5.0kW

## Key Features

- The entire M Series range is available using either low GWP R290 or lower GWP R32 refrigerant
- Wi-Fi enabled, allowing control and monitoring via the MELCloud app (compatible with Amazon Alexa or Google Assistant-enabled devices)
- Stylish indoor units, available in a variety of colours



Indoor Model	Range	kW	1.5 <sup>*1</sup>	1.8 <sup>*1</sup>	2.0	2.2 <sup>*1</sup>	2.5	3.5	4.2	5.0	6.1	7.1
<b>Wall Mounted</b>												
	MSZ-RZ <b>R290</b>						●	●				
	MSZ-LN <sup>*2</sup> <b>R32</b>			●			●	●	●	●	●	●
	MSZ-EF <sup>*3</sup> <b>R32</b>			●		●	●	●	●			
	MSZ-AY/AP <b>R32</b>		●	●			●	●	●	●	●	●
	MSZ-HR <b>R32</b>						●	●	●	●	●	●
<b>Floor Mounted</b>	MFZ-KT <b>R32</b>						●	●	●			

<sup>\*1</sup> Multi-split only   <sup>\*2</sup> Also available in pearl white, onyx black and natural white   <sup>\*3</sup> Also available in silver and white

# MSZ-RZ R290

## Premium Plus Wall Mounted System

### Inverter Heat Pump

The **MSZ-RZ** range blends low GWP refrigerant, with a high heating performance efficiency in low outdoor temperatures. Excellent air purifying functions and many other smart features makes it an excellent choice.

#### Key Features & Benefits

- Built in Plasma quad technology neutralises viruses, bacteria, allergens, PM2.5 mould and dust, inhibiting 99.8% of SARS-CoV-2\*
- 3D i-see sensor provides energy efficient, customised comfort by automatically monitoring room occupancy position and body temperatures
- Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app
- Excellent heating performance delivers warmth to your room at low ambient outdoor temperatures
- 'Circulator' mode to automatically circulate the air and eliminate cold spots
- User-friendly backlit controller for remote operation, including scheduling options

**R290**



MSZ-RZ - INDOOR UNITS		MSZ-RZ25VU	MSZ-RZ35VU
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	3.2 (0.8-5.4) 2.5 (0.9-3.5) 2.62 (0.66-4.43) 2.5 (0.9-3.5)	4.0 (1.1-6.3) 3.5 (1.0-4.0) 3.28 (0.9-5.17) 3.5 (1.0-4.0)
SHF (nominal)		1.00	0.92
COP / EER (nominal)		5.50 / 5.60	4.90 / 4.50
SCOP / SEER (BS EN14825)		5.3 / 11.7	5.2 / 9.6
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+++ / A+++	A+++ / A+++
AIRFLOW (l/s)	Heating (SLo-Lo-Mi-Hi-SHi) Cooling (SLo-Lo-Mi-Hi-SHi)	85-130-158-195-235 85-108-150-175-195	85-130-158-195-255 85-115-150-192-235
PIPE SIZE MM (in)	Gas Liquid	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating (SLo-Lo-Mi-Hi-SHi) Cooling (SLo-Lo-Mi-Hi-SHi)	19-25-30-36-41 19-23-29-36-42	19-25-30-36-42 19-24-29-36-43
SOUND POWER LEVEL (dBA)		58	59
DIMENSIONS (mm)	Width x Depth x Height	998 x 247 x 305	998 x 247 x 305
WEIGHT (kg)		14.4	14.4
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6
INTERCONNECTING CABLE No. CORES		4	4



MUZ-RZ- OUTDOOR UNITS		MUZ-RZ25VU	MUZ-RZ35VU
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	49 / 46	50 / 49
SOUND POWER LEVEL (dBA)	Cooling	60	61
WEIGHT (kg)		37.5	39.5
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 714	800 x 285 x 714
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	0.58 / 0.45 0.53 / 0.38	0.81 / 0.77 0.74 / 0.65
STARTING CURRENT (A)		2.9	3.8
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	2.5 / 2.0 [9.8]	3.5 / 3.3 [9.9]
FUSE RATING (BS88) - HRC (A)		10	10
MAINS CABLE No. CORES		3	3
MAX PIPE LENGTH (m)		20	20
MAX HEIGHT DIFFERENCE (m)		12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R290 (GWP 0.02) - 10m		0.39 / 0.0000078	0.39 / 0.0000078
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R290 (GWP 0.02)		0.10 / 0.0000002	0.10 / 0.0000002

\* Derived from and subject to test results, for and on behalf of Mitsubishi Electric conducted at the Microbial Testing Laboratory, Textile Quality and Technology Center, Kobe, Japan.

## Accessories

### Indoor Units

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-882SG

Air outlet guide for MUZ-RZ25/35VU

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MELCOBEMS MINI (A1M+)

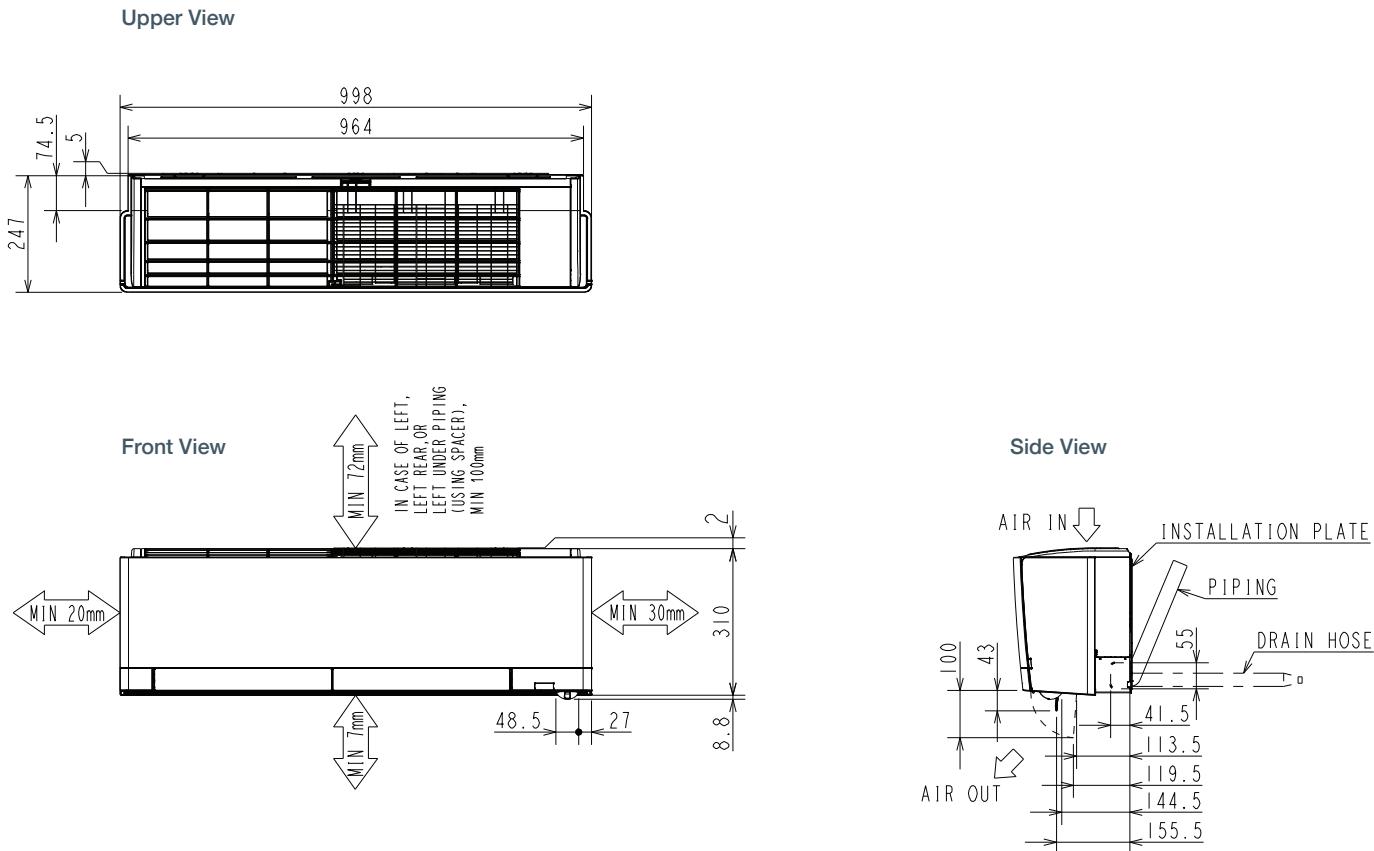
Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

## Product Dimensions

### MSZ-RZ25/35VU



# MSZ-LN R32

## Premium Wall Mounted System

### Inverter Heat Pump



The **MSZ-LN** range is our flagship wall mounted system, that blends energy efficiency with a sophisticated streamlined design. Finished with a choice of four rich colours and a premium quality feel, this range features the latest product innovations, all designed to enhance the user experience, and is an excellent choice for residential or small commercial applications.

#### Key Features & Benefits

- Built-in Plasma Quad Technology neutralises viruses, bacteria, allergens, PM2.5, mould and dust, inhibiting 99.8% of SARS-CoV-2\*
- 3D i-see sensor provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures
- Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
- Dual-Barrier Coating to the heat exchanger, fan and air duct prevents dust and grease accumulation
- Energy efficient, ultra-quiet operation with a choice of fan speeds
- User-friendly backlit controller for remote operation, including scheduling options



MSZ-LN - INDOOR UNITS		MSZ-LN18VG2 R/B/V/W	MSZ-LN25VG2 R/B/V/W	MSZ-LN35VG2 R/B/V/W	MSZ-LN50VG2 R/B/V/W	MSZ-LN60VG2 R/B/V/W
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	2.0 (0.9-4.0) 1.8 (0.9-3.0)	3.2 (0.8-5.4) 2.5 (1.0-3.5)	4.0 (1.0-6.3) 3.5 (0.8-4.0)	6.0 (1.0-8.2) 5.0 (1.0-6.0)	6.8 (1.8-9.3) 6.1 (1.4-6.9)
Heating (UK) Cooling (UK)	- -	2.64 (0.66-4.45) 2.48 (0.99-3.47)	3.3 (0.83-5.2) 3.47 (0.79-3.96)	4.94 (0.82-6.75) 4.95 (0.99-5.94)	5.6 (1.48-7.66) 6.05 (1.38-6.84)	
SHF (nominal)	-	0.97	0.90	0.77	0.75	
COP / EER (nominal)	-	5.52 / 5.15	5.00 / 4.27	4.05 / 3.62	3.76 / 3.41	
SCOP / SEER (BS EN14825)	-	5.2 / 10.5	5.1 / 9.5	4.6 / 8.5	4.6 / 7.5	
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	A+++ / A+++	A+++ / A+++	A+++ / A+++	A++ / A++
AIRFLOW (l/s)	Heating (SLo-Lo-Mi-Hi-SHi) Cooling (SLo-Lo-Mi-Hi-SHi)	67-95-118-142-240 71-97-118-147-198	67-95-118-142-240 71-97-118-147-198	71-97-118-142-228 71-97-118-147-213	90-107-142-178-262 95-127-148-177-232	110-158-192-227-262 118-147-177-212-262
PIPE SIZE MM (in)	Gas Liquid	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating (SLo-Lo-Mi-Hi-SHi) Cooling (SLo-Lo-Mi-Hi-SHi)	19-24-29-36-45 19-23-29-36-42	19-24-29-36-45 19-23-29-36-42	19-24-29-36-45 19-24-29-36-43	25-29-34-39-47 27-31-35-39-46	29-37-41-45-49 29-37-41-45-49
SOUND POWER LEVEL (dBA)		58	58	58	60	65
DIMENSIONS (mm)	Width x Depth x Height	890 x 233 x 307	890 x 233 x 307			
WEIGHT (kg)		15.5	15.5	15.5	15.5	15.5
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit			
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4	4	4

Notes: MSZ-LN18VG2 only available with R32 MXZ Multi-Split outdoor units. Ruby Red (R), Onyx Black (B), Pearl White (V), Natural White (W).

MUZ-LN - OUTDOOR UNITS		MULTI-SPLIT ONLY	MUZ-LN25VG2	MUZ-LN35VG2	MUZ-LN50VG2	MUZ-LN60VG2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	-	49 / 46	50 / 49	54 / 51	55 / 55
SOUND POWER LEVEL (dBA)	Cooling	-	60	61	64	65
WEIGHT (kg)		-	35	35	40	53
DIMENSIONS (mm)	Width x Depth x Height	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880
ELECTRICAL SUPPLY		-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		-	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	- -	0.580 / 0.485 0.523 / 0.406	0.800 / 0.820 0.722 / 0.686	1.480 / 1.380 1.335 / 1.151	1.810 / 1.790 1.632 / 1.494
STARTING CURRENT (A)		-	3.0	4.0	6.8	7.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	-	3.0 / 2.5 [7.1]	4.0 / 3.9 [9.9]	6.8 / 6.3 [13.9]	7.9 / 7.9 [15.2]
FUSE RATING (BS88) - HRC (A)		-	10	10	16	16
MAINS CABLE No. CORES		-	3	3	3	3
MAX PIPE LENGTH (m)		-	20	20	30	30
MAX HEIGHT DIFFERENCE (m)		-	12	12	12	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675) - 7m		-	1.0 / 0.68	1.0 / 0.68	1.25 / 0.85	1.45 / 0.98
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		-	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.46 / 0.32

\* Derived from and subject to test results, for and on behalf of Mitsubishi Electric conducted at the Microbial Testing Laboratory, Textile Quality and Technology Center, Kobe, Japan.

## Accessories

### Indoor Units

#### MAC-286RH-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guide for MUZ-LN25/35VG2

#### MAC-882SG

Air outlet guide for MUZ-LN50VG2

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

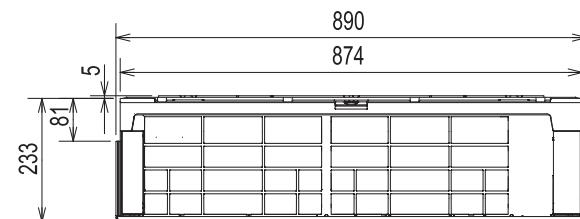
#### MELCORETAIL MINI

Retail control and input / output interface

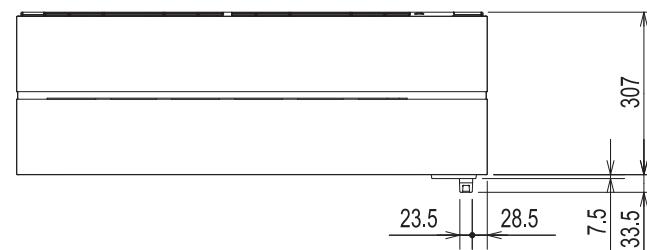
## Product Dimensions

### MSZ-LN18/25/35/50/60VG2 R/B/V/W

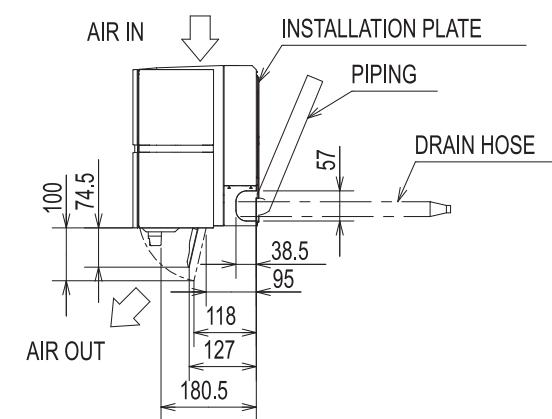
Upper View



Front View



Side View



# MSZ-EF R32

## Zen Wall Mounted System

### Inverter Heat Pump

The **MSZ-EF** is a modern, small-scale wall mounted air conditioning system that effortlessly blends energy efficiency, low noise, Wi-Fi control and air filtration with a sophisticated, streamlined design. Available in capacities from 1.8kW to 5kW and connectable as a single or multi-split system, Zen is the perfect solution for residential and small office applications.

#### Key Features & Benefits

- Stylish design in a range of three distinct colours - black, silver and white
- Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
- In-room air purification through our advanced V-Blocking filter, neutralising viruses, allergens, dust and mould
- Easy operation via a backlit controller with 7 day time clock
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



MSZ-EF B/S/W - INDOOR UNITS	MSZ-EF18VGK B/S/W	MSZ-EF22VGK B/S/W	MSZ-EF25VGK B/S/W	MSZ-EF35VGK B/S/W	MSZ-EF50VGK B/S/W
CAPACITY (kW)	Heating (nominal) 2.0 (0.9 - 4.0) Cooling (nominal) 1.8 (0.9 - 3.0)	2.6 (1.0-4.5) 2.2 (1.0-3.2)	3.2 (1.0-4.2) 2.5 (0.9-3.4)	4.0 (1.3-5.1) 3.5 (1.1-4.0)	5.8 (1.4-7.5) 5.0 (1.4-5.4)
SHF (nominal)	-	-	2.65 (0.91-3.49)	3.32 (1.08-4.23)	4.82 (1.16-6.23)
COP / EER (nominal)	-	-	2.48 (0.89-3.37)	3.47 (1.09-3.96)	4.96 (1.39-5.36)
SCOP / SEER (BS EN14825)	-	-	4.7 / 9.1	4.6 / 8.8	4.5 / 7.5
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	-	A++ / A+++	A++ / A+++	A+ / A++
AIRFLOW (l/s)	Heating/Cooling - SLo-Lo-Mi-Hi-Shi 67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-198 / 67-77-105-138-175	67-77-103-148-212 / 67-77-105-138-175	107-120-150-185-243 / 97-113-132-153-188
PIPE SIZE mm (in)	Gas 9.52 (3/8") Liquid 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - SLo-Lo-Mi-Hi-Shi 21-24-29-37-45 / 19-23-29-36-42	21-24-29-37-45 / 19-23-29-36-42	21-24-29-37-45 / 19-23-29-36-42	21-24-30-38-46 / 21-24-30-36-42	30-33-37-43-49 / 30-33-36-40-43
SOUND POWER LEVEL (dBA)	60	60	60	60	60
DIMENSIONS (mm)	Width x Depth x Height 885 x 195 x 299	885 x 195 x 299	885 x 195 x 299	885 x 195 x 299	885 x 195 x 299
WEIGHT (kg)	11.5	11.5	11.5	11.5	11.5
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6
INTERCONNECTING CABLE No. CORES	4	4	4	4	4

Notes: Black (B), Silver (S), White (W)

MUZ-EF - OUTDOOR UNITS	MULTI-SPLIT ONLY	MULTI-SPLIT ONLY	MUZ-EF25VG	MUZ-EF35VG	MUZ-EF50VG
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling -	-	48 / 47	50 / 49	52 / 52
SOUND POWER LEVEL (dBA)	Cooling -	-	58	62	65
WEIGHT (kg)	-	-	31	34	40
DIMENSIONS (mm)	Width x Depth x Height -	-	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714
ELECTRICAL SUPPLY	-	-	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	-	-	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) -	-	0.70 / 0.54	0.95 / 0.91	1.56 / 1.54
	Heating/Cooling (UK) -	-	0.64 / 0.44	0.87 / 0.73	1.42 / 1.24
STARTING CURRENT (A)	-	-	3.6	4.4	7.1
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] -	-	3.6 / 3.0 [6.8]	4.4 / 4.2 [6.8]	7.1 / 6.9 [13.6]
FUSE RATING (BS88) - HRC (A)	-	-	10	10	16
MAINS CABLE No. CORES	-	-	3	3	3
MAX PIPE LENGTH (m)	-	-	20	20	30
MAX HEIGHT DIFFERENCE (m)	-	-	12	12	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675) - 7m	-	-	0.62 / 0.42	0.74 / 0.50	1.05 / 0.71
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	-	-	0.26 / 0.18	0.26 / 0.18	0.46 / 0.31

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guides for MUZ-EF25/35VG

#### MAC-882SG

Air outlet guides for MUZ-EF50VG

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

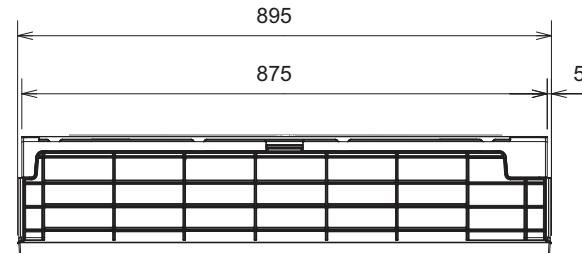
#### MELCORETAIL MINI

Retail control and input / output interface

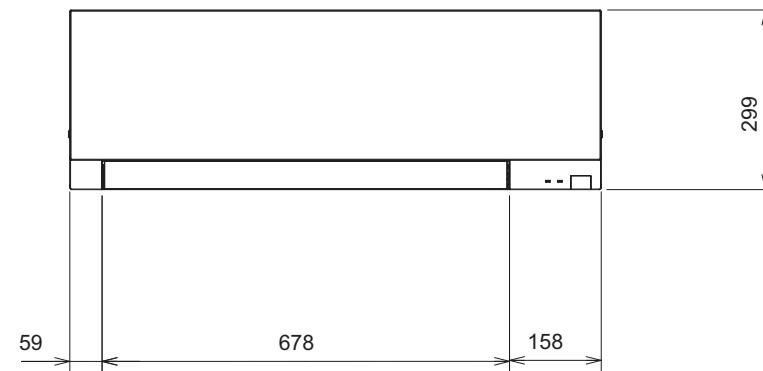
## Product Dimensions

### MSZ-EF18/22/25/35/50VGK B/S/W

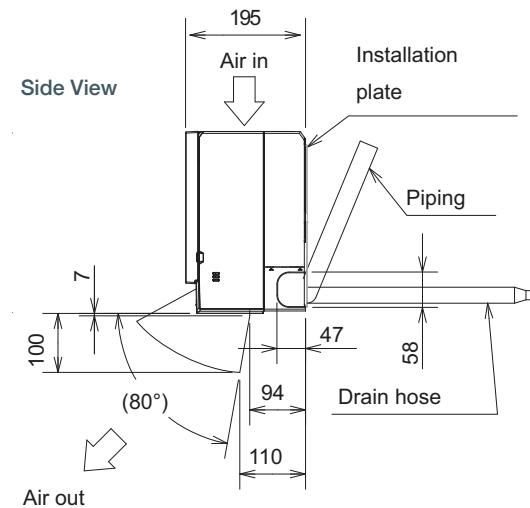
Upper View



Front View



Side View



# MSZ-AY / MSZ-AP R32

## Elegance Wall Mounted System

### Inverter Heat Pump



The **MSZ-AY & MSZ-AP** wall mounted systems deliver excellent flexibility and energy efficiency for air conditioning projects. With a stylish design, range of capacities from 1.5kW to 7.1kW, and connection capability to single as well as multi-split systems, the Elegance series is a great fit for residential and light commercial applications.

#### Key Features & Benefits

- Elegant and sleek design to complement multiple application types
  - High seasonal efficiencies, offering energy saving and low running costs
  - Low noise levels, including Night Mode setting, for minimal disturbance to occupants
  - Built in Wi-Fi interface enables system control & monitoring via the Mitsubishi Electric MELCloud app; plus voice control - compatible with Amazon Alexa or Google Assistant-enabled devices
  - Dual-Barrier coating on the heat exchanger, fan and air duct prevents dust and grease accumulation within the unit, ensuring long-term, efficient operation (MSZ-AY only)
  - Self-cleaning mode prevents mould and odours, allowing cleaner air to be delivered to the space (MSZ-AY only)
  - Luxury Matt finish ensures easy cleaning and consistent premium appearance (MSZ-AY only)
  - In-room air purification through an advanced V-Blocking filter, neutralising bacteria, viruses, allergens, dust and mould
  - Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust.
- For more information, please refer to page 1.1.7



MSZ-AY / MSZ-AP - INDOOR UNITS	MSZ-AY15VGK	MSZ-AY20VGK	MSZ-AY25VGK	MSZ-AY35VGK	MSZ-AY42VGK	MSZ-AY50VGK	MSZ-AP60VGK	MSZ-AP71VGK
CAPACITY (kW)	Heating (nominal) 2.0 (0.5-3.1)	2.5 (0.5-3.5)	3.2 (1.0-4.1)	4.0 (1.3-4.6)	5.2 (1.3-6.0)	5.5 (1.4-7.3)	6.8 (2.0-8.6)	8.0 (2.2-10.3)
	Cooling (nominal) 1.5 (0.5-2.2)	2.0 (0.6-2.7)	2.5 (0.9-3.4)	3.5 (1.1-3.8)	4.2 (0.9-4.5)	5.0 (1.4-5.4)	6.1 (1.4-7.3)	7.1 (2.0-8.7)
	Heating (UK) 1.64 (0.4-2.5)	2.06 (0.4-2.9)	2.64 (0.8-3.4)	3.3 (1.1-3.8)	4.45 (1.1-4.9)	4.78 (1.2-6.0)	5.6 (1.6-7.1)	6.68 (1.8-8.6)
	Cooling (UK) 1.49 (0.5-2.2)	1.98 (0.6-2.7)	2.48 (0.9-3.4)	3.47 (1.1-3.8)	4.17 (0.9-4.5)	4.95 (1.4-5.3)	6.05 (1.4-7.2)	7.04 (2.0-8.6)
SHF (nominal)	-	0.80	0.92	0.88	0.77	0.74	0.83	0.77
COP / EER (nominal)	-	4.17 / 4.35	4.10 / 4.17	3.88 / 3.54	3.74 / 3.23	3.74 / 3.25	4.07 / 3.84	3.82 / 3.53
SCOP / SEER (BS EN14825)	-	4.20 / 8.60	4.80 / 8.70	4.70 / 8.70	4.70 / 7.90	4.70 / 7.50	4.60 / 7.40	4.40 / 7.20
EP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A+++	A+ / A+++	A+ / A+++	A+ / A+++	A++ / A++	A++ / A++	A++ / A++	A+ / A++
AIRFLOW (l/s)	Heating (Slo-Lo-Mid-Hi-Sh) 47-65-75-90-102	47-65-75-90-118	67-83-110-133-197	73-90-116-143-215	80-95-121-151-215	180-223-257-290-338	170-192-220-255-320	
	Cooling (Slo-Lo-Mid-Hi-Sh) 47-62-73-87-102	47-62-73-87-110	60-83-105-130-175	60-83-105-130-185	75-95-116-140-175	86-106-125-151-195	157-183-220-267-315	160-192-220-255-310
PIPE SIZE MM (in)	Gas 9.52 (3/8") Liquid 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating (Slo-Lo-Mid-Hi-Sh) 21-26-30-35-40	19-26-30-35-42	18-24-34-39-45	18-24-31-38-45	21-29-35-40-45	28-33-38-43-48	30-37-41-45-48	30-37-41-45-45
	Cooling (Slo-Lo-Mid-Hi-Sh) 21-26-30-35-40	19-26-30-35-42	18-24-30-36-42	18-24-30-36-42	21-29-34-38-42	28-33-36-40-44	30-37-41-45-48	30-37-41-45-49
SOUND POWER LEVEL (dBA)	54	57	57	57	57	58	65	65
DIMENSIONS (mm)	Width x Depth x Height 760 x 199 x 250	760 x 199 x 250	798 x 245 x 299	1100 x 257 x 325	1100 x 257 x 325			
WEIGHT (kg)	8.9	8.9	10.5	10.5	10.5	10.5	16	17
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. CORES	4	4	4	4	4	4	4	4
MUZ-AY / MUZ-AP - OUTDOOR UNITS	MULTI-SPLIT ONLY	MUZ-AY20VG	MUZ-AY25VG	MUZ-AY35VG	MUZ-AY42VG	MUZ-AY50VG	MUZ-AP60VG	MUZ-AP71VG2
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	-	48 / 47	48 / 47	50 / 49	51 / 50	52 / 52	57 / 56	55 / 56
SOUND POWER LEVEL (dBA) Cooling	-	59	59	61	61	64	65	65
WEIGHT (kg)	-	28	27	28.5	34	40.5	40	53
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 714	800 x 285 x 714	840 x 330 x 880			
ELECTRICAL SUPPLY	-	220-240v, 50Hz						
PHASE	-	Single						
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 1.00 / 0.46	0.78 / 0.60	1.03 / 0.99	1.39 / 1.30	1.47 / 1.54	1.67 / 1.59	2.12 / 2.01	
	Heating/Cooling (UK) 0.90 / 0.38	0.70 / 0.50	0.93 / 0.83	1.25 / 1.08	1.32 / 1.28	1.51 / 1.33	1.91 / 1.68	
STARTING CURRENT (A)	-	3.2	3.6	4.7	6.1	6.9	7.4	9.3
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]	-	3.2 / 2.6 [7.0]	3.6 / 2.9 [7.6]	4.7 / 4.5 [7.6]	6.1 / 5.8 [9.9]	6.5 / 6.9 [13.8]	7.4 / 7.1 [14.0]	9.3 / 8.8 [16.4]
FUSE RATING (BS88) - HRC (A)	-	10	10	10	10	16	16	20
MAINS CABLE NO. CORES	-	3	3	3	3	3	3	3
MAX PIPE LENGTH (m)	-	20	20	20	20	20	30	30
MAX HEIGHT DIFFERENCE (m)	-	12	12	12	12	12	15	15
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	- R32 (GWP 675) - 7m	0.55 / 0.37	0.55 / 0.37	0.55 / 0.37	0.70 / 0.47	1.00 / 0.68	1.05 / 0.71	1.50 / 1.02
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	- R32 (GWP 675)	0.25 / 0.17	0.25 / 0.17	0.25 / 0.17	0.25 / 0.17	0.25 / 0.17	0.30 / 0.21	0.30 / 0.21

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1300RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-881SG

Air outlet guide for MUZ-AY20/25/35/42VG

#### MAC-882SG

Air outlet guide for MUZ-AY50VG, MUZ-AP60VG

#### MAC-886SG

Air outlet guide for MUZ-AP71VG

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

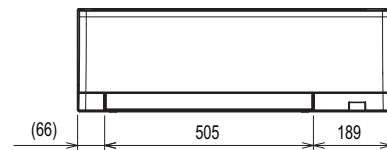
#### MELCORETAIL MINI

Retail control and input / output interface

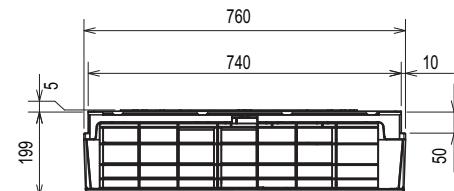
## Product Dimensions

### MSZ-AY15-20VGK

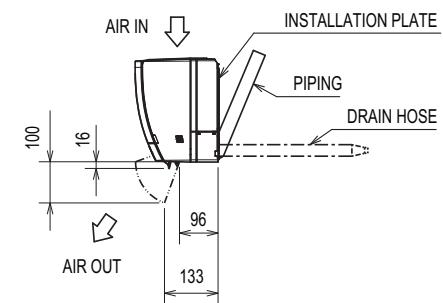
Front View



Upper View



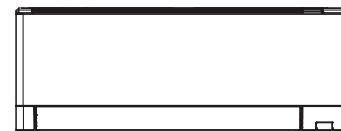
Side View



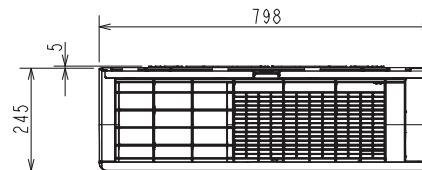
## Product Dimensions

### MSZ-AY25-50VGK

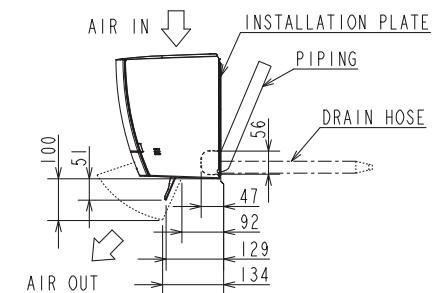
Front View



Upper View



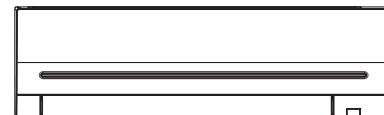
Side View



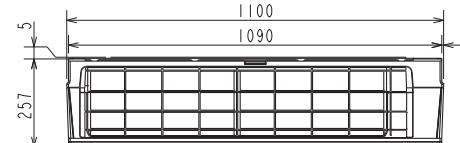
## Product Dimensions

### MSZ-AP60-71VGK

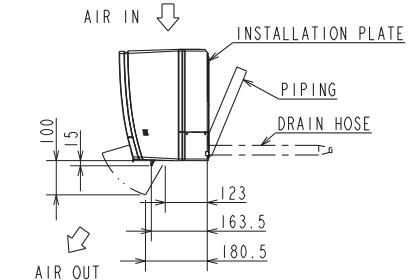
Front View



Upper View



Side View



# MSZ-HR R32

## Classic Wall Mounted System

### Inverter Heat Pump

The **MSZ-HR** range of wall mounted split systems is now available in capacities up to 7.1kW, making them ideal for light commercial applications such as small offices & retail spaces. With efficient & quiet operation, as well as optional Wi-Fi control, these systems provide excellent value for money as single or multi-split systems.

#### Key Features & Benefits

- Stylish white design
- Utilises lower GWP R32 refrigerant
- Optional Wi-Fi interface enabling control & monitoring via the MELCloud app
- Daily timer for greater control of scheduling
- Multi-Split connection to MXZ-HA
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



MSZ-HR - INDOOR UNITS	MSZ-HR25VF	MSZ-HR35VF	MSZ-HR50VF	MSZ-HR60VF	MSZ-HR71VF
CAPACITY (kW)	Heating (nominal) 3.15 (0.7-3.5) Cooling (nominal) 2.5 (0.5-2.9)	3.6 (0.9-3.7) 3.4 (0.9-3.4)	5.4 (1.4-6.5) 5.0 (1.3-5.0)	6.8 (1.5-9.0) 6.1 (1.7-7.4)	8.1 (1.5-9.0) 7.1 (1.8-7.4)
Heating (UK) 2.61 (0.6-2.9)	2.99 (0.75-3.1)	4.48 (1.16-5.39)	5.64 (1.25-7.47)	6.72 (1.25-7.47)	
Cooling (UK) 2.48 (0.5-2.8)	3.37 (0.89-3.4)	4.96 (1.29-4.96)	5.98 (1.67-7.25)	6.96 (1.76-7.25)	
SHF (nominal)	0.78	0.78	0.73	0.79	0.74
COP / EER (nominal)	3.71 / 3.13	3.69 / 2.81	3.48 / 2.44	3.76 / 3.37	3.32 / 3.05
SCOP / SEER (BS EN14825)	4.30 / 6.20	4.30 / 6.20	4.30 / 6.50	4.50 / 7.20	4.30 / 7.00
ErP ENERGY EFFICIENCY CLASS	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Heating/Cooling - Lo-Mi-Hi-Shi 55-90-123-168 / 60-90-120-162	55-90-123-175 / 60-93-130-195	102-138-187-242 / 107-153-187-218	178-218-278-327 / 173-210-257-327	178-218-278-327 / 173-210-257-327
PIPE SIZE mm (in)	Gas 9.52 (3/8") Liquid 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - Lo-Mi-Hi-Shi 21-30-37-43 / 21-30-37-43	21-30-37-44 / 22-31-38-46	27-34-41-47 / 28-36-40-45	33-38-44-50 / 33-38-44-50	33-38-44-50 / 33-38-44-50
SOUND POWER LEVEL (dBA)	57	60	60	65	65
DIMENSIONS (mm)	Width x Depth x Height 838 x 228 x 280	838 x 228 x 280	838 x 228 x 280	923 x 263 x 305	923 x 263 x 305
WEIGHT (kg)	8.5	8.5	9	12.5	12.5
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6
INTERCONNECTING CABLE No. CORES	4	4	4	4	4

MUZ-HR - OUTDOOR UNITS	MUZ-HR25VF	MUZ-HR35VF	MUZ-HR50VF	MUZ-HR60VF	MUZ-HR71VF
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 50 / 50	51 / 51	51 / 50	57 / 53	57 / 53
SOUND POWER LEVEL (dBA)	Cooling 63	64	64	65	66
WEIGHT (kg)	23	24	35	40	40
DIMENSIONS (mm)	Width x Depth x Height 699 x 249 x 538	699 x 249 x 538	800 x 285 x 550	800 x 285 x 714	800 x 285 x 714
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 0.85 / 0.80 Heating/Cooling (UK) 0.77 / 0.63	0.98 / 1.21 0.89 / 0.96	1.55 / 2.05 1.40 / 1.62	1.81 / 1.81 1.63 / 1.52	2.44 / 2.33 2.20 / 1.96
STARTING CURRENT (A)	4.1	5.9	9.0	8.0	10.8
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.1 / 3.8 [4.8]	4.6 / 5.9 [6.4]	6.9 / 9.0 [9.6]	8.0 / 8.0 [14.1]	11.8 / 10.3 [14.1]
FUSE RATING (BS88) - HRC (A)	10	10	16	16	16
MAINS CABLE No. CORES	3	3	3	3	3
MAX PIPE LENGTH (m)	20	20	20	20	20
MAX HEIGHT DIFFERENCE (m)	12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	0.40 / 0.27	0.45 / 0.30	0.80 / 0.54	1.05 / 0.71	1.05 / 0.71
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	0.26 / 0.18	0.26 / 0.18	0.26 / 0.18	0.46 / 0.32	0.46 / 0.32

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect Air Purifying Device

#### MAC-1200RC-E

Natural white remote controller holder

### Outdoor Units

#### MAC-883SG

Air outlet guide for MUZ-HR25/35VF

#### MAC-881SG

Air outlet guide for MUZ-HR50VF

#### MAC-882SG

Air outlet guide for MUZ-HR60/71VF

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

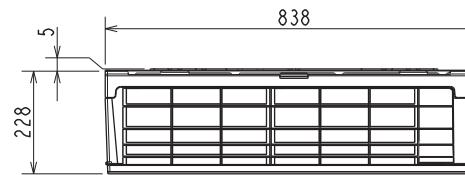
## Product Dimensions

### MSZ-HR25/35/50VF

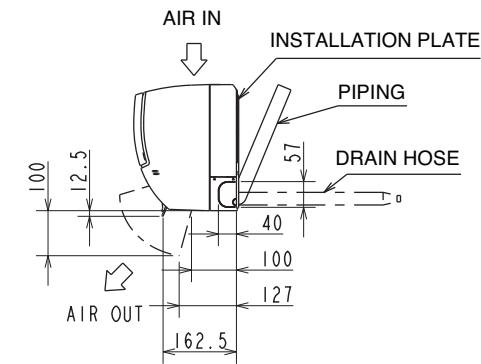
Front View



Upper View



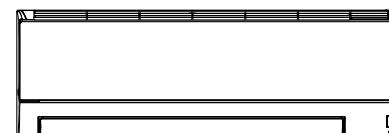
Side View



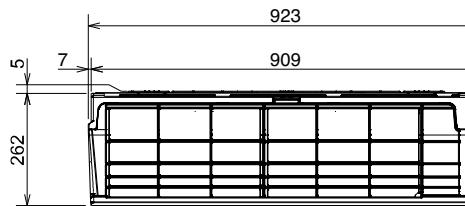
## Product Dimensions

### MSZ-HR60/71VF

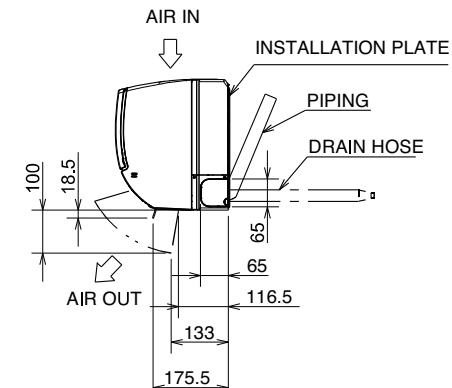
Front View



Upper View



Side View



# MFZ-KT R32

## Floor Mounted System

### Inverter Heat Pump



The **MFZ-KT** floor mounted system is extremely versatile and is designed for wall-attached installation at floor level. Lightweight and compact in design, this unit is ideal for applications such as conservatories, garden rooms and small offices where wall space is limited.

#### Key Features & Benefits

- Lightweight, floor mounted design for easy installation
- Auto-swing vane feature provides a natural and comfortable airflow
- Controller with built-in timer
- Optional Wi-Fi interface enabling control & monitoring via the MELCloud app



MFZ-KT - INDOOR UNITS	MFZ-KT25VG	MFZ-KT35VG	MFZ-KT50VG	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	3.4 (1.3-4.2) 2.5 (1.6-3.2) 2.79 (1.07-3.44) 2.45 (1.57-3.14)	4.3 (1.1-5.0) 3.5 (0.9-3.9) 3.53 (0.9-4.10) 3.43 (0.88-3.82)	6.0 (1.5-7.2) 5.0 (1.2-5.6) 4.92 (1.23-5.90) 4.90 (1.18-5.49)
SHF (nominal)		0.79	0.70	0.72
COP / EER (nominal)		3.74 / 4.03	3.41 / 3.30	3.23 / 3.23
SCOP / SEER (BS EN14825)		4.2 / 6.5	4.4 / 6.6	4.2 / 6.8
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Heating - Silent-Lo-Mi-Hi-Shi Cooling - Silent-Lo-Mi-Hi-Shi	58-67-93-122-162 65-80-108-130-148	58-67-93-122-162 65-80-108-130-148	100-128-157-193-233 93-112-143-173-205
PIPE SIZE mm (in)	Gas Liquid	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling - Silent-Lo-Mi-Hi-Shi	19-23-30-37-44 / 19-24-31-37-41	19-23-30-37-44 / 19-24-31-37-41	29-35-40-44-49 / 28-32-37-42-48
SOUND POWER LEVEL (dBA)		54	54	60
DIMENSIONS (mm)	Width x Depth x Height	750 x 215 x 600	750 x 215 x 600	750 x 215 x 600
WEIGHT (kg)		14.5	14.5	15
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. CORES		4	4	4
SUZ-M - OUTDOOR UNITS	SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 45	48 / 48	49 / 48
SOUND POWER LEVEL (dBA)	Cooling	59	59	64
WEIGHT (kg)		30	35	41
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714
ELECTRICAL SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
PHASE		Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	0.80 / 0.71 0.68 / 0.61	1.07 / 1.00 0.91 / 0.86	1.61 / 1.54 1.37 / 1.32
STARTING CURRENT (A)		3.7	5.0	8.0
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]
FUSE RATING (BS88) - HRC (A)		10	10	20
MAINS CABLE No. CORES		3	3	3
MAX PIPE LENGTH (m)		20	20	30
MAX HEIGHT DIFFERENCE (m)		12	12	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T) - R32 (GWP 675) - 7M		0.65 / 0.44	0.90 / 0.61	1.20 / 0.81
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T) - R32 (GWP 675)		0.26 / 0.18	0.26 / 0.18	0.46 / 0.31

## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25/35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

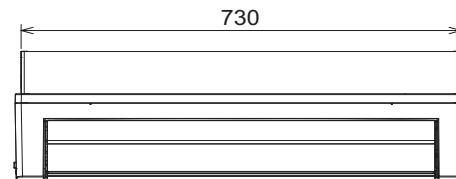
#### MELCORETAIL MINI

Retail control and input / output interface

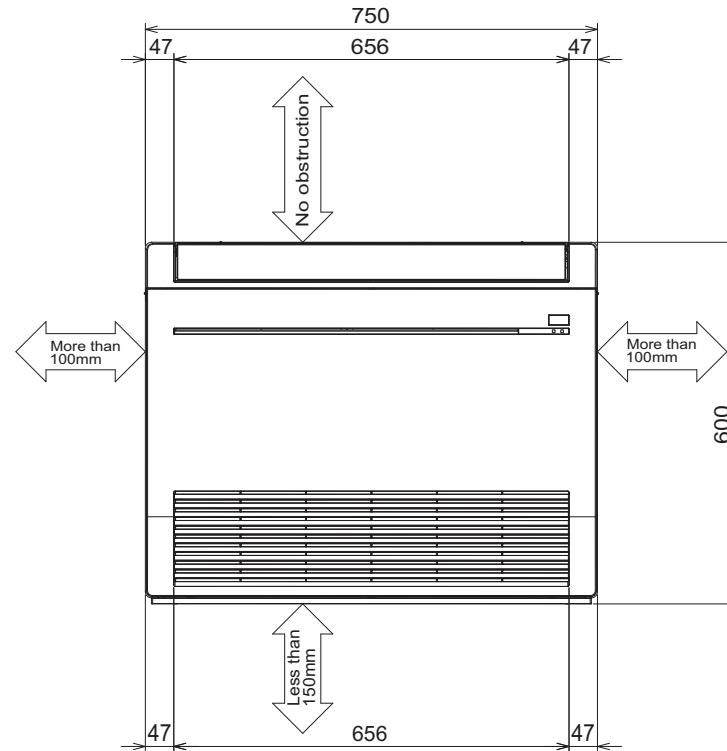
## Product Dimensions

### MFZ-KT25/35/50VG

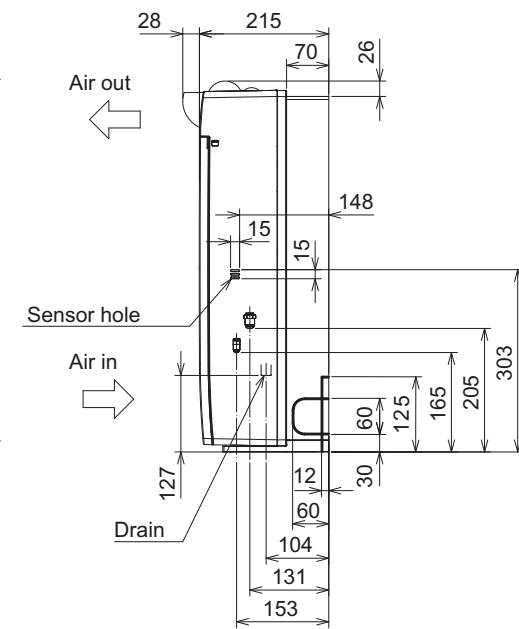
Upper View



Front View



Side View

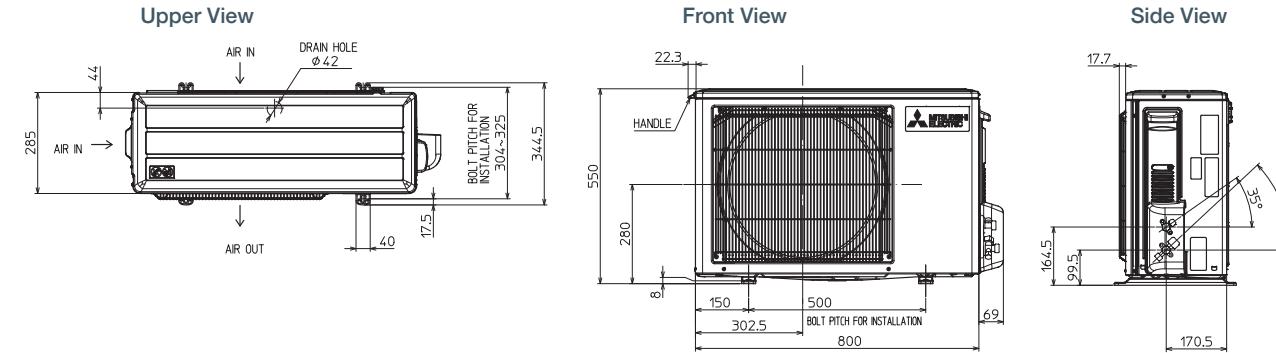


# Outdoor Units



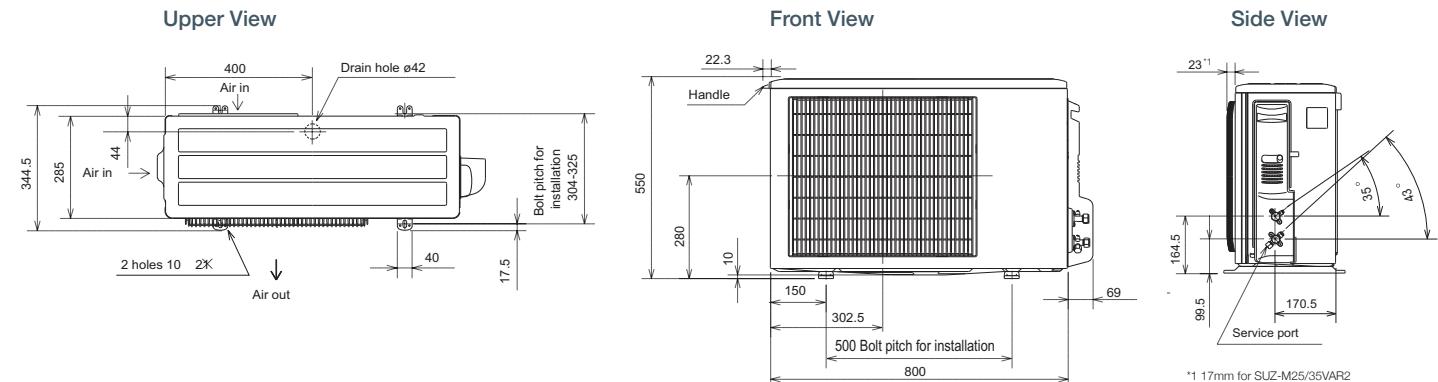
## Product Dimensions

MUZ-LN25/35VG2, MUZ-AY20/25/35/42VG, MUZ-HR50VF



## Product Dimensions

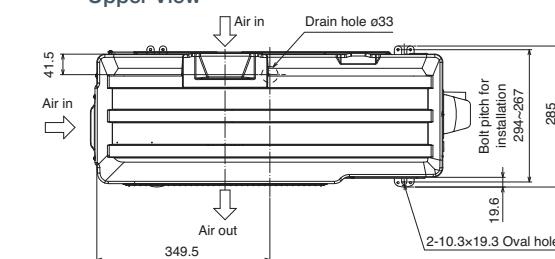
MUZ-EF25/35VG, SUZ-M25/35VAR2



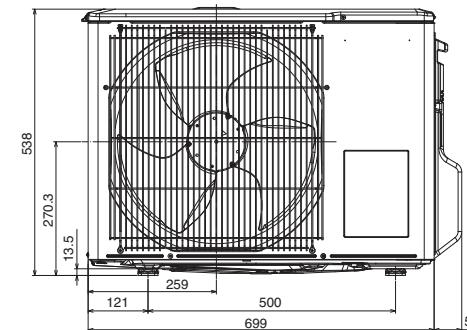
## Product Dimensions

MUZ-HR25/35VF

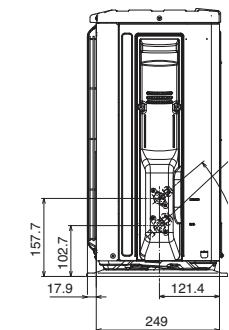
### Upper View



### Front View



### Side View



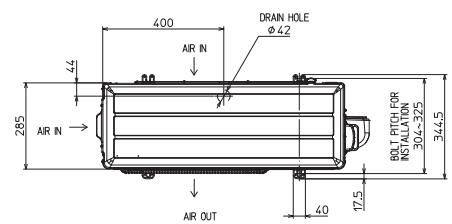
# Outdoor Units



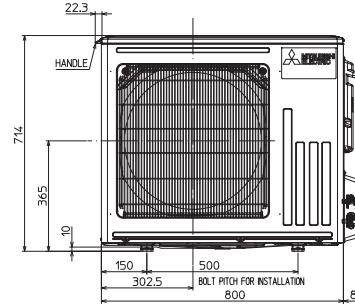
## Product Dimensions

MUZ-RZ25/35VU, MUZ-LN50VG2, MUZ-EF50VG, MUZ-AY50VG, MUZ-AP60VG, MUZ-HR60/71VF, SUZ-M50VAR2

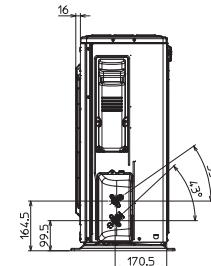
Upper View



Front View



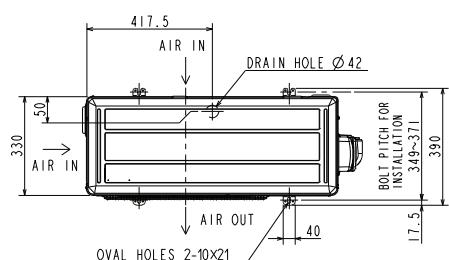
Side View



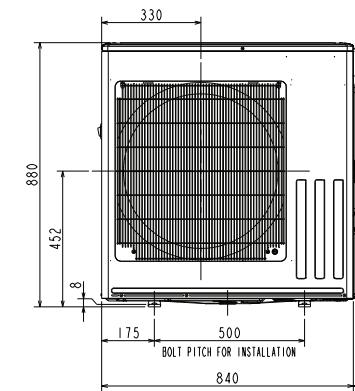
## Product Dimensions

MUZ-LN60VG2, MUZ-AP71VG2

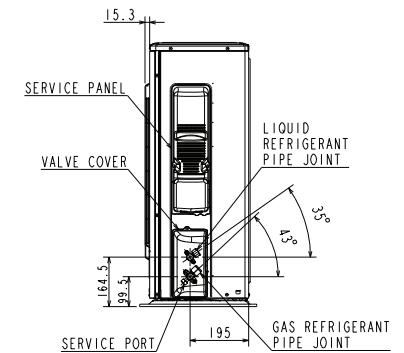
Upper View



Front View



Side View



# M Series Accessories / Optional Extras

INDOOR UNITS	DESCRIPTION
MAC-100FT-E	Plasma Quad Connect air purifying device for MSZ-EF, MSZ-AY, MSZ-AP, MSZ-HR
MAC-286RH-E	Natural white remote controller holder for MSZ-LN
MAC-1300RC-E	Natural white remote controller holder for MSZ-RZ, MSZ-EF, MSZ-AY, MSZ-AP
MAC-1200RC-E	Natural white remote controller holder for MSZ-HR

OUTDOOR UNITS	DESCRIPTION
MAC-881SG	Air outlet guide for MUZ-LN25/35VG2, MUZ-EF25/35VG, MUZ-AY20/25/35/42VG, MUZ-HR50VF, SUZ-M25/35VAR2
MAC-883SG	Air outlet guide for MUZ-HR25/35VF
MAC-882SG	Air outlet guide for MUZ-RZ25/35VU, MUZ-LN50VG2, MUZ-EF50VG, MUZ-AY50VG, MUZ-AP60VG, MUZ-HR60/71VF, SUZ-M50VAR2

SYSTEM CONTROL UNITS	DESCRIPTION
PAR-41MAA	Standard wired remote controller for MSZ-RZ, MSZ-LN, MSZ-EF, MSZ-AY, MSZ-AP, MSZ-HR, MFZ-KT
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA)
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service (Included as standard on MSZ-RZ, MSZ-LN, MSZ-EF, MSZ-AY and MSZ-AP models)
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (Premium finish)
MELCOBEMS MINI (A1M+)	Modbus/BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface



# Mr Slim

Packaged Split-System Air Conditioning





# Contents

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<b>PLA-SM</b> R32 4-Way Blow Ceiling Cassette System, Inverter Heat Pump	<b>1.3.14</b>
<b>SLZ-M</b> R32 600x600 4-Way Blow Ceiling Cassette System, Standard Inverter Heat Pump	<b>1.3.16</b>
<b>PKA-M</b> R32 Wall Mounted System, Power Inverter Heat Pump	<b>1.3.18</b>
<b>PKA-M</b> R32 Wall Mounted System, Standard Inverter Heat Pump	<b>1.3.20</b>
<b>PEAD-M</b> R32 Ceiling Concealed Ducted System, Power Inverter Heat Pump	<b>1.3.22</b>
<b>PEAD-M</b> R32 Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.26</b>
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<b>PEA-M</b> R32 Large Capacity Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.32</b>
<b>SEZ-M</b> R32 Ceiling Concealed Ducted System, Standard Inverter Heat Pump	<b>1.3.34</b>
<b>PCA-M</b> R32 Ceiling Suspended System, Power Inverter Heat Pump	<b>1.3.36</b>
<b>PCA-M</b> R32 Ceiling Suspended System, Standard Inverter Heat Pump	<b>1.3.40</b>
<b>PCA-M-HA2</b> R32 Stainless Steel Ceiling Suspended System, Power Inverter Heat Pump	<b>1.3.44</b>
<b>PSA-M</b> R32 Floor Standing System, Power Inverter Heat Pump	<b>1.3.46</b>
<b>PSA-M</b> R32 Floor Standing System, Standard Inverter Heat Pump	<b>1.3.48</b>
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## Packaged Split-System Air Conditioning

# The Versatile Mr Slim Range

Suitable to cool or heat a huge variety of applications, such as offices and retail units, our Mr Slim range is one of Britain's best selling air conditioning split-systems. Available utilising lower GWP R32 refrigerant - combine the efficiency with the complete versatility that this range has to offer and the possibilities are virtually infinite.

**R32**



### R32 Power Inverter

- Top of the range Power Inverter technology optimised for high seasonal efficiencies and increased pipe lengths
- Available as single and three phase outdoor units
- 12 sizes available from 3.5-22kW
- Available with four way blow cassettes, ceiling concealed ducted, wall mounted, ceiling suspended or floor standing indoor units



### R32 Standard Inverter

- High quality, cost effective Standard Inverter
- Available as single and three phase outdoor units
- 13 sizes available from 2.5-22kW
- Available with four way blow cassettes, ceiling concealed ducted, wall mounted, ceiling suspended or floor standing indoor units

**INVERTER**

### R32 Inverter

- Cost effective
- Available as single and three phase outdoor units
- Available with four way blow cassettes from 7.1-14kW

**INVERTER**





## Packaged Split-System Air Conditioning

Indoor Model	Range	kW	1.5*¹	2.5	3.5	5.0	6.0	7.1	10.0	12.5	14.0	19.0	22.0
4-Way Blow Ceiling Cassette	PLA-ZM/M				●	●	●	●	●	●	●		
	<b>R32</b>												
	PLA-SM							●	●	●	●		
Wall Mounted	SLZ-M (600x600)		●	●	●	●	●						
	<b>R32</b>												
	PKA-M				●	●	●	●	●	●			
Ceiling Concealed Ducted	<b>R32</b>												
	PEAD-M				●	●	●	●	●	●	●		
	<b>R32</b>												
Ceiling Suspended	PEA-M											●	●
	<b>R32</b>												
	SEZ-M			●	●	●	●	●					
Floor Standing	PCA-M					●	●	●	●	●	●		
	<b>R32</b>												
	PCA-M-HA2								●				
Air Curtain	PSA-M							●	●	●	●		
	<b>R32</b>												
	SFZ-M			●	●	●	●	●					
HP DXE 2.0	*²							●		●	●	●	
	<b>R32</b>												

\*¹ Multi-Split only. \*² Available as recessed or exposed versions.

# PLA-ZM R32 4-Way Blow Ceiling Cassette System

## Power Inverter Heat Pump (Single Phase)



**POWER INVERTER**

The **PLA-ZM Power Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is extremely flexible, and also provides energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PLA-ZM - INDOOR UNITS	PLA-ZM35EA2	PLA-ZM50EA2	PLA-ZM60EA2	PLA-ZM71EA2	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	4.1 (1.6-5.2) 3.6 (1.6-4.5)	6.0 (2.5-7.3) 5.0 (2.3-5.6)	7.0 (2.8-8.2) 6.1 (2.7-6.5)	8.0 (3.5-10.2) 7.1 (3.3-8.1)	11.2 (2.7-14.0) 9.5 (4.9-11.4)	14.0 (3.2-16.0) 12.5 (5.1-14.0)	
Heating (UK) Cooling (UK)	3.5 (1.35-4.4) 3.3 (1.45-4.15)	5.1 (2.15-6.2) 4.6 (2.1-5.15)	6.0 (2.38-6.97) 5.6 (2.48-5.98)	6.8 (3.0-8.65) 6.55 (3.05-7.45)	8.06 (1.94-10.08) 8.74 (4.51-10.49)	10.08 (2.30-11.52) 11.50 (4.69-12.88)	11.52 (2.66-12.96) 12.33 (4.97-13.80)	
SHF (nominal)	0.95	0.85	0.77	0.72	0.77	0.70	0.70	
COP / EER (nominal)	5.00 / 5.10	4.40 / 4.52	4.10 / 4.20	4.40 / 4.30	4.20 / 4.40	3.60 / 3.60	3.50 / 3.70	
SCOP (rsh) / SEER (nsc) (BS EN14825)	4.70 / 7.50	4.90 / 7.60	4.60 / 7.20	4.80 / 7.60	4.80 / 7.80	4.73 (186.2%) / 7.48 (296.2%)	4.63 (182.3%) / 7.40 (292.8%)	
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling A++ / A++	A++ / A++	A++ / A++	A++ / A++	A++ / A++	-	-	
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi 183-217-250-267	200-233-267-300	200-233-267-300	283-317-350-383	317-367-417-467	350-400-433-483	400-433-483-533	
PIPE SIZE MM (in)	Gas/Liquid 12.7 (1/2") / 6.35 (1/4")	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi 26-28-29-31	27-29-31-32	27-29-31-32	28-30-33-36	31-34-37-40	33-36-39-41	36-39-42-44	
SOUND POWER LEVEL (dBA)	51	54	54	57	61	62	65	
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	
WEIGHT (kg)	Unit / Grille	21 / 5	21 / 5	21 / 5	24 / 5	26 / 5	26 / 5	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6	
INTERCONNECTING CABLE NO. CORES	4	4	4	4	4	4	4	
GRILLE REFERENCE	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	
PUZ-ZM - OUTDOOR UNITS	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM125VDA	PUZ-ZM140VDA	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 46 / 44	46 / 44	49 / 47	49 / 47	48 / 44	50 / 47	51 / 49	
SOUND POWER LEVEL (dBA)	Cooling 65	65	67	67	63	66	68	
WEIGHT (kg)	46	46	67	67	107	107	107	
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 0.820 / 0.705	1.363 / 1.106	1.707 / 1.452	1.818 / 1.651	2.667 / 2.160	3.889 / 3.473	4.572 / 3.622	4.572 / 3.622
Heating/Cooling (UK) 0.73 / 0.59	1.21 / 0.94	1.43 / 1.15	1.61 / 1.39	2.19 / 1.84	3.19 / 2.95	3.75 / 3.08	3.75 / 3.08	3.75 / 3.08
STARTING CURRENT (A)	4.3	4.3	5.3	5.3	11.9	11.9	11.9	11.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 3.89 / 3.51 [13.2]	6.05 / 5.00 [13.2]	7.39 / 6.31 [19.2]	7.79 / 7.06 [19.3]	12.35 / 9.99 [27.0]	17.99 / 16.05 [27.0]	21.14 / 16.74 [30.7]	21.14 / 16.74 [30.7]
FUSE RATING (BS88) - HRC (A)	16	16	25	25	32	32	40	40
MAINS CABLE NO. CORES	3	3	3	3	3	3	3	3
MAX PIPE LENGTH (m)	50	50	55	55	100	100	100	100
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

## Accessories

### Indoor Units

**PLP-6EA**

Grille for PLA-ZM35-140EA2

**PLP-6EAB**

Black grille (Matt finish) for PLA-ZM35-140EA2

**PLP-6EAE**

3D i-see sensor grille for PLA-ZM35-140EA2

**PLP-6EAJ**

Self elevating grille for PLA-ZM35-140EA2

**PAC-SE1ME-E**

Corner panel with i-see sensor for PLA-ZM35-140EA2

**PAR-SE9FA-E**

Corner panel with signal receiver for PLA-ZM35-140EA2

**PAC-SJ37SP-E**

Shutter plate for PLA-ZM35-140EA2

**PAC-SJ41TM-E**

Multi-function casement for PLA-ZM35-140EA2

**PLP-U160ELR-E**

3D Total Airflow casement for PLA-ZM35-140EA2

**PAC-SK36HK-E**

Insulation kit (14°C cooling) for PLA-ZM35-140EA2

**PAC-SJ39HR-E**

Power supply kit for PLA-ZM35-140EA2

**PAR-SL101A-E**

Wireless remote controller for PLA-ZM35-140EA2

**PAC-SH59KF-E**

High efficiency filter for PLA-ZM35-140EA2

**PAC-SK53KF-E**

V Blocking air purifying filter for PLA-ZM35-140EA2

**PAC-SK51FT-E**

Plasma Quad Connect air purifying device for PLA-ZM35-140EA2

### Outdoor Units

**PAC-SJ07SG**

Air outlet guide for PUZ-ZM35-50VKA2

**PAC-SG59SG**

Air outlet guide for PUZ-ZM60-71VHA2

**PAC-SL12SG-E**

Air outlet guide for PUZ-ZM100-140VDA

### System Control Units

**PAC-SA89TA**

Remote on/off adaptor (3 wire adaptor)

**PAC-SA88HA**

Run/fault adaptor (5 wire adaptor)

**PAC-SE41TS-E**

Remote sensor

**PAR-CT01MAA-SB/PB**

Touch screen wired remote controller (PB=Premium Finish)

**PAR-41MAA**

Standard wired remote controller

**MAC-587IF-E**

Interface for connection to Wi-Fi MELCloud service

**MELCOBEMS MINI (A1M+)**

Modbus and BACnet MSTP CN105 adaptor

**MELCORETAIL MINI**

Retail control and input / output interface

**PAC-SK15MA-E**

M-NET adaptor for size 35 and 50

**PAC-SJ95MA**

M-NET adaptor for size 60 and 71

**PAC-SL16MA-E**

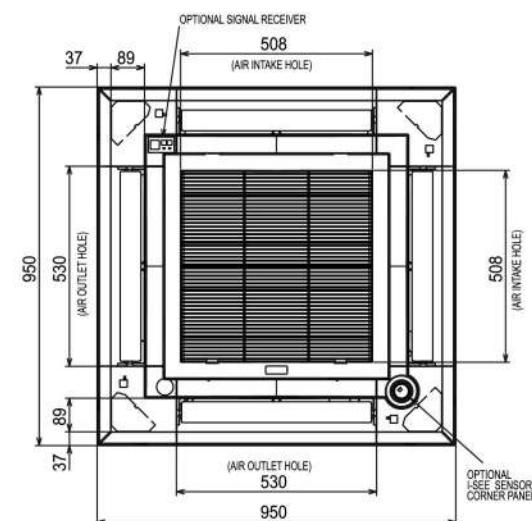
M-NET Adaptor for size 100 to 140

Note: Please see page 1.3.66 for the full range of accessories.

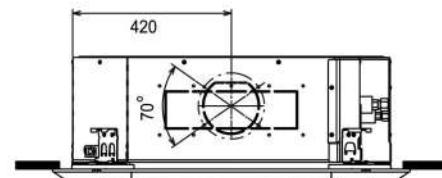
## Product Dimensions

PLA-ZM35/50/60/71/100/125/140EA2

Lower View



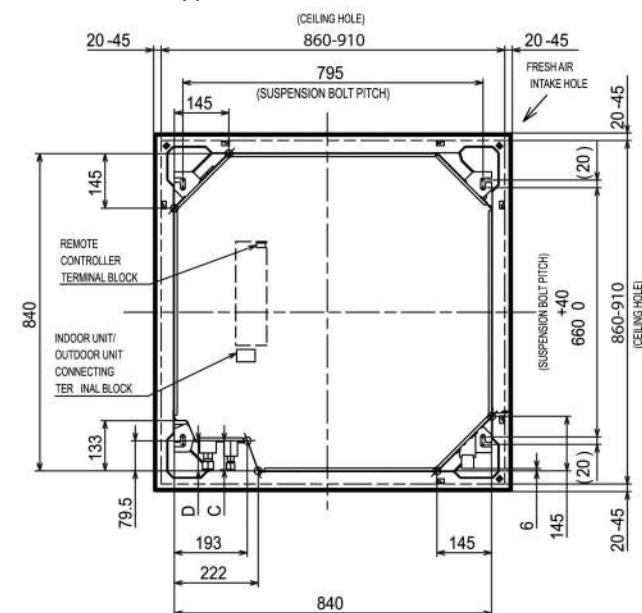
Front View



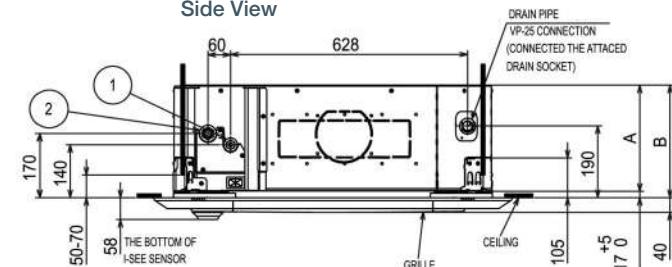
PLA-ZM-EA\*:35/50/60/71/100/125/140

ZM	(1)	(2)	A	B	C	D
35/50	REFRIGERANT PIPE Ø 6.35 FLARED CONNECTION 1/4F	REFRIGERANT PIPE Ø 12.7 FLARED CONNECTION 1/2F		76	76.5	
60			241	258		
71	FLARED CONNECTION 3/8F REFRIGERANT PIPE Ø 9.52	REFRIGERANT PIPE Ø 15.88 FLARED CONNECTION 5/8F		79.5	79.5	
100-140			281	298		

Upper View



Side View



# PLA-ZM R32 4-Way Blow Ceiling Cassette System

## Power Inverter Heat Pump (Three Phase)



The **PLA-ZM Power Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is extremely flexible, and also provides energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PLA-ZM - INDOOR UNITS	PLA-ZM100EA2	PLA-ZM125EA2	PLA-ZM140EA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.7-14.0) 9.5 (4.9-11.4) 8.06 (1.94-10.08) 8.74 (4.51-10.49)	14.0 (3.2-16.0) 12.5 (5.1-14.0) 10.08 (2.30-11.52) 11.50 (4.69-12.88)	16.0 (3.7-18.0) 13.4 (5.4-15.0) 11.52 (2.66-12.96) 12.33 (4.97-13.80)
SHF (nominal)	0.77	0.70	0.70	
COP / EER (nominal)	4.20 / 4.40	3.60 / 3.60	3.50 / 3.70	
SCOP (ηsh) / SEER (ηsc) (BS EN14825)	4.80 / 7.60	4.73 (186.2%) / 7.43 (294.1%)	4.63 (182.3%) / 7.35 (290.9%)	
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling A++ / A++	-	-	
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi 317-367-417-467	350-400-433-483	400-433-483-533	
PIPE SIZE MM (in)	Gas/Liquid 15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi 31-34-37-40	33-36-39-41	36-39-42-44	
SOUND POWER LEVEL (dBA)	61	62	65	
DIMENSIONS (mm)	Width x Depth x Height (Grille) 840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	
WEIGHT (kg)	Unit / Grille 26 / 5	26 / 5	26 / 5	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	
INTERCONNECTING CABLE NO. CORES	4	4	4	
GRILLE REFERENCE	PLP-6EA	PLP-6EA	PLP-6EA	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	
PUZ-ZM - OUTDOOR UNITS	PUZ-ZM100YDA	PUZ-ZM125YDA	PUZ-ZM140YDA	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 48 / 44	50 / 47	51 / 49	
SOUND POWER LEVEL (dBA)	Cooling 63	66	68	
WEIGHT (kg)	114	116	121	
DIMENSIONS (mm)	Width x Depth x Height 1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	
ELECTRICAL SUPPLY	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE	Three	Three	Three	
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 2.667 / 2.160	3.889 / 3.473	4.572 / 3.622	
	Heating/Cooling (UK) 2.19 / 1.84	3.19 / 2.95	3.75 / 3.08	
STARTING CURRENT (A)	3.5	3.5	3.5	
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.09 / 3.32 [8.5]	5.97 / 5.32 [9.5]	7.02 / 5.56 [9.7]	
FUSE RATING (BS88) - HRC (A)	16	16	16	
MAINS CABLE NO. CORES	5	5	5	
MAX PIPE LENGTH (m)	100	100	100	
MAX HEIGHT DIFFERENCE (m)	30	30	30	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m 3.60 / 2.43	3.60 / 2.43	3.60 / 2.43	
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	

③ Three Phase

## Accessories

### Indoor Units

**PLP-6EA**

Grille for PLA-ZM100-140EA2

**PLP-6EAB**

Black grille (Matt finish) for PLA-ZM100-140EA2

**PLP-6EAE**

3D i-see sensor grille for PLA-ZM100-140EA2

**PLP-6EAJ**

Self elevating grille for PLA-ZM100-140EA2

**PAC-SE1ME-E**

Corner panel with i-see sensor for PLA-ZM100-140EA2

**PAR-SE9FA-E**

Corner panel with signal receiver for PLA-ZM100-140EA2

**PAC-SJ37SP-E**

Shutter plate for PLA-ZM100-140EA2

**PAC-SJ41TM-E**

Multi-function casement for PLA-ZM100-140EA2

**PLP-U160ELR-E**

3D Total Airflow casement for PLA-ZM100-140EA2

**PAC-SK36HK-E**

Insulation kit (14°C cooling) for PLA-ZM100-140EA2

**PAC-SJ39HR-E**

Power supply kit for PLA-ZM100-140EA2

**PAR-SL101A-E**

Wireless remote controller for PLA-ZM100-140EA2

**PAC-SH59KF-E**

High efficiency filter for PLA-ZM100-140EA2

**PAC-SK53KF-E**

V Blocking air purifying filter for PLA-ZM100-140EA2

**PAC-SK51FT-E**

Plasma Quad Connect air purifying device for PLA-ZM100-140EA2

### Outdoor Units

**PAC-SL12SG-E**

Air outlet guide for PUZ-ZM100-140YDA

### System Control Units

**PAC-SA89TA**

Remote on/off adaptor (3 wire adaptor)

**PAC-SA88HA**

Run/fault adaptor (5 wire adaptor)

**PAC-SE41TS-E**

Remote sensor

**PAR-CT01MAA-SB/PB**

Touch screen wired remote controller (PB=Premium Finish)

**PAR-41MAA**

Standard wired remote controller

**MAC-587IF-E**

Interface for connection to Wi-Fi MELCloud service

**MELCOBEMS MINI (A1M+)**

Retail control and input / output interface

**MELCORETAIL MINI**

Retail control and input / output interface

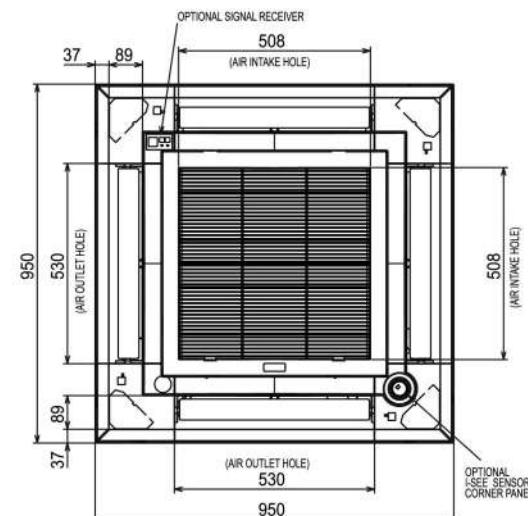
**PAC-SL16MA-E**

M-NET adaptor for size 100 to 140

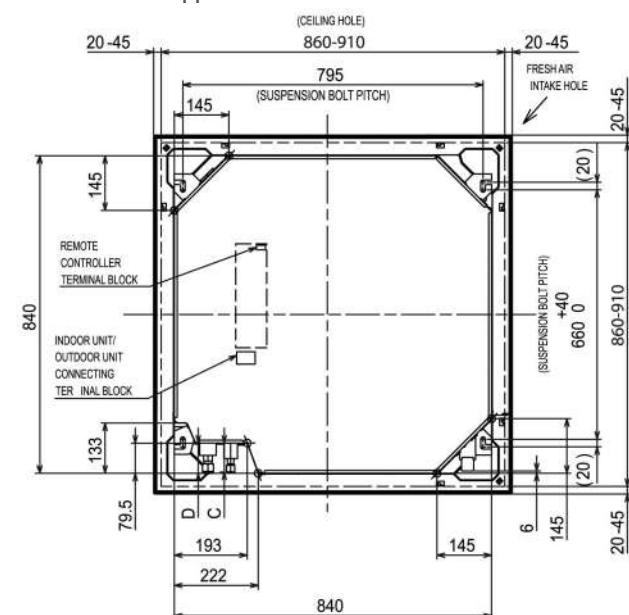
## Product Dimensions

PLA-ZM100/125/140EA2

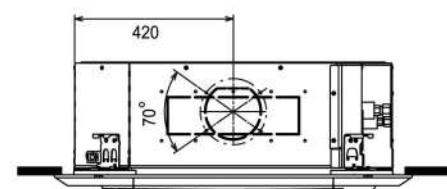
Lower View



Upper View



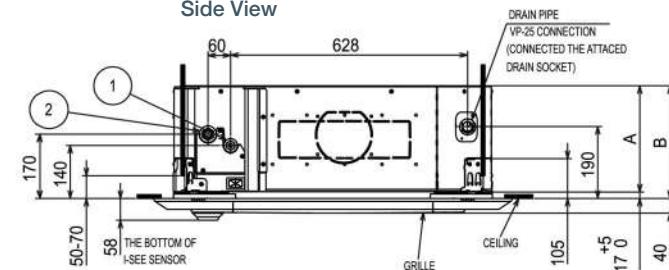
Front View



PLA-ZM-EA: 100/125/140

ZM	①	②	A	B	C	D
100-140	FLARED CONNECTION 3/8F REFRIGERANT PIPE Ø 9.52	REFRIGERANT PIPE Ø 15.88 FLARED CONNECTION 5/8F	281	298	79.5	79.5

Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PLA-M R32

## 4-Way Blow Ceiling Cassette System

### Standard Inverter Heat Pump (Single Phase)



The cost effective **PLA-M Standard Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering advanced control options and quiet operation, this range provides extreme flexibility and ease of installation, alongside energy monitoring (via PAR-41MAA controller) as standard.

#### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- 14°C set point option; ideal for applications where a specialist ambient condition is required (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PLA-M - INDOOR UNITS	PLA-M35EA2	PLA-M50EA2	PLA-M60EA2	PLA-M71EA2	PLA-M100EA2	PLA-M125EA2	PLA-M140EA2
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	4.1 (1.0-5.0) 3.6 (0.8-3.9)	6.0 (1.5-7.2) 5.5 (1.2-5.6)	7.0 (1.6-8.0) 6.1 (1.6-6.3)	8.0 (2.0-10.2) 7.1 (2.2-8.1)	11.2 (2.8-12.5) 9.5 (4.0-10.6)	13.5 (4.1-15.0) 12.1 (5.8-13.0)
	Heating (UK) Cooling (UK)	3.49 (0.85-4.26) 3.31 (0.74-3.60)	5.11 (1.28-6.13) 5.06 (1.10-5.15)	6.13 (1.36-6.81) 5.61 (1.47-5.80)	6.81 (1.70-8.68) 6.53 (2.02-7.45)	9.63 (2.41-10.75) 8.65 (3.64-9.65)	11.49 (3.49-12.77) 11.01 (5.28-11.83)
SHF (nominal)		0.91	0.77	0.79	0.74	0.77	0.72
COP / EER (nominal)		4.20 / 4.00	3.46 / 3.40	3.80 / 3.30	3.61 / 3.70	3.71 / 3.50	3.71 / 3.01
SCOP (ηsh) / SEER (ηsc) (BS EN14825)		4.70 / 7.40	4.10 / 6.70	4.40 / 6.60	4.50 / 7.50	4.60 / 7.00	4.1 (162%) / 5.6 (231.9%) 4.1 (161.3%) / 5.7 (232.7%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A++ / A++	A+ / A++	A+ / A++	A+ / A++	A++ / A++	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi	183-217-250-267	200-233-317-350	200-233-317-350	233-283-317-350	317-383-433-483	350-417-467-517
PIPE SIZE mm (in)	Gas/Liquid	9.52 (3/8") / 6.35 (1/4")	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi	26-28-29-31	27-29-31-32	27-29-31-32	28-30-32-34	31-34-37-40	33-37-41-44
SOUND POWER LEVEL (dBA)		51	54	54	56	61	65
DIMENSIONS (mm)	Width x Depth x Height (Grille)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Panel	19 / 5	19 / 5	21 / 5	21 / 5	24 / 5	26 / 5
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4	4	4
GRILLE REFERENCE	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E
SUZ-M / PUZ-M - OUTDOOR UNITS	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 48	48 / 49	49 / 51	49 / 51	51 / 54	54 / 56
SOUND POWER LEVEL (dBA)	Cooling	59	64	65	66	70	72
WEIGHT (kg)		35	41	54	55	76	84
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz				
PHASE	Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	0.97 / 0.90	1.73 / 1.61	1.84 / 1.84	2.21 / 1.91	3.01 / 2.71	3.63 / 4.01
	Heating/Cooling (UK)	0.83 / 0.77	1.47 / 1.39	1.56 / 1.58	1.88 / 1.64	2.71 / 2.50	3.27 / 3.33
STARTING CURRENT (A)		5.0	5.7	7.6	10.0	7.1	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]	13.0 / 11.7 [20]	15.6 / 17.4 [26.5]
FUSE RATING (BS88) - HRC (A)		10	20	20	20	32	32
MAINS CABLE No. Cores		3	3	3	3	3	3
MAX PIPE LENGTH (m)		20	30	30	30	55	65
MAX HEIGHT DIFFERENCE (m)		12	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.90 / 0.61 (7m)	1.20 / 0.81 (7m)	1.25 / 0.84 (7m)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38

Note: No duty/standby operation on SUZ-M35/50/60/71VAR2/1.

## Accessories

### Indoor Units

- PLP-6EA**  
Grille for PLA-M35-140EA2
- PLP-6EAB**  
Black grille (Matt finish) for PLA-M35-140EA2
- PLP-6EAE**  
3D i-see sensor grille for PLA-M35-140EA2
- PLP-6EAJ**  
Self elevating grille for PLA-M35-140EA2
- PAC-SE1ME-E**  
Corner panel with i-see sensor for PLA-M35-140EA2
- PAR-SE9FA-E**  
Corner panel with signal receiver for PLA-M35-140EA2
- PAC-SJ37SP-E**  
Shutter plate for PLA-M35-140EA2
- PAC-SJ41TM-E**  
Multi-function casement for PLA-M35-140EA2
- PLP-U160ELR-E**  
3D Total Airflow casement for PLA-M100-140EA2
- PAC-SK36HK-E**  
Insulation kit (14°C cooling) for PLA-M100-140EA2
- PAC-SJ39HR-E**  
Power supply kit for PLA-M35-140EA2
- PAR-SL101A-E**  
Wireless remote controller for PLA-M35-140EA2
- PAC-SH59KF-E**  
High efficiency filter for PLA-M35-140EA2
- PAC-SK53KF-E**  
V Blocking air purifying filter for PLA-M35-140EA2
- PAC-SK51FT-E**  
Plasma Quad Connect air purifying device for PLA-M35-140EA2

### Outdoor Units

- MAC-881SG**  
Air outlet guide for SUZ-M35VAR2
- MAC-882SG**  
Air outlet guide for SUZ-M50VAR2
- MAC-886SG**  
Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1
- PAC-SH96SG**  
Air outlet guide for PUZ-M100-140VKA2

### System Control Units

- PAC-SA89TA**  
Remote on/off adaptor (3 wire adaptor)
- PAC-SA88HA**  
Run/fault adaptor (5 wire adaptor)
- PAC-SE41TS-E**  
Remote sensor
- PAR-CT01MAA-SB/PB**  
Touch screen wired remote controller (PB=Premium Finish)

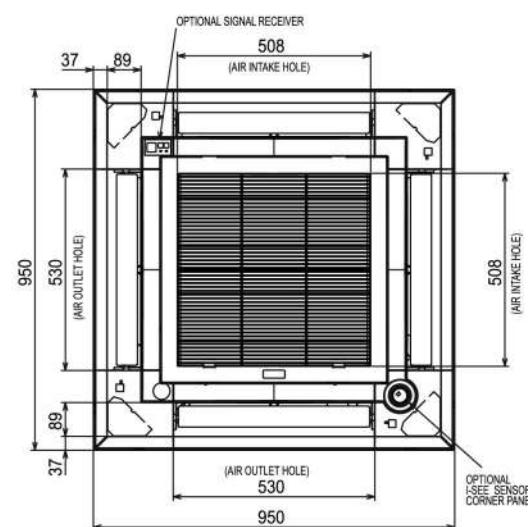
- PAR-41MAA**  
Standard wired remote controller
- MAC-334IF-E**  
Interface for M-NET, MA remote controller, on/off input and run/fault output
- MAC-497IF-E**  
Interface for MA remote controller
- MAC-587IF-E**  
Interface for connection to Wi-Fi MELCloud service
- MELCOBEMS MINI (A1M+)**  
Modbus and BACnet MSTP CN105 adaptor
- MELCORETAIL MINI**  
Retail control and input / output interface
- PAC-SJ95MA**  
M-NET adaptor for size 100 to 140

Note: Please see page 1.3.66 for the full range of accessories.

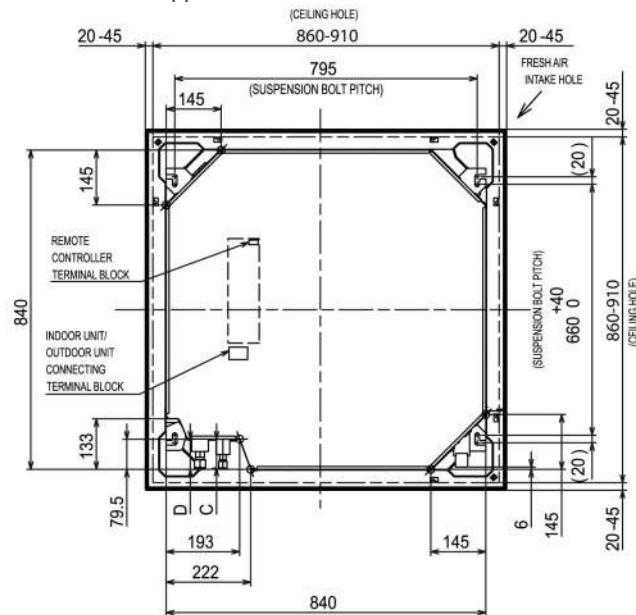
## Product Dimensions

PLA-M35/50/60/71/100/125/140EA2

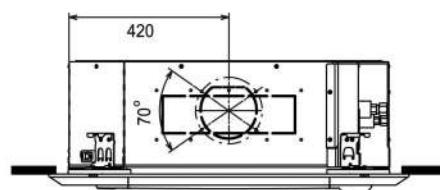
Lower View



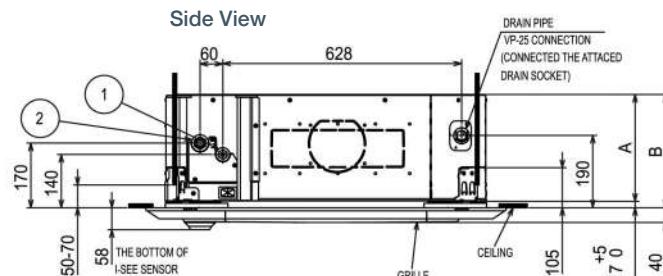
Upper View



Front View



Side View



PLA-MEA\*:35/50/60/71/100/125/140

M	(1)	(2)	A	B	C	D
35/50	REFRIGERANT PIPE Ø 35 FLARED CONNECTION 1/4F	REFRIGERANT PIPE Ø 12.7 FLARED CONNECTION 1/2F		76	76.5	
60	REFRIGERANT PIPE Ø 35 / Ø 52 FLARED CONNECTION 1/4F / 3/8F (COMPATIBLE)		241	258	80.5	
71		REFRIGERANT PIPE Ø 15.88 FLARED CONNECTION 3/8F			79.5	
100-140	REFRIGERANT PIPE Ø 52 FLARED CONNECTION 3/8F		281	298		

# PLA-M R32 4-Way Blow Ceiling Cassette System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PLA-M Standard Inverter** range is a ceiling cassette system that blends a host of outstanding features with a sophisticated, streamlined design. Offering advanced control options and quiet operation, this range provides extreme flexibility and ease of installation, alongside energy monitoring (via PAR-41MAA controller) as standard.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- 14°C set point option; ideal for applications where a specialist ambient condition is required (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D Total Airflow casement to allow 360° directional delivery of air (size 100-140; requires PAR-41MAA or PAR-SL101A-E controller)
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (PLP-6EAE)
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PLA-M - INDOOR UNITS	PLA-M100EA2	PLA-M125EA2	PLA-M140EA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41-10.75) 8.65 (3.64-9.65)	13.5 (4.1-15.0) 12.1 (5.8-13.0) 11.49 (3.49-12.77) 11.01 (5.28-11.83)	15.0 (4.2-15.8) 13.4 (5.8-14.1) 12.77 (3.57-13.45) 12.19 (5.28-12.83)
SHF (nominal)	0.77	0.72	0.70	
COP / EER (nominal)	3.71 / 3.50	3.71 / 3.01	3.41 / 2.70	
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.60 / 7.00	4.1 (162%) / 5.6 (231.9%)	4.1 (161.3%) / 5.7 (232.7%)	
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling A++ / A++	A+ / A+	A+ / A+	
AIRFLOW (l/s)	Lo-Mi-Mi2-Hi 317-383-433-483	350-417-467-517	400-433-483-533	
PIPE SIZE mm (in)	Gas/Liquid 15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Mi2-Hi 31-34-37-40	33-37-41-44	36-39-42-44	
SOUND POWER LEVEL (dBA)	61	65	65	
DIMENSIONS (mm)	Width x Depth x Height (Grille) 840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	
WEIGHT (kg)	Unit / Panel 24 / 5	26 / 5	26 / 5	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	
INTERCONNECTING CABLE No. Cores	4	4	4	
GRILLE REFERENCE	PLP-6EA	PLP-6EA	PLP-6EA	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	
PUZ-M - OUTDOOR UNITS	PUZ-M100YKA2 <sup>③</sup>	PUZ-M125YKA2 <sup>③</sup>	PUZ-M140YKA2 <sup>③</sup>	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 51 / 54	54 / 56	55 / 57	
SOUND POWER LEVEL (dBA)	Cooling 70	72	73	
WEIGHT (kg)	78	85	85	
DIMENSIONS (mm)	Width x Depth x Height 1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	
ELECTRICAL SUPPLY	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE	Three	Three	Three	
SYSTEM POWER	Heating/Cooling (nominal) 3.01 / 2.71	3.63 / 4.01	4.39 / 4.96	
INPUT (kW)	Heating/Cooling (UK) 2.71 / 2.50	3.27 / 3.33	3.59 / 4.12	
STARTING CURRENT (A)	3.5	4.9	4.9	
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.7 / 4.2 [11.5]	5.6 / 6.3 [11.5]	6.9 / 7.8 [11.5]	
FUSE RATING (BS88) - HRC (A)	16	16	16	
MAINS CABLE No. Cores	5	5	5	
MAX PIPE LENGTH (m)	55	65	65	
MAX HEIGHT DIFFERENCE (m)	30	30	30	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 30m 3.10 / 2.09	3.60 / 2.43	3.60 / 2.43	
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 4.10 / 2.77	5.00 / 3.38	5.00 / 3.38	

<sup>③</sup> Three Phase

## Accessories

### Indoor Units

**PLP-6EA**  
Grille for PLA-M100-140EA2

**PLP-6EAB**  
Black grille (Matt finish) for PLA-M100-140EA2

**PLP-6EAE**  
3D i-see sensor grille for PLA-M100-140EA2

**PLP-6EAJ**  
Self elevating grille for PLA-M100-140EA2

**PAC-SE1ME-E**  
Corner panel with i-see sensor for PLA-M100-140EA2

**PAR-SE9FA-E**  
Corner panel with signal receiver for PLA-M100-140EA2

**PAC-SJ37SP-E**  
Shutter plate for PLA-M100-140EA2

**PAC-SJ41TM-E**  
Multi-function casement for PLA-M100-140EA2

**PLP-U160ELR-E**  
3D Total Airflow casement for PLA-M100-140EA2

**PAC-SK36HK-E**  
Insulation kit (14°C cooling) for PLA-M100-140EA2

**PAC-SJ39HR-E**  
Power supply kit for PLA-M100-140EA2

**PAR-SL101A-E**  
Wireless remote controller for PLA-M100-140EA2

**PAC-SH59KF-E**  
High efficiency filter for PLA-M100-140EA2

**PAC-SK53KF-E**  
V Blocking air purifying filter for PLA-M100-140EA2

**PAC-SK51FT-E**  
Plasma Quad Connect air purifying device for PLA-M100-140EA2

### Outdoor Units

**PAC-SH96SG**  
Air outlet guide for PUZ-M100-140YKA2

### System Control Units

**PAC-SA89TA**  
Remote on/off adaptor (3 wire adaptor)

**PAC-SA88HA**  
Run/fault adaptor (5 wire adaptor)

**PAC-SE41TS-E**  
Remote sensor

**PAR-CT01MAA-SB/PB**  
Touch screen wired remote controller (PB=Premium Finish)

**PAR-41MAA**  
Standard wired remote controller

**MAC-587IF-E**  
Interface for connection to Wi-Fi MELCloud service

**MELCOBEMS MINI (A1M+)**  
Modbus and BACnet MSTP CN105 adaptor

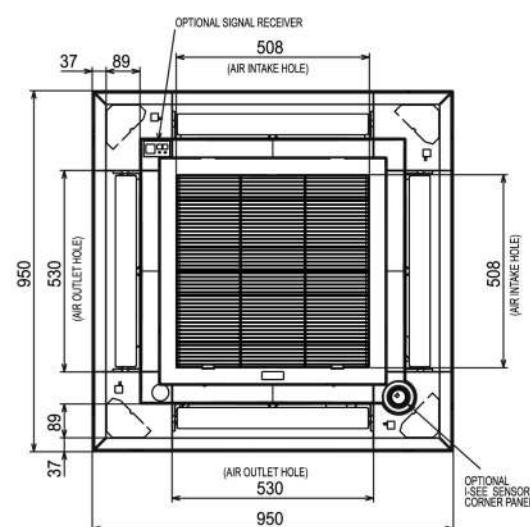
**MELCORETAIL MINI**  
Retail control and input / output interface

**PAC-SJ95MA**  
M-NET adaptor for size 100 to 140

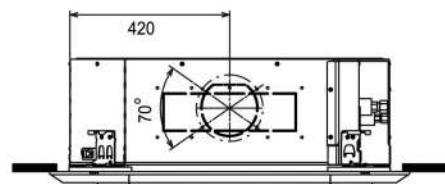
## Product Dimensions

PLA-M100/125/140EA2

Lower View



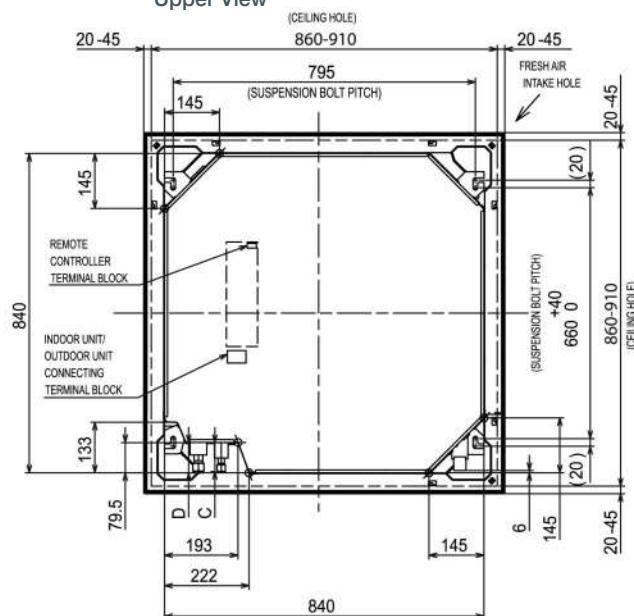
Front View



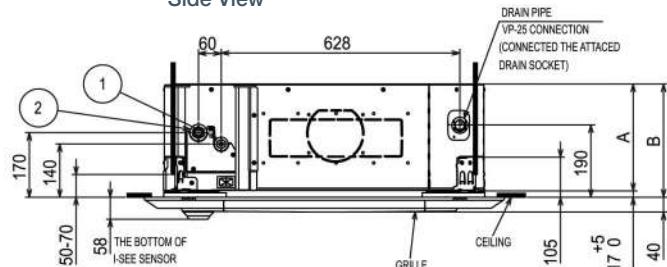
PLA-M.EA\*:100/125/140

M	①	②	A	B	C	D
100-140	REFRIGERANT PIPE Ø 9.52 FLARED CONNECTION 3/8F	REFRIGERANT PIPE Ø 15.88 FLARED CONNECTION 5/8F	281	298	79.5	79.5

Upper View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PLA-SM R32 4-Way Blow Ceiling Cassette System

## Inverter Heat Pump



The **PLA-SM Inverter** cassette range offers customers all the features and benefits of inverter technology, whilst being very cost effective. Available as a single combination only, this range offers advanced control options, extremely flexible installation and a sophisticated, streamlined design.

### Key Features & Benefits

- Increased comfort levels through advanced airflow
- PAR-41MAA controller allows effective energy consumption monitoring
- Optional filter-lowering operation, down to 4m (PLP-6EAJ)
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- Small footprint, single fan chassis across entire outdoor unit range
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PLA-SM INDOOR UNITS	PLA-SM71EA	PLA-SM100EA	PLA-SM100EA	PLA-SM125EA	PLA-SM125EA	PLA-SM140EA	PLA-SM140EA
CAPACITY (kW)	Heating (nominal) 8.0 (2.2-8.1)	11.2 (2.8-12.5)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	13.5 (4.1-15.0)	15.0 (4.2-15.8)	15.0 (4.2-15.8)
	Cooling (nominal) 7.1 (2.2-8.1)	9.5 (4.0-10.6)	9.5 (4.0-10.6)	12.1 (5.8-13.0)	12.1 (5.8-13.0)	13.4 (5.8-14.1)	13.4 (5.8-14.1)
	Heating (UK) 6.80 (1.87-6.89)	9.63 (2.41-10.75)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	11.61 (3.53-12.90)	12.90 (3.61-13.59)	12.90 (3.61-13.59)
	Cooling (UK) 6.53 (2.03-7.45)	8.55 (3.60-11.25)	8.55 (3.60-11.25)	10.89 (5.22-11.70)	10.89 (5.22-11.70)	11.61 (5.22-12.69)	11.61 (5.22-12.69)
SHF (nominal)	0.75	0.77	0.77	0.73	0.73	0.70	0.70
COP / EER (nominal)	3.50 / 3.60	3.61 / 3.40	3.61 / 3.40	3.61 / 2.90	3.61 / 2.90	3.30 / 2.61	3.30 / 2.61
SCOP (nsh) / SEER (nsc) (BS EN14825)	3.90 / 6.00	4.50 / 6.00	4.50 / 6.00	3.90 (154.1%) / 5.50 (225.2%)	3.90 (154.1%) / 5.50 (225.2%)	3.90 (153.3%) / 5.50 (224.9%)	3.90 (153.3%) / 5.50 (224.9%)
ErP ENERGY EFFICIENCY CLASS Heating/Cooling	A / A+	A+ / A+	A+ / A+	A / A	A / A	A / A	A / A
AIRFLOW (l/s)	Lo-M1-M2-Hi 233-283-317-350	317-383-433-483	317-383-433-483	350-417-467-517	350-417-467-517	400-433-483-533	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid 15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA) Lo-M1-M2-Hi	28-30-32-34	31-34-37-40	31-34-37-40	33-37-41-44	33-37-41-44	36-39-42-44	36-39-42-44
SOUND POWER LEVEL (dBA)	56	61	61	65	65	65	65
DIMENSIONS (mm)	Width x Depth x Height (Grille) 840 (950) x 840 (950) x 258 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)	840 (950) x 840 (950) x 298 (40)
WEIGHT (kg)	Unit / Panel 21 (5)	24 (5)	24 (5)	26 (5)	26 (5)	26 (5)	26 (5)
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4	4	4
GRILLE REFERENCE	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E	PAR-SL101A-E
SUZ-SM / PUZ-SM OUTDOOR UNITS	SUZ-SM71VA	PUZ-SM100VKA2	PUZ-SM100YKA2	PUZ-SM125VKA2	PUZ-SM125YKA2	PUZ-SM140VKA2	PUZ-SM140YKA2
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	51 / 49	54 / 51	54 / 51	56 / 54	56 / 54	57 / 55	57 / 55
SOUND POWER LEVEL (dBA) Cooling	66	70	70	72	72	73	73
WEIGHT (kg)	55	76	78	84	85	84	85
DIMENSIONS (mm)	Width x Depth x Height 840 x 330 x 880	1050 x 330 x 981					
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE	Single	Single	Three	Single	Three	Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 2.28 / 1.97	3.10 / 2.79	3.10 / 2.79	3.73 / 4.17	3.73 / 4.17	4.54 / 5.13	4.54 / 5.13
	Heating/Cooling (UK) 1.94 / 1.70	2.64 / 2.40	2.64 / 2.40	3.17 / 3.59	3.17 / 3.59	3.87 / 4.14	3.87 / 4.14
STARTING CURRENT (A)	10.0	13.4	4.8	17.4	6.3	22.3	8.1
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]	9.7 / 8.3 [14.8]	13.4 / 12.1 [20.0]	4.8 / 4.3 [11.5]	15.6 / 17.4 [26.5]	5.6 / 6.3 [11.5]	19.0 / 22.3 [30.0]	6.9 / 8.1 [11.5]
FUSE RATING (BS88) - HRC (A)	20	32	16	32	16	40	16
MAINS CABLE No. Cores	3	3	5	3	5	3	5
MAX PIPE LENGTH (m)	30	30	30	40	40	40	40
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)			
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.37 / 1.80	N/A	3.50 / 2.36	4.00 / 2.70	4.00 / 2.70	4.00 / 2.70	4.00 / 2.70

Note: The PLP-6EAE 3D i-See sensor grille or PAC-SE1ME-E corner panel will NOT operate with this model.

## Accessories

### Indoor Units

**PLP-6EA**

Grille for PLA-SM71-140EA

**PLP-6EAB**

Black grille (Matt finish) for PLA-SM71-140EA

**PLP-6EAJ**

Self elevating grille for PLA-SM71-140EA

**PAR-SE9FA-E**

Corner panel with signal receiver for PLA-SM71-140EA

**PAC-SJ37SP-E**

Shutter plate for PLA-SM71-140EA

**PAC-SJ41TM-E**

Multi-function casement for PLA-SM71-140EA

**PAC-SJ39HR-E**

Power supply kit for PLA-SM71-140EA

**PAR-SL101A-E**

Wireless remote controller for PLA-SM71-140EA

**PAC-SH59KF-E**

High efficiency filter for PLA-SM71-140EA

**PAC-SK53KF-E**

V Blocking air purifying filter for PLA-SM71-140EA

**PAC-SK51FT-E**

Plasma Quad Connect air purifying device for PLA-SM71-140EA

### Outdoor Units

**MAC-886SG**

Air outlet guide for SUZ-SM71VA

**PAC-SH96SG**

Air outlet guide for PUZ-SM100-140VKA2/YKA2

### System Control Units

**PAC-SA89TA**

Remote on/off adaptor (3 wire adaptor)

**PAC-SA88HA**

Run/fault adaptor (5 wire adaptor)

**PAC-SE41TS-E**

Remote sensor

**PAR-CT01MAA-SB/PB**

Touch screen wired remote controller (PB=Premium Finish)

**PAR-41MAA**

Standard wired remote controller

**MAC-587IF-E**

Interface for connection to Wi-Fi MELCloud service

**MELCOBEMS MINI (A1M+)**

Modbus and BACnet MSTP CN105 adaptor

**MELCORETAIL MINI**

Retail control and input / output interface

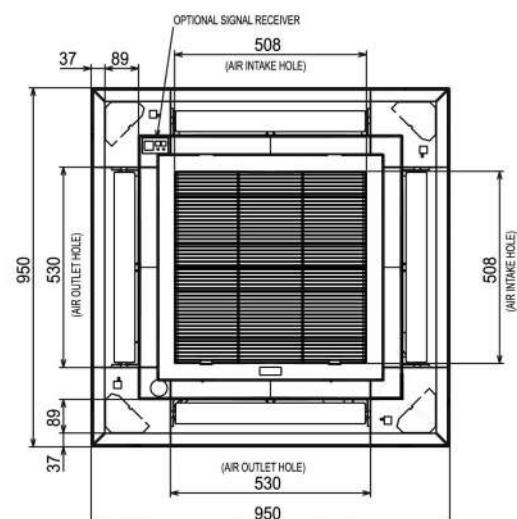
**PAC-SJ95MA**

M-NET adaptor for size 100 to 140

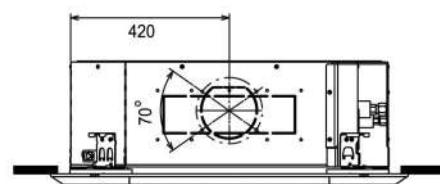
## Product Dimensions

PLA-SM71/100/125/140EA

Lower View



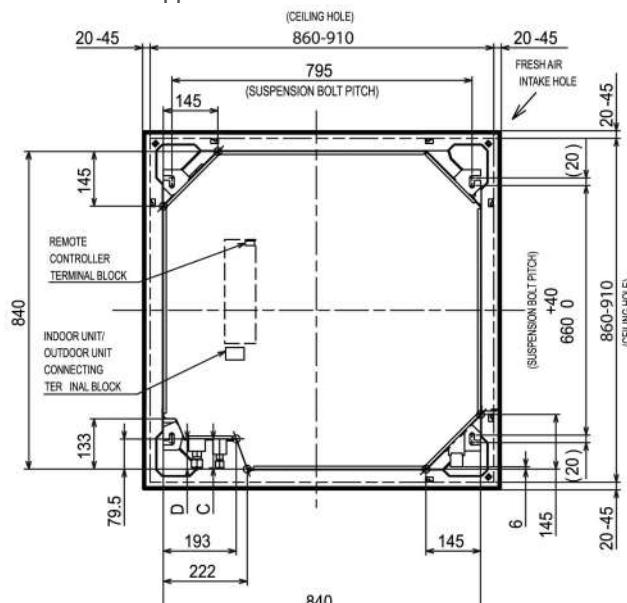
Front View



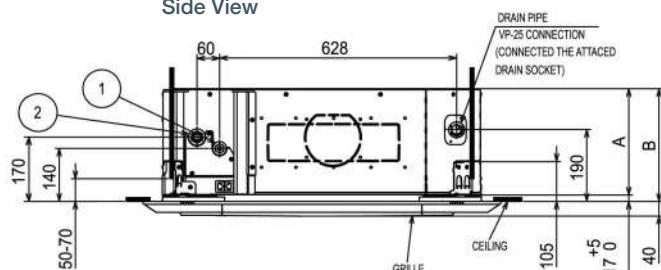
PLA-SM71/100/125/140

SM	①	②	A	B	C	D
71	FLARED CONNECTION 3/8"REFRIGERANT PIPE Ø 9.52	REFRIGERANT PIPE Ø 15.98 REFRIGERANT PIPE Ø 9.52	241	258	79.5	79.5
100-140			281	298		

Upper View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# SLZ-M R32 600x600 4-Way Blow Ceiling Cassette System

## Standard Inverter Heat Pump (Single Phase)



The **SLZ-M Standard Inverter** ceiling cassette unit provides a smart air conditioning solution for tight ceiling spaces. Combining a stylish square design with energy-saving technologies, it is designed to fit snugly into ceilings, making the unit ideal in both small commercial spaces, offices and retail applications.

### Key Features & Benefits

- Height of only 245mm to allow installation in narrow ceiling spaces
- Increased comfort levels through advanced airflow
- PAR-41MAA controller allows effective energy consumption monitoring
- Small footprint, single fan chassis across entire outdoor unit range
- Optional 3D i-see sensor grille provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures (SLP-2FAE)
- Optional black (Satin finish) grille (SLP-2FA-B), for environments that desire a premium quality feel
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould



SLZ-M - INDOOR UNITS	SLZ-M15FA2	SLZ-M25FA2	SLZ-M35FA2	SLZ-M50FA2	SLZ-M60FA2
CAPACITY (kW)					
Heating (nominal)	1.7 (0.9-3.1)	3.2 (1.3-4.2)	4.0 (1.0-5.0)	5.0 (1.3-5.5)	6.4 (1.6-7.3)
Cooling (nominal)	1.5 (0.9-2.4)	2.5 (1.4-3.2)	3.5 (1.0-3.9)	4.6 (1.0-5.2)	5.7 (1.5-6.3)
Heating (UK)	-	2.72 (1.11-3.57)	3.40 (0.85-4.25)	4.25 (1.11-4.68)	5.44 (1.36-6.21)
Cooling (UK)	-	2.30 (1.29-2.94)	3.22 (0.64-3.59)	4.42 (0.92-4.79)	5.25 (1.38-5.80)
SHF (nominal)	-	0.78	0.72	0.68	0.68
COP / EER (nominal)	-	3.61 / 3.80	3.71 / 3.20	3.20 / 3.40	3.00 / 3.40
SCOP / SEER (BS EN14825)	-	4.30 / 6.30	4.30 / 6.70	4.20 / 6.30	4.10 / 6.20
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi-Hi	100-108-117	108-125-142	108-133-158	117-150-192
PIPE SIZE mm (in)	Gas	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	24-26-28	24-26-28	25-28-31	25-30-34
SOUND POWER LEVEL (dBA)	45	45	48	51	56
DIMENSIONS (mm)	Width x Depth x Height	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)	570 (625) x 570 (625) x 245 (10)
WEIGHT (kg)	Unit / Grille	15 / 3	15 / 3	15 / 3	15 / 3
ELECTRICAL SUPPLY		Fed by Outdoor Unit			
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4
GRILLE REFERENCE	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

Note: SLZ-M15FA only available with R32 MXZ Multi-Split outdoor units.

SUZ-M - OUTDOOR UNITS	N/A MULTI-SPLIT ONLY	SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	-	45 / 46	48 / 48	48 / 49	49 / 51
SOUND POWER LEVEL (dBA) Cooling	-	59	59	64	65
WEIGHT (kg)	-	30	35	41	54
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	-	Single	Single	Single	Single
SYSTEM POWER	Heating/Cooling (nominal)	0.88 / 0.65	1.07 / 1.09	1.56 / 1.35	2.13 / 1.67
INPUT (kW)	Heating/Cooling (UK)	0.75 / 0.56	0.91 / 0.94	1.33 / 1.16	1.81 / 1.44
STARTING CURRENT (A)	-	3.1	5.0	5.7	7.6
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.9]
FUSE RATING (BS88) - HRC (A)	-	10	10	20	20
MAINS CABLE No. Cores	-	3	3	3	3
MAX PIPE LENGTH (m)	-	20	20	30	30
MAX HEIGHT DIFFERENCE (m)	-	12	12	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 7m	0.65 / 0.44	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	-	0.91 / 0.61	1.16 / 0.78	1.66 / 1.12
					1.71 / 1.15

## Accessories

### Indoor Units

#### SLP-2FA

Grille for SLZ-M15-60FA2

#### SLP-2FA-B

Black grille (Satin finish) for SLZ-M15-60FA2

#### SLP-2FAE

3D i-see sensor grille for SLZ-M15-60FA2

#### PAC-SK54KF-E

V Blocking air purifying filter for SLZ-M15-60FA2

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25-35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

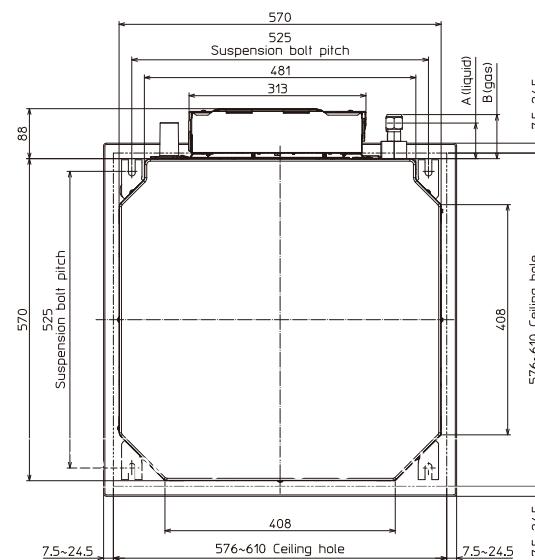
#### MELCORETAIL MINI

Retail control and input / output interface

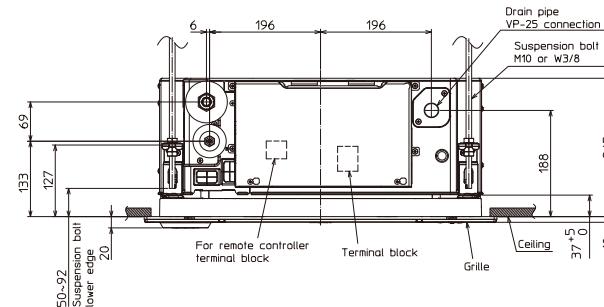
## Product Dimensions

### SLZ-M15/25/35/50/60FA2

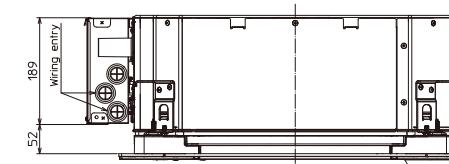
Upper View



Side View



Front View



Note: Please see page 1.3.66 for the full range of accessories.

# PKA-M R32 Wall Mounted System

## Power Inverter Heat Pump



The **PKA-M Power Inverter** range is a wall mounted system that blends a host of outstanding features with a sleek design. Offering high seasonal efficiency, advanced control options, extended pipe runs and energy monitoring (via PAR-41MAA controller) as standard, this range is a flexible choice for small commercial and office applications, as well as restaurants and comms rooms.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Full heating capacity down to -3°C
- Internal pipe connection for ease of installation
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PKA-M - INDOOR UNITS		PKA-M35LA2	PKA-M50LA2	PKA-M60KA2	PKA-M71KA2	PKA-M100KA2	PKA-M100KA2
CAPACITY (kW)		Heating (nominal) 3.6 (1.6-4.5)	5.0 (2.5-7.3)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (2.7-14.0)	11.2 (2.7-14.0)
		Cooling (nominal) 3.5 (1.35-4.4)	4.6 (2.3-5.6)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	9.5 (4.9-11.4)
		Heating (UK) 3.3 (1.45-4.15)	4.25 (2.15-6.2)	5.95 (2.4-6.95)	6.8 (3.0-8.65)	8.06 (1.94-10.08)	8.06 (1.94-10.08)
		Cooling (UK) 3.3 (1.45-4.15)	4.23 (2.1-5.15)	5.5 (2.5-6.15)	6.55 (3.05-7.45)	8.74 (4.51-10.49)	8.74 (4.51-10.49)
SHF (nominal)		0.74	0.66	0.86	0.78	0.73	0.73
COP / EER (nominal)		3.94 / 4.20	3.72 / 3.71	4.04 / 3.91	3.78 / 3.81	3.61 / 3.90	3.61 / 3.90
SCOP / SEER (BS EN14825)		4.00 / 6.50	4.30 / 6.60	4.20 / 6.80	4.30 / 6.80	4.40 / 6.50	4.40 / 6.40
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	125-137-153-182	125-137-153-182	300-333-367	300-333-367	333-383-433	333-383-433
PIPE SIZE MM (in)	Gas	12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	34-37-40-43	34-37-40-43	39-42-45	39-42-45	41-45-49	41-45-49
SOUND POWER LEVEL (dBA)		60	60	64	64	65	65
DIMENSIONS (mm)	Width x Depth x Height	898 x 237 x 299	898 x 237 x 299	1170 x 295 x 365			
WEIGHT (kg)		12.6	12.6	21	21	21	21
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
INTERCONNECTING CABLE NO. CORES		4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA

PUZ-ZM - OUTDOOR UNITS		PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM100YDA <sup>(3)</sup>
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	46 / 44	46 / 44	49 / 47	49 / 47	48 / 44	48 / 44
SOUND POWER LEVEL (dBA)	Cooling	65	65	67	67	63	63
WEIGHT (kg)		46	46	67	67	107	114
DIMENSIONS (mm)	Width x Depth x Height	809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Single	Single	Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.040 / 0.869	1.347 / 1.239	1.732 / 1.560	2.116 / 1.863	3.103 / 2.436	3.103 / 2.436
	Heating/Cooling (UK)	0.81 / 0.84	1.12 / 1.12	1.25 / 1.65	1.54 / 1.92	2.54 / 2.07	2.54 / 2.07
STARTING CURRENT (A)		4.3	4.3	5.3	5.3	11.9	3.5
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	4.97 / 4.31 [13.4]	5.98 / 5.57 [13.4]	7.41 / 6.65 [19.4]	9.10 / 7.96 [19.4]	14.35 / 11.27 [27.1]	4.77 / 3.74 [8.6]
FUSE RATING (BS88) - HRC (A)		16	16	25	25	32	16
MAINS CABLE NO. CORES		3	3	3	3	3	5
MAX PIPE LENGTH (m)		50	50	55	55	100	100
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62

<sup>(3)</sup> Three Phase

## Accessories

### Indoor Units

#### PAR-FL32MA

Wireless remote controller for PKA-M35-100LA2/KA2

#### PAR-SL101A-E

Wireless remote controller for PKA-M35-100LA2/KA2

#### MAC-100FT-E

Plasma Quad Connect air purifying device

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM35-50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100VDA/YDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

M-NET adaptor for size 35 and 50

#### PAC-SJ95MA

M-NET adaptor for size 60 and 71

#### PAC-SL16MA-E

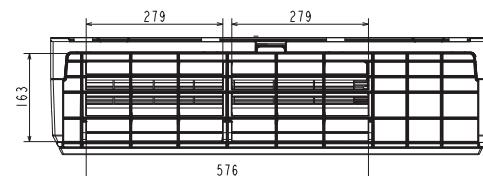
M-NET Adaptor for size 100

Note: Please see page 1.3.66 for the full range of accessories.

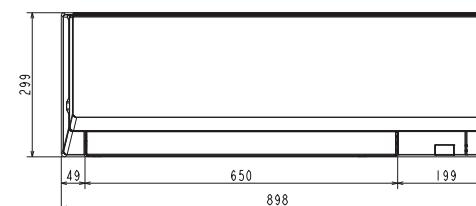
## Product Dimensions

### PKA-M35/50LA2

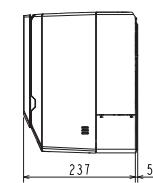
Upper View



Front View



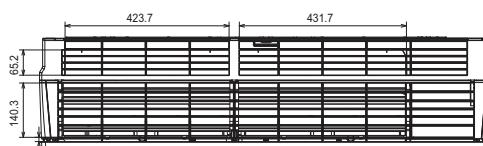
Side View



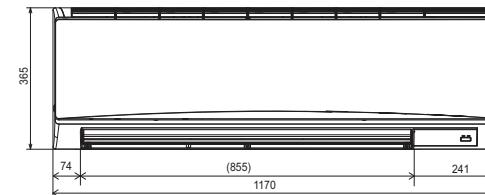
## Product Dimensions

### PKA-M60/71/100KA2

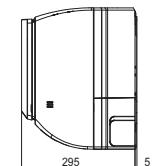
Upper View



Front View



Side View



# PKA-M R32 Wall Mounted System

## Standard Inverter Heat Pump



The cost effective **PKA-M Standard Inverter** range is a wall mounted system that blends a host of outstanding features with a sleek design. Offering advanced control options, extended pipe runs and energy monitoring (via PAR-41MAA controller) as standard, this range is a flexible choice for small commercial and office applications, as well as restaurants and comms rooms.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA or PAR-SL101A-E controller)
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Internal pipe connection for ease of installation
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PKA-M - INDOOR UNITS	PKA-M100KA2	PKA-M100KA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41-10.75) 8.65 (3.64-9.65)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41 - 10.75) 8.65 (3.64 - 9.65)
SHF (nominal)		0.73	0.73
COP / EER (nominal)		3.41 / 3.23	3.41 / 3.23
SCOP / SEER (BS EN14825)		4.00 / 5.80	4.00 / 5.80
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A+	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Hi	333-383-433	333-383-433
PIPE SIZE mm (in)	Gas Liquid	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	41-45-49	41-45-49
SOUND POWER LEVEL (dBA)		65	65
DIMENSIONS (mm)	Width x Depth x Height	1170 x 295 x 365	1170 x 295 x 365
WEIGHT (kg)		21	21
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6
INTERCONNECTING CABLE No. Cores		4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL101A-E / PAR-FL32MA	PAR-SL101A-E / PAR-FL32MA

PUZ-M - OUTDOOR UNITS	PUZ-M100VKA2	PUZ-M100YKA2	③
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	51 / 54
SOUND POWER LEVEL (dBA)	Cooling	70	70
WEIGHT (kg)		76	78
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	3.28 / 2.94 2.95 / 2.44	3.28 / 2.94 2.95 / 2.44
STARTING CURRENT (A)		7.1	3.5
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	14.2 / 12.7 [20]	5.1 / 4.6 [11.5]
FUSE RATING (BS88) - HRC (A)		32	16
MAINS CABLE No. Cores		3	5
MAX PIPE LENGTH (m)		55	55
MAX HEIGHT DIFFERENCE (m)		30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 30m	3.10 / 2.09	3.10 / 2.09
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	4.10 / 2.77	4.10 / 2.77

③ Three Phase

## Accessories

### Indoor Units

#### PAR-FL32MA

Wireless remote controller for PKA-M100KA2

#### PAR-SL101A-E

Wireless remote controller for PKA-M100KA2

#### MAC-100FT-E

Plasma Quad Connect air purifying device

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

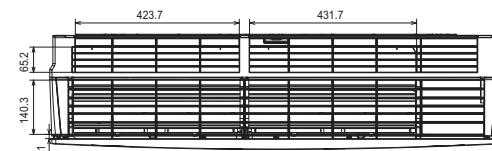
#### PAC-SJ95MA

M-NET adaptor for size 100

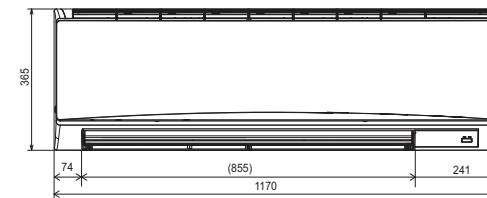
## Product Dimensions

### PKA-M100KA2

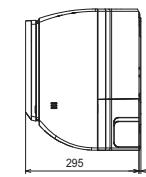
Upper View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Power Inverter Heat Pump (Single Phase)



The **PEAD-M Power Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering high seasonal efficiency, advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Full heating capacity down to -3°C
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PEAD-M - INDOOR UNITS	PEAD-M35JA2	PEAD-M50JA2	PEAD-M60JA2	PEAD-M71JA2	PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal) 3.6 (1.6-5.2)	6.0 (2.5-7.3)	7.0 (2.8-8.2)	8.0 (3.5-10.2)	11.2 (2.7-14.0)	14.0 (3.2-16.0)	16.0 (3.7-18.0)
	Cooling (nominal) 3.6 (1.6-4.5)	5.0 (2.3-5.6)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	12.5 (5.1-14.0)	13.4 (5.4-15.0)
	Heating (UK) 3.5 (1.35-4.4)	5.1 (2.15-6.2)	5.95 (2.4-6.95)	6.8 (3.0-8.65)	8.06 (1.94-10.08)	10.08 (2.30-11.52)	11.52 (2.66-12.96)
	Cooling (UK) 3.3 (1.45-4.15)	4.6 (2.1-5.15)	5.5 (2.5-6.15)	6.55 (3.05-7.45)	8.74 (4.51-10.49)	11.50 (4.69-12.88)	12.33 (4.96-13.80)
SHF (nominal)	0.85	0.84	0.83	0.80	0.82	0.78	0.77
COP / EER (nominal)	4.50 / 4.30	4.40 / 4.20	4.40 / 4.10	4.20 / 4.00	4.40 / 4.20	3.72 / 3.70	3.90 / 3.62
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.1 (161.6%) / 6.3 (278.9%)	4.4 (174.1%) / 6.4 (274.1%)	4.2 (165.8%) / 6.2 (264.9%)	4.3 (170.1%) / 6.3 (265.6%)	4.40 / 6.60	4.18 (164.5%) / 6.68 (264.1%)	4.16 (163.2%) / 6.53 (258.3%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling A / A++	A+ / A++	A+ / A++	A+ / A++	A+ / A++	-	-
AIRFLOW (l/s)	Lo-Mi-Hi 167-200-233	200-242-283	242-300-350	242-300-383	383-467-533	467-567-617	492-592-667
PIPE SIZE MM (in)	Gas 12.7 (1/2")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi 24-29-32	27-33-35	26-32-35	26-32-37	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)	54	58	56	58	62	66	66
DIMENSIONS (mm)	Width x Depth x Height 900 x 732 x 250	900 x 732 x 250	1100 x 732 x 250	1100 x 732 x 250	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)	25	26.5	29.5	29.5	37	38	42
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6
INTERCONNECTING CABLE NO. CORES	4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
PUZ-ZM - OUTDOOR UNITS	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM125VDA	PUZ-ZM140VDA
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 46 / 44	46 / 44	49 / 47	49 / 47	48 / 44	50 / 47	51 / 49
SOUND POWER LEVEL (dBA)	Cooling 65	65	67	67	63	66	68
WEIGHT (kg)	46	46	67	67	107	107	107
DIMENSIONS (mm)	Width x Depth x Height 809 x 300 x 630	809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 0.911 / 0.837	1.363 / 1.190	1.590 / 1.487	1.904 / 1.775	2.546 / 2.262	3.764 / 3.379	4.103 / 3.702
Heating/Cooling (UK)	0.76 / 0.76	1.15 / 1.05	1.30 / 1.37	1.70 / 1.50	2.09 / 1.92	3.09 / 2.87	3.36 / 3.15
STARTING CURRENT (A)	4.3	4.3	5.3	5.3	11.9	11.9	11.9
SYSTEM RUNNING CURRENT (A)	3.28 / 3.30 [14.2]	5.01 / 4.57 [14.4]	5.65 / 5.96 [20.9]	7.37 / 6.54 [20.9]	11.78 / 10.46 [28.8]	17.41 / 15.63 [28.8]	18.98 / 17.12 [32.6]
FUSE RATING (BS88) - HRC (A)	16	16	25	25	32	32	40
MAINS CABLE NO. CORES	3	3	3	3	3	3	3
MAX PIPE LENGTH (m)	50	50	55	55	100	100	100
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.30 / 0.20	0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM35-50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100-140VDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

M-NET adaptor for size 35 and 50

#### PAC-SJ95MA

M-NET adaptor for size 60 and 71

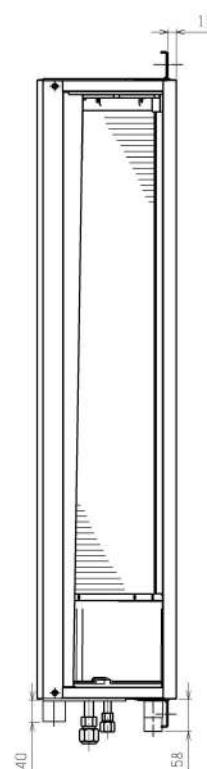
#### PAC-SL16MA-E

M-NET Adaptor for size 100 to 140

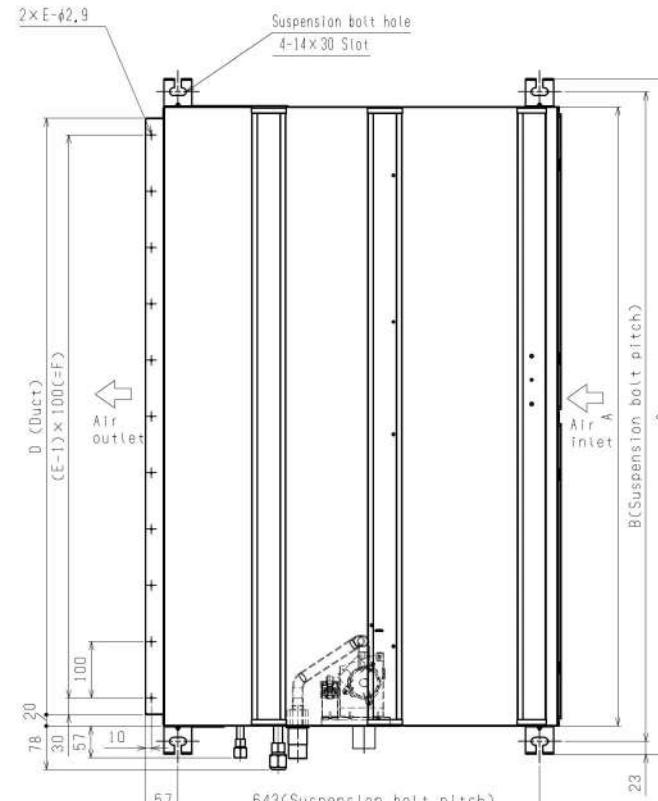
## Product Dimensions

PEAD-M35/50/60/71/100/125/140JA2

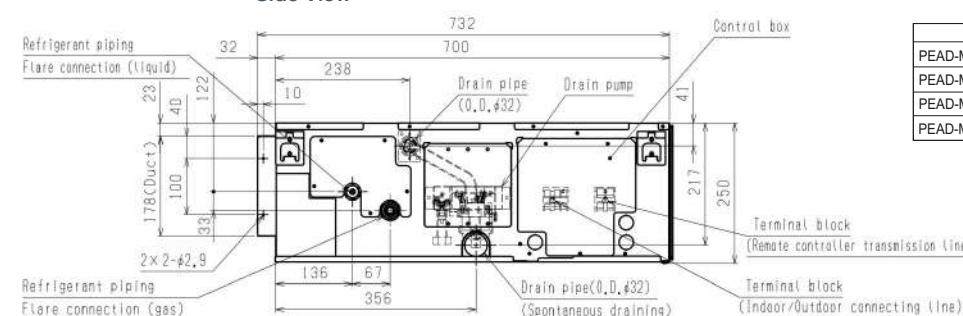
Front View



Upper View



Side View



Model	A	B	C	D	E	F
PEAD-M35,50JA2	900	954	1000	860	9	800
PEAD-M60,71JA2	1100	1154	1200	1060	11	1000
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.66 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Power Inverter Heat Pump (Three Phase)



The **PEAD-M Power Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering high seasonal efficiency, advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run, increasing application capability
- PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Full heating capacity down to -3°C
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R32**

PEAD-M - INDOOR UNITS	PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.7-14.0) 9.5 (4.9-11.4) 8.06 (1.94-10.08) 8.74 (4.51-10.49)	14.0 (3.2-16.0) 12.5 (5.1-14.0) 10.08 (2.30-11.52) 11.50 (4.69-12.88)	16.0 (3.7-18.0) 13.4 (5.4-15.0) 11.52 (2.66-12.96) 12.33 (4.97-13.80)
SHF (nominal)	0.82	0.78	0.77	
COP / EER (nominal)	4.40 / 4.20	3.72 / 3.70	3.90 / 3.62	
SCOP (ηsh) / SEER (ηsc) (BS EN14825)	4.40 / 6.50	4.18 (164.4%) / 6.68 (264.4%)	4.15 (163.1%) / 6.50 (256.8%)	
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	-	
AIRFLOW (l/s)	Lo-Mi-Hi	383-467-533	467-567-617	
PIPE SIZE MM (in)	Gas Liquid	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	
EXTERNAL STATIC PRESSURE (Pa)	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	31-36-39	35-39-41	
SOUND POWER LEVEL (dBA)	62	66	66	
DIMENSIONS (mm)	Width x Depth x Height	1400 x 732 x 250	1400 x 732 x 250	
WEIGHT (kg)	37	38	42	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	
INTERCONNECTING CABLE NO. CORES	4	4	4	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	
PUZ-ZM - OUTDOOR UNITS	PUZ-ZM100YDA	PUZ-ZM125YDA	PUZ-ZM140YDA	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 44	50 / 47	
SOUND POWER LEVEL (dBA)	Cooling	63	66	
WEIGHT (kg)		114	116	
DIMENSIONS (mm)	Width x Depth x Height	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	
ELECTRICAL SUPPLY		380-415v,50Hz	380-415v,50Hz	
PHASE		Three	Three	
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	2.546 / 2.262 2.09 / 1.92	3.764 / 3.379 3.09 / 2.87	
STARTING CURRENT (A)		3.5	3.5	
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.91 / 3.47 [10.3]	5.78 / 5.19 [11.3]	
FUSE RATING (BS88) - HRC (A)		16	16	
MAINS CABLE NO. CORES		5	5	
MAX PIPE LENGTH (m)		100	100	
MAX HEIGHT DIFFERENCE (m)		30	30	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m	3.60 / 2.43	3.60 / 2.43	
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.40 / 1.62	2.40 / 1.62	

③ Three Phase

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100-140YDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

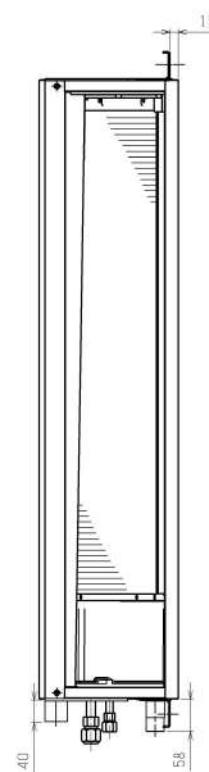
#### PAC-SL16MA-E

M-NET adaptor for size 100 to 140

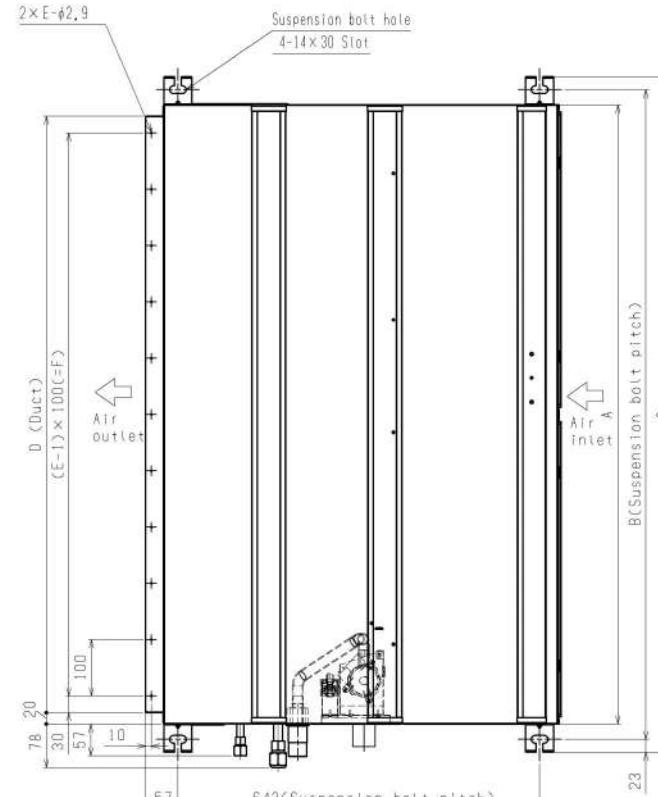
## Product Dimensions

PEAD-M100/125/140JA2

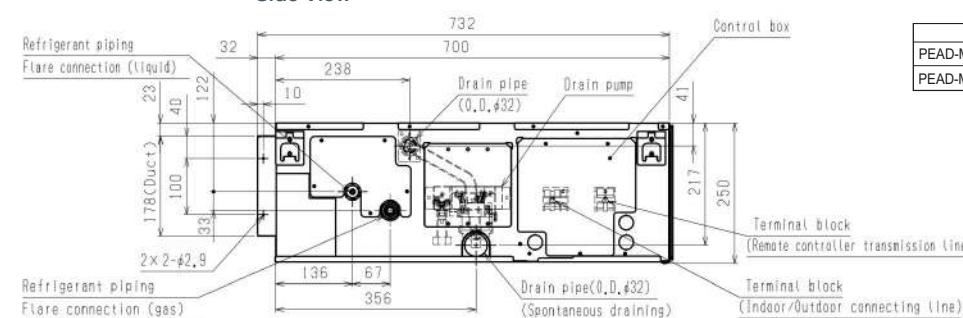
Front View



Upper View



Side View



Model	A	B	C	D	E	F
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.66 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Single Phase)



The cost effective **PEAD-M Standard Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS	PEAD-M35JA2	PEAD-M50JA2	PEAD-M60JA2	PEAD-M71JA2	PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)							
Heating (nominal)	4.1 (1.1-5.0)	6.0 (1.5-7.2)	7.0 (1.6-8.0)	8.0 (2.0-10.2)	11.2 (2.8-12.5)	13.5 (4.1-15.0)	15.0 (4.2-15.8)
Cooling (nominal)	3.6 (0.8-3.9)	5.0 (1.7-5.6)	6.1 (1.6-6.3)	7.1 (2.2-8.1)	9.5 (4.0-10.6)	12.1 (6.0-13.0)	13.4 (6.1-14.1)
Heating (UK)	3.49 (0.94-4.25)	5.10 (1.28-6.12)	5.96 (1.36-6.8)	6.80 (1.70-8.67)	9.63 (2.41-10.75)	11.61 (3.53-12.90)	12.90 (3.61-13.59)
Cooling (UK)	3.31 (0.74-3.59)	4.60 (1.56-5.15)	5.16 (1.47-5.80)	6.53 (2.02-7.45)	8.65 (3.64-9.65)	11.01 (5.46-11.83)	12.19 (5.55-12.83)
SHF (nominal)	0.85	0.84	0.83	0.80	0.82	0.78	0.77
COP / EER (nominal)	4.00 / 3.90	4.10 / 3.70	3.80 / 3.60	3.80 / 3.50	3.80 / 3.30	3.61 / 3.01	3.61 / 2.81
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.10 (161.8%) / 6.30 (260.9%)	4.20 (166.9%) / 6.30 (256.9%)	4.10 (162.4%) / 6.10 (250.5%)	4.10 (161.6%) / 6.20 (252.7%)	4.10 (161.4%) / 6.10 (257.3%)	3.80 (152.1%) / 5.30 (218.5%)	3.80 (151.9%) / 5.20 (213.3%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A / A				
AIRFLOW (l/s)	Lo-Mi-Hi	167-200-233	200-242-283	242-300-350	242-300-383	383-467-533	467-567-617
PIPE SIZE mm (in)	Gas	9.52 (3/8")	12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	24-29-32	27-33-35	26-32-35	26-32-37	31-36-39	35-39-41
SOUND POWER LEVEL (dBA)		54	58	56	58	62	66
DIMENSIONS (mm)	Width x Depth x Height	900 x 732 x 250	900 x 732 x 250	1100 x 732 x 250	1100 x 732 x 250	1400 x 732 x 250	1400 x 732 x 250
WEIGHT (kg)		25	26.5	29.5	29.5	37	38
ELECTRICAL SUPPLY		Fed by Outdoor Unit					
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA						

SUZ-M / PUZ-M - OUTDOOR UNITS	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	48 / 48	48 / 49	49 / 51	49 / 51	51 / 54	54 / 56
SOUND POWER LEVEL (dBA)	Cooling	59	64	65	66	70	72
WEIGHT (kg)		35	41	54	56	76	84
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal)	1.025 / 0.923	1.463 / 1.351	1.842 / 1.694	2.105 / 2.028	2.947 / 2.878	3.739 / 4.019
	Heating/Cooling (UK)	0.85 / 0.84	1.24 / 1.19	1.50 / 1.56	1.87 / 1.72	2.35 / 2.47	3.32 / 3.41
STARTING CURRENT (A)		5.0	5.7	7.6	10.0	7.1	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	3.69 / 3.64 [9.7]	5.38 / 5.18 [14.9]	6.54 / 6.78 [16.7]	8.15 / 7.47 [16.7]	10.23 / 10.75 [22.3]	14.43 / 14.81 [27.8]
FUSE RATING (BS88) - HRC (A)		16	20	20	20	32	32
MAINS CABLE No. Cores		3	3	3	3	3	3
MAX PIPE LENGTH (m)		20	30	30	30	55	65
MAX HEIGHT DIFFERENCE (m)		12	30	30	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	0.90 / 0.61 (7m)	1.20 / 0.81 (7m)	1.25 / 0.84 (7m)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38

Note: No duty/standby operation on SUZ-M35/50/60/71VAR2/1.

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

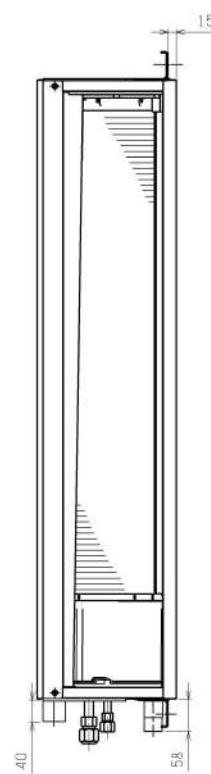
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

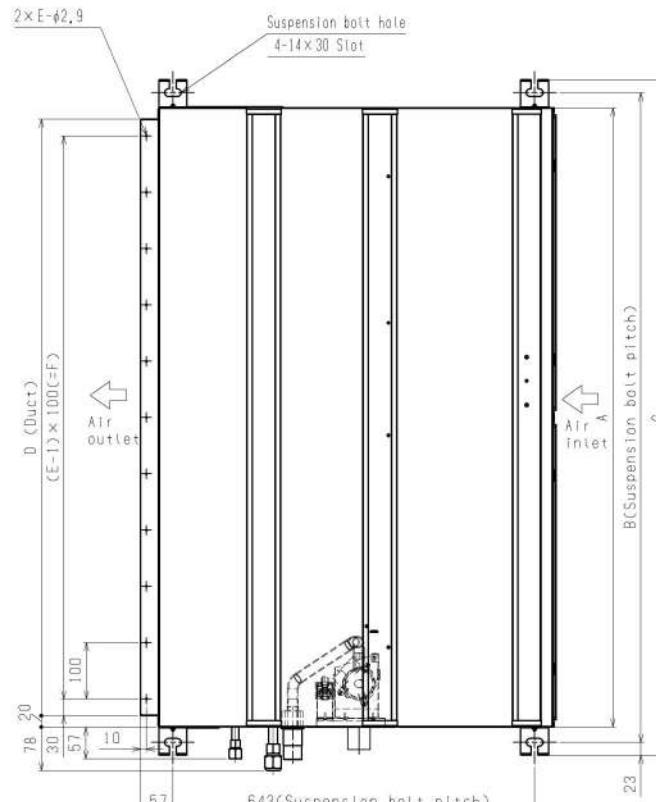
## Product Dimensions

PEAD-M35/50/60/71/100/125/140JA2

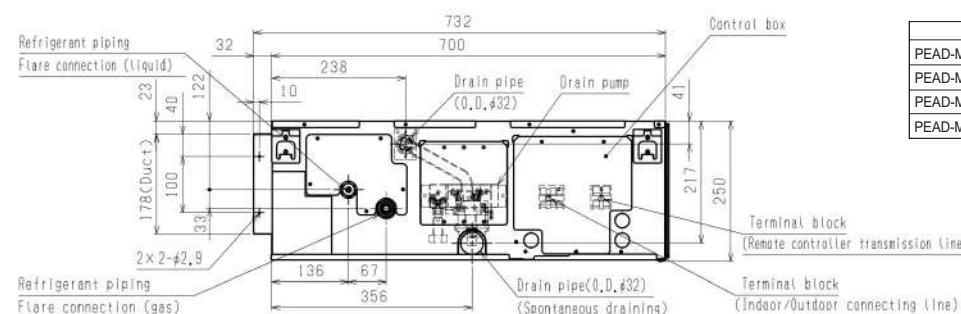
Front View



Upper View



Side View



Model	A	B	C	D	E	F
PEAD-M35,50JA2	900	954	1000	860	9	800
PEAD-M60,71JA2	1100	1154	1200	1060	11	1000
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.66 for the full range of accessories.

# PEAD-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PEAD-M Standard Inverter** range is a ceiling concealed ducted system that blends a host of outstanding features with an unobtrusive design (only 250mm height) for easy installation and maintenance. Offering advanced control options and extended pipe runs, the units also come with a wide range of external static pressure settings, making this range an extremely flexible solution for applications such as light commercial, schools and warehousing.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- PAR-41MAA controller allows effective energy monitoring
- Improved efficiency through new fan motor
- Drain pump included as standard
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



PEAD-M - INDOOR UNITS		PEAD-M100JA2	PEAD-M125JA2	PEAD-M140JA2
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41-10.75) 8.65 (3.64-9.65)	13.5 (4.1-15.0) 12.1 (6.0-13.0) 11.61 (3.53-12.90) 11.01 (5.46-11.83)	15.0 (4.2-15.8) 13.4 (6.1-14.1) 12.90 (3.61-13.59) 12.19 (5.55-12.83)
SHF (nominal)		0.82	0.78	0.77
COP / EER (nominal)		3.80 / 3.30	3.61 / 3.01	3.61 / 2.81
SCOP (nsh) / SEER (nsc) (BS EN14825)		4.10 (161.4%) / 6.10 (257.3%)	3.80 (152.1%) / 5.30 (218.5%)	3.80 (151.9%) / 5.20 (213.3%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A / A	A / A
AIRFLOW (l/s)	Lo-Mi-Hi	383-467-533	467-567-617	492-592-667
PIPE SIZE mm (in)	Gas Liquid	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)		35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	31-36-39	35-39-41	34-38-41
SOUND POWER LEVEL (dBA)		62	66	66
DIMENSIONS (mm)	Width x Depth x Height	1400 x 732 x 250	1400 x 732 x 250	1600 x 732 x 250
WEIGHT (kg)		37	38	42
ELECTRICAL SUPPLY		Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA	PAR-41MAA

PUZ-M - OUTDOOR UNITS		PUZ-M100YKA2	③ PUZ-M125YKA2	③ PUZ-M140YKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling	70	72	73
WEIGHT (kg)		78	85	85
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	2.947 / 2.878 2.35 / 2.47	3.739 / 4.019 3.32 / 3.41	4.155 / 4.768 3.69 / 4.05
STARTING CURRENT (A)		3.5	4.9	4.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	5.88 / 6.18 [13.8]	8.30 / 8.52 [12.8]	9.23 / 10.13 [12.9]
FUSE RATING (BS88) - HRC (A)		16	16	16
MAINS CABLE No. Cores		5	5	5
MAX PIPE LENGTH (m)		55	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 30m	3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

③ Three Phase

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

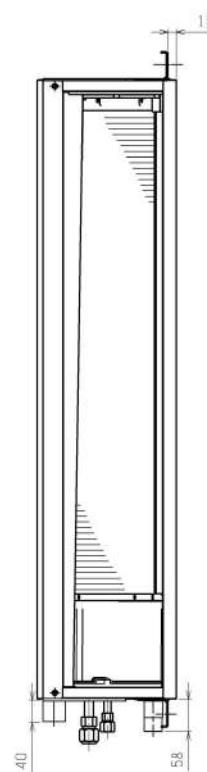
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

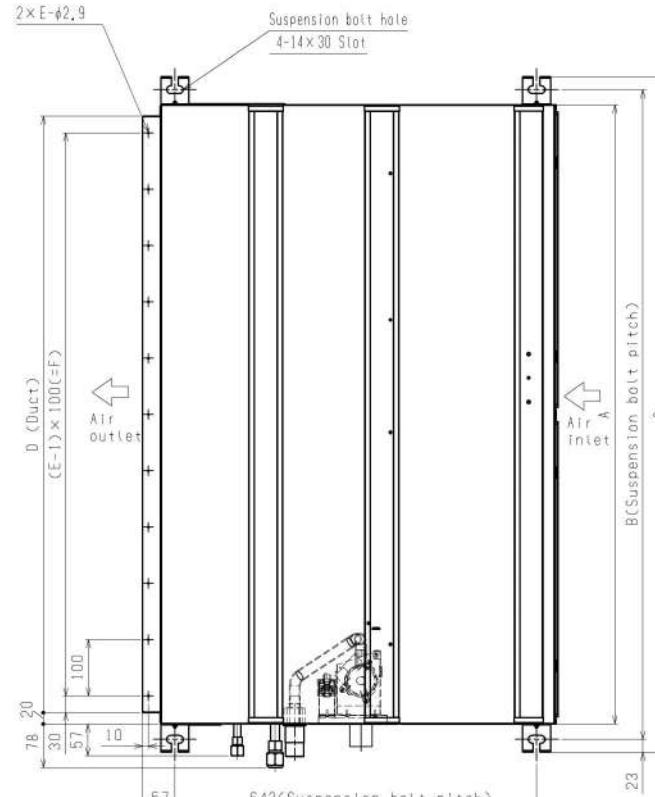
## Product Dimensions

### PEAD-M100/125/140JA2

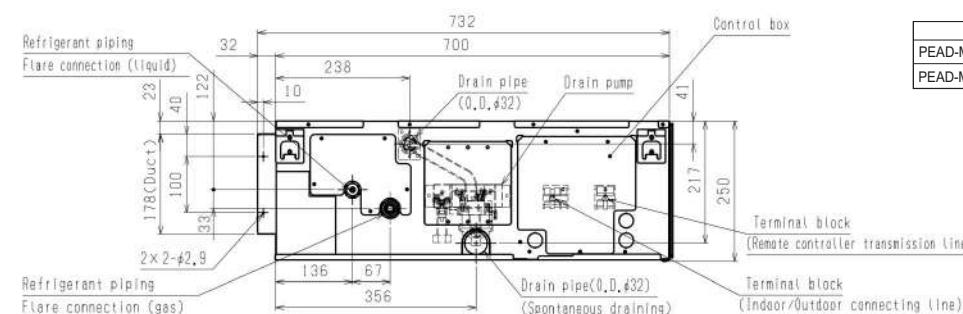
Front View



Upper View



Side View



Model	A	B	C	D	E	F
PEAD-M100,125JA2	1400	1454	1500	1360	14	1300
PEAD-M140JA2	1600	1654	1700	1560	16	1500

Note: Please see page 1.3.66 for the full range of accessories.

# PEA-M R32

## Large Capacity

## Ceiling Concealed

## Ducted System

**Power Inverter Heat Pump**  
(Three Phase)



The **PEA-M Power Inverter** large capacity ducted system offers high levels of design flexibility and energy efficiency for larger scale heating and cooling applications. The unique design allows the fan and coil sections to be split, facilitating installation where ceiling void space is limited. Working with extended lengths of ductwork through a 250Pa fan setting, the system is ideal for warehouse, atria and large retail applications.

### Key Features & Benefits

- 100m pipe run, increasing application capability
- Full heating capacity down to -3°C
- Unit can be separated into two parts, allowing the coil section to be installed into a limited roof space
- PAR-41MAA controller enables effective energy consumption monitoring
- 'Backup and Rotate' feature reduces load on individual units and prolongs product life (requires PAR-41MAA controller)
- Ultimate ductwork flexibility through 5 static pressure settings up to 250Pa
- Pre-filter included as standard

**R32**

PEA-M - INDOOR UNITS	PEA-M200LA2	PEA-M250LA2
CAPACITY (kW)		
Heating (nominal)	22.4 (7.1-25.0)	27.0 (7.3-31.0)
Cooling (nominal)	19.0 (9.2-22.4)	22.0 (9.9-27.0)
Heating (UK)	16.8 (5.3-18.8)	20.3 (5.5-23.3)
Cooling (UK)	16.5 (8.0-19.5)	19.1 (8.6-23.5)
SHF (nominal)	0.80	0.79
COP / EER (nominal)	3.50 / 3.30	3.40 / 3.05
SCOP (nsh) / SEER (nsc) (BS EN14825)	3.60 (141.6%) / 5.70 (232.2%)	3.50 (139.7%) / 5.30 (213.7%)
AIRFLOW (l/s)	Lo-Mi-Hi 700-850-1000	833-1016-1200
PIPE SIZE mm (in)	Gas 28.58 (1 1/8") Liquid 9.52 (3/8")	28.58 (1 1/8") 12.7 (1/2")
EXTERNAL STATIC PRESSURE (Pa)	75 / 100 / 150 / 200 / 250	75 / 100 / 150 / 200 / 250
SOUND PRESSURE LEVEL (dBA) (60Pa)	Lo-Mi-Hi 34.5-39-43	37.5-42-46
SOUND POWER LEVEL (dBA) (60Pa)	Lo-Mi-Hi 69-70-70	71-71-72
DIMENSIONS (mm)	Width x Depth x Height 1370 x 1120 x 470	1370 x 1120 x 470
WEIGHT (kg)	88	88
ELECTRICAL SUPPLY	220-240v 50Hz	220-240v 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.32	0.48
RUNNING CURRENT (A) [MAX]	4.8	4.8
FUSE RATING (BS88) - HRC (A)	6	6
MAINS CABLE No. Cores	3	3
INTERCONNECTING CABLE No. Cores	3	3
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS	PUZ-ZM200YKA2	PUZ-ZM250YKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 62 / 59	62 / 59
WEIGHT (kg)	137	138
DIMENSIONS (mm)	Width x Depth x Height 1050 x 330+40 x 1338	1050 x 330+40 x 1338
ELECTRICAL SUPPLY	380-415v, 50Hz	380-415v, 50Hz
PHASE	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 6.40 / 5.76	7.94 / 7.21
	Heating/Cooling (UK) 5.18 / 4.89	6.43 / 6.13
STARTING CURRENT (A)	5.0	5.0
RUNNING CURRENT (A)	Heating/Cooling [MAX] 9.57 / 8.58 [22.5]	13.3 / 11.6 [22.5]
FUSE RATING (BS88) - HRC (A)	25	25
MAINS CABLE No. Cores	5	5
MAX PIPE LENGTH (m)	100	100
MAX HEIGHT DIFFERENCE (m)	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 30m 6.30 / 4.25	6.80 / 4.59
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.90 / 1.96	2.40 / 1.62

③ Three Phase

## Accessories

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

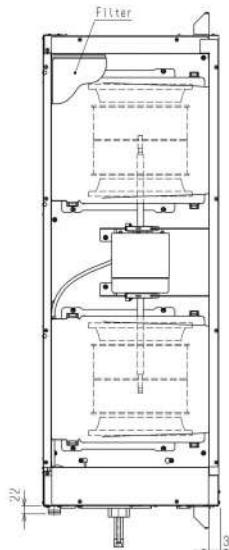
#### PAC-SJ95MA

M-NET adaptor for size 200 to 250

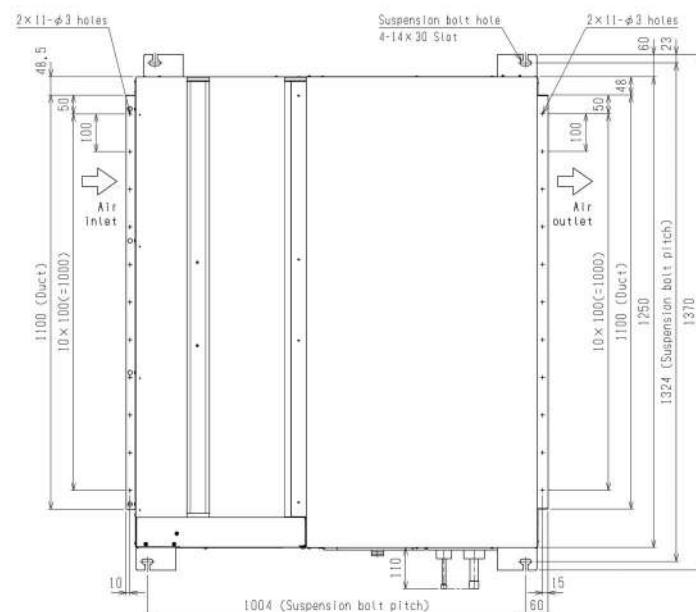
## Product Dimensions

### PEA-M200/250LA2

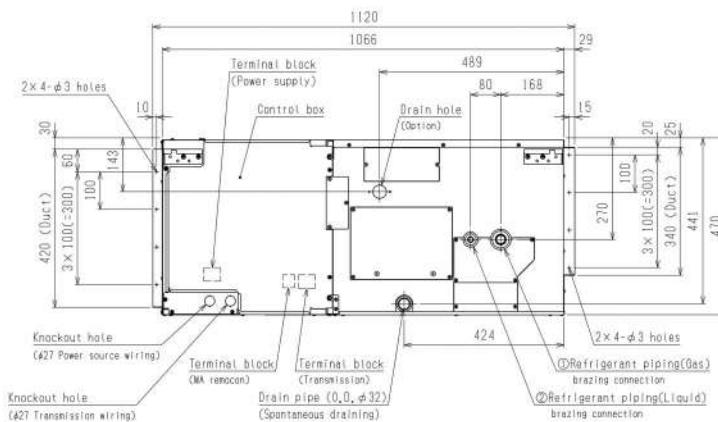
Front View



Upper View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PEA-M R32

## Large Capacity

### Ceiling Concealed

### Ducted System

**Standard Inverter Heat Pump**  
(Three Phase)



The cost effective **PEA-M Standard Inverter** large capacity ducted system offers high levels of design flexibility and energy efficiency for larger scale heating and cooling applications. The unique design allows the fan and coil sections to be split, facilitating installation where ceiling void space is limited. Working with extended lengths of ductwork through a 250Pa fan setting, the system is ideal for warehouse, atria and large retail applications.

#### Key Features & Benefits

- Unit can be separated into two parts, allowing the coil section to be installed into a limited roof space
- Advanced airflow and smart defrost features to maximise comfort levels
- PAR-41MAA controller enables effective energy consumption monitoring
- 'Backup and Rotate' feature reduces load on individual units and prolongs product life (requires PAR-41MAA controller)
- Ultimate ductwork flexibility through 5 static pressure settings up to 250Pa
- Pre-filter included as standard



PEA-M - INDOOR UNITS	PEA-M200LA2	PEA-M250LA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	22.4 (6.8-25.0) 19.0 (9.2-22.4) 16.8 (5.1-18.8) 16.5 (8.0-19.5)	27.0 (7.3-31.0) 22.0 (9.9-27.0) 20.3 (5.5-23.3) 19.1 (8.6-23.5)
SHF (nominal)		0.80	0.79
COP / EER (nominal)		3.40 / 3.12	3.30 / 3.00
SCOP (nsh) / SEER (nsc) (BS EN14825)		3.60 (141.2%) / 5.40 (216.3%)	3.50 (139.2%) / 5.30 (212.7%)
AIRFLOW (l/s)	Lo-Mi-Hi Gas Liquid	700-850-1000 28.58 (1 1/8") 9.52 (3/8")	833-1016-1200 28.58 (1 1/8") 12.7 (1/2")
PIPE SIZE mm (in)			
EXTERNAL STATIC PRESSURE (Pa)		75 / 100 / 150 / 200 / 250	75 / 100 / 150 / 200 / 250
SOUND PRESSURE LEVEL (dBA) (60Pa)	Lo-Mi-Hi	34.5-39-43	37.5-42-46
SOUND POWER LEVEL (dBA) (60Pa)	Lo-Mi-Hi	69-70-70	71-71-72
DIMENSIONS (mm)	Width x Depth x Height	1370 x 1120 x 470	1370 x 1120 x 470
WEIGHT (kg)		88	88
ELECTRICAL SUPPLY		220-240v 50Hz	220-240v 50Hz
PHASE		Single	Single
POWER INPUT (kW)		0.32	0.48
RUNNING CURRENT (A) [MAX]		4.8	4.8
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3
INTERCONNECTING CABLE No. Cores		3	3
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA	PAR-41MAA

PUZ-M - OUTDOOR UNITS	PUZ-M200YKA2	PUZ-M250YKA2	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	60 / 58	62 / 59
WEIGHT (kg)		129	138
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 1338	1050 x 330+40 x 1338
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	6.59 / 6.09 5.34 / 5.18	8.18 / 7.33 6.63 / 6.23
STARTING CURRENT (A)		5.0	5.0
RUNNING CURRENT (A)	Heating/Cooling [MAX]	10.08 / 9.62 [22.5]	12.18 / 11.22 [22.5]
FUSE RATING (BS88) - HRC (A)		25	25
MAINS CABLE No. Cores		5	5
MAX PIPE LENGTH (m)		70	70
MAX HEIGHT DIFFERENCE (m)		30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 30m	5.60 / 3.78	6.80 / 4.59
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	1.60 / 1.08	2.40 / 1.62

③ Three Phase



# SEZ-M R32 Ceiling Concealed Ducted System

## Standard Inverter Heat Pump (Single Phase)



The **SEZ-M Standard Inverter** ceiling concealed ducted system is designed for offices, restaurants and retail premises where low noise levels are required. Its low unit height and lightweight design help to make installation easier and more convenient.

### Key Features & Benefits

- Compact, low unit height of 200mm for unobtrusive installation
- Low static pressure level, resulting in noise reduction
- PAR-41MAA controller allows effective energy consumption monitoring
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7



SEZ-M - INDOOR UNITS	SEZ-M25DA2	SEZ-M35DA2	SEZ-M50DA2	SEZ-M60DA2	SEZ-M71DA2
CAPACITY (kW)	Heating (nominal) 2.9 (1.3-4.2) Cooling (nominal) 2.5 (1.4-3.2) Heating (UK) 2.47 (1.11-3.57) Cooling (UK) 2.30 (1.29-2.94)	4.2 (1.1-5.0) 3.5 (0.7-3.9) 3.57 (0.94-4.25) 3.22 (0.64-3.59)	6.0 (1.5-7.2) 5.0 (1.1-5.6) 5.10 (1.28-6.12) 4.60 (1.01-5.15)	7.4 (1.6-8.0) 6.1 (1.6-6.3) 6.29 (1.36-6.80) 5.61 (1.47-5.80)	8.0 (2.0-10.2) 7.1 (2.2-8.1) 6.80 (1.70-8.67) 6.53 (2.02-7.45)
SHF (nominal)	0.78	0.76	0.76	0.79	0.74
COP / EER (nominal)	3.61 / 3.50	3.90 / 3.50	3.71 / 3.23	3.61 / 3.30	3.50 / 3.30
SCOP / SEER (BS EN14825)	3.80 / 5.30	4.10 / 5.90	4.00 / 6.00	4.20 / 5.50	3.90 / 5.50
ErP ENERGY EFFICIENCY CLASS Heating/Cooling	A / A	A+ / A+	A+ / A+	A+ / A	A / A
AIRFLOW (l/s)	Lo-Mi-Hi 100-117-150	117-150-183	167-217-250	200-250-300	200-267-333
PIPE SIZE mm (in)	Gas 9.52 (3/8") Liquid 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")	15.88 (5/8") 6.35 (1/4")	15.88 (5/8") 9.52 (3/8")
EXTERNAL STATIC PRESSURE (Pa)	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA) Lo-Mi-Hi	22-25-29	23-28-33	29-33-36	29-33-37	29-34-39
SOUND POWER LEVEL (dBA)	50	53	57	58	60
DIMENSIONS (mm)	Width x Depth x Height 790 x 700 x 200	990 x 700 x 200	990 x 700 x 200	1190 x 700 x 200	1190 x 700 x 200
WEIGHT (kg)	18	21	23	27	27
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

SUZ-M - OUTDOOR UNITS	SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1
SYSTEM POWER Heating/Cooling (nominal)	0.80 / 0.71	1.07 / 1.00	1.61 / 1.54	2.04 / 1.84	2.28 / 2.15
INPUT (kW) Heating/Cooling (UK)	0.68 / 0.61	0.91 / 0.86	1.37 / 1.32	1.73 / 1.58	1.94 / 1.85
STARTING CURRENT (A)	3.1	5.0	5.7	7.6	10.0
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]
FUSE RATING (BS88) - HRC (A)	10	10	20	20	20
MAINS CABLE No. Cores	3	3	3	3	3
MAX PIPE LENGTH (m)	20	20	30	30	30
MAX HEIGHT DIFFERENCE (m)	12	12	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 7m 0.65 / 0.44	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84	1.45 / 0.98
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) 0.91 / 0.61	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.60

## Accessories

### Indoor Units

#### MAC-100FT-E

Plasma Quad Connect air purifying device

#### PAC-HA31PAR

Plasma Quad Connect metal fitment

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25-35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

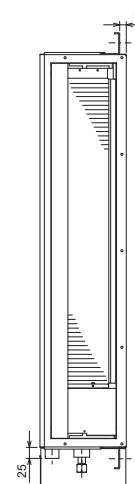
#### MELCORETAIL MINI

Retail control and input / output interface

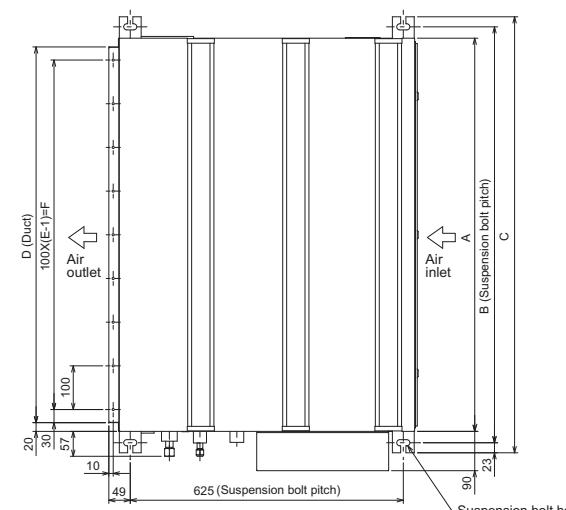
## Product Dimensions

SEZ-M25/35/50/60/71DA2

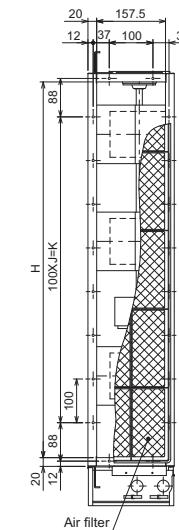
Front View



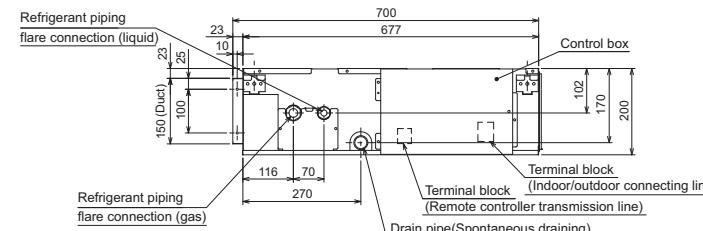
Upper View



Back View



Side View



Model	A	B	C	D	E	F	G	H	J	K	L
SEZ-M25DA2	700	752	798	660	7	600	800	660	5	500	16
SEZ-M35DA2	900	952	998	860	9	800	1000	860	7	700	20
SEZ-M50DA2	1100	1152	1198	1060	11	1000	1200	1060	9	900	24
SEZ-M60DA2											
SEZ-M71DA2											

Note: Please see page 1.3.66 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Power Inverter Heat Pump (Single Phase)



The **PCA-M Power Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- Full heating capacity down to -3°C
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)

**R32**

PCA-M - INDOOR UNITS	PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal) 5.5 (2.5-6.6) Cooling (nominal) 5.0 (2.3-5.6) Heating (UK) 4.7 (2.15-5.6) Cooling (UK) 4.6 (2.1-5.15)	7.0 (2.8-8.2) 6.1 (2.7-6.7) 5.95 (2.4-6.95) 5.5 (2.5-6.15)	8.0 (3.5-10.2) 7.1 (3.3-8.1) 6.8 (3.0-8.65) 6.55 (3.05-7.45)	11.2 (2.7-14.0) 9.5 (4.9-11.4) 8.06 (1.94-10.08) 8.74 (4.51-10.49)	14.0 (3.2-16.0) 12.5 (5.1-14.0) 10.08 (2.30-11.52) 11.50 (4.69-12.88)	16.0 (3.7-18.0) 13.4 (5.4-15.0) 11.52 (2.66-12.96) 12.33 (4.97-13.80)
SHF (nominal)	0.79	0.81	0.76	0.77	0.72	0.72
COP / EER (nominal)	4.04 / 4.00	4.01 / 4.01	3.71 / 3.88	3.60 / 4.00	3.30 / 3.30	3.40 / 3.40
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.20 / 6.70	4.10 / 6.50	4.20 / 6.70	4.30 / 6.40	4.34 (170.5%) / 6.39 (252.6%)	4.44 (174.7%) / 6.35 (250.9%)
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A++	A+ / A++	A+ / A++	A+ / A++	-	-
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi 167-283-217-250	250-267-283-317	267-283-300-333	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE MM (in)	Gas/Liquid 12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi 32-34-37-40	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)	60	60	62	63	65	68
DIMENSIONS (mm)	Width x Depth x Height 960 x 680 x 230	1280 x 680 x 230	1280 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)	26	32	32	37	38	40
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6
INTERCONNECTING CABLE	No. Cores 4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B

PUZ-ZM - OUTDOOR UNITS	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM125VDA	PUZ-ZM140VDA
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 46 / 44	49 / 47	49 / 47	48 / 44	50 / 47	51 / 49
SOUND POWER LEVEL (dBA)	Cooling 65	67	67	63	66	68
WEIGHT (kg)	46	67	67	107	107	107
DIMENSIONS (mm)	Width x Depth x Height 809 x 300 x 630	950 x 330 + 25 x 943	950 x 330 + 25 x 943	1100 x 460+ 45 x 870	1100 x 460+ 45 x 870	1100 x 460+ 45 x 870
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 1.361 / 1.25	1.745 / 1.521	2.156 / 1.829	3.112 / 2.375	4.243 / 3.788	4.706 / 3.942
STARTING CURRENT (A)	4.3	5.3	5.3	11.9	11.9	11.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 5.95 / 5.37 [13.4]	7.43 / 6.48 [19.4]	9.23 / 7.81 [19.4]	14.39 / 10.99 [27.2]	19.63 / 17.52 [27.3]	21.77 / 18.23 [30.9]
FUSE RATING (BS88) - HRC (A)	16	25	25	32	32	40
MAINS CABLE NO. CORES	3	3	3	3	3	3
MAX PIPE LENGTH (m)	50	55	55	100	100	100
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.00 / 1.35 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 0.30 / 0.20	0.80 / 0.54	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M50-140KA2

### Outdoor Units

#### PAC-SJ07SG

Air outlet guide for PUZ-ZM50VKA2

#### PAC-SG59SG

Air outlet guide for PUZ-ZM60-71VHA2

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100-140VDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SK15MA-E

M-NET adaptor for size 50

#### PAC-SJ95MA

M-NET adaptor for size 60 and 71

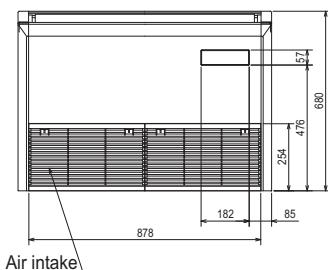
#### PAC-SL16MA-E

M-NET Adaptor for size 100 to 140

## Product Dimensions

### PCA-M50KA2

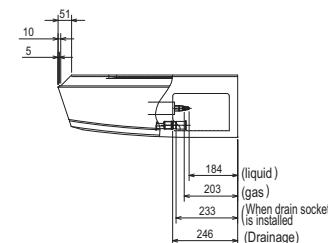
Lower View



Front View



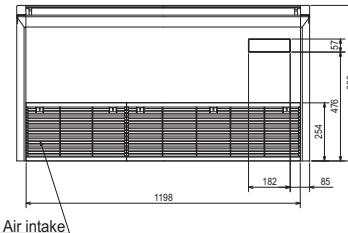
Side View



## Product Dimensions

### PCA-M60/71KA2

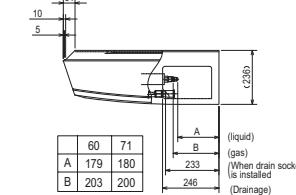
Lower View



Front View



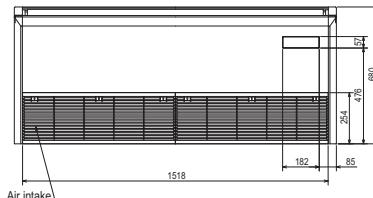
Side View



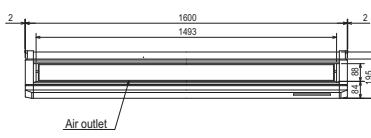
## Product Dimensions

### PCA-M100/125/140KA2

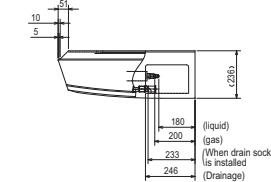
Lower View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Power Inverter Heat Pump (Three Phase)



The **PCA-M Power Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and extended pipe runs, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run, increasing application capability
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- Full heating capacity down to -3°C
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)



PCA-M - INDOOR UNITS	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.7-14.0) 9.5 (4.9-11.4) 8.06 (1.94-10.08) 8.74 (4.51-10.49)	14.0 (3.2-16.0) 12.5 (5.1-14.0) 10.08 (2.30-11.52) 11.50 (4.69-12.88)	16.0 (3.7-18.0) 13.4 (5.4-15.0) 11.52 (2.66-12.96) 12.33 (4.97-13.80)
SHF (nominal)	0.77	0.72	0.72	
COP / EER (nominal)	3.60 / 4.00	3.30 / 3.30	3.40 / 3.40	
SCOP (ηsh) / SEER (ηsc) (BS EN14825)	4.30 / 6.20	4.34 (170.4%) / 6.35 (251.1%)	4.44 (174.7%) / 6.31 (249.5%)	
ERP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A++	-	-	
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi	367-400-433-467	383-417-450-483	
PIPE SIZE MM (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi	37-39-41-43	39-41-43-45	
SOUND POWER LEVEL (dBA)		63	65	
DIMENSIONS (mm)	Width x Depth x Height	1600 x 680 x 230	1600 x 680 x 230	
WEIGHT (kg)		37	38	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	
INTERCONNECTING CABLE	No. Cores	4	4	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL94B	PAR-SL94B	PAR-SL94B	

PUZ-ZM - OUTDOOR UNITS	PUZ-ZM100YDA	③ PUZ-ZM125YDA	③ PUZ-ZM140YDA
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 48 / 44	50 / 47	51 / 49
SOUND POWER LEVEL (dBA)	Cooling 63	66	68
WEIGHT (kg)		114	116
DIMENSIONS (mm)	Width x Depth x Height 1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY	380-415v,50Hz	380-415v,50Hz	380-415v,50Hz
PHASE	Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 3.112 / 2.375	4.243 / 3.788	4.706 / 3.942
	Heating/Cooling (UK) 2.55 / 2.02	3.48 / 3.22	3.86 / 3.35
STARTING CURRENT (A)		3.5	3.5
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.79 / 3.65 [8.7]	6.52 / 5.82 [9.8]	7.23 / 6.05 [9.9]
FUSE RATING (BS88) - HRC (A)		16	16
MAINS CABLE NO. CORES	5	5	5
MAX PIPE LENGTH (m)	100	100	100
MAX HEIGHT DIFFERENCE (m)	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) - 40m 3.60 / 2.43	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675) 2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

③ Three Phase

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100-140YDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

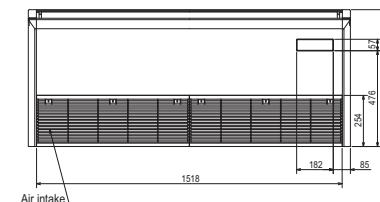
#### PAC-SL16MA-E

M-NET adaptor for size 100 to 140

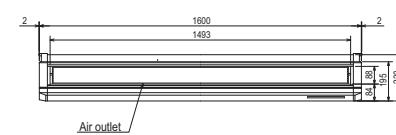
## Product Dimensions

### PCA-M100/125/140KA2

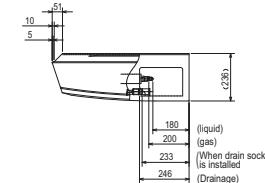
Lower View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Standard Inverter Heat Pump (Single Phase)



The cost effective **PCA-M Standard Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering advanced control options and quiet operation, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features (size 100-140)
- PAR-41MAA controller allows effective energy consumption monitoring
- 14°C set point option; ideal for applications where a specialist ambient condition is required (size 100-140; requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (size 100-140; requires PAR-41MAA controller)

**R32**

PCA-M - INDOOR UNITS	PCA-M50KA2	PCA-M60KA2	PCA-M71KA2	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2
CAPACITY (kW)	Heating (nominal) 5.0 (1.5-7.2) Cooling (nominal) 5.0 (1.5-5.6) Heating (UK) 5.10 (1.28-6.12) Cooling (UK) 4.60 (1.38-5.15)	6.0 (1.5-7.2) 7.0 (1.6-8.0) 6.1 (1.6-6.3) 5.95 (1.36-6.80) 5.61 (1.47-5.80)	8.0 (2.0-10.2) 7.1 (2.2-8.1) 6.80 (1.70-8.67)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41-10.75)	13.5 (4.1-15.0) 12.1 (5.7-13.0) 11.61 (3.53-12.90)	15.0 (4.2-15.8) 13.4 (5.7-14.1) 12.90 (3.61-13.59)
SHF (nominal)	0.79	0.81	0.76	0.77	0.72	0.72
COP / EER (nominal)	3.71 / 3.30	4.00 / 3.70	3.61 / 3.60	3.41 / 3.23	3.41 / 3.01	3.50 / 2.50
SCOP (ηsh) / SEER (ηsc) (BS EN14825)	4.10 / 6.00	4.10 / 6.40	4.10 / 6.50	4.10 / 6.00	4.1 (162.7%) / 5.2 (213%)	4.0 (158.7%) / 5.1 (208%)
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A+	A+ / A++	A+ / A++	A+ / A+	A+ / A	A+ / A
AIRFLOW (l/s)	Lo-M1-Mi2-Hi 167-183-217-250	250-267-283-317	267-283-300-333	367-400-433-467	383-417-450-483	400-433-483-533
PIPE SIZE mm (in)	Gas/Liquid 12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 6.35 (1/4")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-M1-Mi2-Hi 32-34-37-40	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45	41-43-45-48
SOUND POWER LEVEL (dBA)	60	60	62	63	65	68
DIMENSIONS (mm)	Width x Depth x Height 960 x 680 x 230	1280 x 680 x 230	1280 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)	26	32	32	37	38	40
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B	PAR-SL94B

SUZ-M / PUZ-M - OUTDOOR UNITS	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M125VKA2	PUZ-M140VKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 48 / 49	49 / 51	49 / 51	51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling 64	65	66	70	72	73
WEIGHT (kg)	41	54	55	76	84	84
DIMENSIONS (mm)	Width x Depth x Height 800 x 285 x 714	840 x 330 x 880	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 1.61 / 1.51	1.75 / 1.64	2.21 / 1.97	3.28 / 2.94	3.95 / 4.01	4.28 / 5.36
	Heating/Cooling (UK) 1.37 / 1.30	1.49 / 1.41	1.88 / 1.69	2.95 / 2.44	3.56 / 3.33	3.85 / 4.45
STARTING CURRENT (A)	5.7	7.6	10.0	7.1	2.9	2.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]	14.2 / 12.6 [20.0]	17.0 / 17.3 [26.5]	18.4 / 23.2 [30.0]
FUSE RATING (BS88) - HRC (A)	20	20	20	32	32	40
MAINS CABLE No. Cores	3	3	3	3	3	3
MAX PIPE LENGTH (m)	30	30	30	55	65	65
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.20 / 0.81 (7m)	1.25 / 0.84 (7m)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675)	1.66 / 1.12	1.71 / 1.15	2.37 / 1.80	4.10 / 2.77	5.00 / 3.38

Note: Duty/standby not available on SUZ-M50/60/71VAR2/1.

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

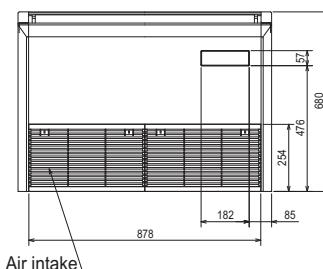
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

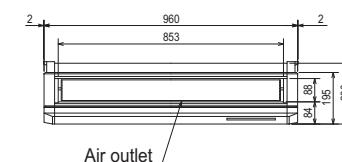
## Product Dimensions

### PCA-M50KA2

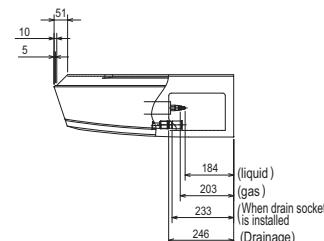
Lower View



Front View



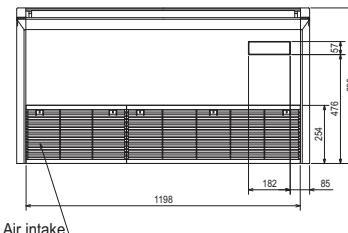
Side View



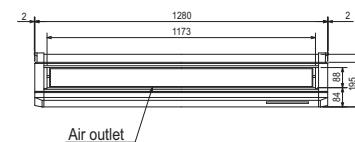
## Product Dimensions

### PCA-M60/71KA2

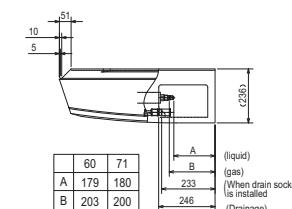
Lower View



Front View



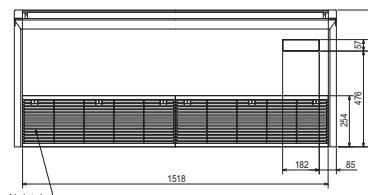
Side View



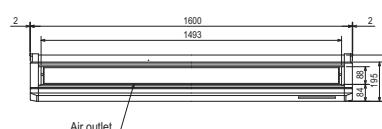
## Product Dimensions

### PCA-M100/125/140KA2

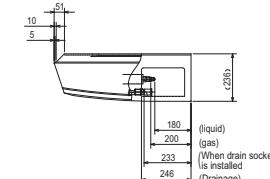
Lower View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PCA-M R32 Ceiling Suspended System

## Standard Inverter Heat Pump (Three Phase)



The cost effective **PCA-M Standard Inverter** range is a ceiling suspended system that blends a host of outstanding features with a sophisticated streamlined design. Offering advanced control options and quiet operation, this range is an extremely flexible solution for commercial applications.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- PAR-41MAA controller allows effective energy consumption monitoring
- 14°C set point option; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- High / Low ceiling height modes
- Flush to wall installation for concealment of service connections
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)

**R32**

PCA-M - INDOOR UNITS	PCA-M100KA2	PCA-M125KA2	PCA-M140KA2	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	11.2 (2.8-12.5) 9.5 (4.0-10.6) 9.63 (2.41-10.75) 8.65 (3.64-9.65)	13.5 (4.1-15.0) 12.1 (5.7-13.0) 11.61 (3.53-12.90) 11.01 (5.19-11.83)	15.0 (4.2-15.8) 13.4 (5.7-14.1) 12.90 (3.61-13.59) 12.19 (5.19-12.83)
SHF (nominal)	0.77	0.72	0.72	
COP / EER (nominal)	3.41 / 3.23	3.41 / 3.01	3.50 / 2.50	
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.10 / 6.00	4.10 (162.7%) / 5.20 (213%)	4.00 (158.7%) / 5.10 (208%)	
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A+	A+ / A	A+ / A	
AIRFLOW (l/s)	Lo-Mi1-Mi2-Hi 367-400-433-467	383-417-450-483	400-433-483-533	
PIPE SIZE mm (in)	Gas/Liquid 15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi1-Mi2-Hi 37-39-41-43	39-41-43-45	41-43-45-48	
SOUND POWER LEVEL (dBA)	63	65	68	
DIMENSIONS (mm)	Width x Depth x Height 1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	
WEIGHT (kg)	37	38	40	
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	
FUSE RATING (BS88) - HRC (A)	6	6	6	
INTERCONNECTING CABLE No. Cores	4	4	4	
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	
WIRELESS REMOTE CONTROLLER REFERENCE	PAR-SL94B	PAR-SL94B	PAR-SL94B	

PUZ-M - OUTDOOR UNITS	PUZ-M100YKA2	③ PUZ-M125YKA2	③ PUZ-M140YKA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 51 / 54	54 / 56	55 / 57
SOUND POWER LEVEL (dBA)	Cooling 70	72	73
WEIGHT (kg)	76	84	84
DIMENSIONS (mm)	Width x Depth x Height 1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE	Three	Three	Three
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) 3.28 / 2.94 Heating/Cooling (UK) 2.95 / 2.44	3.95 / 4.01 3.56 / 3.33	4.28 / 5.36 3.85 / 4.45
STARTING CURRENT (A)	3.5	4.9	4.9
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX] 5.1 / 4.5 [11.5]	6.1 / 6.2 [11.5]	6.6 / 8.3 [11.5]
FUSE RATING (BS88) - HRC (A)	16	16	16
MAINS CABLE No. Cores	5	5	5
MAX PIPE LENGTH (m)	55	65	65
MAX HEIGHT DIFFERENCE (m)	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 30m 3.10 / 2.09	3.60 / 2.43	3.60 / 2.43
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) 4.10 / 2.77	5.00 / 3.38	5.00 / 3.38

③ Three Phase

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M100-140KA2

### Outdoor Units

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

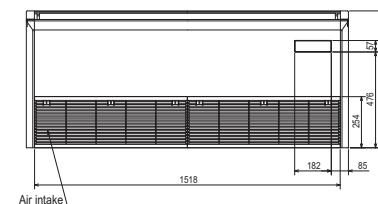
#### PAC-SJ95MA

M-NET adaptor for size 100 to 140

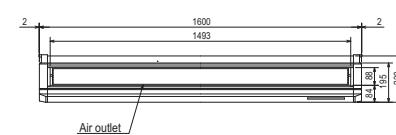
## Product Dimensions

### PCA-M100/125/140KA2

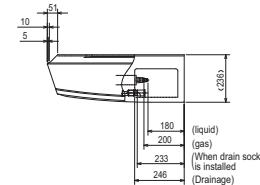
Lower View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PCA-M-HA2 R32 Stainless Steel Ceiling Suspended System

## Power Inverter Heat Pump (Single Phase)



The **PCA-M-HA2 Power Inverter** is a ceiling suspended system that is ideal for use in commercial kitchen and cafeteria applications. The external casing is made of durable stainless steel that is resistant to oil and smoke, ensuring that the unit can be easily cleaned. Our Power Inverter Heat Pump offers customers high seasonal efficiency, advanced control options and quiet operation, whilst providing greater flexibility and ease of installation.

### Key Features & Benefits

- Increased comfort levels through advanced airflow and smart defrost features
- Energy monitoring & 14°C set point option as standard; ideal for applications where a specialist ambient condition is required (requires PAR-41MAA controller)
- 'Backup and rotate' feature to reduce load on individual units and prolong product life (requires PAR-41MAA controller)
- Easy maintenance and cleaning - fan casing can be separated into different sections and pipe connector removed to allow access to drain pan
- High performance oil mist filter for kitchen applications



PCA-M-HA2 - INDOOR UNIT		PCA-M71HA2
CAPACITY (kW)	Heating (nominal) Cooling (nominal) Heating (UK) Cooling (UK)	7.6 (3.5-10.2) 7.1 (3.3-8.1) 6.8 (3.0-8.65) 6.55 (3.05-7.45)
SHF (nominal)		0.74
COP / EER (nominal)		3.50 / 3.51
SCOP / SEER		3.90 / 5.60
ENERGY EFFICIENCY CLASS	Heating/Cooling	A / A+
AIRFLOW (l/s)	Lo-Hi	267-300
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Lo-Hi	37-39
SOUND POWER LEVEL (dBA)		57
DIMENSIONS (mm)	Width x Depth x Height	1136 x 650 x 280
WEIGHT (kg)		42
ELECTRICAL SUPPLY		Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)		6
INTERCONNECTING CABLE No. Cores		4
WIRED REMOTE CONTROLLER REFERENCE		PAR-41MAA
WIRELESS REMOTE CONTROLLER REFERENCE		PAR-SL94B
PUZ-ZM - OUTDOOR UNIT		PUZ-ZM71VHA2
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling	49 / 47
SOUND POWER LEVEL (dBA)	Cooling	67
WEIGHT (kg)		67
DIMENSIONS (mm)	Width x Depth x Height	950 x 330 + 30 x 943
ELECTRICAL SUPPLY		220-240v, 50Hz
PHASE		Single
SYSTEM POWER INPUT (kW)	Heating/Cooling (nominal) Heating/Cooling (UK)	1.82 / 1.65 1.69 / 1.39
STARTING CURRENT (A)		5.3
SYSTEM RUNNING CURRENT (A)	Heating/Cooling [MAX]	7.5 / 6.7 [19.4]
FUSE RATING (BS88) - HRC (A)		25
MAINS CABLE No. Cores		3
MAX PIPE LENGTH (m)		55
MAX HEIGHT DIFFERENCE (m)		30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)		2.80 / 1.89
R32 (GWP 675) - 30m		
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)		0.80 / 0.54
R32 (GWP 675)		

## Accessories

### Indoor Units

#### PAR-SL94B

Wireless remote controller and adaptor for PCA-M71HA2

#### PAC-SG38KF

Oil mist filter for PCA-M71HA2 (12 pack)

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

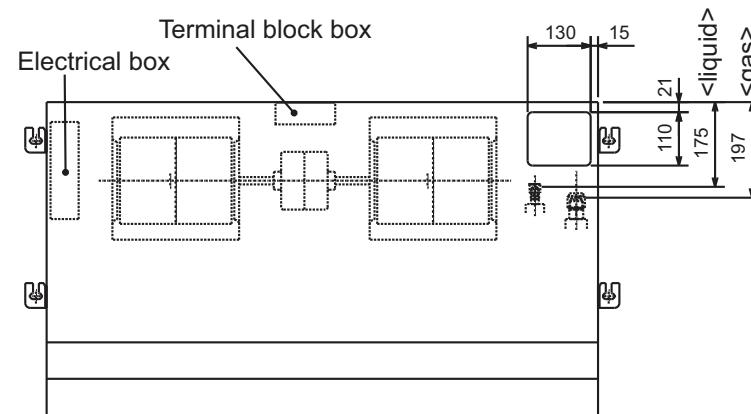
#### PAC-SJ95MA

M-NET adaptor for size 71

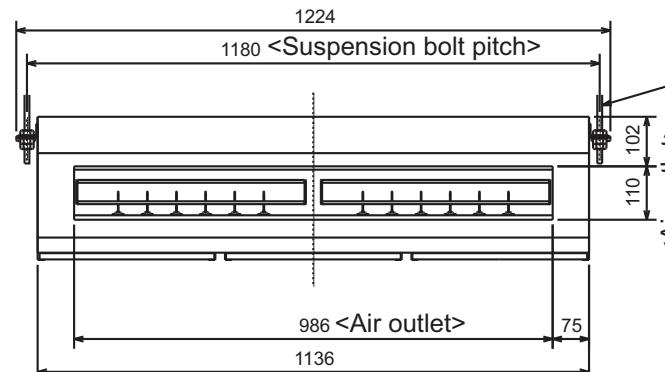
## Product Dimensions

### PCA-M71HA2

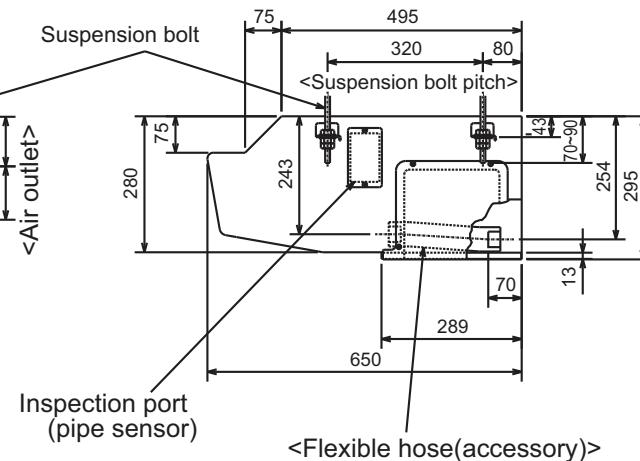
Upper View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PSA-M R32 Floor Standing System

## Power Inverter Heat Pump



The **PSA-M Power Inverter** range is a floor standing system that blends a host of outstanding features with a sophisticated streamlined design. Offering high seasonal efficiency, advanced control options and quiet operation, this range allows installation where limited ceiling space is available.

### Key Features & Benefits

- Built in PAR-41MAA controller allows effective energy consumption monitoring
- Increased comfort levels through advanced airflow and smart defrost features
- 100m pipe run (size 100-140), increasing application capability
- 14°C set point option; ideal for applications where a specialist ambient condition is required
- Quick and easy installation, saving on time and cost
- Compact body and minimal footprint - ideal for applications where space-saving is a requirement

**R32**

PSA-M - INDOOR UNITS	PSA-M71KA	PSA-M100KA	PSA-M100KA	PSA-M125KA	PSA-M125KA	PSA-M140KA	PSA-M140KA
CAPACITY (kW)							
Heating (nominal)	7.6 (3.5-10.2)	11.2 (2.7-14.0)	11.2 (2.7-14.0)	14.0 (3.2-16.0)	14.0 (3.2-16.0)	16.0 (3.7-18.0)	16.0 (3.7-18.0)
Cooling (nominal)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	9.5 (4.9-11.4)	12.5 (5.1-14.0)	12.5 (5.1-14.0)	13.4 (5.4-15.0)	13.4 (5.4-15.0)
Heating (UK)	6.45 (3.0-8.65)	8.06 (1.94-10.08)	8.06 (1.94-10.08)	10.08 (2.30-11.52)	10.08 (2.30-11.52)	11.52 (2.66-12.96)	11.52 (2.66-12.96)
Cooling (UK)	6.55 (3.05-7.45)	8.74 (4.51-10.49)	8.74 (4.51-10.49)	11.50 (4.69-12.88)	11.50 (4.69-12.88)	12.33 (4.97-13.80)	12.33 (4.97-13.80)
SHF (nominal)	0.79	0.73	0.73	0.72	0.72	0.71	0.71
COP / EER (nominal)	3.25 / 3.76	3.40 / 3.81	3.40 / 3.81	2.90 / 3.00	2.90 / 3.00	3.00 / 3.37	3.00 / 3.37
SCOP (r <sub>sh</sub> ) / SEER (nsc) (BS EN14825)	4.00 (157.8%) / 6.40 (266.2%)	4.10 / 5.70	4.10 / 5.60	3.93 (154.3%) / 5.40 (213.0%)	3.93 (154.2%) / 5.37 (211.9%)	4.06 (159.3%) / 6.34 (250.6%)	4.06 (159.3%) / 6.33 (250.0%)
ErP ENERGY EFFICIENCY CLASS Heating/Cooling	A+ / A++	A+ / A+	A+ / A+	-	-	-	-
AIRFLOW (l/s)	Lo-Mi-Hi	333-367-400	417-467-500	417-467-500	417-467-517	417-467-517	417-467-517
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA) Lo-Mi-Hi	40-42-44	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51
SOUND POWER LEVEL (dBA)	60	65	65	66	66	66	66
DIMENSIONS (mm)	Width x Depth x Height	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900	600 x 360 x 1900
WEIGHT (kg)	Unit / Panel	46	46	46	46	48	48
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

PUZ-ZM - OUTDOOR UNITS	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM100YDA <sup>(3)</sup>	PUZ-ZM125VDA	PUZ-ZM125YDA <sup>(3)</sup>	PUZ-ZM140VDA	PUZ-ZM140YDA <sup>(3)</sup>
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	49 / 47	48 / 44	48 / 44	50 / 47	50 / 47	51 / 49	51 / 49
SOUND POWER LEVEL (dBA) Cooling	67	63	63	66	66	68	68
WEIGHT (kg)	67	107	114	107	116	107	121
DIMENSIONS (mm)	Width x Depth x Height	950 x 330 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Three	Single	Three	Single	Three
SYSTEM POWER	Heating/Cooling (nominal)	2.338 / 1.888	3.295 / 2.494	3.295 / 2.494	4.828 / 4.167	4.828 / 4.167	5.334 / 3.977
INPUT (kW)	Heating/Cooling (UK)	2.08 / 1.60	2.70 / 2.12	2.70 / 2.12	3.96 / 3.54	3.96 / 3.54	4.37 / 3.38
STARTING CURRENT (A)		5.3	11.9	3.5	11.9	3.5	11.9
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]	9.05 / 6.96 [19.4]	15.24 / 11.54 [27.2]	5.06 / 3.83 [8.7]	22.33 / 19.27 [27.2]	7.41 / 6.40 [9.7]	24.67 / 18.40 [30.7]	8.19 / 6.11 [9.7]
FUSE RATING (BS88) - HRC (A)	25	32	16	32	16	40	16
MAINS CABLE No. Cores	3	3	5	3	5	3	3
MAX PIPE LENGTH (m)	55	100	100	100	100	100	100
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62

<sup>(3)</sup> Three Phase Note: Includes built in PAR-41MAA wired remote controller.

## Accessories

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VHA2

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM100-140VDA/YDA

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

#### PAC-SJ95MA

M-NET adaptor for size 71

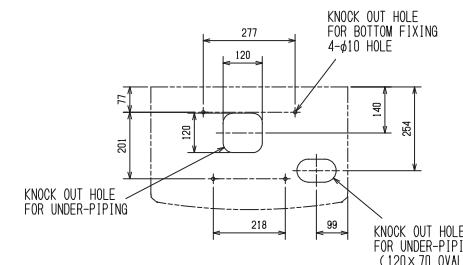
#### PAC-SL16MA-E

M-NET Adaptor for size 100 to 140

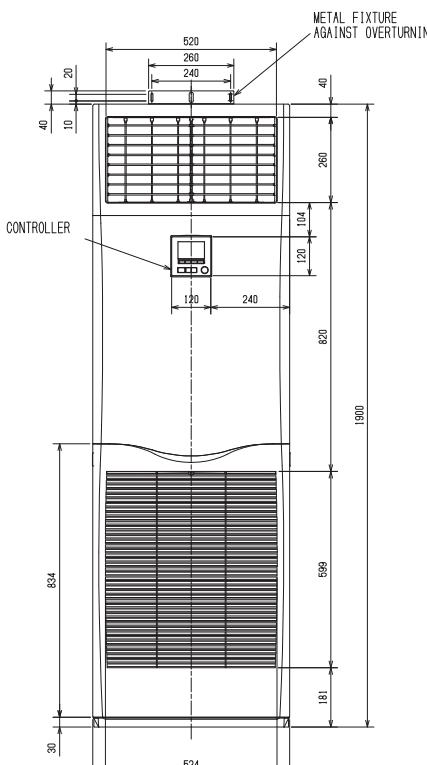
## Product Dimensions

### PSA-M71/100/125/140KA

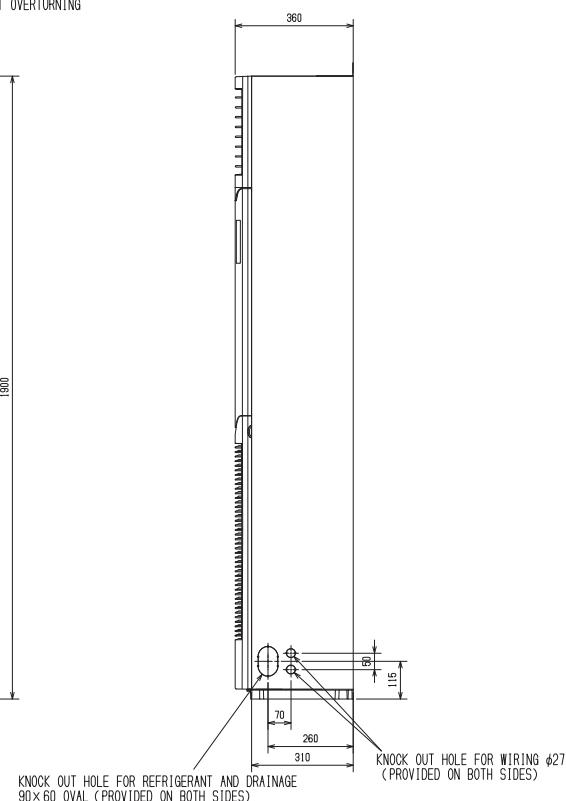
Upper View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# PSA-M R32 Floor Standing System

## Standard Inverter Heat Pump



The cost-effective **PSA-M Standard Inverter** range is a floor standing system that blends a host of outstanding features with a sophisticated streamlined design. Offering advanced control options and quiet operation, this range allows installation where limited ceiling space is available

### Key Features & Benefits

- Built in PAR-41MAA controller allows effective energy consumption monitoring
- Increased comfort levels through advanced airflow and smart defrost features
- 14°C set point option; ideal for applications where a specialist ambient condition is required
- Quick and easy installation, saving on time and cost
- Compact body and minimal footprint - ideal for applications where space-saving is a requirement
- In-built leak detection

**R32**

PSA-M - INDOOR UNITS	PSA-M71KA	PSA-M100KA	PSA-M100KA	PSA-M125KA	PSA-M125KA	PSA-M140KA	PSA-M140KA
CAPACITY (kW)							
Heating (nominal)	8.0 (2.1-10.2)	11.2 (2.8-12.5)	11.2 (2.8-12.5)	13.5 (4.8-15.0)	13.5 (4.8-15.0)	15.0 (4.9-15.8)	15.0 (4.9-15.8)
Cooling (nominal)	7.1 (2.2-8.1)	9.4 (3.7-10.6)	9.4 (3.7-10.6)	12.1 (5.6-13.0)	12.1 (5.6-13.0)	13.6 (5.8-13.7)	13.6 (5.8-13.7)
Heating (UK)	6.8 (1.8-8.65)	9.5 (2.4-10.65)	9.5 (2.4-10.65)	11.5 (4.1-12.75)	11.5 (4.1-12.75)	12.75 (4.15-13.45)	12.75 (4.15-13.45)
Cooling (UK)	6.55 (2.0-7.45)	8.65 (3.4-9.75)	8.65 (3.4-9.75)	11.15 (5.15-11.95)	11.15 (5.15-11.95)	12.5 (5.35-12.6)	12.5 (5.35-12.6)
SHF (nominal)	0.79	0.73	0.73	0.72	0.72	0.71	0.71
COP / EER (nominal)	3.25 / 3.76	3.53 / 3.81	3.53 / 3.81	3.11 / 3.16	3.11 / 3.16	3.20 / 3.37	3.20 / 3.37
SCOP (rsh) / SEER (nsc) (BS EN14825)	4.0 (157.8%) / 6.4 (266.2%)	4.1 (161.3%) / 5.7 (234.6%)	4.1 (161.3%) / 5.6 (232.9%)	3.9 (153.1%) / 5.2 (212.0%)	3.9 (153.0%) / 5.1 (210.9%)	4.0 (158.1%) / 6.1 (249.1%)	4.0 (158.1%) / 6.0 (247.8%)
ErP ENERGY EFFICIENCY CLASS Heating/Cooling	A+ / A++	A+ / A+	A+ / A+	A / A	A / A	A+ / A++	A+ / A+
AIRFLOW (l/s)	Lo-Mi-Hi	333-367-400	417-467-500	417-467-500	417-467-517	417-467-517	417-467-517
PIPE SIZE mm (in)	Gas/Liquid	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")	15.88 (5/8") / 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA) Lo-Mi-Hi	40-42-44	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51	45-49-51
SOUND POWER LEVEL (dBA)	60	65	65	66	66	66	66
DIMENSIONS (mm)	Width x Depth x Height	600 x 360 x 1900					
WEIGHT (kg)	Unit / Panel	46	46	46	46	48	48
ELECTRICAL SUPPLY	Fed by Outdoor Unit						
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA						

SUZ-M / PUZ-M - OUTDOOR UNITS	SUZ-M71VAR1	PUZ-M100VKA2	PUZ-M100YKA2 <sup>(3)</sup>	PUZ-M125VKA2	PUZ-M125YKA2 <sup>(3)</sup>	PUZ-M140VKA2	PUZ-M140YKA2 <sup>(3)</sup>
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	49 / 51	51 / 54	51 / 54	54 / 56	54 / 56	55 / 57	55 / 57
SOUND POWER LEVEL (dBA) Cooling	66	70	70	72	72	73	73
WEIGHT (kg)	56	76	78	84	85	84	85
DIMENSIONS (mm)	Width x Depth x Height	840 x 330 x 880	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981	1050 x 330 x 981
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE	Single	Single	Three	Single	Three	Single	Three
SYSTEM POWER	Heating/Cooling (nominal)	2.105 / 2.028	3.01 / 2.71	3.01 / 2.71	3.63 / 4.01	3.63 / 4.01	4.39 / 4.96
INPUT (kW)	Heating/Cooling (UK)	1.87 / 1.72	2.35 / 2.47	2.71 / 2.50	3.27 / 3.33	3.27 / 3.33	3.59 / 4.12
STARTING CURRENT (A)		9.5	13.0	4.7	17.4	6.3	21.5
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]		8.15 / 7.47 [16.7]	13.0 / 11.7 [20]	4.7 / 4.2 [11.5]	15.6 / 17.4 [26.5]	5.6 / 6.3 [11.5]	19.0 / 21.5 [30]
FUSE RATING (BS88) - HRC (A)		20	32	16	32	16	40
MAINS CABLE No. Cores		3	3	5	3	5	3
MAX PIPE LENGTH (m)		30	55	55	65	65	65
MAX HEIGHT DIFFERENCE (m)		30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	1.45 / 0.98 (7m)	3.10 / 2.09 (30m)	3.10 / 2.09 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)	3.60 / 2.43 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.37 / 1.80	4.10 / 2.77	4.10 / 2.77	5.00 / 3.38	5.00 / 3.38	5.00 / 3.38

<sup>(3)</sup> Three Phase Note: Includes built in PAR-41MAA wired remote controller.

## Accessories

### Outdoor Units

#### MAC-886SG

Air outlet guide for SUZ-M71VAR1

#### PAC-SH96SG

Air outlet guide for PUZ-M100-140VKA2/YKA2

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

#### MELCORETAIL MINI

Retail control and input / output interface

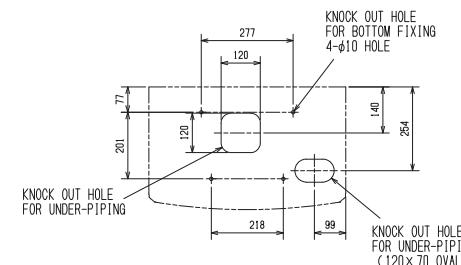
#### PAC-SJ95MA

M-NET adaptor for size 71 to 140

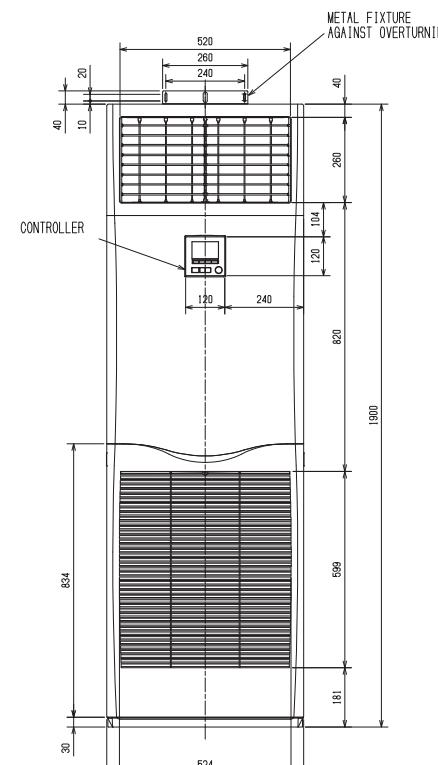
## Product Dimensions

### PSA-M71/100/125/140KA

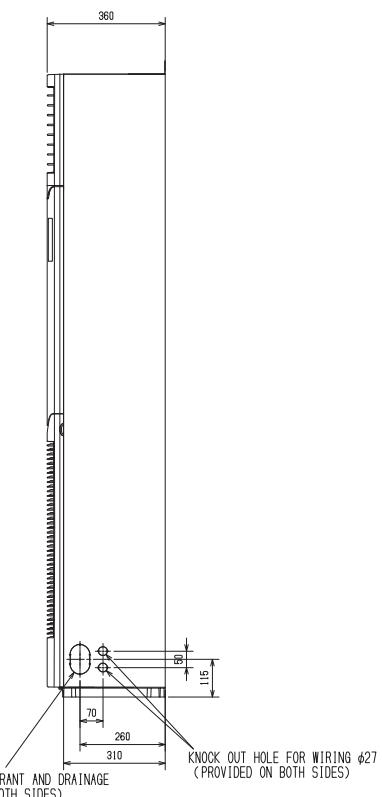
Upper View



Front View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# SFZ-M R32 Floor Mounted System

## Standard Inverter Heat Pump (Single Phase)

The **SFZ-M** is a compact concealed unit providing simple, effective air conditioning for perimeter zones in offices, restaurants and retail premises. The unit is easy to install and with a depth of only 200mm, offers an unobtrusive method of delivering highly efficient air conditioning performance.

### Key Features & Benefits

- Compact unit allowing for concealed installation
- Low static pressure level resulting in noise reduction
- Ideal for perimeter refurbishments and new build projects
- 0-25-40-60Pa static pressure settings available, for flexibility of design and installation



SFZ-M - INDOOR UNITS	SFZ-M25VA	SFZ-M35VA	SFZ-M50VA	SFZ-M60VA	SFZ-M71VA
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	3.2 (1.2-4.2) 2.5 (1.5-3.2)	4.1 (1.0-5.0) 3.5 (0.7-3.9)	6.0 (1.5-7.2) 5.0 (1.1-5.6)	7.0 (1.6-8.0) 6.1 (1.6-6.3)
	Heating (UK) Cooling (UK)	2.47 (1.11-3.57) 2.30 (1.29-2.94)	3.57 (0.94-4.25) 3.22 (0.64-3.59)	5.10 (1.28-6.12) 4.60 (1.01-5.15)	6.29 (1.36-6.80) 5.61 (1.47-5.80)
SHF (nominal)		0.84	0.78	0.76	0.75
COP / EER (nominal)		3.61 / 3.90	3.90 / 3.50	3.71 / 3.40	3.71 / 3.30
SCOP / SEER (BS EN14825)		4.00 / 6.10	4.10 / 6.10	4.20 / 6.10	4.00 / 6.10
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling	A+ / A++	A+ / A++	A+ / A++	A+ / A++
AIRFLOW (l/s)	Lo-Mi-Hi	92-117-150	117-150-183	167-208-250	200-250-300
PIPE SIZE mm (in)	Gas Liquid	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")	15.88 (5/8") 6.35 (1/4")
EXTERNAL STATIC PRESSURE (Pa)	0-25-40-60	0-25-40-60	0-25-40-60	0-25-40-60	0-25-40-60
SOUND PRESSURE LEVEL (dBA) Lo-Mi-Hi	25-29-35	25-29-33	30-35-39	30-35-39	30-36-42
SOUND POWER LEVEL (dBA)	54	53	59	59	61
DIMENSIONS (mm)	Width x Depth x Height	700 x 200 x 615	900 x 200 x 615	900 x 200 x 615	1100 x 200 x 615
WEIGHT (kg)		19	22.5	22.5	26
ELECTRICAL SUPPLY	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit	Fed by Outdoor Unit
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6
INTERCONNECTING CABLE No. Cores	4	4	4	4	4
WIRED REMOTE CONTROLLER REFERENCE	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

SUZ-M - OUTDOOR UNITS	SUZ-M25VAR2	SUZ-M35VAR2	SUZ-M50VAR2	SUZ-M60VAR2	SUZ-M71VAR1
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	45 / 46	48 / 48	48 / 49	49 / 51	49 / 51
SOUND POWER LEVEL (dBA) Heating/Cooling	59	59	64	65	66
WEIGHT (kg)	30	35	41	54	55
DIMENSIONS (mm) Width x Depth x Height	800 x 285 x 550	800 x 285 x 550	800 x 285 x 714	840 x 330 x 880	840 x 330 x 880
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single
SYSTEM POWER Heating/Cooling (nominal)	0.886 / 0.641	1.051 / 1.00	1.617 / 1.47	1.886 / 1.848	2.156 / 2.151
INPUT (kW) Heating/Cooling (UK)	0.75 / 0.55	0.89 / 0.86	1.37 / 1.26	1.60 / 1.59	1.83 / 1.85
STARTING CURRENT (A)	3.1	5.0	5.7	7.6	10.0
SYSTEM RUNNING CURRENT (A) Heating/Cooling [MAX]	3.7 / 3.0 [6.8]	5.0 / 4.1 [8.5]	8.0 / 7.1 [13.5]	9.3 / 8.4 [14.8]	9.5 / 9.1 [14.8]
FUSE RATING (BS88) - HRC (A)	10	16	20	20	20
MAINS CABLE No. Cores	3	3	3	3	3
MAX PIPE LENGTH (m)	20	20	30	30	30
MAX HEIGHT DIFFERENCE (m)	12	12	30	30	30
CHARGE REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) - 7m 0.65 / 0.44	0.90 / 0.61	1.20 / 0.81	1.25 / 0.84	1.45 / 0.98
MAX ADDITIONAL REFRIGERANT (KG) / CO <sub>2</sub> EQUIVALENT (T)	R32 (GWP 675) 0.91 / 0.61	1.16 / 0.78	1.66 / 1.12	1.71 / 1.15	2.37 / 1.60

## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for SUZ-M25-35VAR2

#### MAC-882SG

Air outlet guide for SUZ-M50VAR2

#### MAC-886SG

Air outlet guide for SUZ-M60VAR2 / SUZ-M71VAR1

### System Control Units

#### PAC-SA89TA

Remote on/off adaptor (3 wire adaptor)

#### PAC-SA88HA

Run/fault adaptor (5 wire adaptor)

#### PAC-SE41TS-E

Remote sensor

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB=Premium Finish)

#### PAR-41MAA

Standard wired remote controller

#### PAR-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

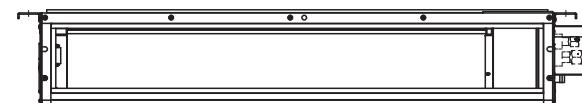
#### MELCORETAIL MINI

Retail control and input / output interface

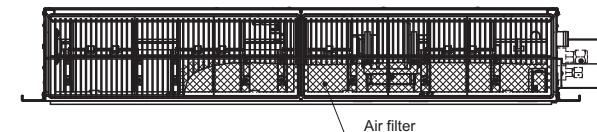
## Product Dimensions

### SFZ-M25/35/50/60/71VA

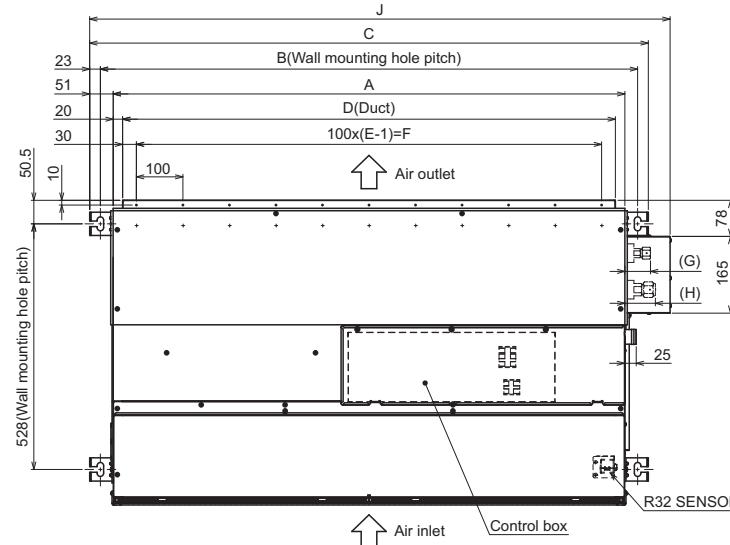
Upper View



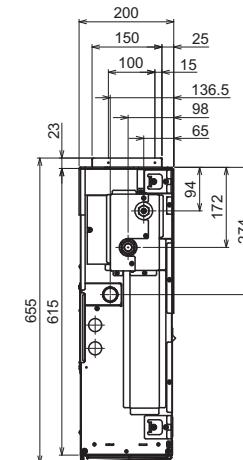
Lower View



Front View



Side View



MODEL	A	B	C	D	E	F	G	H	J
SFZ-M25VA	700	756	802	660	7	600	50	55	848
SFZ-M35VA	900	956	1002	860	9	800	50	55	1048
SFZ-M50VA	900	956	1002	860	9	800	50	61	1048
SFZ-M60VA	1100	1156	1202	1060	11	1000	50	66	1248
SFZ-M71VA	1100	1156	1202	1060	11	1000	55	66	1248

Note: Please see page 1.3.66 for the full range of accessories.

# HP DX 2.0 R32 Air Curtain System

## Power Inverter Heat Pump



The **HP DX 2.0 Power Inverter** air curtain range is the latest innovation from the collaboration between Mitsubishi Electric and Thermoscreens. These innovative air curtains are available as exposed or recessed versions, giving exceptional flexibility for commercial overdoor applications such as retail stores, office and hotel lobbies.

### Key Features & Benefits

- Helps our customers meet their corporate social responsibility targets by using lower GWP R32 refrigerant
- Lower run costs and carbon emissions achieved with connection to flagship Mr Slim Power Inverter high efficiency outdoor units
- Large / double door openings are supported through twin-split air curtain capability

**R32**

HP DX 2.0 - RECESSED	HP1000R DX 2.0	HP1500R DX 2.0	HP1500R DX 2.0	HP2000R DX 2.0	HP2000R DX 2.0	HP2000R DX 2.0
CAPACITY (kW)	Heating (nominal) 8.3 Cooling (nominal) 7.4	13.2 11.8 364	13.2 11.8 575	15.7 14.0 720	15.7 14.0 720	21.0 18.7
AIRFLOW MAX (l/s)	47-54-57	45-52-56	45-52-56	47-54-57	47-54-57	47-54-57
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi1-Hi	52	75	75	93	93	93
WEIGHT (kg)	52	75	75	93	93	93
DIMENSIONS (mm)	Width x Depth x Height 1250 (1303) x 485 (539) x 348	1750 (1803) x 485 (539) x 348	1750 (1803) x 485 (539) x 348	2340 (2393) x 485 (539) x 348	2340 (2393) x 485 (539) x 348	2340 (2393) x 485 (539) x 348
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)	0.8	1.2	1.2	1.4	1.4	1.4
MAINS CABLE No. Cores	3	3	3	3	3	3
UNIFORMITY AT OUTLET (%) <sup>*</sup>	90	92	92	90	90	90
MAX MOUNTING HEIGHT (m)	3.2	3.2	3.2	3.2	3.2	3.2

HP DX 2.0 - FREE STANDING	HP1000 DX 2.0	HP1500 DX 2.0	HP1500 DX 2.0	HP2000 DX 2.0	HP2000 DX 2.0	HP2000 DX 2.0
CAPACITY (kW)	Heating (nominal) 8.3 Cooling (nominal) 7.4	13.2 11.8 364	13.2 11.8 575	15.7 14.0 720	15.7 14.0 720	21.0 18.7
AIRFLOW MAX (l/s)	47-54-57	45-52-56	45-52-56	47-54-57	47-54-57	47-54-57
SOUND PRESSURE LEVEL AT 3m (dBA) Lo-Mi1-Hi	52	67	67	84	84	84
WEIGHT (kg)	46	67	67	84	84	84
DIMENSIONS (mm)	Width x Depth x Height 1300 x 468 x 306	1825 x 468 x 306	1825 x 468 x 306	2350 x 468 x 306	2350 x 468 x 306	2350 x 468 x 306
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)	0.8	1.2	1.2	1.4	1.4	1.4
MAINS CABLE No. Cores	3	3	3	3	3	3
UNIFORMITY AT OUTLET (%) <sup>*</sup>	90	92	92	90	90	90
MAX MOUNTING HEIGHT (m)	3.2	3.2	3.2	3.2	3.2	3.2

HEAT PUMP OUTDOOR UNITS	PUZ-ZM1VHA2	PUZ-ZM125VDA	PUZ-ZM125YDA <sup>(3)</sup>	PUZ-ZM140VDA	PUZ-ZM140YDA <sup>(3)</sup>	PUZ-ZM200YKA2 <sup>(3)</sup>
SOUND PRESSURE LEVEL (dBA) Heating/Cooling	49 / 47	50 / 47	50 / 47	51 / 49	51 / 49	62 / 59
SOUND POWER LEVEL (dBA) Cooling	67	66	66	68	68	77
WEIGHT (kg)	67	107	116	107	121	137
DIMENSIONS (mm)	Width x Depth x Height 950 x 330 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870	1050 x 330 + 40 x 1338
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE	Single	Single	Three	Single	Three	Three
STARTING CURRENT (A)	5.3	11.9	3.5	11.9	3.5	5.0
SYSTEM RUNNING CURRENT (A)	7.79 / 7.06 [19.3]	15.23 / 14.57 [26.5]	5.23 / 5.16 [9.0]	17.72 / 15.24 [30.0]	5.93 / 5.21 [9.0]	9.57 / 8.58 [22.5]
FUSE RATING (BS88) - HRC (A)	25	32	16	40	16	25
INTERCONNECTING CABLE	2 Core	2 Core	2 Core	2 Core	2 Core	2 Core
MAX PIPE LENGTH (m)	55	85	85	85	85	85
MAX HEIGHT DIFFERENCE (m)	30	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)	6.3 / 4.25 (30m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R32 (GWP 675)	0.80 / 0.54	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.40 / 1.62	2.20 / 1.49

<sup>(3)</sup> Three Phase      Notes: \*1 Tested to ISO 27327.

## Accessories

### Outdoor Units

#### PAC-SG59SG

Air outlet guide for PUZ-ZM71VHA2

#### PAC-SL12SG-E

Air outlet guide for PUZ-ZM125-140VDA/YDA

### System Control Units

#### PAC-SJ95MA

M-NET adaptor for size 71 and 200

#### PAC-SL16MA-E

M-NET Adaptor for size 100 to 140

#### PAR-41MAA

Standard wired remote controller

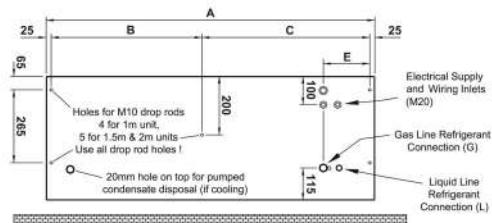
#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

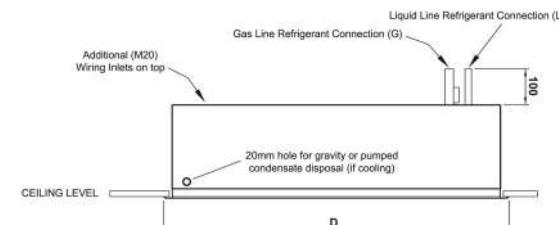
## Product Dimensions

### HP1000/1500/2000R DX 2.0

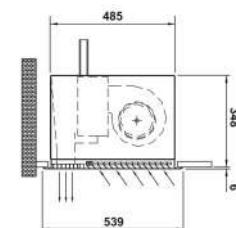
Front View



Upper View



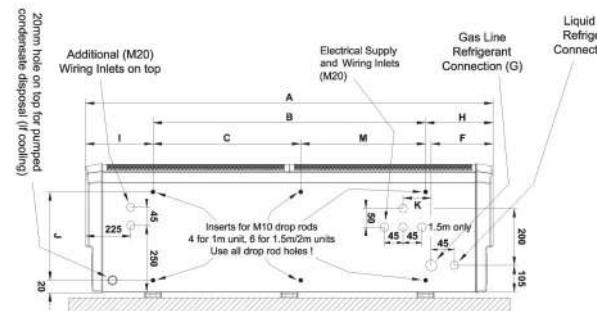
Side View



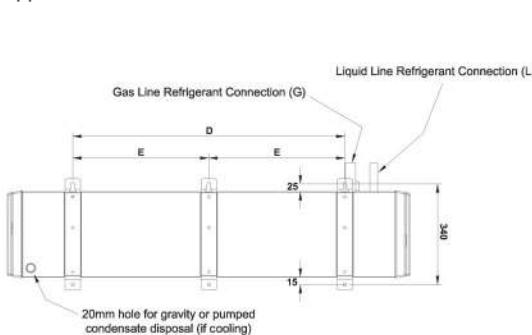
## Product Dimensions

### HP1000/1500/2000 DX 2.0

Front View



Upper View



Side View



Note: Please see page 1.3.66 for the full range of accessories.

# R32 High SHF Combinations



Our **Mr Slim** and **M Series** ranges offer high sensible cooling capacities, advanced control options and increased EER's. This range is ideal for small-scale computer rooms or applications that require a greater degree of sensible cooling.

## Key Features & Benefits

- High sensible heat ratio offers a lower system running cost
- 'Backup and rotate' feature reduces load on individual units and prevents downtime (Mr Slim systems - requires PAR-41MAA controller)
- High off-coil temperature minimises moisture in the air - ideal for applications such as computer rooms
- Flush-to-wall design, for simple installation

**R32**

INDOOR UNITS		MSY-TP35VF	PKA-M50LA2	PKA-M60KA2	MSY-TP50VF	PKA-M71KA2	PCA-M71KA2	PCA-M100KA2	PCA-M125KA2	PCA-M125KA2
CAPACITY (kW)	Cooling (Rated) / Min-Max	3.5 (1.5-4.0)	3.6 (1.6-4.5)	4.6 (2.3-5.6)	5.0 (1.5-5.7)	6.1 (2.7-6.7)	6.1 (2.7-6.7)	7.1 (3.3-8.1)	9.5 (4.9-11.4)	9.5 (4.9-11.4)
SHF (Rated)		0.98	0.86	0.91	0.82	0.90	0.86	0.90	0.86	0.86
EER (Rated)		4.61	4.30	4.10	3.45	4.00	4.10	4.00	4.10	4.10
SEER (BS EN14825)		9.00	6.40	6.60	8.00	6.80	6.50	6.60	6.40	6.30
ErP ENERGY EFFICIENCY CLASS	Cooling	A+++	A++	A++	A+++	A++	A++	A++	A++	A++
AIRFLOW (l/s)	Cooling - (Lo-Mi2-Mi1-Hi)	168-193-228-273	125-137-153-182	300-333-367	168-193-228-273	300-333-367	267-283-300-333	367-400-433-467	383-417-450-483	383-417-450-483
PIPE SIZE mm (in)	Gas	9.52 (3/8")	12.7 (1/2")	12.7 (1/2")	9.52 (3/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	Cooling - (Lo-Mi2-Mi1-Hi)	31-36-40-45	34-37-40-43	39-42-45	31-36-40-45	39-42-45	35-37-39-41	37-39-41-43	39-41-43-45	39-41-43-45
SOUND POWER LEVEL (dBA)		60	60	64	60	64	62	63	65	65
DIMENSIONS (mm)	Width x Depth x Height	923 x 250 x 305	898 x 237 x 299	1170 x 295 x 365	923 x 250 x 305	1170 x 295 x 365	1280 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230	1600 x 680 x 230
WEIGHT (kg)		12.5	12.6	21	12.5	21	32	37	38	38
ELECTRICAL SUPPLY		220-240v, 50Hz	Fed by Outdoor	Fed by Outdoor	220-240v, 50Hz	Fed by Outdoor				
FUSE RATING (BS88) - HRC (A)		10	6	6	10	6	6	6	6	6
INTERCONNECTING CABLE No. Cores		4	4	4	4	4	4	4	4	4
ACCESSORIES	Remote Controller	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA	PAR-41MAA

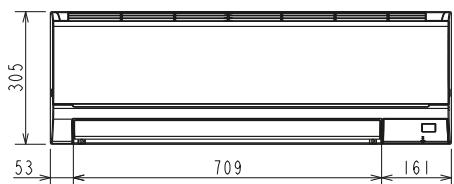
OUTDOOR UNITS		MUY-TP35VF	PUZ-ZM35VKA2	PUZ-ZM50VKA2	MUY-TP50VF	PUZ-ZM60VHA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA	PUZ-ZM100YDA <sup>(3)</sup>
SOUND PRESSURE LEVEL (dBA)	Cooling	45	44	44	47	47	47	47	44	44
SOUND POWER LEVEL (dBA)	Cooling	58	65	65	61	67	67	67	63	63
WEIGHT (kg)		34	46	46	34	67	67	67	107	114
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 300 x 630	800 x 300 x 630	800 x 285 x 550	950 x 300 + 25 x 943	950 x 300 + 25 x 943	950 x 300 + 25 x 943	1100 x 460 + 45 x 870	1100 x 460 + 45 x 870
ELECTRICAL SUPPLY	Fed by Indoor Unit	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	Fed by Indoor Unit	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single	Single	Single	Three
SYSTEM POWER INPUT (kW)	Cooling (Nominal)	0.76	0.837	1.121	1.45	1.525	1.487	1.775	2.318	2.318
STARTING CURRENT (A)		3.6	5	5	6.4	6	6	6	11.9	3.5
SYSTEM RUNNING CURRENT (A)	Cooling [MAX]	3.6 [9.2]	4.31 [13.4]	5.57 [13.4]	6.4 [9.2]	6.65 [19.4]	6.48 [19.4]	7.81 [19.4]	10.06 [27.3]	3.36 [8.8]
FUSE RATING (BS88) - HRC (A)		10	16	16	10	25	25	25	32	16
MAINS CABLE No. Cores		3	3	3	3	3	3	3	3	5
MAX PIPE LENGTH (m)		20	50	50	20	55	55	55	100	100
MAX HEIGHT DIFFERENCE (m)		12	30	30	12	30	30	30	30	30
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R32 (GWP 675)		0.85 / 0.57 (7m)	2.00 / 1.35 (30m)	2.00 / 1.35 (30m)	0.85 / 0.57 (7m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	2.80 / 1.89 (30m)	3.60 / 2.43 (40m)	3.60 / 2.43 (40m)
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (T) R32 (GWP 675)		0.13 / 0.09	0.30 / 0.20	0.30 / 0.20	0.13 / 0.09	0.80 / 0.54	0.80 / 0.54	0.80 / 0.54	0.24 / 1.62	0.24 / 1.62

<sup>(3)</sup> Three Phase

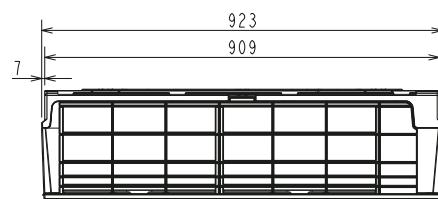
## Product Dimensions

**MSY-TP35/50VF**

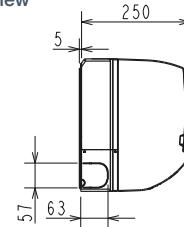
Front View



Upper View



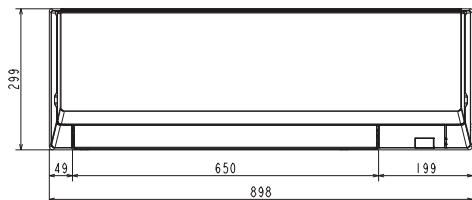
Side View



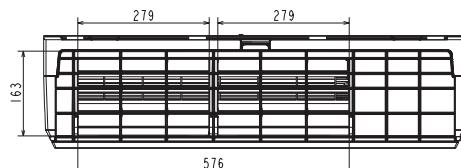
## Product Dimensions

**PKA-M50LA2**

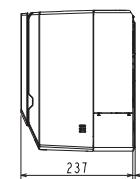
Front View



Upper View



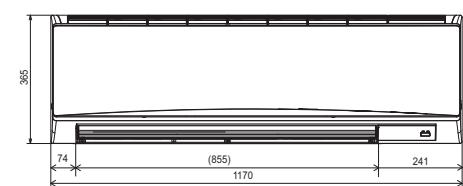
Side View



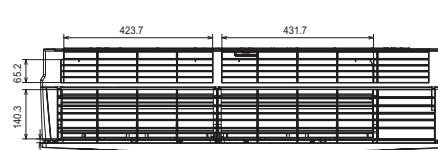
## Product Dimensions

**PKA-M60/71KA2**

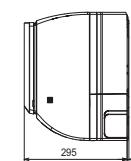
Front View



Upper View



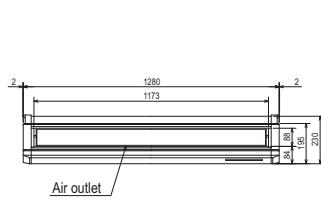
Side View



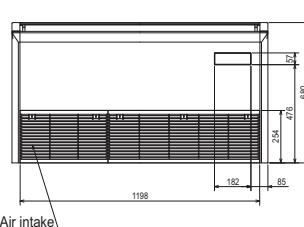
## Product Dimensions

**PCA-M71KA2**

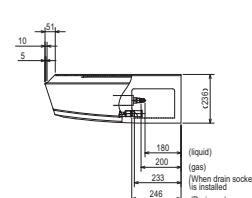
Front View



Upper View



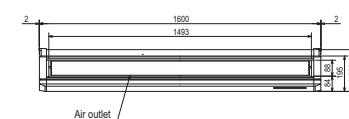
Side View



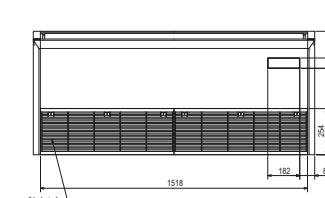
## Product Dimensions

**PCA-M100/125KA2**

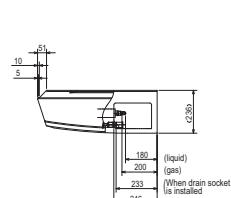
Front View



Upper View



Side View



# PAC-IF013B-E R32 Air Handling Unit Controller



The Air Handling Unit Controller can interface Mitsubishi Electric Mr Slim outdoor units to third party air handing units. Up to six Mr Slim outdoor units can be used on a single air handling unit, providing a wide range of heating and cooling capacities.

## Key Features & Benefits

- Simpler installation with Mr Slim being a single source of heating and cooling
- BEMS external monitoring and control can be achieved through direct Modbus, digital switches or analogue input
- Intelligent Multiple Outdoor Unit Control (IMOUC) of up to six Mr Slim outdoor units when operated in external manual control, this can include two different capacities or a series of Mr Slim outdoor units
- Anti-cycling measures incorporated into the design to extend the life of the outdoor units
- Capacity control of up to 11 individual steps ensures high comfort levels
- SD card installed to record history and facilitate software upgrades
- Maximum airflow of up to 5 x standard Mr Slim specification
- Complete AHU systems incorporating this pre-installed controller are also available



PAC-IF013B-E	SIZE 35	SIZE 50	SIZE 60	SIZE 71	SIZE 100	SIZE 125	SIZE 140	SIZE 200	SIZE 250	
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	4.1 3.5	6.0 5.0	7.0 6.0	8.0 7.1	11.2 10.0	14.0 12.5	16.0 14.0	22.4 20.0	27.0 25.0
COMPATIBLE O.U	PUZ-ZM (R32)	PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2	PUZ-ZM100VDA/YDA	PUZ-ZM125VDA/YDA	PUZ-ZM140VDA/YDA	PUZ-ZM200YKA2	PUZ-ZM250YKA2
PIPE SIZE mm (in)	Gas Liquid	12.7 (1/2") 6.35 (1/4")	12.7 (1/2") 6.35 (1/4")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	28.58 (1 1/8") 9.52 (3/8")	28.58 (1 1/8") 12.7 (1/2")
HEAT EXCHANGER (dm³)	Max Volume 20m 10m Min Volume	>30m 1.05 1.35 1.65 0.35	1.5 1.8 2.7 3.6 0.5	1.8 2.7 3.6 3.93 0.6	2.13 3.03 4.8 0.71	3.0 3.9 5.55 1.0	3.75 4.65 5.55 1.25	4.2 5.1 6.0 1.4	6.0 7.8 9.6 2.0	7.5 9.3 11.1 2.5
DIMENSIONS (mm)	Width x Depth x Height	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278	336 x 69 x 278
WEIGHT (No Accessories) (kg)		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Notes: One air handling unit controller is required per outdoor unit. Cooling: Indoor 27°C DB/19°C WB, Outdoor 35°C DB/24°C WB. Heating: Indoor 20°C DB, Outdoor 7°C DB/6°C WB.

### Notes:

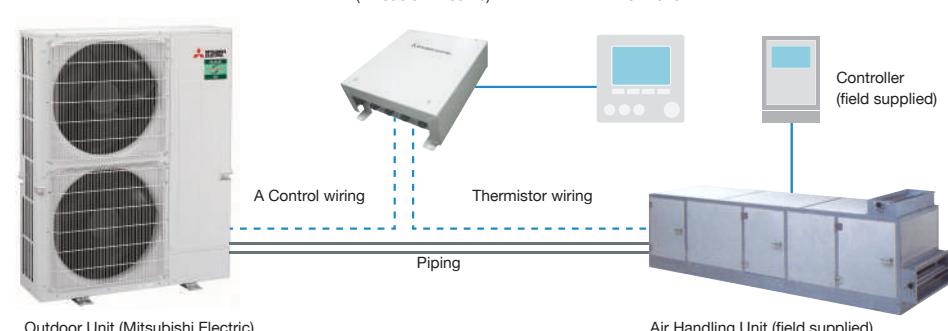
One air handling unit controller is required per heat exchanger.

If using more than one air handling unit controller on a single AHU, there are two options:

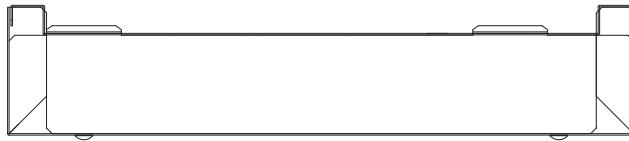
1. Connect 1 x PAC-IF013B-E unit per heat exchanger - these will operate as separate circuits with a controller on each which is included.
2. Connect 1 x PAC-IF013B-E for the first heat exchanger, then up to 5 additional sub PAC-SIF013B-E units. The included controller with the PAC-IF013B-E will additionally control the sub units.

For further information of this feature please consult your local sales office.

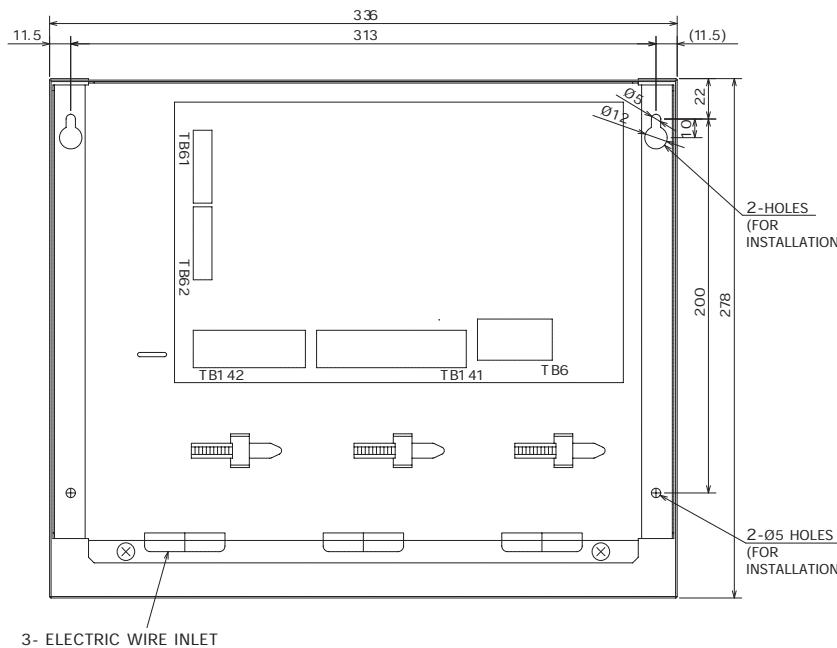
### Example:



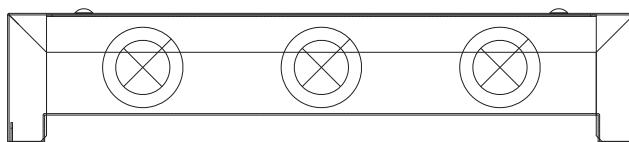
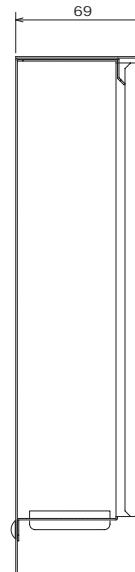
Upper View



Front View



Side View



# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



The Mr Slim Multi-Split system is an ideal option for open plan spaces in medium sized premises such as offices or shops, where two, three or four units are required. These can be Mr Slim ceiling cassettes (PLA-ZM/M/SM & SLZ-M), ceiling suspended (PCA-M), ducted (PEAD-M & SEZ-M) or wall mounted (PKA-M) models and can be connected to a single outdoor unit using twin, triple or quadruple multi distributor pipes.

### Key Features & Benefits

- Twin, triple or quadruple indoor heat pump units can be operated in Multi-Split configuration from a single outdoor unit
- Heat pumps must operate in same heating or cooling mode
- Cooling capacity range 3.3 to 27kW
- Heating capacity range 3.5 to 31kW

PIPE RUN PARAMETERS		REFRIGERANT	PIPE RUNS	MAX. PIPE RUN (M)
OUTDOOR MODEL				
PUZ-ZM71VHA2		R32	A+B+C twin	55
PUZ-ZM100-140VDA/YDA		R32	A+B+C twin	100
PUZ-ZM200/250YKA2		R32	A+B+C twin	100
PUZ-M100VKA2/YKA2		R32	A+B+C twin	55
PUZ-M125-140VKA2/YKA2		R32	A+B+C twin	65
PUZ-M200/250YKA2		R32	A+B+C twin	70
PUZ-ZM140VDA/YDA		R32	A+B+C+D triple	100
PUZ-ZM200/250YKA2		R32	A+B+C+D triple	100
PUZ-M140VKA2/YKA2		R32	A+B+C+D triple	65
PUZ-M200/250YKA2		R32	A+B+C+D triple	70
PUZ-ZM200/250YKA2		R32	A+B+C+D+E quadruple	100
PUZ-M200/250YKA2		R32	A+B+C+D+E quadruple	70
PUZ-ZM71VHA2 / PUZ-ZM100-140VDA/YDA		R32	B - C or C - D or B - D	≤ 8
PUZ-ZM200/250YKA2		R32	B - C or B - D or B - E or C - D or C - E or D - E	≤ 8
PUZ-M100-140VKA2/YKA2		R32	B - C or C - D or B - D	≤ 8
PUZ-M200/250YKA2		R32	B - C or B - D or B - E or C - D or C - E or D - E	≤ 8

Notes: PSA-M and SFZ-M indoor units cannot be used as part of an R32 Mr Slim Multi-Split system.

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

Inverter Heat Pump Units



## The Mr Slim Multi-Split Indoor Unit Range

### Ceiling Cassette

- PLA-ZM / PLA-M / PLA-SM



- SLZ-M



### Wall Mounted

- PKA-M



### Ceiling Concealed Ducted

- PEAD-M



- SEZ-M



### Ceiling Suspended

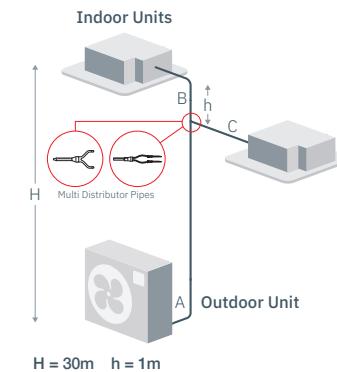
- PCA-M



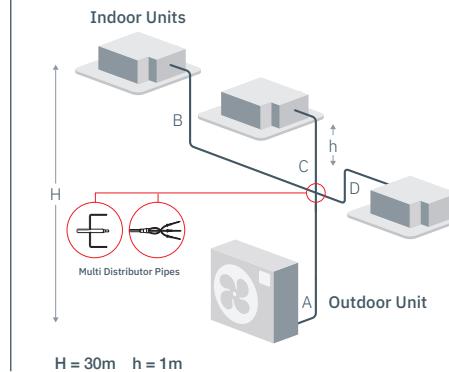
- PCA-M-HA2



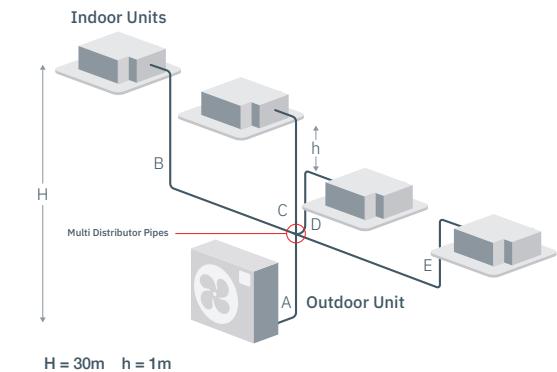
### TWIN



### TRIPLE



### QUADRUPLE



# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



**R32 Mr Slim outdoor units** can be configured in twin, triple and quadruple combinations giving added flexibility.

TWIN SYSTEMS	DESCRIPTION
(2) PLA-ZM35EA2 / (1) PUZ-ZM71VHA2 (2) PLA-ZM50EA2 / (1) PUZ-ZM100VDA (2) PLA-ZM60EA2 / (1) PUZ-ZM125VDA (2) PLA-ZM71EA2 / (1) PUZ-ZM140VDA (2) PLA-ZM50EA2 / (1) PUZ-ZM100YDA (2) PLA-ZM60EA2 / (1) PUZ-ZM125YDA (2) PLA-ZM71EA2 / (1) PUZ-ZM140YDA (2) PLA-ZM100EA2 / (1) PUZ-ZM200YKA2 (2) PLA-ZM125EA2 / (1) PUZ-ZM250YKA2 (2) SLZ-M35FA2 / (1) PUZ-ZM71VHA2 (2) SLZ-M50FA2 / (1) PUZ-ZM100VDA (2) SLZ-M60FA2 / (1) PUZ-ZM125VDA (2) SLZ-M50FA2 / (1) PUZ-ZM100YDA (2) SLZ-M60FA2 / (1) PUZ-ZM125YDA	R32 Power Inverter Cassette, Twin System, Single Phase R32 Power Inverter Cassette, Twin System, Three Phase
(2) PLA-M50EA2 / (1) PUZ-M100VKA2 (2) PLA-M60EA2 / (1) PUZ-M125VKA2 (2) PLA-M71EA2 / (1) PUZ-M140VKA2 (2) PLA-M50EA2 / (1) PUZ-M100YKA2 (2) PLA-M60EA2 / (1) PUZ-M125YKA2 (2) PLA-M71EA2 / (1) PUZ-M140YKA2 (2) PLA-M100EA2 / (1) PUZ-M200YKA2 (2) PLA-M125EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Twin System, Single Phase R32 Standard Inverter Cassette, Twin System, Single Phase R32 Standard Inverter Cassette, Twin System, Single Phase R32 Standard Inverter Cassette, Twin System, Three Phase
(2) PLA-SM71EA / (1) PUZ-SM140VKA2 (2) PLA-SM71EA / (1) PUZ-SM140YKA2	R32 Inverter Cassette, Twin System, Single Phase R32 Inverter Cassette, Twin System, Three Phase
(2) PKA-M35LA2 / (1) PUZ-ZM71VKA2 (2) PKA-M50LA2 / (1) PUZ-ZM100VDA (2) PKA-M60KA2 / (1) PUZ-ZM125VDA (2) PKA-M71KA2 / (1) PUZ-ZM140VDA (2) PKA-M50LA2 / (1) PUZ-ZM100YDA (2) PKA-M60KA2 / (1) PUZ-ZM125YDA (2) PKA-M71KA2 / (1) PUZ-ZM140YDA (2) PKA-M100KA2 / (1) PUZ-ZM200YKA2	R32 Power Inverter Wall Mounted, Twin System, Single Phase R32 Power Inverter Wall Mounted, Twin System, Three Phase
(2) PKA-M50LA2 / (1) PUZ-M100VKA2 (2) PKA-M60KA2 / (1) PUZ-M125VKA2 (2) PKA-M71KA2 / (1) PUZ-M140VKA2 (2) PKA-M50LA2 / (1) PUZ-M100YKA2 (2) PKA-M60KA2 / (1) PUZ-M125YKA2 (2) PKA-M71KA2 / (1) PUZ-M140YKA2 (2) PKA-M100KA2 / (1) PUZ-M200YKA2	R32 Standard Inverter Wall Mounted, Twin System, Single Phase R32 Standard Inverter Wall Mounted, Twin System, Single Phase R32 Standard Inverter Wall Mounted, Twin System, Single Phase R32 Standard Inverter Wall Mounted, Twin System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



TWIN SYSTEMS	DESCRIPTION
(2) PEAD-M35JA2 / (1) PUZ-ZM71VHA2 (2) PEAD-M50JA2 / (1) PUZ-ZM100VDA (2) PEAD-M60JA2 / (1) PUZ-ZM125VDA (2) PEAD-M71JA2 / (1) PUZ-ZM140VDA (2) PEAD-M50JA2 / (1) PUZ-ZM100YDA (2) PEAD-M60JA2 / (1) PUZ-ZM125YDA (2) PEAD-M71JA2 / (1) PUZ-ZM140YDA (2) PEAD-M100JA2 / (1) PUZ-ZM200YKA2 (2) PEAD-M125JA2 / (1) PUZ-ZM250YKA2 (2) SEZ-M35DA2 / (1) PUZ-ZM71VHA2 (2) SEZ-M50DA2 / (1) PUZ-ZM100VDA (2) SEZ-M60DA2 / (1) PUZ-ZM125VDA (2) SEZ-M71DA2 / (1) PUZ-ZM140VDA (2) SEZ-M50DA2 / (1) PUZ-ZM100YDA (2) SEZ-M60DA2 / (1) PUZ-ZM125YDA (2) SEZ-M71DA2 / (1) PUZ-ZM140YYDA	R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Twin System, Three Phase
(2) PEAD-M50JA2 / (1) PUZ-M100VKA2 (2) PEAD-M60JA2 / (1) PUZ-M125VKA2 (2) PEAD-M71JA2 / (1) PUZ-M140VKA2 (2) PEAD-M50JA2 / (1) PUZ-M100YKA2 (2) PEAD-M60JA2 / (1) PUZ-M125YKA2 (2) PEAD-M71JA2 / (1) PUZ-M140YKA2 (2) PEAD-M100JA2 / (1) PUZ-M200YKA2 (2) PEAD-M125JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Twin System, Three Phase
(2) PCA-M50KA2 / (1) PUZ-ZM100VDA (2) PCA-M60KA2 / (1) PUZ-ZM125VDA (2) PCA-M71KA2 / (1) PUZ-ZM140VDA (2) PCA-M50KA2 / (1) PUZ-ZM100YDA (2) PCA-M60KA2 / (1) PUZ-ZM125YDA (2) PCA-M71KA2 / (1) PUZ-ZM140YDA (2) PCA-M100KA2 / (1) PUZ-ZM200YKA2 (2) PCA-M125KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Ceiling Suspended, Twin System, Three Phase
(2) PCA-M50KA2 / (1) PUZ-M100VKA2 (2) PCA-M60KA2 / (1) PUZ-M125VKA2 (2) PCA-M71KA2 / (1) PUZ-M140VKA2 (2) PCA-M50KA2 / (1) PUZ-M100YKA2 (2) PCA-M60KA2 / (1) PUZ-M125YKA2 (2) PCA-M71KA2 / (1) PUZ-M140YKA2 (2) PCA-M100KA2 / (1) PUZ-M200YKA2 (2) PCA-M125KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Single Phase R32 Standard Inverter Ceiling Suspended, Twin System, Three Phase
(2) PCA-M71HA2 / (1) PUZ-ZM140VDA (2) PCA-M71HA2 / (1) PUZ-ZM140YDA	R32 Power Inverter Stainless Steel Ceiling Suspended, Twin System, Single Phase R32 Power Inverter Stainless Steel Ceiling Suspended, Twin System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



TRIPLE SYSTEMS	DESCRIPTION
(3) PLA-ZM50EA2 / (1) PUZ-ZM140VDA (3) PLA-ZM50EA2 / (1) PUZ-ZM140YDA (3) PLA-ZM60EA2 / (1) PUZ-ZM200YKA2 (3) PLA-ZM71EA2 / (1) PUZ-ZM250YKA2 (3) SLZ-M35FA2 / (1) PUZ-ZM100VDA (3) SLZ-M50FA2 / (1) PUZ-ZM125VDA (3) SLZ-M50FA2 / (1) PUZ-ZM140VDA (3) SLZ-M35FA2 / (1) PUZ-ZM100YDA (3) SLZ-M50FA2 / (1) PUZ-ZM125YDA (3) SLZ-M50FA2 / (1) PUZ-ZM140YDA	R32 Power Inverter Cassette, Triple System, Single Phase R32 Power Inverter Cassette, Triple System, Three Phase R32 Power Inverter Cassette, Triple System, Three Phase R32 Power Inverter Cassette, Triple System, Three Phase R32 Power Inverter Cassette, Triple System, Single Phase R32 Power Inverter Cassette, Triple System, Three Phase R32 Power Inverter Cassette, Triple System, Three Phase R32 Power Inverter Cassette, Triple System, Three Phase
(3) PLA-M50EA2 / (1) PUZ-M140VKA2 (3) PLA-M50EA2 / (1) PUZ-M140YKA2 (3) PLA-M60EA2 / (1) PUZ-M200YKA2 (3) PLA-M71EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Triple System, Single Phase R32 Standard Inverter Cassette, Triple System, Three Phase R32 Standard Inverter Cassette, Triple System, Three Phase R32 Standard Inverter Cassette, Triple System, Three Phase
(3) PKA-M50LA2 / (1) PUZ-ZM140VDA (3) PKA-M50LA2 / (1) PUZ-ZM140YDA (3) PKA-M60KA2 / (1) PUZ-ZM200YKA2 (3) PKA-M71KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Wall Mounted, Triple System, Single Phase R32 Power Inverter Wall Mounted, Triple System, Three Phase R32 Power Inverter Wall Mounted, Triple System, Three Phase R32 Power Inverter Wall Mounted, Triple System, Three Phase
(3) PKA-M50LA2 / (1) PUZ-M140VKA2 (3) PKA-M50LA2 / (1) PUZ-M140YKA2 (3) PKA-M60KA2 / (1) PUZ-M200YKA2 (3) PKA-M71KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Wall Mounted, Triple System, Single Phase R32 Standard Inverter Wall Mounted, Triple System, Three Phase R32 Standard Inverter Wall Mounted, Triple System, Three Phase R32 Standard Inverter Wall Mounted, Triple System, Three Phase
(3) PEAD-M50JA2 / (1) PUZ-ZM140VDA (3) PEAD-M50JA2 / (1) PUZ-ZM140YDA (3) PEAD-M60JA2 / (1) PUZ-ZM200YKA2 (3) PEAD-M71JA2 / (1) PUZ-ZM250YKA2 (3) SEZ-M35DA2 / (1) PUZ-ZM100VDA (3) SEZ-M50DA2 / (1) PUZ-ZM125VDA (3) SEZ-M50DA2 / (1) PUZ-ZM140VDA (3) SEZ-M35DA2 / (1) PUZ-ZM100YDA (3) SEZ-M50DA2 / (1) PUZ-ZM125YDA (3) SEZ-M50DA2 / (1) PUZ-ZM140YDA	R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PEAD-M50JA2 / (1) PUZ-M140VKA2 (3) PEAD-M50JA2 / (1) PUZ-M140YKA2 (3) PEAD-M60JA2 / (1) PUZ-M200YKA2 (3) PEAD-M71JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Single Phase R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Triple System, Three Phase
(3) PCA-M50KA2 / (1) PUZ-ZM140VDA (3) PCA-M50KA2 / (1) PUZ-ZM140YDA (3) PCA-M60KA2 / (1) PUZ-ZM200YKA2 (3) PCA-M71KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Triple System, Single Phase R32 Power Inverter Ceiling Suspended, Triple System, Three Phase R32 Power Inverter Ceiling Suspended, Triple System, Three Phase R32 Power Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M50KA2 / (1) PUZ-M140VKA2 (3) PCA-M50KA2 / (1) PUZ-M140YKA2 (3) PCA-M60KA2 / (1) PUZ-M200YKA2 (3) PCA-M71KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Triple System, Single Phase R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase R32 Standard Inverter Ceiling Suspended, Triple System, Three Phase
(3) PCA-M71HA2 / (1) PUZ-ZM250YKA2 (3) PCA-M71HA2 / (1) PUZ-M250YKA2	R32 Power Inverter Stainless Steel Ceiling Suspended, Triple System, Three Phase R32 Standard Inverter Stainless Steel Ceiling Suspended, Triple System, Three Phase

# R32 Mr Slim Twin / Triple / Quadruple Multi-Split Systems

## Inverter Heat Pump Units



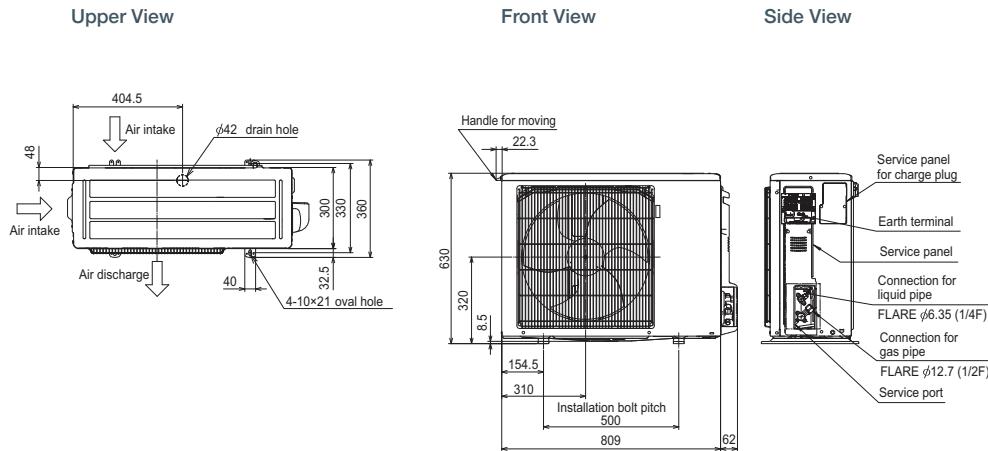
QUADRUPLE SYSTEMS	DESCRIPTION
(4) PLA-ZM50EA2 / (1) PUZ-ZM200YKA2 (4) PLA-ZM60EA2 / (1) PUZ-ZM250YKA2 (4) SLZ-M35FA2 / (1) PUZ-ZM125VDA (4) SLZ-M35FA2 / (1) PUZ-ZM140VDA (4) SLZ-M35FA2 / (1) PUZ-ZM125YDA (4) SLZ-M35FA2 / (1) PUZ-ZM140YDA	R32 Power Inverter Cassette, Quadruple System, Three phase R32 Power Inverter Cassette, Quadruple System, Three phase R32 Power Inverter Cassette, Quadruple System, Single phase R32 Power Inverter Cassette, Quadruple System, Single phase R32 Power Inverter Cassette, Quadruple System, Three phase R32 Power Inverter Cassette, Quadruple System, Three phase
(4) PLA-M50EA2 / (1) PUZ-M200YKA2 (4) PLA-M60EA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Cassette, Quadruple System, Three phase R32 Standard Inverter Cassette, Quadruple System, Three phase
(4) PKA-M50LA2 / (1) PUZ-ZM200YKA2 (4) PKA-M60KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Wall Mounted, Quadruple System, Three Phase R32 Power Inverter Wall Mounted, Quadruple System, Three Phase
(4) PKA-M50LA2 / (1) PUZ-M200YKA2 (4) PKA-M60KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Wall Mounted, Quadruple System, Three Phase R32 Standard Inverter Wall Mounted, Quadruple System, Three Phase
(4) PEAD-M50JA2 / (1) PUZ-ZM200YKA2 (4) PEAD-M60JA2 / (1) PUZ-ZM250YKA2 (4) SEZ-M35DA2 / (1) PUZ-ZM125VDA (4) SEZ-M35DA2 / (1) PUZ-ZM140VDA (4) SEZ-M35DA2 / (1) PUZ-ZM125YDA (4) SEZ-M35DA2 / (1) PUZ-ZM140YDA	R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Single Phase R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase R32 Power Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PEAD-M50JA2 / (1) PUZ-M200YKA2 (4) PEAD-M60JA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase R32 Standard Inverter Ceiling Concealed Ducted, Quadruple System, Three Phase
(4) PCA-M50KA2 / (1) PUZ-ZM200YKA2 (4) PCA-M60KA2 / (1) PUZ-ZM250YKA2	R32 Power Inverter Ceiling Suspended, Quadruple System, Three Phase R32 Power Inverter Ceiling Suspended, Quadruple System, Three Phase
(4) PCA-M50KA2 / (1) PUZ-M200YKA2 (4) PCA-M60KA2 / (1) PUZ-M250YKA2	R32 Standard Inverter Ceiling Suspended, Quadruple System, Three Phase R32 Standard Inverter Ceiling Suspended, Quadruple System, Three Phase

PIPE KITS	DESCRIPTION
MSDD-50TR2-E	R32 Multi distribution pipe twin units - 50:50 - sizes 71/100/125/140
MSDD-50WR2-E	R32 Multi distribution pipe twin units - 50:50 - sizes 200/250
MSDT-111R3-E	R32 Multi distribution pipe triple units - 33:33:33 - sizes 100/125/140/200/250
MSDF-1111R2-E	R32 Multi distribution pipe quadruple units - 25:25:25:25 - sizes 125/140/200/250

# Power Inverter Outdoor Units

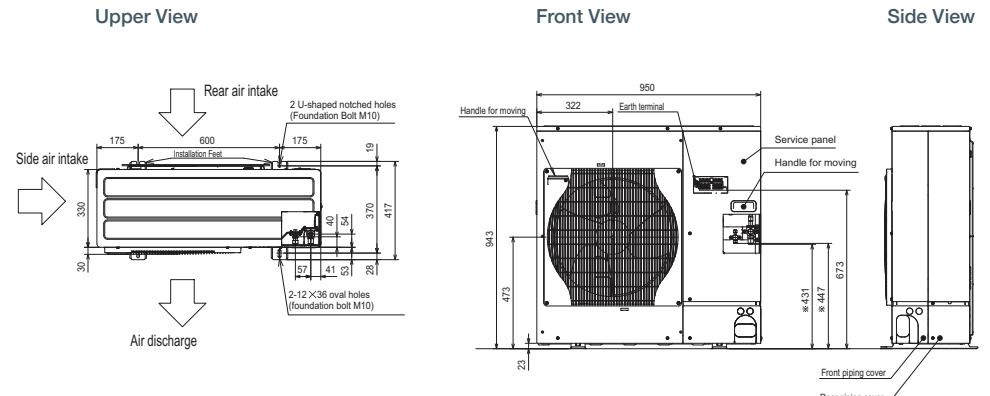
## Product Dimensions

PUZ-ZM35/50VKA2



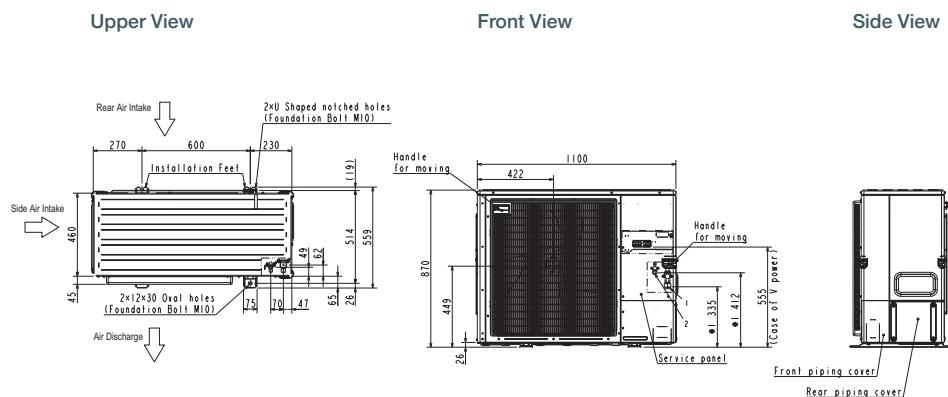
## Product Dimensions

PUZ-ZM60/71VHA2



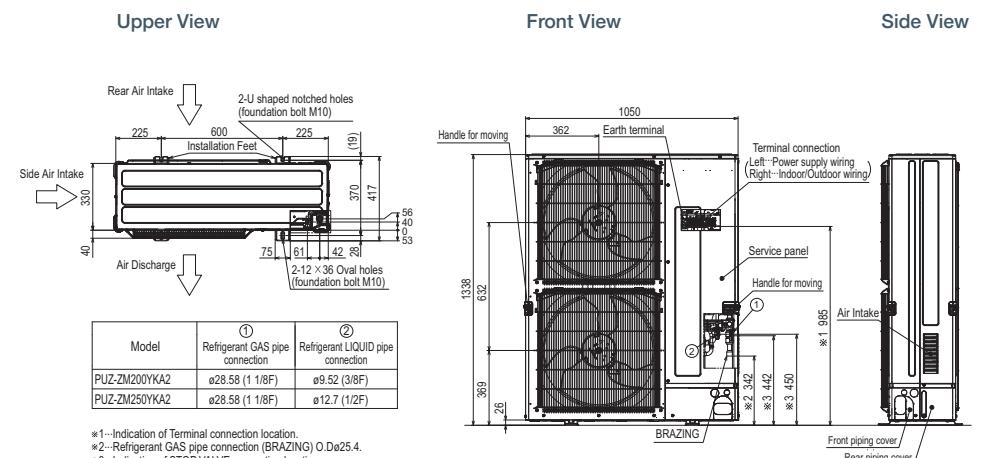
## Product Dimensions

**PUZ-ZM100/125/140VDA, PUZ-ZM100/125/140YDA**



## Product Dimensions

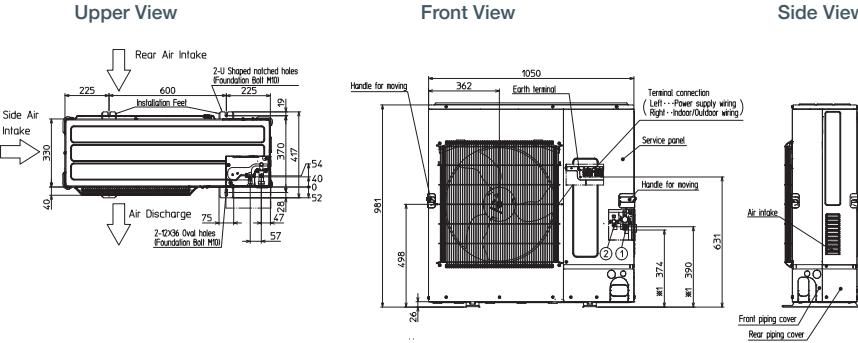
PUZ-ZM200/250YKA2



# Standard Inverter / Inverter Outdoor Units

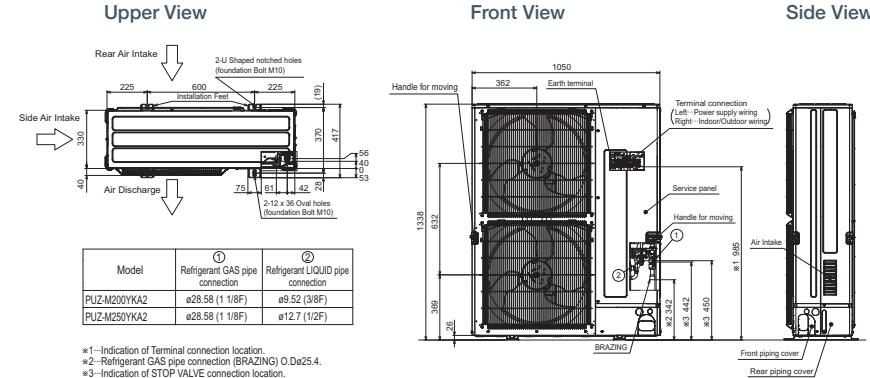
## Product Dimensions

**PUZ-M100/125/140VKA2, PUZ-M100/125/140YKA2,  
PUZ-SM100/125/140VKA2, PUZ-SM100/125/140YKA2**



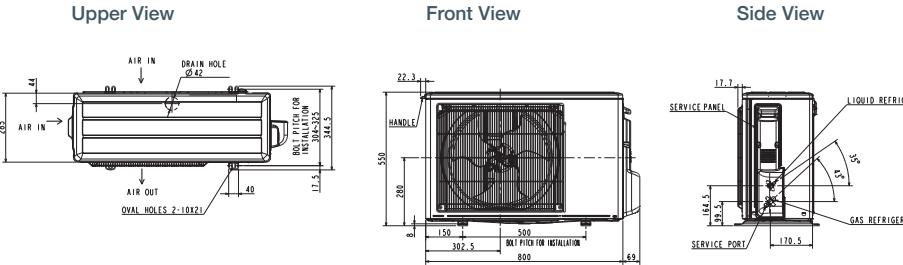
## Product Dimensions

**PUZ-M200/250YKA2**



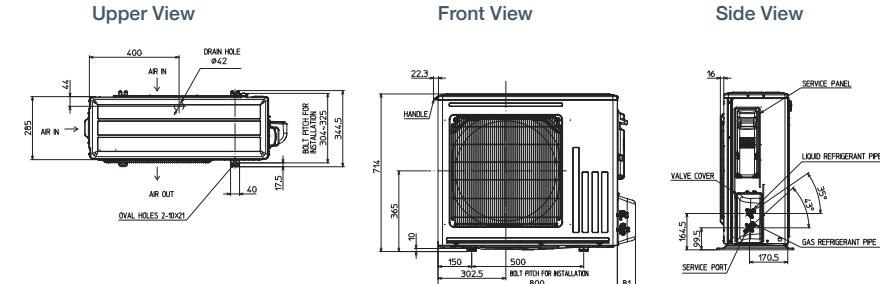
## Product Dimensions

**SUZ-M25/35VAR2**



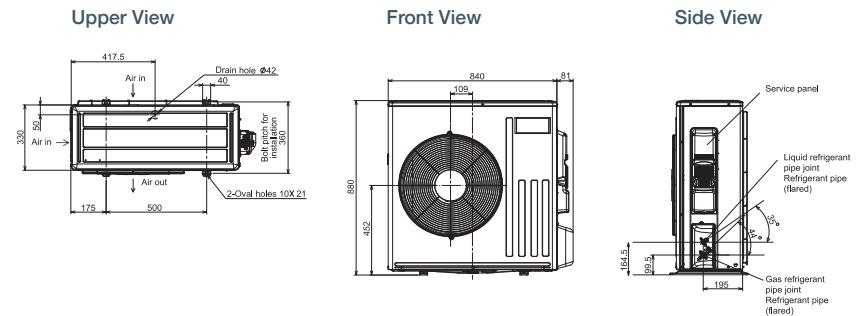
## Product Dimensions

**SUZ-M50VAR2**



## Product Dimensions

**SUZ-M60VAR2, SUZ-M71VAR1, SUZ-SM71VA**



# Mr Slim Accessories / Optional Extras

4-WAY BLOW CASSETTE INDOOR UNITS		DESCRIPTION
SLP-2FA		Grille for SLZ-M
SLP-2FA-B		Black grille (Satin finish) for SLZ-M
SLP-2FAE		3D i-see sensor grille for SLZ-M
PLP-6EA		Grille for PLA-ZM / PLA-M / PLA-SM
PLP-6EAB		Black grille (Matt finish) for PLA-ZM / PLA-M / PLA-SM
PLP-6EAE		3D i-see sensor grille for PLA-ZM / PLA-M
PLP-6EAJ		Self elevating grille for PLA-ZM / PLA-M / PLA-SM
PAC-SE1ME-E		Corner panel with 3D i-see sensor for PLA-ZM / PLA-M
PAR-SE9FA-E		Corner panel with signal receiver for PLA-ZM / PLA-M / PLA-SM
PAC-SJ37SP-E		Shutter plate for PLA-ZM / PLA-M / PLA-SM
PAC-SJ41TM-E		Multi-function casement for PLA-ZM / PLA-M / PLA-SM
PLP-U160ELR-E		3D Total Airflow casement for PLA-ZM35-140EA2 / PLA-M100-140EA2 (must be used with either PAR-41MAA or PAR-SL101A-E)
PAC-SK36HK-E		Insulation kit (14°C cooling) for PLA-ZM35-140EA2 / PLA-M100-140EA2
PAC-SH59KF-E		High efficiency filter for PLA-ZM / PLA-M / PLA-SM (must be used with PAC-SJ41TM-E)
PAR-SL101A-E		Wireless remote controller for PLA-ZM / PLA-M / PLA-SM
PAC-SK53KF-E		V Blocking air purifying filter for PLA-ZM / PLA-M / PLA-SM
PAC-SK54KF-E		V Blocking air purifying filter for SLZ-M
PAC-SK51FT-E		Plasma Quad Connect air purifying device (x1) with multi-function casement for PLA-ZM / PLA-M / PLA-SM

WALL MOUNTED INDOOR UNITS		DESCRIPTION
PAR-FL32MA		Wireless remote controller
PAR-SL101A-E		Wireless remote controller
MAC-100FT-E		Plasma Quad Connect air purifying device for PKA-M

CEILING CONCEALED DUCTED INDOOR UNITS		DESCRIPTION
MAC-100FT-E		Plasma Quad Connect air purifying device for PEAD-M / SEZ-M
PAC-HA31PAR		Plasma Quad Connect metal fitment for PEAD-M
PAC-HA11PAR		Plasma Quad Connect metal fitment for SEZ-M

CEILING SUSPENDED INDOOR UNITS		DESCRIPTION
PAR-SL94B		Wireless remote controller and adaptor
PAC-SG38KF		Oil mist filter for PCA-M71HA2 (12 pack)

# Mr Slim Accessories / Optional Extras

OUTDOOR UNITS	DESCRIPTION
PAC-SJ08DS	Drain socket set for PUZ-ZM35-50
PAC-SG61DS	Drain socket set for PUZ-ZM60-71 / PUZ-ZM200-250 / PUZ-(S)M100-250
PAC-SL14DS-E	Drain socket set for PUZ-ZM100-140
PAC-SJ07SG	Air outlet guide for PUZ-ZM35-50
PAC-SG59SG	Air outlet guide for PUZ-ZM60-71
PAC-SL12SG-E	Air outlet guide for PUZ-ZM100-140
PAC-SH96SG	Air outlet guide for PUZ-ZM200-250 / PUZ-(S)M100-250
PAC-SJ06AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM35-50
PAC-SH63AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM60-71
PAC-SL13AG-E	Air protect guide (allows cooling at -15°C) for PUZ-ZM100-140
PAC-SH95AG	Air protect guide (allows cooling at -15°C) for PUZ-ZM200-250 / PUZ-(S)M100-250
MAC-881SG	Air outlet guide for SUZ-M35
MAC-882SG	Air outlet guide for SUZ-M50
MAC-886SG	Air outlet guide for SUZ-M60-71 / SUZ-SM71
SYSTEM CONTROL UNITS	DESCRIPTION
PAC-SA89TA	Remote on/off adaptor (3 wire adaptor)
PAC-SA88HA	Run/fault adaptor (5 wire adaptor)
PAC-SF40RM	Run/fault interface
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode - when SUZ or MXZ
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA) - when SUZ or MXZ
PAC-SE41TS-E	Remote sensor
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service
PAC-SK15MA-E	M-NET adaptor for PUZ-ZM35-50
PAC-SJ95MA	M-NET adaptor for PUZ-ZM60-71 / PUZ-ZM200-250 / PUZ-(S)M100-250
PAC-SL16MA-E	M-NET adaptor for PUZ-ZM100-140
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (Premium Finish)
PAR-41MAA	Standard wired remote controller
MELCOBEMS MINI (A1M+)	Modbus and BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface
POWER SUPPLY TERMINAL KITS	DESCRIPTION
PAC-SJ39HR	Power supply terminal kit for PLA-ZM and PLA-M
PAC-SK38HR	Power supply terminal kit for PKA-M35-50LA2
PAC-SG94HR	Power supply terminal kit for PKA-M60-100KA2
PAC-SG96HR	Power supply terminal kit for PCA-M / PSA-M
PAC-SG97HR	Power supply terminal kit for PEAD-M / PCA-M-HA2





# Multi-Splits

Split-System Air Conditioning





# Contents

<b>MXZ-F</b> R32 Inverter Heat Pump Multi-Split Units	<b>1.4.8</b>
<b>MXZ-HA</b> R32 Inverter Heat Pump Multi-Split Units	<b>1.4.10</b>
<b>PUMY-SP</b> R410A Inverter Heat Pump Multi-Split Units (Single Fan)	<b>1.4.12</b>
<b>PUMY-P</b> R410A Inverter Heat Pump Multi-Split Units (Twin Fan)	<b>1.4.14</b>
<b>Multi-Split Accessories / Optional Extras</b>	<b>1.4.16</b>



# The Flexible & Efficient Multi-Split Range

Ideal for residential, retail and small commercial buildings that require air conditioning in more than one room, Mitsubishi Electric Multi-Split systems combine flexibility and performance while lowering CO<sub>2</sub> emissions and running costs.

Using both R32 and R410A refrigerant, and flexible enough to suit a number of applications, the range includes models that will run up to thirty indoor units per single outdoor unit, between 3.3 and 33.5kW.

With vastly reduced power consumption and inverter technology, alongside increased pipe lengths and advanced controls, the Multi-Split range is extremely efficient and versatile, helping to make system application easier. A variety of indoor units can be connected to a single outdoor unit, including cassettes, ducted, wall, floor or ceiling mounted units. The range is one of the most efficient in the industry with an energy efficiency class of up to A+++.

Example of a 6-way MXZ R32 Multi-Split System ➔



## The Flexible & Efficient Multi-Split Range

### Outdoor Units

<b>R32</b>		<b>MXZ-2F33VF4</b> ■ 2 indoor units ■ Nominal cooling capacity 3.3kW	<b>MXZ-2F42VF4</b> ■ 2 indoor units ■ Nominal cooling capacity 4.2kW	<b>MXZ-2F53VF4</b> ■ 2 indoor units ■ Nominal cooling capacity 5.3kW
<b>R32</b>		<b>MXZ-3F54VF4</b> ■ 2-3 indoor units ■ Nominal cooling capacity 5.4kW	<b>MXZ-3F68VF4</b> ■ 2-3 indoor units ■ Nominal cooling capacity 6.8kW	<b>MXZ-4F72VF4</b> ■ 2-4 indoor units ■ Nominal cooling capacity 7.2kW
<b>R32</b>		<b>MXZ-4F83VF2</b> ■ 2-4 indoor units ■ Nominal cooling capacity 8.3kW	<b>MXZ-5F102VF2</b> ■ 2-5 indoor units ■ Nominal cooling capacity 10.2kW	
<b>R32</b>		<b>MXZ-6F120VF2</b> ■ 2-6 indoor units ■ Nominal cooling capacity 12.0kW		
<b>R32</b>		<b>MXZ-2HA40VF2</b> ■ 2 MSZ-HR indoor units ■ Nominal cooling capacity 4.0kW	<b>MXZ-2HA50VF2</b> ■ 2 MSZ-HR indoor units ■ Nominal cooling capacity 5.0kW	
<b>R32</b>		<b>MXZ-3HA50VF2</b> ■ 2-3 MSZ-HR indoor units ■ Nominal cooling capacity 5.0kW		
<b>R410A</b>		<b>PUMY-SP112-140V рука KM2/YKM2</b> ■ 2-10 indoor units ■ Nominal cooling capacity 12.5 - 15.5kW		
<b>R410A</b>		<b>PUMY-P112-140V рука KM7/YKM7 / PUMY-P200Y рука KM4</b> ■ 2-11 indoor units ■ Nominal cooling capacity 12.5 - 22.4kW		
<b>R410A</b>		<b>PUMY-P250-300Y BM2</b> ■ 2-30 indoor units ■ Nominal cooling capacity 28.0 - 33.5kW		

**Multi-Splits | Split-System Air Conditioning****The Flexible & Efficient Multi-Split Range****Indoor Units****Wall Mounted**

MSZ-LN



MSZ-EF



MSZ-AY / MSZ-AP



MSZ-HR

**Floor Mounted**

MFZ-KT



SFZ-M

**Ceiling Cassette**

SLZ-M



PLA-M

**Ceiling Concealed Ducted**

SEZ-M



PEAD-M

**Ceiling Suspended**

PCA-M



## Compatibility Table

Model	MXZ-2F33VF4	MXZ-2F42VF4	MXZ-2F53VF4	MXZ-3F54VF4	MXZ-3F68VF4	MXZ-4F72VF4	MXZ-4F83VF2	MXZ-5F102VF2	MXZ-6F120VF2	MXZ-2HA40VF2	MXZ-2HA50VF2	MXZ-3HA50VF2	PUMY-SP	PUMY-P	PUHY / PURY
	Branch Box	LEV Kit	Branch Box	LEV Kit	LEV Kit										
<b>Wall Mounted</b>															
MSZ-LN18VG2	●	●	●	●	●	●	●	●	●						
MSZ-LN25VG2	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-LN35VG2	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-LN50VG2													●	●	●
MSZ-EF18VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-EF22VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-EF25VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-EF35VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-EF50VGK													●	●	●
MSZ-AY15VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-AY20VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-AY25VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-AY35VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-AY42VGK	●	●	●	●	●	●	●	●	●				●	●	●
MSZ-AY50VGK				●	●	●	●	●	●				●	●	●
MSZ-AP60VGK					●	●	●	●	●						
MSZ-AP71VGK						●	●	●	●						
MSZ-HR25VF										●	●	●			
MSZ-HR35VF										●	●	●			
MSZ-HR50VF										●					
<b>Floor Mounted</b>															
MFZ-KT25VG	●	●	●	●	●	●	●	●	●				●	●	●
MFZ-KT35VG	●	●	●	●	●	●	●	●	●				●	●	●
MFZ-KT50VG				●	●	●	●	●	●				●	●	●
SFZ-M25VA	●	●	●	●	●	●	●	●	●						
SFZ-M35VA	●	●	●	●	●	●	●	●	●						
SFZ-M50VA				●	●	●	●	●	●						
SFZ-M60VA						●	●	●	●						
SFZ-M71VA						●	●	●	●						
<b>Ceiling Cassette</b>															
SLZ-M15FA2	●	●	●	●	●	●	●	●	●				●	●	●
SLZ-M25FA2	●	●	●	●	●	●	●	●	●				●	●	●
SLZ-M35FA2	●	●	●	●	●	●	●	●	●				●	●	●
SLZ-M50FA2				●	●	●	●	●	●				●	●	●
PLA-M35EA2													●		
PLA-M50EA2													●		
PLA-M60EA2													●		
PLA-M71EA2													●		
PLA-M100EA2													●		
<b>Ceiling Concealed Ducted</b>															
SEZ-M25DA2	●	●	●	●	●	●	●	●	●				●	●	●
SEZ-M35DA2	●	●	●	●	●	●	●	●	●				●	●	●
SEZ-M50DA2				●	●	●	●	●	●				●	●	●
SEZ-M60DA2					●	●	●	●	●				●	●	●
SEZ-M71DA2						●	●	●	●				●	●	●
PEAD-M35JA2					●	●	●	●	●						
PEAD-M50JA2					●	●	●	●	●				●	●	●
PEAD-M60JA2						●	●	●	●				●	●	●
PEAD-M71JA2							●	●	●				●	●	●
PEAD-M100JA2								●	●				●	●	●
<b>Ceiling Suspended</b>															
PCA-M50KA2						●	●						●	●	●
PCA-M60KA2						●	●						●	●	●
PCA-M71KA2							●						●	●	●
PCA-M100KA2								●					●	●	●

Note: For MXZ Multi-Split capacity combination tables please refer to databook. PUMY-P250/300YBM2 are not compatible with SLZ-M, PLA-M, SEZ-M, PEAD-M & PCA-M.

# MXZ-F R32 Inverter Heat Pump (3.3-12kW)

## Multi-Split Units



The **MXZ-F** Multi-Split system allows up to six M Series or Mr Slim wall mounted, cassette, ducted, floor mounted or ceiling suspended indoor units of different capacities to be operated from a single outdoor unit. This makes it an economic and efficient answer for multi-room applications, whilst also offering space saving benefits.

### Key Features & Benefits

- Up to six indoor units may be connected to a single outdoor unit
- Energy saving inverter controlled outdoor unit adjusts compressor performance to economically match the demand for heating and cooling
- Units may be added within the capacity of the system as requirements change
- Capacities of indoor units may be mixed to suit individual rooms



MXZ-F - OUTDOOR UNITS	MXZ-2F33VF4	MXZ-2F42VF4	MXZ-2F53VF4	MXZ-3F54VF4	MXZ-3F68VF4	MXZ-4F72VF4	MXZ-4F83VF2	MXZ-5F102VF2	MXZ-6F120VF2
NUMBER OF CONNECTABLE INDOOR UNITS	2	2	2	2 - 3	2 - 3	2 - 4	2 - 4	2 - 5	2 - 6
CAPACITY (kW)	Heating (nominal) 3.3 (1.1-3.8)	4.0 (1.0-4.1) 4.2 (1.1-4.4)	6.4 (1.1-7.0) 5.3 (1.1-5.6)	7.0 (2.6-9.0) 5.4 (2.9-6.8)	8.6 (2.6-10.6) 6.8 (2.9-8.4)	8.6 (3.4-10.7) 7.2 (3.7-8.8)	9.3 (3.4-11.6) 8.3 (3.7-9.2)	10.5 (4.1-14.0) 10.2 (3.9-11.0)	14.0 (3.5-16.5) 12.0 (3.5-13.5)
	Heating (UK) 3.32 (0.83-3.40)	3.74 (0.84-3.99)	5.38 (0.92 - 5.88)	5.81 (2.16-7.47)	7.14 (2.16-8.80)	7.14 (2.82-8.89)	7.8 (2.82-9.63)	8.7 (3.40-11.63)	11.6 (2.90-13.71)
	Cooling (UK) 3.23 (1.07-3.72)	4.12 (1.08-4.32)	5.30 (1.10-5.60)	5.3 (2.85-6.67)	6.66 (2.84-8.23)	7.0 (3.59-8.56)	8.2 (3.67-9.12)	10.1 (3.86-10.90)	11.9 (3.47-13.39)
COP / EER (nominal)* <sup>1</sup>	4.40 / 3.90	5.10 / 4.30	4.10 / 3.79	4.60 / 4.10	4.50 / 3.70	4.60 / 3.90	4.65 / 4.21	4.60 / 3.64	4.23 / 3.33
SCOP (nsh) / SEER (nsc) (BS EN14825)	4.00 / 6.10	4.60 / 8.69	4.6 / 8.6	4.61 / 8.52	4.12 / 7.96	4.07 / 8.13	4.72 (165.8%) / 8.51 (37.4%)	4.65 (163%) / 8.21 (32.5%)	4.0 (157%) / 6.8 (269%)
ErP ENERGY EFFICIENCY CLASS	A+ / A++	A++ / A+++	A++ / A+++	A++ / A+++	A+ / A++	A+ / A++	A++ / A+++	A++ / A++	A+ / A++
MAX AIRFLOW (m <sup>3</sup> /min)	Heating/Cooling 33.7 / 32.9	33.3 / 27.7	34.7 / 32.7	43.0 / 42.1	43.0 / 42.1	43.0 / 42.1	71 / 55	74 / 62	77 / 63
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 50 / 49	50 / 44	51 / 46	50 / 46	53 / 48	54 / 48	51 / 49	56 / 52	57 / 55
SOUND POWER LEVEL (dBA)	Cooling 60	59	61	59	63	63	61	65	69
DIMENSIONS (mm)	Width x Depth x Height 800 x 285 x 550	800 x 285 x 550	800 x 285 x 550	840 x 330 x 710	840 x 330 x 710	840 x 330 x 710	950 x 330 x 796	950 x 330 x 796	950 x 330 x 1048
WEIGHT (kg)	33	37	37	58	58	59	62	62	87
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single	Single
POWER INPUT (kW)	Heating/Cooling (nominal) 0.909 / 0.846	0.88 / 0.98	1.56 / 1.40	1.52 / 1.32	1.91 / 1.84	1.87 / 1.85	2.00 / 1.97	2.28 / 2.80	3.31 / 3.60
	Heating/Cooling (UK) 0.82 / 0.68	0.90 / 0.78	1.40 / 1.20	1.38 / 1.06	1.73 / 1.47	1.69 / 1.48	1.80 / 1.57	2.09 / 2.66	3.04 / 3.38
STARTING CURRENT (A)	4.6	4.2	7.6	7.0	10.5	10.0	8.8	12.3	16.1
RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.6 / 4.3 [10.0]	4.2 / 4.5 [12.2]	7.1 / 6.2 [10.2]	7.0 / 5.9 [18.0]	10.5 / 9.6 [18.0]	10.0 / 9.5 [18.0]	8.8 / 8.7 [21.4]	10.0 / 12.3 [21.4]	14.5 / 15.7 [29.8]
INTERCONNECTING CABLE No. CORES	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core	4 Core
TOTAL PIPE LENGTH (m)	20	30	30	50	60	60	70	80	80
MAX PIPE LENGTH PER INDOOR UNIT (m)	15	20	20	25	25	25	25	25	25
MAX HEIGHT DIFFERENCE (m)	10	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15	15			
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	0.8 / 0.54 (20m)	1.0 / 0.68 (30m)	1.0 / 0.68 (30m)	2.4 / 1.62 (50m)	2.4 / 1.62 (60m)	2.4 / 1.62 (60m)	2.4 / 1.62 (70m)	2.4 / 1.62 (80m)	2.4 / 1.62 (80m)
FUSE RATING (BS88) – HRC (A)	16	16	16	25	25	25	25	25	32

Notes: \*1 System COP / EER when connected to MSZ-LN / MSZ-AP indoor unit connections.

Combined max running current of all indoors on system must not exceed 3A.

The SEZ-M25DA2 cannot be used when the total indoor capacity is equal to the outdoor capacity, i.e. when the capacity ratio is 1.

## Accessories

### Outdoor Units

#### MAC-881SG

Air outlet guide for MXZ-2F33VF4, MXZ-2F42VF4, MXZ-2F53VF4

#### MAC-856SG

Air outlet guide for MXZ-3F54VF4, MXZ-3F68VF4, MXZ-4F72VF4

#### PAC-SH96SG-E

Air outlet guide for MXZ-4F83VF2, MXZ-5F102VF2, MXZ-6F120VF2

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

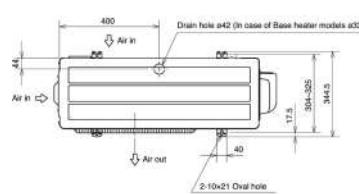
#### MELCORETAIL MINI

Retail control and input / output interface

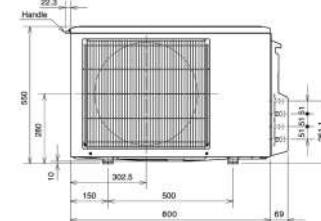
## Product Dimensions

### MXZ-2F33VF4, MXZ-2F42VF4, MXZ-2F53VF4

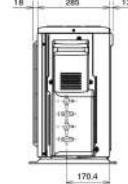
Upper View



Front View



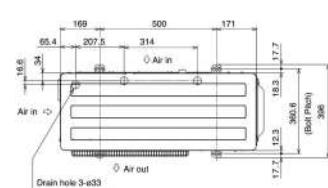
Side View



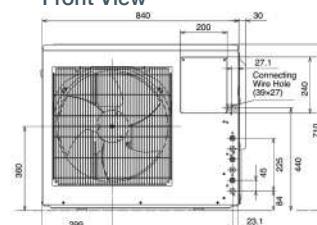
## Product Dimensions

### MXZ-3F54VF4, MXZ-3F68VF4, MXZ-4F72VF4

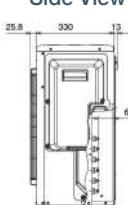
Upper View



Front View



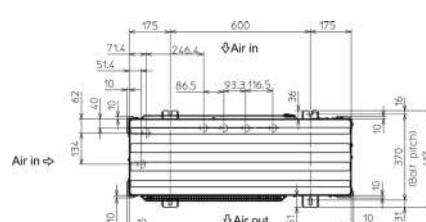
Side View



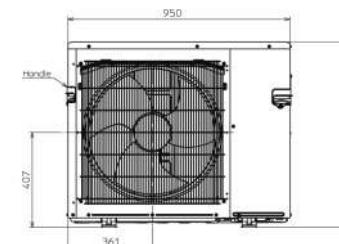
## Product Dimensions

### MXZ-4F83VF2, MXZ-5F102VF2

Upper View



Front View



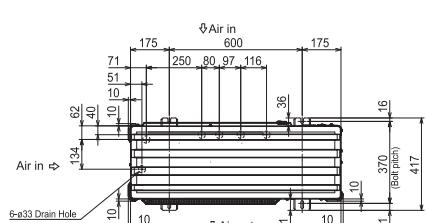
Side View



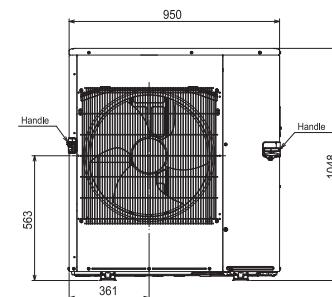
## Product Dimensions

### MXZ-6F120VF2

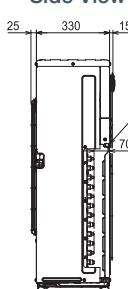
Upper View



Front View



Side View



# MXZ-HA R32 Inverter Heat Pump (4-5kW)

## Multi-Split Units



The **MXZ-HA** range of multi-split outdoor units connect to our MSZ-HR classic wall mounted indoor units. Together they form exceptional value small multi-split systems, that can be used in a wide range of applications such as residential spaces, small offices and light commercial premises.

### Key Features & Benefits

- 2 or 3 MSZ-HR indoor units can be connected to a single outdoor unit
- Available in 4 or 5kW capacities, covering a wide range of applications
- With a total system pipe length of 30-50m, these units offer flexible installation options
- MSZ-HR connection only

**R32**

MXZ-HA - OUTDOOR UNITS	MXZ-2HA40VF2	MXZ-2HA50VF2	MXZ-3HA50VF2	
NUMBER OF CONNECTABLE INDOOR UNITS	2	2	2 - 3	
CAPACITY (kW)	Heating (nominal) 4.3 (1.0 - 4.7) Cooling (nominal) 4.0 (1.1 - 4.3) Heating (UK) 3.61 (0.84 - 3.95) Cooling (UK) 4.00 (1.10 - 4.30)	4.30 / 8.12	6.0 (1.0 - 6.4) 5.0 (1.1 - 5.4) 5.04 (0.84 - 5.38) 5.00 (1.10 - 5.40)	6.0 (2.6 - 7.5) 5.0 (2.9 - 6.5) 5.04 (2.18 - 6.30) 4.50 (2.61 - 5.85)
COP / EER (nominal)	4.73 / 3.81	3.90 / 3.29	4.62 / 3.97	
SCOP ( $\eta_{sh}$ ) / SEER ( $\eta_{sc}$ ) (BS EN14825)	4.30 / 8.12	4.30 / 7.78	4.02 / 7.26	
ErP ENERGY EFFICIENCY CLASS	Heating/Cooling A+ / A++	A+ / A++	A+ / A++	
MAX AIRFLOW (m³/min)	Heating/Cooling 33.5 / 28.4	34.7 / 32.7	29.1 / 31.0	
SOUND PRESSURE LEVEL (dBA)	Heating/Cooling 50 / 44	51 / 47	50 / 46	
SOUND POWER LEVEL (dBA)	Cooling 59	64	61	
DIMENSIONS (mm)	Width x Depth x Height 800 x 285 x 550	800 x 285 x 550	840 x 330 x 710	
WEIGHT (kg)	37	37	57	
ELECTRICAL SUPPLY	220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz	
PHASE	Single	Single	Single	
POWER INPUT (kW)	Heating/Cooling (nominal) 0.91 / 1.05 Heating/Cooling (UK) 0.82 / 0.90	1.54 / 1.52 1.39 / 1.31	1.30 / 1.26 1.17 / 1.08	
STARTING CURRENT (A)	7.6	7.6	6.7	
RUNNING CURRENT (A)	Heating/Cooling [MAX] 4.4 / 4.7 [12.2]	6.6 / 6.5 [12.2]	5.6 / 5.4 [18.0]	
INTERCONNECTING CABLE No. CORES	4 Core	4 Core	4 Core	
TOTAL PIPE LENGTH (m)	30	30	50	
MAX PIPE LENGTH PER INDOOR UNIT (m)	20	20	25	
MAX HEIGHT DIFFERENCE (m)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	0.9 / 0.61	0.9 / 0.61	1.4 / 0.95	
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)	0	0	0.2 / 0.14	
FUSE RATING (BS88) - HRC (A)	16	16	20	

Notes: MSZ-HR connection only.



# PUMY-SP R410A Inverter Heat Pump (12.5-15.5kW)

## Multi-Split Units



The **PUMY-SP** Inverter Heat Pump system allows up to 10 indoor units to be connected to one single fan outdoor unit. Compatibility with City Multi, Mr Slim and the stylish M Series indoor units makes this an extremely flexible, economic, and energy-efficient solution for multi-room applications. With a slimline design and operation modes relevant to built-up areas, these systems are ideal for high-end residential and smaller commercial applications in city centres, or areas with limited outdoor space.

### Key Features & Benefits

- Low height, small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Compatible with M Series, Mr Slim and City Multi indoor units (M Series & Mr Slim units via branch box or LEV Kit)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard

# R410A

PUMY-SP - OUTDOOR UNITS		PUMY-SP112VKM2	PUMY-SP112YKM2	PUMY-SP125VKM2	PUMY-SP125YKM2	PUMY-SP140VKM2	PUMY-SP140YKM2
NUMBER OF CONNECTABLE INDOOR UNITS	Branch box / Mixed <sup>1</sup>	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10
CAPACITY (kW)							
Heating (nominal)	14.0	14.0	16.0	16.0	16.5	16.5	16.5
Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5	15.5
Heating (UK)	14.0	14.0	16.0	16.0	16.5	16.5	16.5
Cooling (UK)	9.8	9.8	11.0	11.0	12.2	12.2	12.2
COP / EER (nominal)	3.83 / 2.80	3.83 / 2.80	3.71 / 2.74	3.71 / 2.74	3.78 / 2.90	3.78 / 2.90	3.78 / 2.90
MAX AIRFLOW (m <sup>3</sup> /min)	77	77	83	83	83	83	83
SOUND PRESSURE LEVEL (dBA)	52	52	53	53	54	54	54
SOUND POWER LEVEL (dBA)	Cooling	72	72	73	73	74	74
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 981					
WEIGHT (kg)		93	94	93	94	93	94
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	Three	Single	Three	Single	Three
POWER INPUT (kW)	Heating/Cooling (nominal)	3.66 / 4.46	3.66 / 4.46	4.31 / 5.11	4.31 / 5.11	4.36 / 5.34	4.36 / 5.34
	Heating/Cooling (UK)	4.69 / 2.08	4.69 / 2.08	5.52 / 2.38	5.52 / 2.38	5.58 / 2.49	5.58 / 2.49
STARTING CURRENT (A)		14	7	14	7	14	7
RUNNING CURRENT (A)	Heating/Cooling [MAX]	16.24 / 19.79 [30.5]	5.57 / 6.78 [13.0]	19.13 / 22.68 [30.5]	6.55 / 7.77 [13.0]	19.35 / 23.70 [30.5]	6.63 / 8.12 [13.0]
FUSE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
TOTAL PIPING LENGTH (M)	Branch box / Mixed <sup>1</sup>	120	120	120	120	120	120
FURTHEST PIPING LENGTH (M)	(with no branch boxes)	80 (70)	80 (70)	80 (70)	80 (70)	80 (70)	80 (70)
BETWEEN BRANCH BOXES AND OUTDOOR UNIT - LENGTH (m)		55	55	55	55	55	55
BETWEEN BRANCH BOXES AND INDOOR UNIT - LENGTH (m)		25	25	25	25	25	25
BETWEEN INDOOR AND OUTDOOR UNIT - HEIGHT (m)		50m max <sup>2</sup>					
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT (m)		12	12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79

Notes: \*1 Branch box - only using branch boxes (PAC-MK) on the system. Mixed - using a mix of branch boxes (PAC-MK) and City Multi indoor units on the same system. \*2 40m max if outdoor installed below. 30m if mixed system.  
SCOP / SEER available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 6 to EN14825 standard.

PAC-MK - BRANCH BOX	PAC-MK3BC	PAC-LV - LEV KIT INTERFACE	PAC-LV11M
NUMBER OF CONNECTABLE INDOOR UNITS	5	NUMBER OF CONNECTABLE INDOOR UNITS	1
COMPATIBLE INDOOR UNITS	M Series, Mr Slim	COMPATIBLE INDOOR UNITS	M Series
WEIGHT (kg)	7.9	CAPACITY INDEX OF INDOOR UNITS	15 to 50
DIMENSIONS (mm)	Width x Depth x Height	WEIGHT (kg)	3.5
	450 x 280 x 170	DIMENSIONS (mm)	Width x Depth x Height
POWER SUPPLY TO BRANCH BOX <sup>1</sup>	From outdoor unit	355 x 142 x 138	355 x 142 x 138
	Separate supply	ELECTRICAL SUPPLY	220-240v, 50Hz / Single Phase
	Separate supply fuse rating (BS88) - HRC (A)	FUSE RATING (BS88) - HRC (A)	6
POWER SUPPLY TO INDOOR UNITS	From branch box	Note:	The indoor unit connected to the PAC-LV11 cannot be grouped with other City Multi indoor units. Group control with other M Series indoor units + PAC-LV11 is possible via ME controller or system controller only. Group control is not possible via an MA controller, IT terminal or wireless remote controller. ME control functions energy management, charge apportioning, interlock and free contact are not available.
	3 core + earth		

Note: \*1 Either option is available for power supply from outdoor unit OR from a separate supply.

## Accessories

### Outdoor Units

#### CMY-Y62-G-E

Branch pipe (2 branches) for PUMY

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

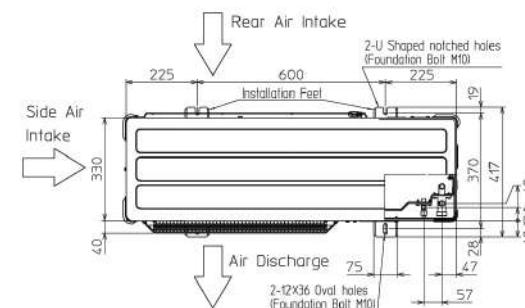
#### MELCORETAIL MINI

Retail control and input / output interface

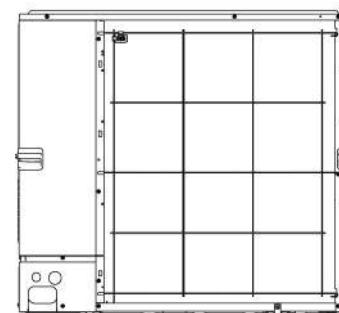
## Product Dimensions

PUMY-SP112/125/140VKM2/YKM2

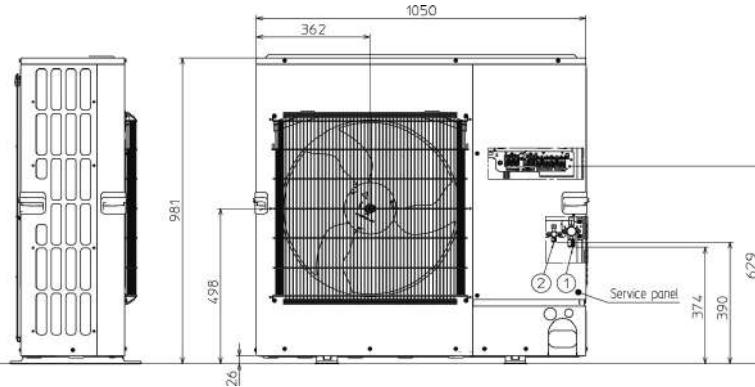
### Upper View



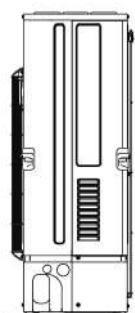
### Rear View



### Side View



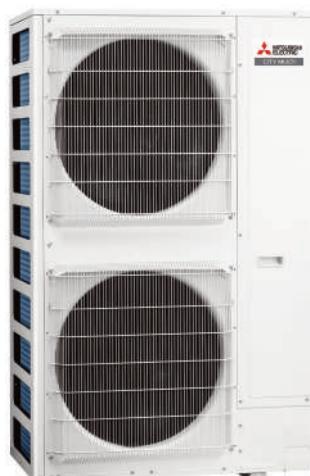
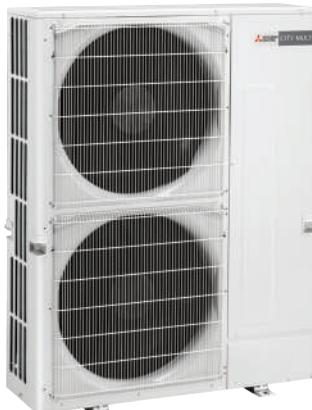
### Front View



### Side View

# PUMY-P R410A Inverter Heat Pump (12.5-33.5kW)

## Multi-Split Units



The **PUMY-P** Inverter Heat Pump system allows up to 30 indoor units to be connected to a single outdoor unit. Compatibility with City Multi, Mr Slim and the stylish M Series indoor units makes this an extremely flexible, economic, and energy-efficient solution for multi-room applications. With a slimline design and operation modes relevant to built-up areas, these systems are ideal for high-end residential and smaller commercial applications in city centres, or areas with limited outdoor space.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Compatible with M Series, Mr Slim and City Multi indoor units (M Series & Mr Slim units via branch box or LEV Kit)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard

# R410A

PUMY-P OUTDOOR UNITS	PUMY-P112VKM7	PUMY-P112YKM7	PUMY-P125VKM7	PUMY-P125YKM7	PUMY-P140VKM7	PUMY-P140YKM7	PUMY-P200YKM4	PUMY-P250YBM2	PUMY-P300YBM2
NUMBER OF CONNECTABLE INDOOR UNITS	Branch box / Mixed <sup>*1</sup>	8 / 10	8 / 10	8 / 10	8 / 10	8 / 10	8 / 11	12 / 30	12 / 30
CAPACITY (kW)									
Heating (nominal)	14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
Cooling (nominal)	12.5	12.5	14.0	14.0	15.5	15.5	22.4	28.0	33.5
Heating (UK)	14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
Cooling (UK)	9.8	9.8	11.0	11.0	12.2	12.2	17.6	22.1	26.4
COP / EER (NOMINAL)	4.61 / 4.48	4.61 / 4.48	4.28 / 4.05	4.28 / 4.05	4.03 / 3.43	4.03 / 3.43	4.28 / 3.70	4.25 / 3.41	4.11 / 3.31
MAX AIRFLOW (m³/min)	110	110	110	110	110	110	141	183	183
SOUND PRESSURE LEVEL (dBA)	49	49	50	50	51	51	57	55	57
SOUND POWER LEVEL (dBA)	Cooling	69	69	70	70	71	76	73	75
DIMENSIONS (mm)	Width x Depth x Height	1050 x 330+40 x 1338	1050 x 460+45 x 1662	1050 x 460+45 x 1662					
WEIGHT (kg)		123	125	123	125	123	125	141	192
ELECTRICAL SUPPLY	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE	Single	Three	Single	Three	Single	Three	Three	Three	Three
POWER INPUT (kW)	Heating/Cooling (nominal)	3.49 / 4.34	3.49 / 4.34	4.06 / 5.00	4.06 / 5.00	4.63 / 5.17	4.63 / 5.17	5.85 / 7.18	7.91 / 8.21
	Heating/Cooling (UK)	4.48 / 2.08	4.48 / 2.08	5.22 / 2.39	5.22 / 2.39	5.95 / 2.47	5.95 / 2.47	7.52 / 3.43	9.81 / 4.56
STARTING CURRENT (A)		14	7	14	7	14	7	7	7
RUNNING CURRENT (A)	Heating/Cooling [MAX]	15.41 / 19.16 [29.5]	5.93 / 7.37 [13.0]	17.93 / 22.08 [29.5]	6.52 / 8.02 [13.0]	20.44 / 22.83 [29.5]	7.04 / 7.86 [13.0]	9.08 / 11.15 [19.0]	12.28 / 12.74 [28.4]
FUSE RATING (BS88) - HRC (A)		1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16	1 x 20	1 x 32
PIPE SIZE MM (in)	Gas	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	22.4 (7/8")
	Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8") <sup>*2</sup>	9.52 (3/8") <sup>*2</sup>
TOTAL PIPING LENGTH (m)	Branch box / Mixed <sup>*1</sup>	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 300 (240)	150 / 150 (150)	240 / 310 (310)
FURTHEST PIPING LENGTH (m)	(With no branch boxes)	80 (85)	80 (85)	80 (85)	80 (85)	80 (85)	80 (85)	80	80 / 85 <sup>*4</sup>
BETWEEN BRANCH BOXES AND OUTDOOR UNIT - LENGTH (m)		55	55	55	55	55	55	55	95 / 80 <sup>*5</sup>
BETWEEN BRANCH BOXES AND INDOOR UNIT - LENGTH (m)		25	25	25	25	25	25	25	25
BETWEEN INDOOR AND OUTDOOR UNIT - HEIGHT (m)		50m max <sup>*3</sup>	50m max <sup>*3</sup>						
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT (m)		12	12	12	12	12	12	12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R410A (GWP 2088)		4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	7.3 / 15.2	9.3 / 19.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R410A (GWP 2088)		13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.5 / 28.2	22.4 / 46.8

Notes: \*1 Branch box - only using branch boxes (PAC-MK) on the system. Mixed - using a mix of branch boxes (PAC-MK) and City Multi indoor units on the same system. Figure in brackets - when using 2 or 3 branch boxes.

\*2 12.7mm (1/2") if furthest length ≥ 60m. \*3 40m max if outdoor installed below. \*4 Using mixed method. \*5 Using mixed method and one branch box.

SCOP / SEER available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 6 to EN14825 standard.

PAC-MK - BRANCH BOX	PAC-MK3BC	PAC-LV - LEV KIT INTERFACE	PAC-LV11M
NUMBER OF CONNECTABLE INDOOR UNITS	5	1	
COMPATIBLE INDOOR UNITS	M Series, Mr Slim	M Series	
WEIGHT (kg)	7.9	15 to 50	
DIMENSIONS (mm)	Width x Depth x Height	355 x 142 x 138	
POWER SUPPLY TO BRANCH BOX <sup>*1</sup>	From outdoor unit	220-240v, 50Hz / Single Phase	
	Separate supply		
	Separate supply fuse rating (BS88) - HRC (A)	6	
POWER SUPPLY TO INDOOR UNITS	From branch box	3 core + earth	

Note: \*1 Either option is available for power supply from outdoor unit OR from a separate supply.

Note: The indoor unit connected to the PAC-LV11 cannot be grouped with other City Multi indoor units. Group control with other M Series indoor units + PAC-LV11 is possible via ME controller or system controller only. Group control is not possible via an MA controller, IT terminal or wireless remote controller. ME control functions energy management, charge apportioning, interlock and free contact are not available.

## Accessories

### Outdoor Units

#### CMY-Y62-G-E

Branch pipe (2 branches) for PUMY

### System Control Units

#### PAR-CT01MAA-SB/PB

Touch screen wired remote controller (PB = Premium finish)

#### MAC-334IF-E

Interface for M-NET, MA remote controller  
(PAR-41MAA / PAR-CT01MAA),  
on/off input and run/fault output

#### MAC-497IF-E

Interface for MA remote controller  
(PAR-41MAA / PAR-CT01MAA)

#### MAC-587IF-E

Interface for connection to Wi-Fi MELCloud service

#### PAR-41MAA

Standard wired remote controller

#### MELCOBEMS MINI (A1M+)

Modbus and BACnet MSTP CN105 adaptor

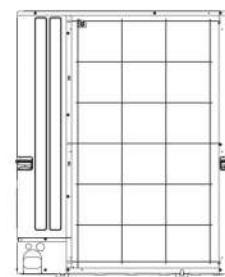
#### MELCORETAIL MINI

Retail control and input / output interface

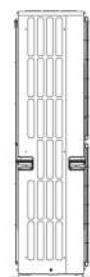
## Product Dimensions

### PUMY-P112/125/140VKM7/YKM7, PUMY-P200YKM4

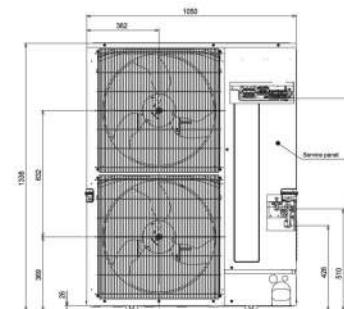
Rear View



Left Side View



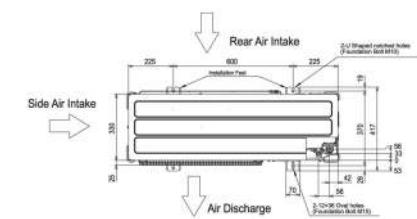
Front View



Right Side View



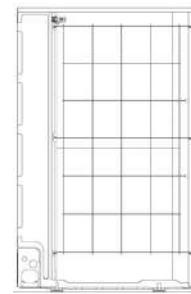
Upper View



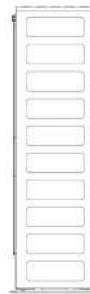
## Product Dimensions

### PUMY-P250/300YBM2

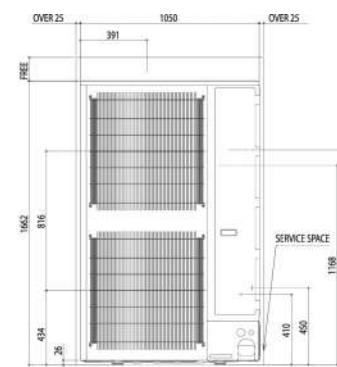
Rear View



Left Side View



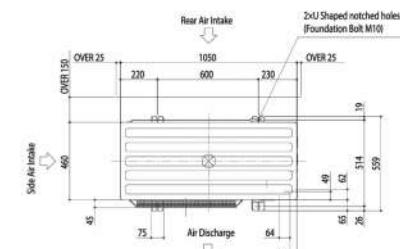
Front View



Right Side View



Upper View



# Multi-Split Accessories / Optional Extras

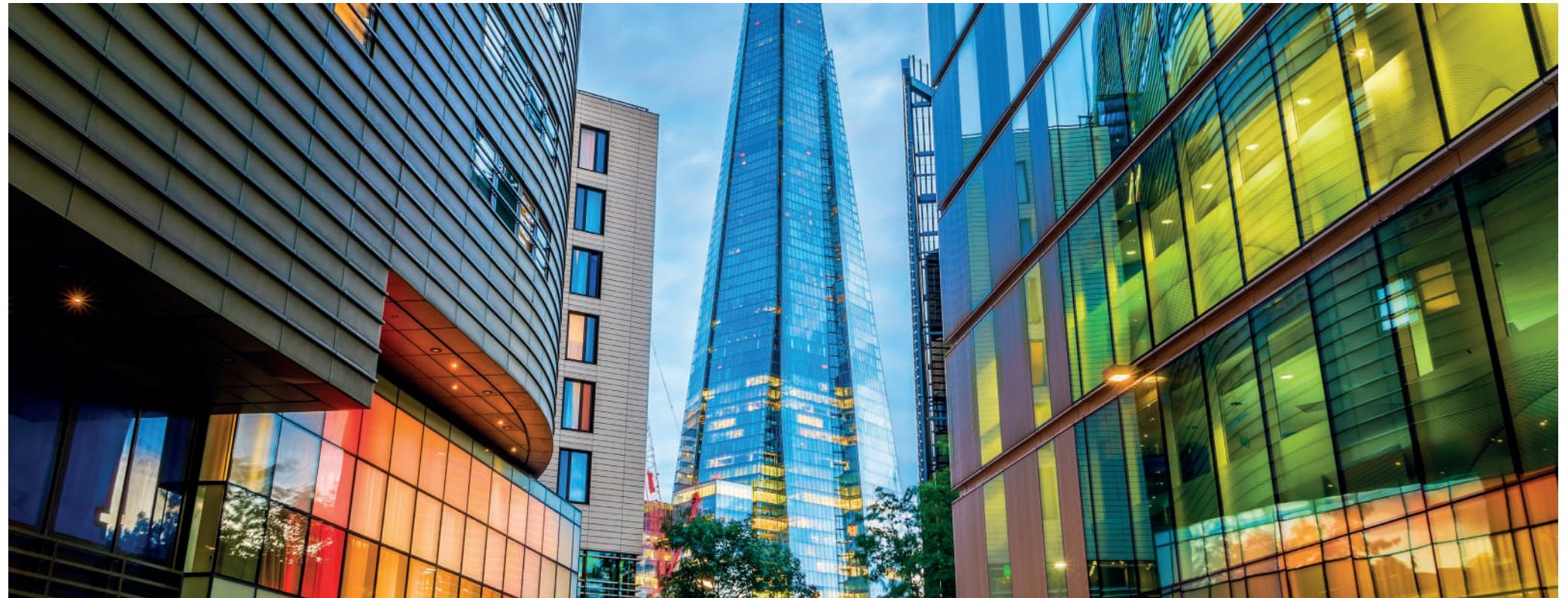
OUTDOOR UNITS	DESCRIPTION
MAC-881SG	Air outlet guide for MXZ-2F33VF4, MXZ-2F42VF4, MXZ-2F53VF4, MXZ-2HA40VF2, MXZ-2HA50VF2
MAC-856SG	Air outlet guide for MXZ-3F54VF4, MXZ-3F68VF4, MXZ-4F72VF4, MXZ-3HA50VF2
PAC-SH96SG-E	Air outlet guide for MXZ-4F83VF2, MXZ-5F102VF2, MXZ-6F120VF2
CMY-Y62-G-E	Branch pipe (2 branches) for PUMY-(S)P

SYSTEM CONTROL UNITS	DESCRIPTION
PAR-41MAA	Standard wired remote controller
MAC-334IF-E	Interface for M-NET, MA remote controller (PAR-41MAA / PAR-CT01MAA), on/off input and run/fault output. Now includes a heating interlock mode
MAC-497IF-E	Interface for MA remote controller (PAR-41MAA / PAR-CT01MAA)
MAC-587IF-E	Interface for connection to Wi-Fi MELCloud service
PAR-CT01MAA-SB	Touch screen wired remote controller
PAR-CT01MAA-PB	Touch screen wired remote controller (premium finish)
MELCOBEMS MINI (A1M+)	Modbus/BACnet MSTP CN105 adaptor
MELCORETAIL MINI	Retail control and input/output interface



# City Multi VRF

Energy Efficient VRF Systems





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R2 Series Standard Efficiency (22.4-33.5kW)	<b>1.5.10</b>
R2 Series Piping Design	<b>1.5.30</b>

## R32 Heat Pump Outdoor Units

Y Series (22.4-33.5kW)	<b>1.5.12</b>
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## R410A Heat Recovery Outdoor Units

R2 Series High Efficiency (22.4-45kW)	<b>1.5.14</b>
R2 Series High Efficiency (50-61.5kW)	<b>1.5.16</b>
R2 Series High Efficiency (67-95kW)	<b>1.5.18</b>
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R2 Series Standard Efficiency (100-120kW)	<b>1.5.28</b>
R2 Series Piping Design	<b>1.5.30</b>

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Y Series (50-61.5kW)	<b>1.5.34</b>
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Y Series (100-125kW)	<b>1.5.38</b>
Y Series (130-150kW)	<b>1.5.40</b>

## R410A Mini VRF Heat Pump Outdoor Units

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WY Series Heat Pump (63-101kW)	<b>1.5.52</b>

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Floor Standing Exposed	<b>1.5.66</b>
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**CITY MULTI****Energy Efficient VRF Systems**

# Our answer to large scale VRF - **City Multi Air Conditioning**

First developed over 30 years ago, City Multi is the market leader in VRF technology. Specifically designed to deliver comfort and control for today's building requirements, it addresses all the key market issues

VRF (Variable Refrigerant Flow) is a direct expansion type air conditioning system where one outdoor unit is connected with multiple indoor units, intelligently modulating the flow of refrigerant or water depending upon the capacity requirements of each zone within the building. Its ultimate purpose is to regulate the internal room air temperature and comfort levels in the most effective and efficient manner possible.

Today's commercial buildings are increasingly air tight and filled with heat-generating office equipment and lighting, which presents a challenge for anyone trying to maintain a stable and comfortable internal environment. Buildings account for around half of all UK greenhouse emissions, so legislation is demanding higher standards of air quality and increased energy efficiency in this sector.

## The ideal solution

City Multi has constantly evolved and is packed with innovation that makes it eminently suitable for almost any building.

Designed from day one to work effectively in real applications in the UK market, City Multi delivers the best possible performance, combined with total flexibility of design and operation.

Available in heat recovery and heat pump variants, with up to 50 indoor units connectable, **City Multi provides the ultimate solution in comfort and efficiency.**



## Lower GWP R32 VRF air conditioning systems from Mitsubishi Electric

With the launch of our YNW R32 VRF systems, Mitsubishi Electric were the first manufacturer to offer the UK market a complete range of lower Global Warming Potential (GWP) solutions.

Under the growing pressure of the revised F-Gas phase down regulations, the market is demanding viable and positive solutions which are future proof for businesses and last the full lifecycle of the product.

R32 is now the norm for split-type air conditioning systems, offering a lower GWP (675) than R410A (2088). At the same time, the use of VRF systems has grown intensively over the past decade due to the core benefits of flexibility, energy saving and automated control.

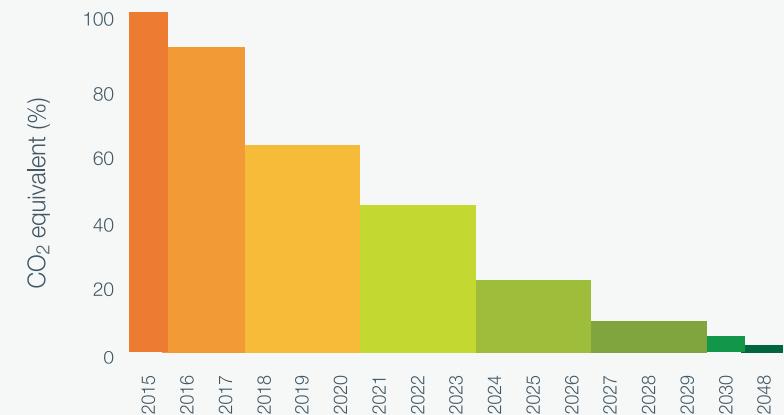
The unique Hybrid VRF system had been the only viable R32 solution available to the UK market. However, utilising the innovative City Multi YNW outdoor unit, we developed our new R32 VRF solution to offer complete design flexibility, high efficiency and low noise.

R32 makes up 50% of the existing R410A refrigerant already found in many current VRF systems; it is highly energy efficient and easy to recycle. A GWP of one third of R410A, plus reduced overall system refrigerant volumes, means a lower refrigerant total and lower global warming impact.

No matter which stage of the supply chain you or your customers occupy and whatever the core drivers, the solutions available from our complete range of VRF products can meet the tough demands of today's buildings. Whether CSR is high on the agenda, or lifecycle cost or capital cost, **there is a choice available from Mitsubishi Electric**.



### F-Gas - HFC phase down programme\*



Customers need a manufacturer that is ahead of the curve and developing products that meet both current and future legislation.

#### Options to reduce the CO<sub>2</sub> equivalent include:

- ➔ Decreasing kW on the market
- ➔ Reducing the amount of refrigerant
- ➔ Lowering the GWP of refrigerant

VRF now utilises lower GWP R32 refrigerant.

\* F-Gas 2024 phase down programme: [http://ec.europa.eu/clima/policies/f-gas/legislation/index\\_en.htm](http://ec.europa.eu/clima/policies/f-gas/legislation/index_en.htm)

**CITY MULTI****Energy Efficient VRF Systems****Outdoor / Condensing Unit Range**

Air Cooled

<b>Heat Recovery - R2 Series</b>	P (kW)	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
High Efficiency PURY-EM (YNW)	R32							S	S	S																		
Standard Efficiency PURY-M (YNW)	R32							S	S	S																		
High Efficiency PURY-EP (YNW)	R410A							S	S	S	L	L	L	XL	XL	S	L	L	L	L	L	L	XL	XL	XL	XL		
Standard Efficiency PURY-P (YNW)	R410A							S	S	S	L	L	L	XL	XL	S	L	L	L	L	L	L	XL	XL	XL	XL		



Water Cooled

<b>Heat Recovery - WR2 Series</b>	P (kW)	112	125	140	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
PQRY-P (YLM)	R410A																		
Heat Pump - WY Series	PQHY-P (YLM)																		
	R410A																		

- S Small chassis  
R32 & R410A
- L Large chassis  
R410A
- XL Extra Large chassis  
R410A

## Indoor Unit Range

Model	Range	P (kW)	10	15	20	25	32	40	50	63	80	100	125	140	200	250
Ceiling Concealed Ducted	PEFY-P-VMS1-E (Ultra Thin)	R410A			●	●	●	●	●	●	●					
	PEFY-M-VMA-A1	R32	R410A			●	●	●	●	●	●	●	●	●	●	●
	PEFY-P-VMHS-E (High Static Pressure)	R410A										●	●	●	●	●
4-Way Blow Ceiling Cassette	PLFY-M-VEM6-E	R32	R410A						●	●	●	●	●	●	●	●
	PLFY-P-VFM-E (600x600)	R410A				●	●	●	●	●	●					
Floor Standing	PFFY-P-VCM-E (Concealed)	R410A				●	●	●	●	●	●	●				
	PFFY-P-VEM-E (Exposed)	R410A				●	●	●	●	●	●	●				
	PFFY-P-VKM-E (Exposed)	R410A					●	●	●	●	●					
Wall Mounted	PKFY-P-VLM-E	R410A			●	●	●	●	●							
	PKFY-P-VLM-E	R410A								●	●					
	PKFY-P-VKM-E	R410A									●					
Ceiling Suspended	PCFY-P-VKM-E	R410A							●		●		●	●		
VRF Sanitary Water Heater	PWFY-P-VM-E-BU	R410A										●				

Note: All kW capacity ratings may change on connected system, please contact your local sales office for confirmation.

# R2 Series VRF High Efficiency (22.4-33.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



Delivering outstanding Seasonal Energy Efficiency, the award-winning City Multi R2 Series VRF High Efficiency system provides simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-EM** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

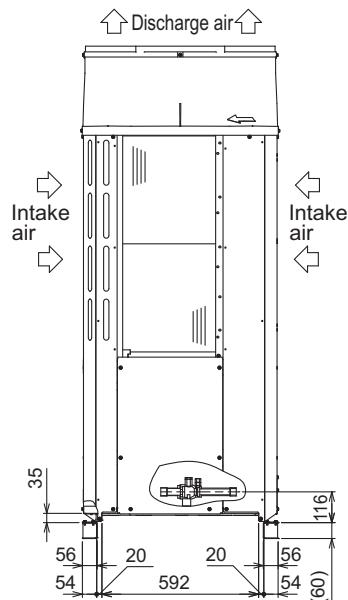


OUTDOOR UNITS	PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1
CAPACITY (kW)			
Heating (nominal max)	25.0	31.5	37.5
Cooling (nominal)	22.4	28.0	33.5
High Performance Heating (UK)	25.0	31.5	35.6
COP Priority Heating (UK)	22.8	28.7	34.1
Cooling (UK)	20.1	25.1	30.0
POWER INPUT (kW)			
Heating (nominal max)	6.72	9.51	10.90
Cooling (nominal)	4.43	6.68	7.82
High Performance Heating (UK)	6.59	9.20	12.46
COP Priority Heating (UK)	5.23	7.30	9.37
Cooling (UK)	2.57	3.87	4.54
COP / EER (nominal max)	3.72 / 5.05	3.31 / 4.19	3.44 / 4.28
MAX No. OF CONNECTABLE INDOOR UNITS	9 (8*)	11 (10*)	14 (12*)
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	170	185
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")
	Liquid	15.88 (5/8")	15.88 (5/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 59.0	61.0 / 60.5
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	78.0 / 76.0	80.0 / 78.5
WEIGHT (kg)		231	231
DIMENSIONS (mm)	Width	920	920
	Depth	740	740
(1798mm without legs)	Height	1858	1858
ELECTRICAL SUPPLY		380-415v, 50Hz	380-415v, 50Hz
PHASE		Three	Three
STARTING CURRENT (A)		8	8
NOMINAL SYSTEM RUNNING CURRENT (A)	Heating / Cooling [MAX]	8.3 / 7.1 [16.1]	11.7 / 10.7 [21.8]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25
MAINS CABLE No. Cores		4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	5.2 / 3.5	5.2 / 3.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	21.3 / 14.4	22.3 / 15.1

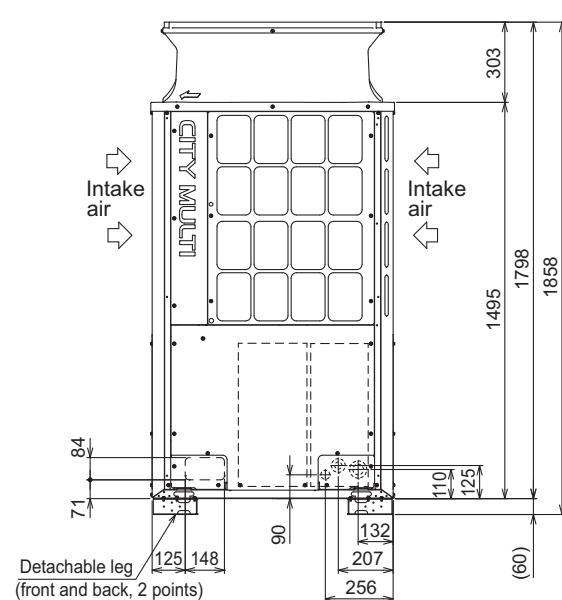
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.  
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 If a model PEFY-M 20 or 25 indoor unit is connected.

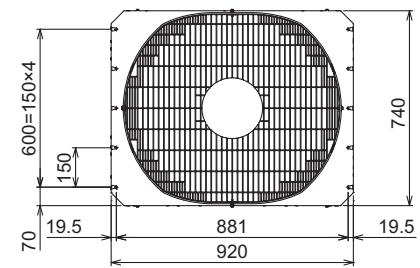
Side View



Front View



Upper View



# R2 Series VRF Standard Efficiency (22.4-33.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



The award-winning City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

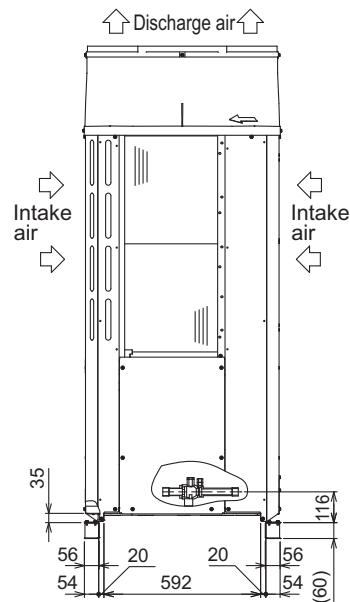
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application



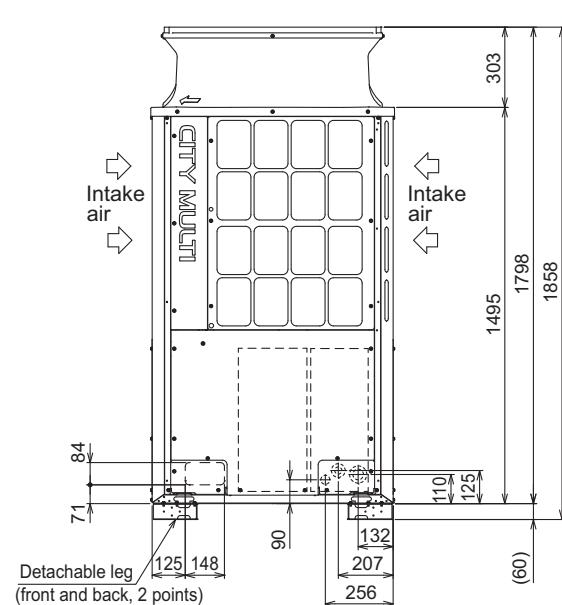
OUTDOOR UNITS	PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1
CAPACITY (kW)			
Heating (nominal max)	25.0	31.5	33.5
Cooling (nominal)	22.4	28.0	33.5
High Performance Heating (UK)	25.0	31.5	35.6
COP Priority Heating (UK)	22.8	28.7	34.1
Cooling (UK)	20.1	25.1	30.0
POWER INPUT (kW)			
Heating (nominal max)	6.79	9.57	9.62
Cooling (nominal)	4.85	7.10	8.67
High Performance Heating (UK)	6.64	9.22	12.44
COP Priority Heating (UK)	5.27	7.32	9.35
Cooling (UK)	2.81	4.12	5.03
COP / EER (nominal max)	3.68 / 4.61	3.29 / 3.94	3.48 / 3.86
MAX No. OF CONNECTABLE INDOOR UNITS	9 (8*)	11 (10*)	14 (12*)
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)			
High	170	185	240
PIPE SIZE mm (in)			
Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")
Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 59.0	61.0 / 60.5
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	78.0 / 76.0	80.0 / 78.5
WEIGHT (kg)			
Dimensions (mm)	Width	920	920
	Depth	740	740
(1798mm without legs)	Height	1858	1858
ELECTRICAL SUPPLY			
PHASE	Three	Three	Three
STARTING CURRENT (A)	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)	Heating / Cooling [MAX]	8.4 / 7.7 [16.1]	11.7 / 11.3 [22.5]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25
MAINS CABLE No. Cores		4	4
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	5.2 / 3.5	5.2 / 3.5
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	21.3 / 14.4	22.8 / 15.4

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.  
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.  
\*1 If a model PEFY-M 20 or 25 indoor unit is connected.

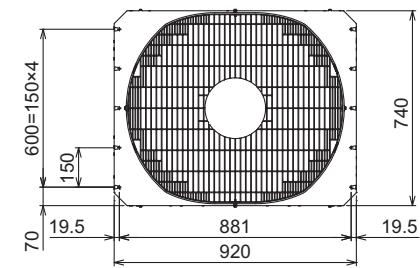
Side View



Front View



Upper View



# Y Series VRF (22.4-33.5kW)

## Heat Pump Outdoor Unit (Heating or Cooling)



The award-winning City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. By utilising lower GWP R32 refrigerant, the **PUHY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

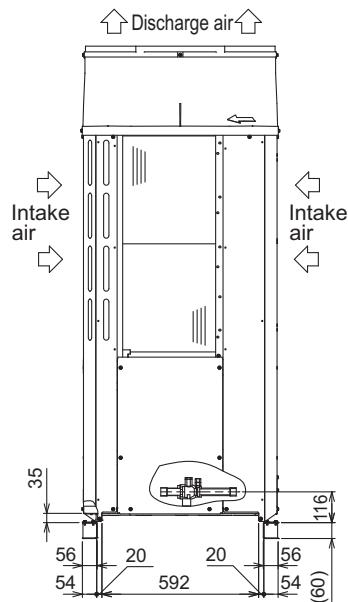
- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities



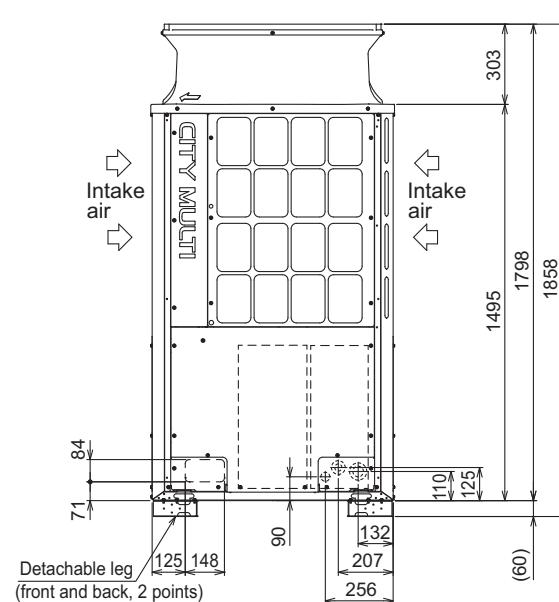
OUTDOOR UNITS	PUHY-M200YNW-A1	PUHY-M250YNW-A1	PUHY-M300YNW-A1
CAPACITY (kW)			
Heating (nominal max)	25.0	31.5	37.5
Cooling (nominal)	22.4	28.0	33.5
High Performance Heating (UK)	25.0	31.5	35.6
COP Priority Heating (UK)	22.8	28.7	34.1
Cooling (UK)	20.0	25.1	30.0
POWER INPUT (kW)			
Heating (nominal max)	6.08	8.49	10.30
Cooling (nominal)	4.72	6.96	8.54
High Performance Heating (UK)	6.40	9.00	11.08
COP Priority Heating (UK)	5.08	7.14	8.33
Cooling (UK)	2.74	4.04	4.05
COP / EER (nominal max)	4.11 / 4.74	3.71 / 4.02	3.64 / 3.92
MAX No. OF CONNECTABLE INDOOR UNITS	8	10	12
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)			
High	170	185	240
PIPE SIZE mm (in)			
Gas	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")
Liquid	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 58.0	61.0 / 60.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	78.0 / 75.0	80.0 / 78.0
WEIGHT (kg)	222	222	223
DIMENSIONS (mm)			
Width	920	920	920
Depth	740	740	740
(1798mm without legs) Height	1858	1858	1858
ELECTRICAL SUPPLY	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE	Three	Three	Three
STARTING CURRENT (A)	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)	Heating / Cooling [MAX]	8.1 / 7.5 [16.1]	11.4 / 11.1 [21.8]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)		1 x 20	1 x 25
MAINS CABLE No. Cores		4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	6.5 / 4.4	6.5 / 4.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	18.0 / 12.2	18.5 / 12.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.  
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

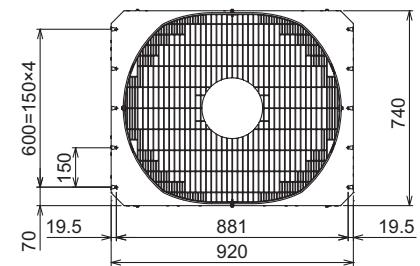
Side View



Front View



Upper View



# R2 Series VRF High Efficiency (22.4-45kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-EP200YNW-A2	PURY-EP250YNW-A2	PURY-EP300YNW-A2	PURY-EP350YNW-A2	PURY-EP400YNW-A2	PURY-EP400YSNW-A2
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	37.5	45.0	50.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0
	High Performance Heating (UK)	25.0	31.5	35.6	42.8	45.0
	COP Priority Heating (UK)	22.8	28.7	34.1	41.0	43.0
	Cooling (UK)	20.0	25.1	30.0	35.8	40.3
POWER INPUT (kW)	Heating (nominal max)	6.72	9.51	10.90	13.39	16.33
	Cooling (nominal)	6.38	9.75	11.20	14.23	18.75
	High Performance Heating (UK)	8.47	11.98	14.50	17.81	18.45
	COP Priority Heating (UK)	6.72	9.51	10.90	13.39	16.33
	Cooling (UK)	3.70	5.66	6.50	8.25	12.00
COP / EER (nominal max)	3.72 / 3.51	3.31 / 2.87	3.44 / 2.99	3.36 / 2.81	3.06 / 2.40	3.61 / 3.40
MAX No. OF CONNECTABLE INDOOR UNITS	20	25	30	35	40	40
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	170	185	240	250	315
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 59.0	64.0 / 61.0	67.0 / 61.0	64.0 / 62.5	69.0 / 65.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	76.0 / 76.0	83.0 / 78.0	86.0 / 80.0	83.0 / 81.0	88.0 / 83.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	74.5 / 71.0	76.0 / 73.5	82.0 / 74.5	81.0 / 76.0	83.5 / 77.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	71.5 / 66.5	74.5 / 69.5	77.5 / 70.5	77.0 / 73.0	78.0 / 73.0
WEIGHT (kg)	219	228	230	275	276	219 + 219
DIMENSIONS (mm)	Width	920	920	920	1240	1240
	Depth	740	740	740	740	740
(1798mm without legs)	Height	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>	8	8	8	8	8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup>	Heating/Cooling [MAX]	10.7 / 10.2 [16.1]	15.2 / 15.6 [20.3]	17.4 / 17.9 [22.3]	21.4 / 22.8 [24.8]	26.1 / 30.0 [33.3]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>		1 x 20	1 x 25	1 x 25	1 x 25	1 x 40
MAINS CABLE No. Cores <sup>1</sup>		4 + earth	4 + earth	4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	5.2 / 10.9	5.2 / 10.9	5.2 / 10.9	8 / 16.7	8 / 16.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	28.3 / 59.1	34.3 / 71.6	34.3 / 71.6	39 / 81.4	39 / 81.4
						48.6 / 101.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling: indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating: indoor 20°C DB; outdoor 7°C DB, 6°C WB.

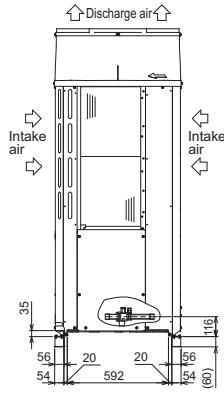
UK Conditions: Cooling: indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating: indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

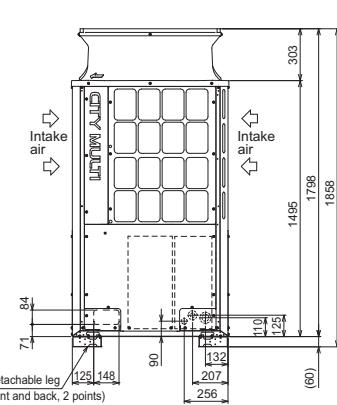
**Product Dimensions**

PURY-EP200/250/300YNW-A2

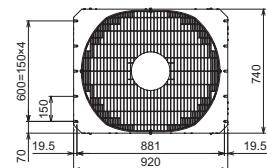
Side View



Front View

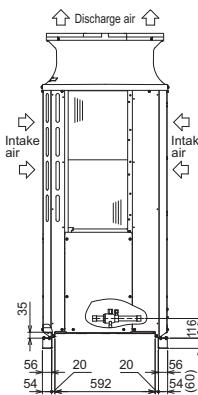


Upper View

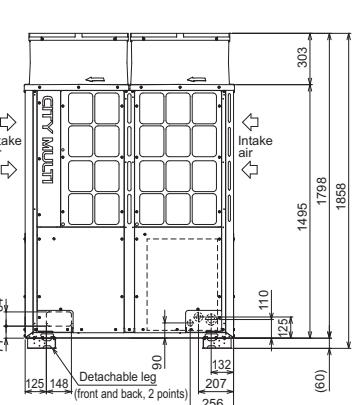
**Product Dimensions**

PURY-EP350/400YNW-A2

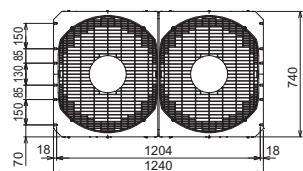
Side View



Front View

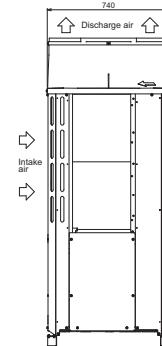


Upper View

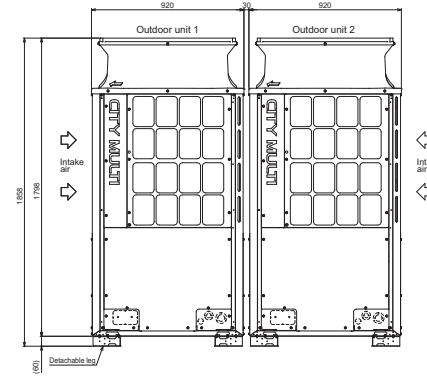
**Product Dimensions**

PURY-EP400YSNW-A2

Side View



Front View



# R2 Series VRF High Efficiency (50-61.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-EP450YNW-A2	PURY-EP450YSNW-A2	PURY-EP500YNW-A2	PURY-EP500YSNW-A2	PURY-EP550YNW-A2	PURY-EP550YSNW-A2
CAPACITY (kW)	Heating (nominal max) 56.0 Cooling (nominal) 50.0 High Performance Heating (UK) 50.4 COP Priority Heating (UK) 48.2 Cooling (UK) 44.8	56.5 50.4 56.5 51.4 45.1	63.0 56.0 56.7 57.3 50.1	63.0 56.0 63.0 57.3 50.1	69.0 60.0 62.1 59.3 53.7	69.0 61.5 65.6 62.8 55.0
POWER INPUT (kW)	Heating (nominal max) 18.36 Cooling (nominal) 18.93 High Performance Heating (UK) 20.75 COP Priority Heating (UK) 18.36 Cooling (UK) 12.12	16.56 16.31 21.20 16.56 9.46	21.00 21.78 23.73 21.00 13.94	19.62 20.14 25.11 19.62 11.68	23.87 25.70 26.97 23.87 16.45	21.10 21.65 28.06 21.10 12.56
COP / EER (nominal max)	3.05 / 2.64	3.41 / 3.09	3.00 / 2.57	3.21 / 2.78	2.89 / 2.33	3.27 / 2.84
MAX No. OF CONNECTABLE INDOOR UNITS	45	45	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High 315	170 / 185	295	185 / 185	410	185 / 240
PIPE SIZE mm (in)	Gas 28.58 (1-1/8") Liquid 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8") 22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling 70.0 / 65.5	63.5 / 63.0	64.5 / 63.5	64.0 / 63.5	70.0 / 70.0	68.0 / 64.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling 89.0 / 83.0	83.8 / 80.0	84.0 / 82.0	86.0 / 81.0	89.0 / 89.0	87.7 / 82.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling 85.5 / 78.5	77.9 / 75.2	81.0 / 76.5	79.0 / 76.5	86.0 / 83.5	83.0 / 76.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling 79.5 / 74.0	76.2 / 71.2	77.5 / 73.5	77.5 / 72.5	81.5 / 79.0	79.2 / 73.0
WEIGHT (kg)	301	219 + 228	346	228 + 228	346	228 + 230
DIMENSIONS (mm)	Width 1240	920 + 920	1750	920 + 920	1750	920 + 920
	Depth 740	740	740	740	740	740
(1798mm without legs)	Height 1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>2</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>	Heating/Cooling [MAX] 29.4 / 30.3 [37.3]	26.5 / 26.1 [16.1 + 20.3]	33.6 / 34.9 [40.3]	31.4 / 32.2 [20.3 + 20.3]	38.2 / 41.2 [51.2]	33.8 / 34.7 [22.3 + 20.3]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>	1 x 40	1 x 20 / 1 x 25	1 x 50	1 x 25 / 1 x 25	1 x 63	1 x 25 / 1 x 25
MAINS CABLE No. Cores <sup>2</sup>	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 10.8 / 22.5	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 44.7 / 93.3	48.6 / 101.5	45.2 / 94.4	48.6 / 101.5	45.2 / 94.4	48.6 / 101.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

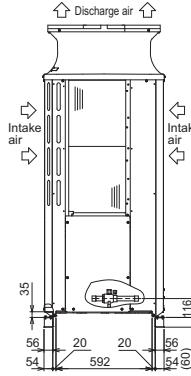
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 If distance from OU to BC controller is greater than 65m. \*2 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

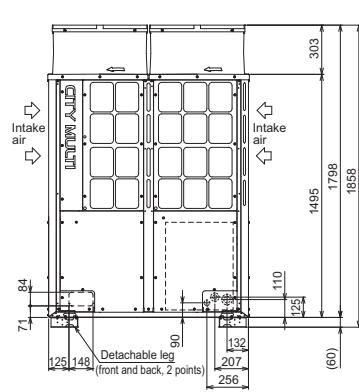
**Product Dimensions**

PURY-EP450YNW-A2

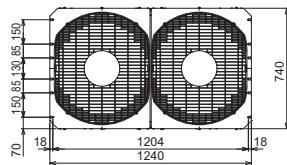
Side View



Front View

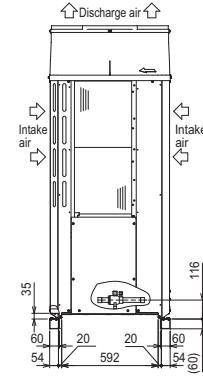


Upper View

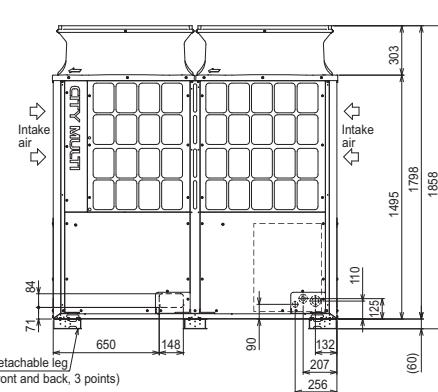
**Product Dimensions**

PURY-EP500/550YNW-A2

Side View

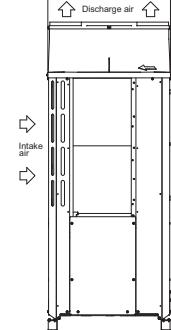


Front View

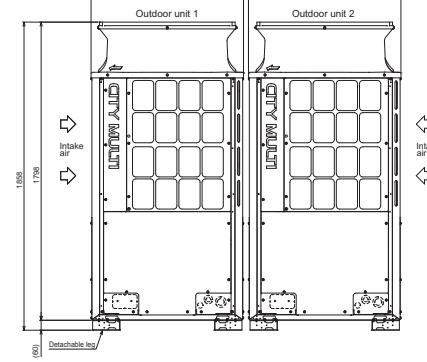
**Product Dimensions**

PURY-EP450/500/550YSNW-A2

Side View



Front View



# R2 Series VRF High Efficiency (67-95kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-EP600YSNW-A2	PURY-EP650YSNW-A2	PURY-EP700YSNW-A2	PURY-EP750YSNW-A2	PURY-EP800YSNW-A2	PURY-EP850YSNW-A2
CAPACITY (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	75.0 67.0 71.3 68.3 60.0	82.5 73.5 78.4 75.1 65.8	90.0 80.0 85.5 81.9 71.6	95.0 85.0 85.5 81.7 76.1	100.0 90.0 90.0 86.0 80.6
POWER INPUT (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	22.45 23.10 29.86 22.45 13.40	25.00 26.15 33.25 25.00 15.17	27.60 29.30 36.71 27.60 16.99	30.54 33.59 34.51 29.62 19.48	33.67 38.62 38.05 32.66 24.72
COP / EER (nominal max)	3.34 / 2.90	3.30 / 2.81	3.26 / 2.73	3.11 / 2.53	2.97 / 2.33	2.96 / 2.44
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	240 / 240	240 / 250	250 / 250	250 / 315	315 / 315
PIPE SIZE mm (in)	Gas Liquid	28.58 (1-1/8") 22.2 (7/8")/28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8") 28.58 (1-1/8") <sup>1</sup>	34.93 (1-3/8") 28.58 (1-1/8")	34.93 (1-3/8") 28.58 (1-1/8")	34.93 (1-3/8") 28.58 (1-1/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	70.0 / 64.0	69.0 / 65.0	67.0 / 65.5	70.5 / 67.0	72.0 / 68.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	89.0 / 83.0	87.7 / 83.5	86.0 / 84.0	90.2 / 85.1	91.0 / 86.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	85.0 / 77.5	82.7 / 77.9	84.0 / 79.0	85.4 / 79.5	86.5 / 80.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	80.5 / 73.5	80.2 / 75.9	80.0 / 76.0	80.5 / 76.0	81.0 / 76.0
WEIGHT (kg)	230 + 230	230 + 275	275 + 275	275 + 276	276 + 276	276 + 301
DIMENSIONS (mm)	Width Depth (1798mm without legs) Height	920 + 920 740 1858	920 + 1240 740 1858	1240 + 1240 740 1858	1240 + 1240 740 1858	1240 + 1240 740 1858
ELECTRICAL SUPPLY <sup>2</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>	Heating / Cooling [MAX]	36.0 / 37.0 [22.3 + 22.3]	40.0 / 41.9 [22.3 + 24.8]	44.2 / 46.9 [24.8 + 24.8]	48.9 / 53.8 [24.8 + 33.3]	53.9 / 61.9 [33.3 + 33.3]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60347-2) - (A) <sup>2</sup>		1 x 25 / 1 x 25	1 x 25 / 1 x 25	1 x 25 / 1 x 25	1 x 25 / 1 x 40	1 x 40 / 1 x 40
MAINS CABLE No. Cores <sup>2</sup>		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	10.4 / 21.7	13.2 / 27.6	16 / 33.4	16 / 33.4	16 / 33.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	48.6 / 101.5	45.8 / 95.6	70 / 146.2	70.5 / 147.2	70 / 146.2
						67.2 / 140.3

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

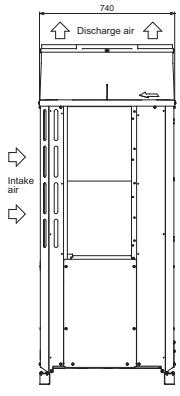
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

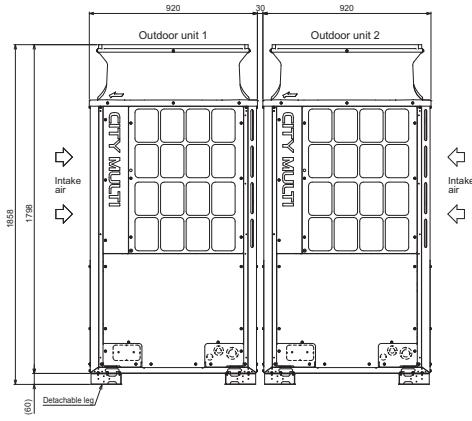
## Product Dimensions

PURY-EP600YSNW-A2

Side View



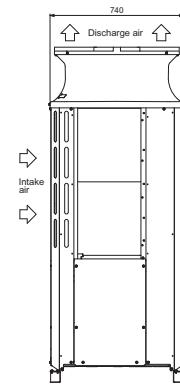
Front View



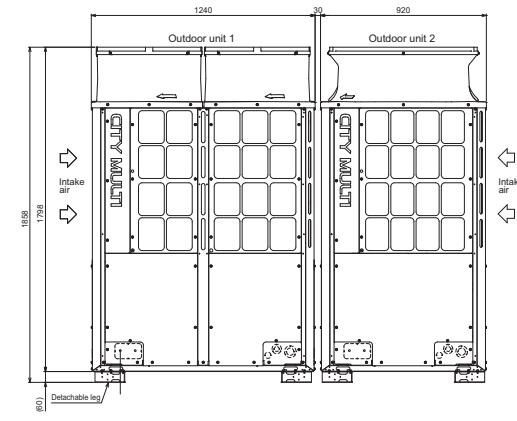
## Product Dimensions

PURY-EP650YSNW-A2

Side View



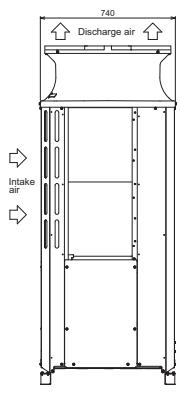
Front View



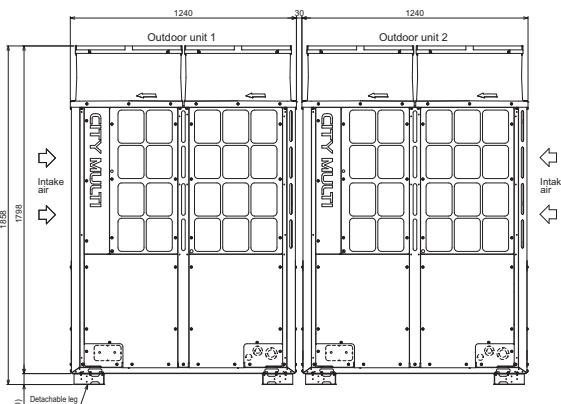
## Product Dimensions

PURY-EP700/750/800/850YSNW-A2

Side View



Front View



# R2 Series VRF High Efficiency (100-120kW)

**Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit**



Delivering outstanding Seasonal Energy Efficiency, the City Multi R2 Series VRF High Efficiency Heat Recovery system provides simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-EP** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

## Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-EP900YSNW-A2	PURY-EP950YSNW-A2	PURY-EP1000YSNW-A2	PURY-EP1050YSNW-A2	PURY-EP1100YSNW-A2
CAPACITY (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	112.0 100.0 100.8 96.3 89.5	119.0 106.0 107.1 102.3 94.9	126.0 112.0 113.4 108.4 100.2	132.0 116.0 118.8 113.5 103.8
POWER INPUT (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	37.83 39.06 50.31 36.70 25.00	40.61 41.89 54.01 39.39 26.81	43.29 44.97 57.58 41.99 28.78	46.15 48.73 52.15 44.77 28.26
COP / EER (nominal max)	2.96 / 2.56	2.93 / 2.53	2.91 / 2.49	2.86 / 2.38	2.80 / 2.26
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High 315 / 315	315 / 295	295 / 295	295 / 410	410 / 410
PIPE SIZE mm (in)	Gas 41.28 (1-5/8") Liquid 28.58 (1-1/8")	41.28 (1-5/8") 28.58 (1-1/8")	41.28 (1-5/8") 28.58 (1-1/8")	41.28 (1-5/8") 34.93 (1-3/8")	41.28 (1-5/8") 34.93 (1-3/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling 73.0 / 68.5	71.5 / 68.0	67.5 / 66.5	71.5 / 71.0	73.0 / 73.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling 92.0 / 86.0	91.0 / 86.0	87.0 / 85.0	90.2 / 89.8	92.0 / 92.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling 88.5 / 81.5	85.5 / 81.0	84.0 / 79.5	87.2 / 84.3	89.0 / 86.5
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling 82.5 / 77.0	80.0 / 77.0	80.5 / 76.5	82.7 / 80.1	84.5 / 82.0
WEIGHT (kg)	301 + 301	301 + 346	346 + 346	346 + 346	346 + 346
DIMENSIONS (mm)	Width 1240 + 1240 Depth 740 (1798mm without legs) Height 1858	1240 + 1750 740 1858	1750 + 1750 740 1858	1750 + 1750 740 1858	1750 + 1750 740 1858
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup>	Heating/Cooling [MAX] 60.6 / 62.6 [37.3 + 37.3]	65.1 / 67.1 [37.3 + 40.3]	69.4 / 72.1 [40.3 + 40.3]	74.0 / 78.1 [40.3 + 51.2]	79.0 / 85.1 [51.2 + 51.2]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>	1 x 40 / 1 x 40	1 x 40 / 1 x 50	1 x 50 / 1 x 50	1 x 50 / 1 x 63	1 x 63 / 1 x 63
MAINS CABLE No. Cores <sup>1</sup>	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 64.4 / 134.4	64.4 / 134.4	64.4 / 134.4	64.4 / 134.4	64.4 / 134.4

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

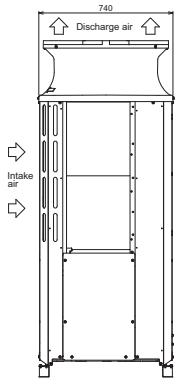
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

<sup>1</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

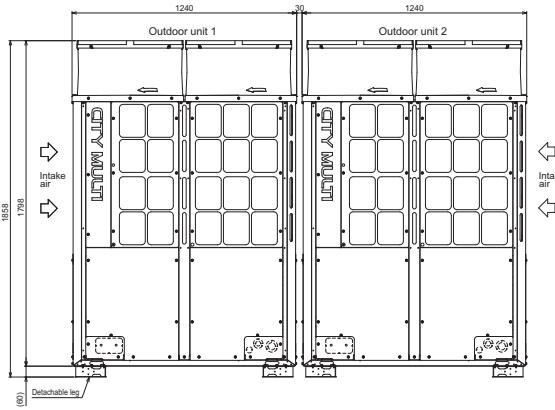
## Product Dimensions

PURY-EP900YSNW-A2

Side View



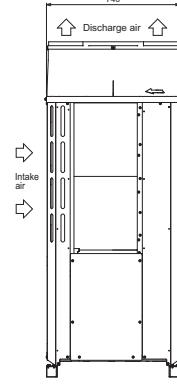
Front View



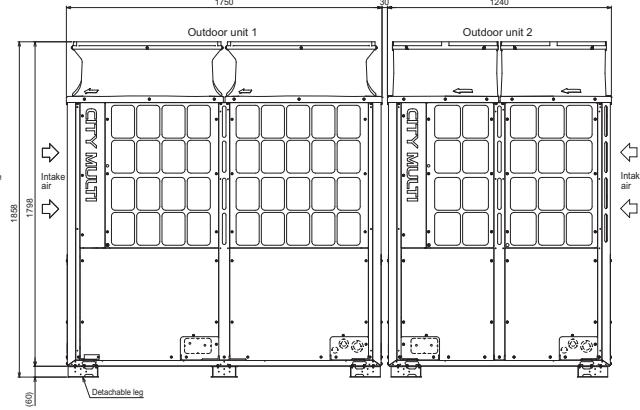
## Product Dimensions

PURY-EP950YSNW-A2

Side View



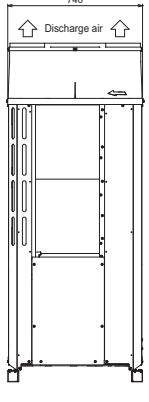
Front View



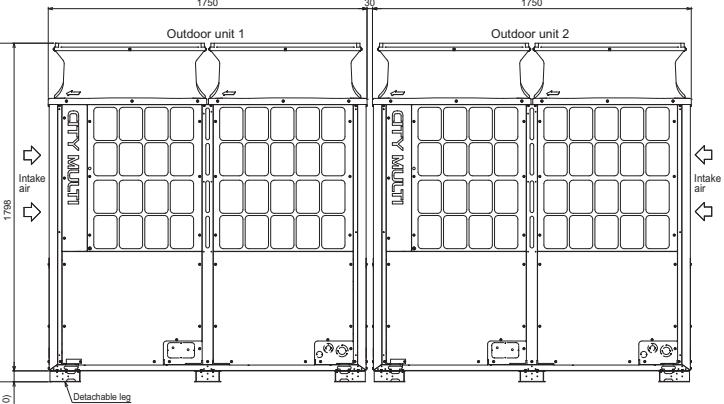
## Product Dimensions

PURY-EP1000/1050/1100YSNW-A2

Side View



Front View



# R2 Series VRF Standard Efficiency (22.4-45kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS		PURY-P200YNW-A2	PURY-P250YNW-A2	PURY-P300YNW-A2	PURY-P350YNW-A2	PURY-P400YNW-A2	PURY-P400YSNW-A2
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	33.5	45.0	50.0	50.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	44.8
	High Performance Heating (UK)	25.0	31.5	31.8	42.8	45.0	50.0
	COP Priority Heating (UK)	22.8	28.7	30.1	41.0	43.0	45.5
	Cooling (UK)	20.0	25.1	30.0	35.8	40.3	40.1
POWER INPUT (kW)	Heating (nominal max)	6.79	9.57	9.62	13.88	16.66	14.00
	Cooling (nominal)	6.68	10.25	11.75	14.92	19.65	13.78
	High Performance Heating (UK)	8.56	12.06	12.79	18.46	18.99	17.92
	COP Priority Heating (UK)	6.79	9.57	9.62	13.88	16.16	14.00
	Cooling (UK)	3.87	5.95	6.82	8.65	12.58	7.99
COP / EER (nominal max)	3.68 / 3.35	3.29 / 2.73	3.48 / 2.85	3.24 / 2.68	3.00 / 2.29	3.57 / 3.25	
MAX No. OF CONNECTABLE INDOOR UNITS	20	25	30	35	40	40	
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	170	220	240	250	315	170 / 170
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	59.0 / 59.0	64.0 / 60.5	67.0 / 61.0	64.0 / 62.5	69.0 / 65.0	62.0 / 62.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	76.0 / 76.0	83.0 / 78.0	86.0 / 80.0	83.0 / 81.0	88.0 / 83.0	79.0 / 79.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	74.5 / 71.0	80.0 / 73.5	82.0 / 74.5	81.0 / 76.0	83.5 / 77.0	77.5 / 74.0
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	71.5 / 66.5	76.5 / 69.5	77.5 / 70.5	77.0 / 73.0	78.0 / 73.0	74.5 / 69.5
WEIGHT (kg)	214	223	225	269	269	214 + 214	
DIMENSIONS (mm)	Width	920	920	920	1240	1240	920 + 920
	Depth	740	740	740	740	740	740
(1798mm without legs)	Height	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup>	Heating / Cooling [MAX]	10.8 / 10.7 [16.1]	15.3 / 16.4 [21.4]	15.4 / 18.8 [23.4]	22.2 / 23.9 [27.6]	26.7 / 31.5 [35.1]	22.4 / 22.0 [16.1 + 16.1]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>	1 x 20	1 x 25	1 x 25	1 x 32	1 x 40	1 x 20 / 1 x 20	
MAINS CABLE No. Cores <sup>1</sup>	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth / 4 + earth	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	5.2 / 10.9	5.2 / 10.9	5.2 / 10.9	8 / 16.7	8 / 16.7	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	31.8 / 66.4	37.8 / 78.9	37.8 / 78.9	41.3 / 86.2	47.3 / 98.8	60.6 / 126.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

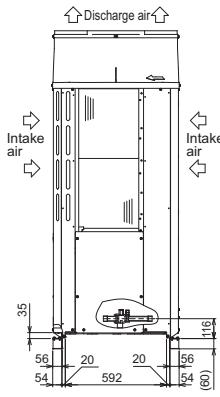
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

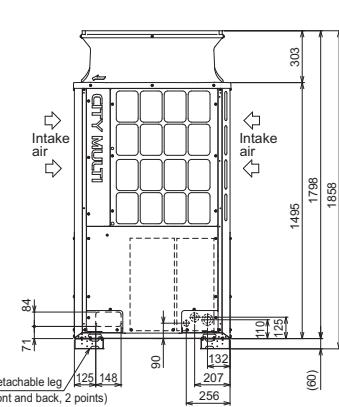
**Product Dimensions**

PURY-P200/250/300YNW-A2

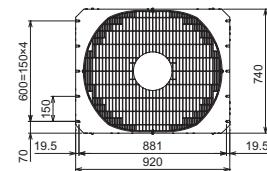
Side View



Front View

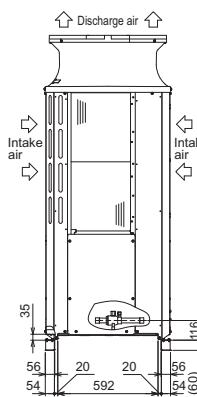


Upper View

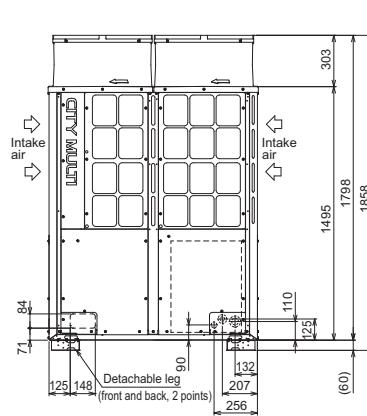
**Product Dimensions**

PURY-P350/400YNW-A2

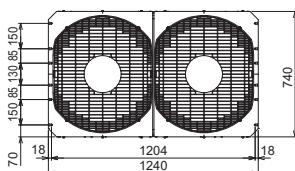
Side View



Front View

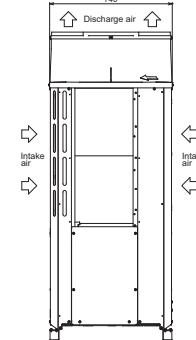


Upper View

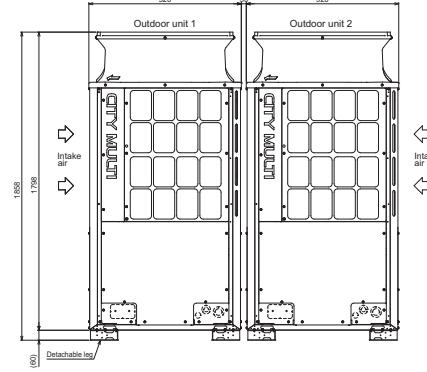
**Product Dimensions**

PURY-P400YSNW-A2

Side View



Front View



# R2 Series VRF Standard Efficiency (50-61.5kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-P450YNW-A2	PURY-P450YSNW-A2	PURY-P500YNW-A2	PURY-P500YSNW-A2	PURY-P550YNW-A2	PURY-P550YSNW-A2
CAPACITY (kW)	Heating (nominal max) 56.0 Cooling (nominal) 50.0 High Performance Heating (UK) 50.4 COP Priority Heating (UK) 48.2 Cooling (UK) 44.8	56.5 50.4 56.5 56.7 54.2 45.1	63.0 56.0 63.0 63.0 57.3 50.1	63.0 56.0 63.0 62.1 59.3 53.7	69.0 60.0 62.1 61.8 59.2 55.0	65.0 61.5 61.8 61.8 59.2 55.0
POWER INPUT (kW)	Heating (nominal max) 18.79 Cooling (nominal) 19.84 High Performance Heating (UK) 21.42 COP Priority Heating (UK) 18.23 Cooling (UK) 12.70	16.71 17.08 21.39 16.71 9.91	21.14 22.22 24.10 20.51 14.22	19.74 21.13 25.27 19.74 12.26	24.55 25.86 27.99 23.81 16.55	19.81 22.69 26.35 19.81 13.16
COP / EER (nominal max)	2.98 / 2.52	3.38 / 2.95	2.98 / 2.52	3.19 / 2.65	2.81 / 2.32	3.28 / 2.71
MAX No. OF CONNECTABLE INDOOR UNITS	45	45	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High 315	170 / 220	295	220 / 220	410	220 / 240
PIPE SIZE mm (in)	Gas 28.58 (1-1/8") Liquid 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8")	28.58 (1-1/8") 22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8") 22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling 70.0 / 65.5	65.5 / 63.0	64.5 / 63.5	67.0 / 63.5	70.0 / 70.0	69.0 / 64.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling 89.0 / 83.0	83.8 / 80.1	84.0 / 82.0	86.0 / 81.0	89.0 / 89.0	87.7 / 82.1
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling 85.5 / 78.5	81.1 / 75.4	81.0 / 76.5	83.0 / 76.5	86.0 / 83.5	84.1 / 76.2
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling 79.5 / 74.0	77.7 / 71.2	77.5 / 73.5	79.5 / 72.5	81.5 / 79.0	80.0 / 73.0
WEIGHT (kg)	289	214 + 223	335	223 + 223	335	223 + 225
DIMENSIONS (mm)	Width 1240	920 + 920	1750	920 + 920	1750	920 + 920
	Depth 740	740	740	740	740	740
(1798mm without legs)	Height 1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>2</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>	Heating / Cooling [MAX] 30.1 / 31.8 [39.0]	26.7 / 27.3 [16.1 + 21.4]	33.9 / 35.6 [43.2]	31.6 / 33.8 [21.4 + 21.4]	39.3 / 41.4 [51.4]	31.7 / 36.3 [21.4 + 23.4]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>	1 x 40	1 x 20 / 1 x 25	1 x 50	1 x 25 / 1 x 25	1 x 63	1 x 25 / 1 x 25
MAINS CABLE No. Cores <sup>2</sup>	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 10.8 / 22.5	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7	10.8 / 22.6	10.4 / 21.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 44.5 / 92.9	48.6 / 101.5	45.2 / 94.4	48.6 / 101.5	45.2 / 94.4	48.6 / 101.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

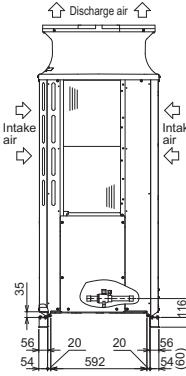
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 If distance from OU to BC controller is greater than 65m. <sup>2</sup>A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

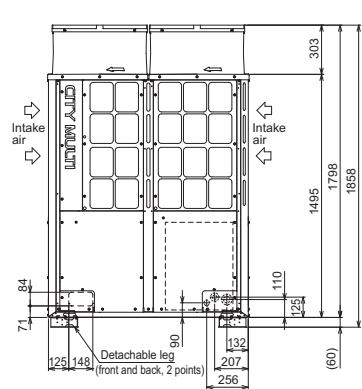
**Product Dimensions**

PURY-P450YNW-A2

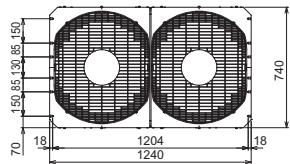
Side View



Front View

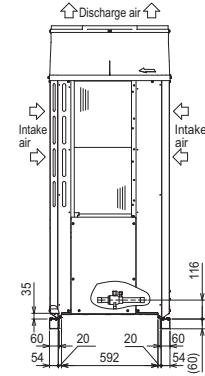


Upper View

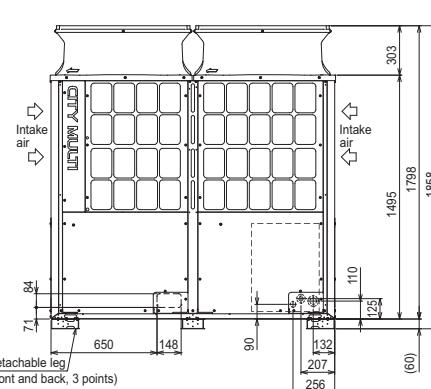
**Product Dimensions**

PURY-P500/550YNW-A2

Side View

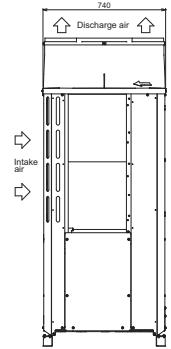


Front View

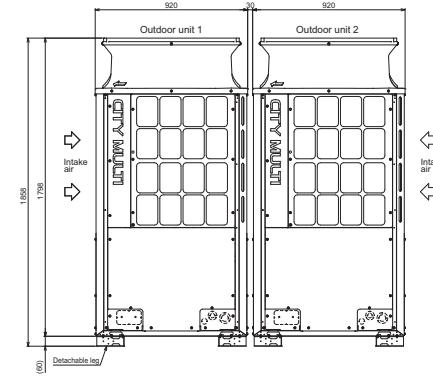
**Product Dimensions**

PURY-P450/500/550YSNW-A2

Side View



Front View



# R2 Series VRF Standard Efficiency (67-95kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS		PURY-P600YSNW-A2	PURY-P650YSNW-A2	PURY-P700YSNW-A2	PURY-P750YSNW-A2	PURY-P800YSNW-A2	PURY-P850YSNW-A2
CAPACITY (kW)	Heating (nominal max)	67.0	78.5	90.0	95.0	100.0	106.0
	Cooling (nominal)	67.0	73.5	80.0	85.0	90.0	95.0
	High Performance Heating (UK)	63.7	74.6	85.5	85.5	90.0	95.4
	COP Priority Heating (UK)	61.0	71.4	81.9	81.7	86.0	91.2
	Cooling (UK)	60.0	65.8	71.6	76.1	80.6	85.0
POWER INPUT (kW)	Heating (nominal max)	19.81	24.07	28.66	31.35	34.36	36.55
	Cooling (nominal)	24.27	27.42	30.76	35.26	40.54	40.77
	High Performance Heating (UK)	26.35	32.01	38.12	35.43	38.83	41.30
	COP Priority Heating (UK)	19.22	24.07	28.66	30.41	33.33	35.45
	Cooling (UK)	14.08	15.90	17.84	20.45	25.95	26.09
COP / EER (nominal max)	3.38 / 2.76	3.26 / 2.68	3.14 / 2.60	3.03 / 2.41	2.91 / 2.22	2.90 / 2.33	
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High	240 / 240	240 / 250	250 / 250	250 / 315	315 / 315	315 / 315
PIPE SIZE mm (in)	Gas	28.58 (1-1/8")	28.58 (1-1/8")	34.93 (1-3/8")	34.93 (1-3/8")	34.93 (1-3/8")	41.28 (1-5/8")
	Liquid	22.2 (7/8") / 28.58 (1-1/8") <sup>1</sup>	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling	70.0 / 64.0	69.0 / 65.0	67.0 / 65.5	70.5 / 67.0	72.0 / 68.0	72.5 / 68.5
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling	89.0 / 83.0	87.7 / 83.5	86.0 / 84.0	89.2 / 85.1	91.0 / 86.0	91.5 / 86.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling	85.0 / 77.5	78.3 / 78.5	84.0 / 79.0	85.4 / 79.5	86.5 / 80.0	87.6 / 81.2
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling	80.5 / 73.5	80.2 / 75.0	80.0 / 76.0	80.5 / 76.0	81.0 / 76.0	81.8 / 76.5
WEIGHT (kg)	225 + 225	225 + 269	269 + 269	269 + 269	269 + 269	269 + 269	269 + 289
DIMENSIONS (mm)	Width	920 + 920	920 + 1240	1240 + 1240	1240 + 1240	1240 + 1240	1240 + 1240
	Depth	740	740	740	740	740	740
(1798mm without legs)	Height	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>2</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>2</sup>		Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>2</sup>		8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup>	Heating/Cooling [MAX]	31.7 / 38.9 [23.4 + 23.4]	38.6 / 43.9 [23.4 + 27.6]	45.9 / 49.3 [27.6 + 27.6]	50.2 / 56.5 [27.6 + 35.1]	55.1 / 65.0 [35.1 + 35.1]	58.6 / 65.3 [35.1 + 39.0]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>2</sup>		1 x 25 / 1 x 25	1 x 25 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 40	1 x 40 / 1 x 40	1 x 40 / 1 x 40
MAINS CABLE No. Cores <sup>2</sup>		4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	10.4 / 21.7	13.2 / 27.6	16 / 33.4	16 / 33.4	16 / 33.4	18.8 / 39.3
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	48.6 / 101.5	45.8 / 95.6	70 / 146.2	70 / 146.2	70 / 146.2	67.2 / 140.3

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

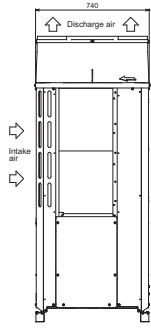
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

<sup>1</sup> If distance from OU to BC controller is greater than 65m. <sup>2</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

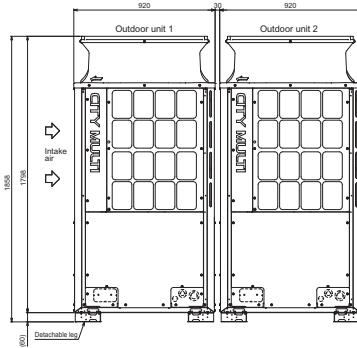
**Product Dimensions**

PURY-P600YSNW-A2

Side View

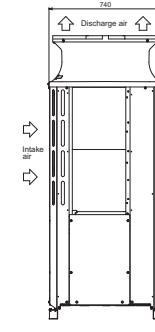


Front View

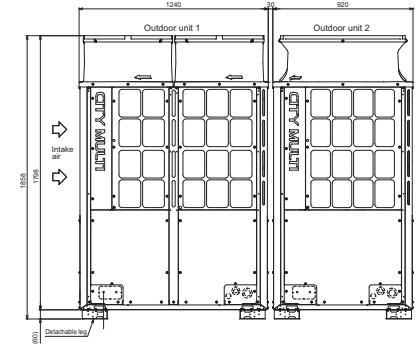
**Product Dimensions**

PURY-P650YSNW-A2

Side View

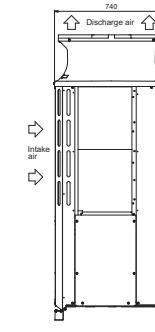


Front View

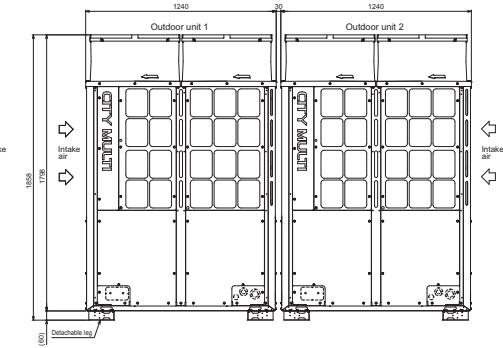
**Product Dimensions**

PURY-P700/750/800/850YSNW-A2

Side View



Front View



# R2 Series VRF Standard Efficiency (100-120kW)

**Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit**



The City Multi R2 Series VRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. As the only 2-pipe heat recovery system on the market, the **PURY-P** range offers huge benefits in terms of ease of installation and maintenance, as well as complete design flexibility.

## Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application

**R410A**

OUTDOOR UNITS	PURY-P900YSNW-A2	PURY-P950YSNW-A2	PURY-P1000YSNW-A2	PURY-P1050YSNW-A2	PURY-P1100YSNW-A2
CAPACITY (kW)	Heating (nominal max) 112.0 Cooling (nominal) 100.0 High Performance Heating (UK) 100.8 COP Priority Heating (UK) 96.3 Cooling (UK) 89.5	119.0 106.0 107.1 113.4 108.4 94.9 100.2	126.0 112.0 113.4 118.8 124.2	132.0 116.0 118.8 124.2 113.5 103.8	138.0 120.0 118.7 118.7 107.4
POWER INPUT (kW)	Heating (nominal max) 38.75 Cooling (nominal) 40.98 High Performance Heating (UK) 43.79 COP Priority Heating (UK) 37.59 Cooling (UK) 26.23	41.17 43.44 46.52 49.26 43.59 27.80 29.38	43.59 45.90 49.26 53.08 45.56 31.59	46.97 49.36 53.08 57.11 49.02 34.12	50.54 53.32 57.11 57.11 49.02
COP / EER (nominal max)	2.89 / 2.44	2.89 / 2.44	2.89 / 2.44	2.81 / 2.35	2.73 / 2.25
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity	50~150% OU Capacity
AIRFLOW (m³/min)	High 315 / 315	315 / 295	295 / 295	295 / 410	410 / 410
PIPE SIZE mm (in)	Gas 41.28 (1-5/8") Liquid 28.58 (1-1/8")	41.28 (1-5/8") 28.58 (1-1/8")	41.28 (1-5/8") 28.58 (1-1/8")	41.28 (1-5/8") 34.93 (1-3/8")	41.28 (1-5/8") 34.93 (1-3/8")
SOUND PRESSURE LEVEL (dBA) @ 1m	Heating / Cooling 73.0 / 68.5	71.5 / 68.0	67.5 / 66.5	71.5 / 71.0	73.0 / 73.0
SOUND POWER LEVEL (dBA) @ 100% Capacity	Heating / Cooling 92.0 / 86.0	90.2 / 86.0	87.0 / 85.0	90.2 / 89.8	92.0 / 92.0
SOUND POWER LEVEL (dBA) @ 90% Capacity	Heating / Cooling 88.5 / 81.5	86.8 / 80.8	84.0 / 79.5	87.2 / 84.3	89.0 / 86.5
SOUND POWER LEVEL (dBA) @ 75% Capacity	Heating / Cooling 82.5 / 77.0	81.6 / 76.5	80.5 / 76.5	82.9 / 80.1	84.5 / 82.0
WEIGHT (kg)	289 + 289	289 + 335	335 + 335	335 + 335	335 + 335
DIMENSIONS (mm)	Width 1240 + 1240	1240 + 1750	1750 + 1750	1750 + 1750	1750 + 1750
(1798mm without legs)	Depth 740	740	740	740	740
	Height 1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup>	Heating/Cooling [MAX] 62.1 / 65.7 [39.0 + 39.0]	66.0 / 69.6 [39.0 + 43.2]	69.9 / 73.6 [43.2 + 43.2]	75.3 / 79.1 [43.2 + 51.4]	81.0 / 85.5 [51.4 + 51.4]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>	1 x 40 / 1 x 40	1 x 40 / 1 x 50	1 x 50 / 1 x 50	1 x 50 / 1 x 63	1 x 63 / 1 x 63
MAINS CABLE No. Cores <sup>1</sup>	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1	21.6 / 45.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 64.4 / 134.5	64.4 / 134.5	64.4 / 134.5	64.4 / 134.5	64.4 / 134.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

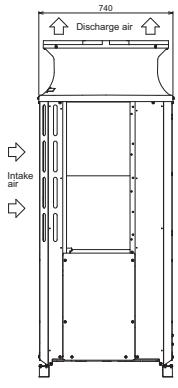
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

<sup>1</sup> A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

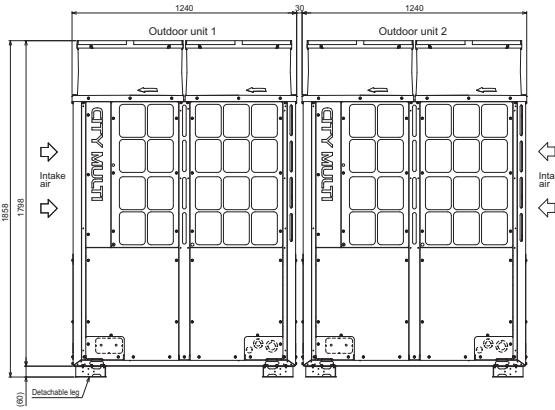
## Product Dimensions

PURY-P900YSNW-A2

Side View



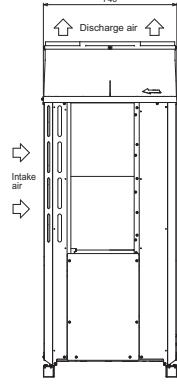
Front View



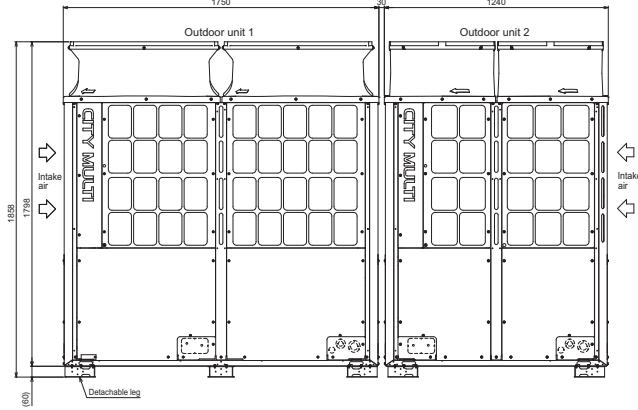
## Product Dimensions

PURY-P950YSNW-A2

Side View



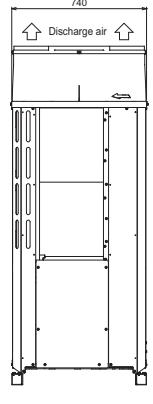
Front View



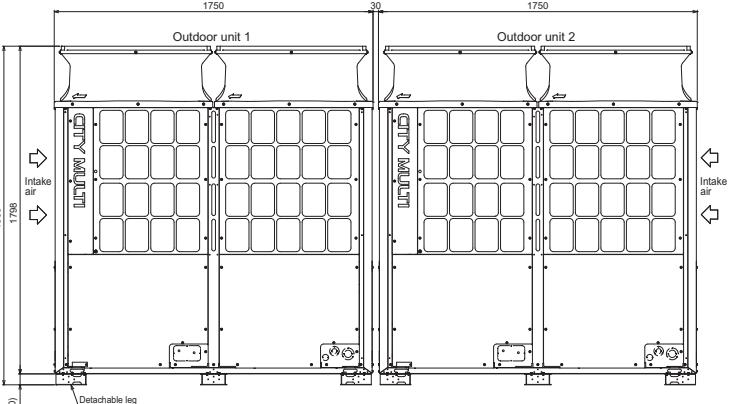
## Product Dimensions

PURY-P-1000/1050/1100YSNW-A2

Side View

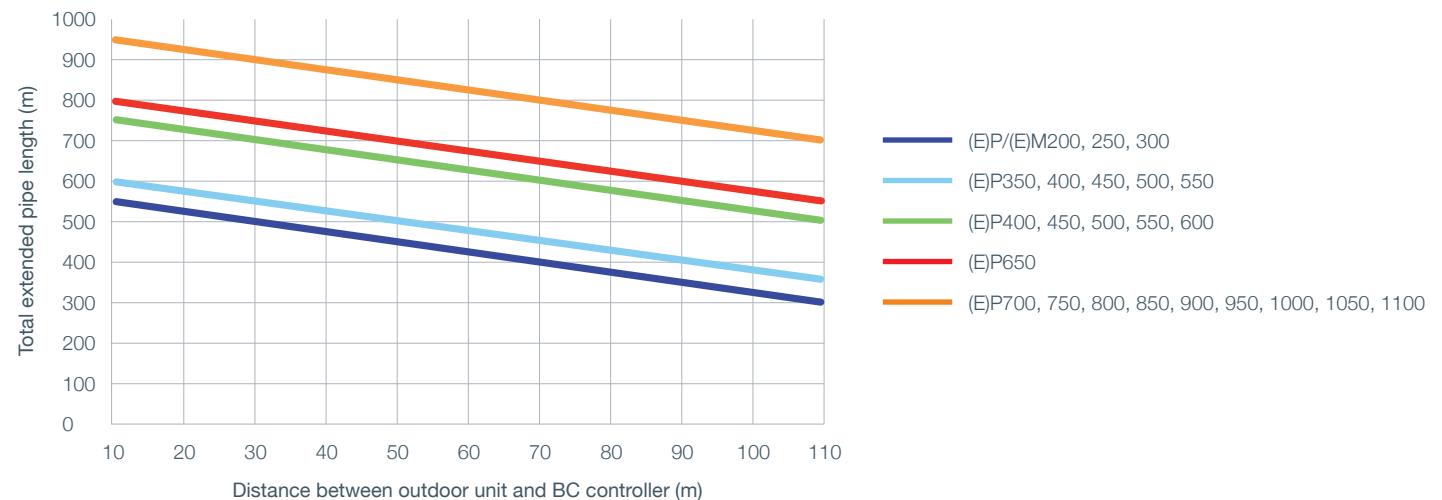


Front View

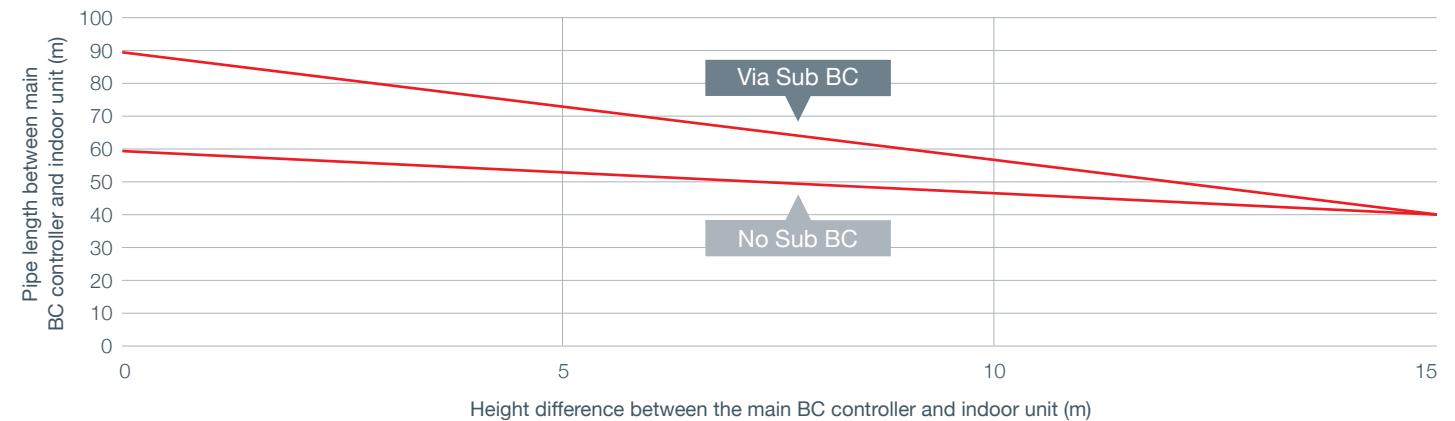


# R2 Series Piping Design (R32 & R410A)

GRAPH 1: TOTAL PIPING LENGTH RESTRICTIONS



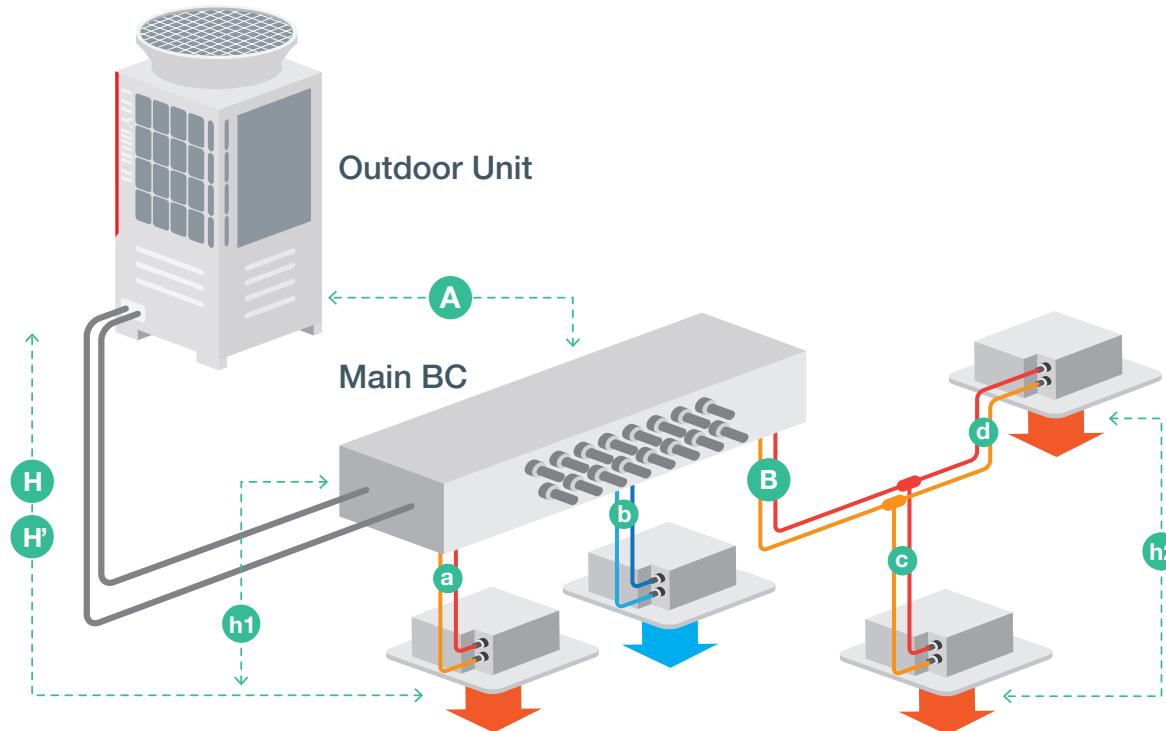
GRAPH 2: PIPE LENGTH BETWEEN BC CONTROLLER & INDOOR UNIT



Note: For all other piping restrictions please refer to the City Multi Databook

# R2 Series Piping Design (R32 & R410A)

1 BC CONTROLLER, NO SUB BC CONTROLLER



PIPE LENGTH	PIPE SECTION	MAX LENGTH
Total Piping Length	A+B+a+b+c+d	(See Graph 1)
Furthest Piping Length	A+B+d	165m
Length Between OU and BC	A	110m <sup>*1</sup>
Length Between Furthest IU and BC	B+d	60m <sup>*2</sup> (40m) <sup>*3</sup>
Height Between OU and IU (OU above IU)	H	90m <sup>*4</sup>
Height Between OU and IU (OU below IU)	H'	60m <sup>*2</sup>
Height Between IU and BC	h1	15m
Height Between IU and IU	h2	30m

Notes: \*1 Please refer to Graph 1. \*2 Height difference between BC controller and furthest indoor unit is zero. Please refer to graph 2. \*3 If P200 or P250 indoor unit connected on system. \*4 Please contact your sales office for guidance. For guidance on applying Sub BC controllers, please contact your sales office.

# Y Series VRF (22.4-45kW)

## Heat Pump Outdoor Unit (Heating or Cooling)

The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

**R410A**



OUTDOOR UNITS	PUHY-P200YNW-A2	PUHY-P250YNW-A2	PUHY-P300YNW-A2	PUHY-P350YNW-A2	PUHY-P400YNW-A2	PUHY-P400YSNW-A2
CAPACITY (kW)						
Heating (nominal max)	25.0	31.5	37.5	45.0	50.0	50.0
Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	44.8
High Performance Heating (UK)	25.0	31.5	35.6	42.8	45.0	50.0
COP Priority Heating (UK)	22.8	28.7	34.1	41.0	43.0	45.5
Cooling (UK)	20.0	25.1	30.0	35.8	40.3	40.1
POWER INPUT (kW)						
Heating (nominal max)	6.08	8.49	10.30	12.32	14.20	12.16
Cooling (nominal)	6.03	9.62	11.31	13.98	17.57	12.47
High Performance Heating (UK)	7.66	10.70	13.70	16.39	16.05	15.56
COP Priority Heating (UK)	6.08	8.49	10.30	12.32	13.77	12.16
Cooling (UK)	3.50	5.58	6.56	8.11	11.24	7.23
COP / EER (nominal max)	4.11 / 3.71	3.71 / 2.91	3.64 / 2.96	3.65 / 2.86	3.52 / 2.56	4.11 / 3.59
MAX No. OF CONNECTABLE INDOOR UNITS	20	25	30	35	40	40
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High	170	185	240	270	300
PIPE SIZE mm (in)						
Gas	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
Liquid	9.52 (3/8")	9.52 (3/8")*1	9.52 (3/8")*1	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	59.0 / 58.0	61.0 / 60.0	64.5 / 61.0	64.5 / 62.0	67.0 / 65.0
SOUND POWER LEVEL (dBA)	Heating / Cooling	77.0 / 75.0	80.0 / 78.0	84.0 / 80.0	84.0 / 80.0	86.0 / 82.0
WEIGHT (kg)	213	213	226	277	277	213 + 213
DIMENSIONS (mm)						
Width	920	920	920	1240	1240	920 + 920
Depth	740	740	740	740	740	740
(1650mm without legs) Height	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY*2	380-415v, 50Hz					
PHASE*2	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)*2	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*2 Heating / Cooling [MAX]	9.7 / 9.6 [16.1]	13.6 / 15.4 [17.8]	16.5 / 18.1 [22.7]	19.7 / 22.4 [26.4]	22.7 / 28.1 [31.9]	19.5 / 19.9 [16.1 + 16.1]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) (A)*2	1 x 20	1 x 20	1 x 25	1 x 32	1 x 32	1 x 20 / 1 x 20
MAINS CABLE No. Cores*2	4 + earth	4 + earth / 4 + earth				
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)	6.5 / 13.6	6.5 / 13.6	6.5 / 13.6	9.8 / 20.5	9.8 / 20.5	13 / 27.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)	15.9 / 33.2	22.9 / 47.8	23.4 / 48.9	24 / 50.1	24.4 / 51	32 / 66.8

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

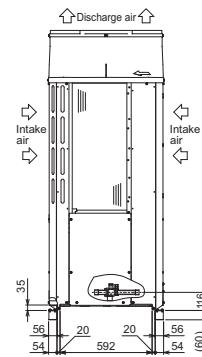
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 12.7mm(1/2") if P250 furthest length ≥ 90m, P300 furthest length ≥ 40m. \*2 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

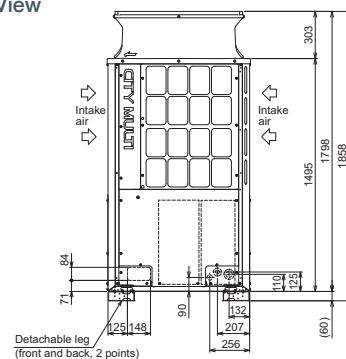
## Product Dimensions

PUHY-P200/250/300YNW-A2

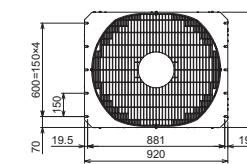
Side View



Front View



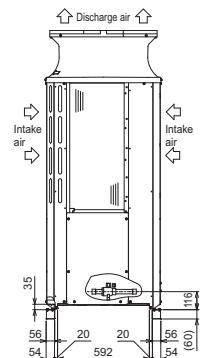
Upper View



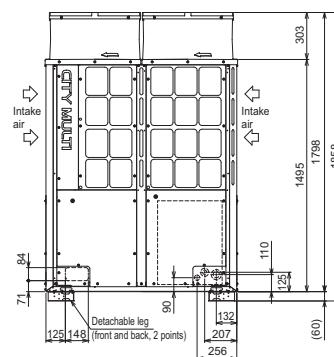
## Product Dimensions

PUHY-P350/400YNW-A2

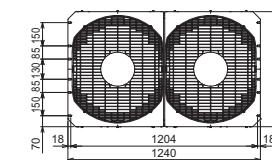
Side View



Front View



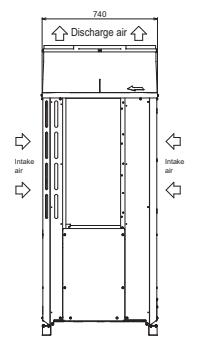
Upper View



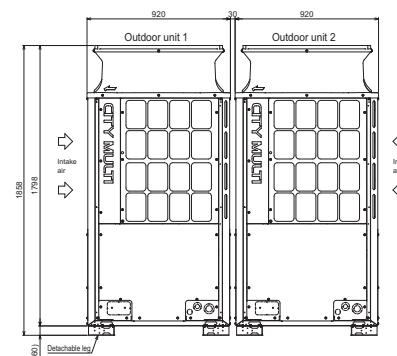
## Product Dimensions

PUHY-P400YSNW-A2

Side View



Front View



# Y Series VRF (50-61.5kW)

## Heat Pump Outdoor Unit (Heating or Cooling)



The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

**R410A**

OUTDOOR UNITS	PUHY-P450YNW-A2	PUHY-P450YSNW-A2	PUHY-P500YNW-A2	PUHY-P500YSNW-A2	PUHY-P550YSNW-A2
CAPACITY (kW)	Heating (nominal max) 56.0 Cooling (nominal) 50.0 High Performance Heating (UK) 50.4 COP Priority Heating (UK) 48.2 Cooling (UK) 44.8	56.5 50.4 56.5 51.4 45.1	63.0 56.0 56.7 54.2 50.1	63.0 56.0 63.0 57.3 50.1	69.0 61.5 65.6 62.8 55.0
POWER INPUT (kW)	Heating (nominal max) 16.51 Cooling (nominal) 18.86 High Performance Heating (UK) 18.66 COP Priority Heating (UK) 16.01 Cooling (UK) 12.07	14.56 15.94 18.64 14.56 9.25	17.89 21.05 20.22 17.35 13.47	16.98 19.85 21.73 16.98 11.51	18.80 21.65 25.00 18.80 12.56
COP / EER (nominal max)	3.39 / 2.65	3.88 / 3.16	3.52 / 2.66	3.71 / 2.82	3.67 / 2.84
MAX No. OF CONNECTABLE INDOOR UNITS	45	45	50	50	50
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High 305	170 / 185	365	185 / 185	185 / 240
PIPE SIZE mm (in)	Gas 28.58 (1-1/8") Liquid 15.88 (5/8")	28.58 (1-1/8") 15.88 (5/8")	28.58 (1-1/8") 15.88 (5/8")	28.58 (1-1/8") 15.88 (5/8")	28.58 (1-1/8") 15.88 (5/8")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling 71.0 / 65.5	63.0 / 62.0	66.5 / 63.5	64.0 / 63.0	66.0 / 63.5
SOUND POWER LEVEL (dBA)	Heating / Cooling 90.0 / 84.0	82.0 / 80.0	85.0 / 82.0	83.0 / 81.0	85.0 / 82.0
WEIGHT (kg)	293	213 + 213	334	213 + 213	213 + 226
DIMENSIONS (mm)	Width 1240 Depth 740 (1798mm without legs) Height 1858	920 + 920 740 1858	1750 740 1858	920 + 920 740 1858	920 + 920 740 1858
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating/Cooling [MAX] 26.4 / 30.2 [37.1]	23.3 / 25.5 [16.1 + 17.8]	28.6 / 33.7 [43.7]	27.2 / 31.8 [17.8 + 17.8]	30.1 / 34.7 [17.8 + 22.7]
GUARANTEED OPERATING RANGE (°C)	Heating/Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1	1 x 40	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 20 / 1 x 25
MAINS CABLE No. Cores*1	4 + earth	4 + earth / 4 + earth	4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)	10.8 / 22.6	13 / 27.1	10.8 / 22.6	13 / 27.1	13 / 27.1
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R410A (GWP 2088)	32.2 / 67.2	32 / 66.8	33.1 / 69.1	32.9 / 68.7	34.7 / 72.5

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

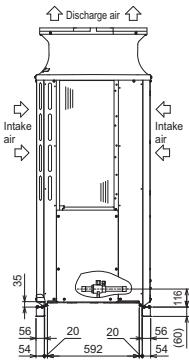
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

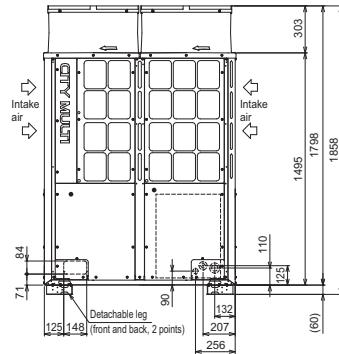
## Product Dimensions

PUHY-P450YNW-A2

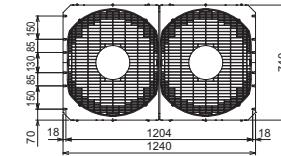
## Side View



## Front View



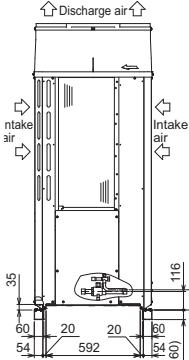
## Upper View



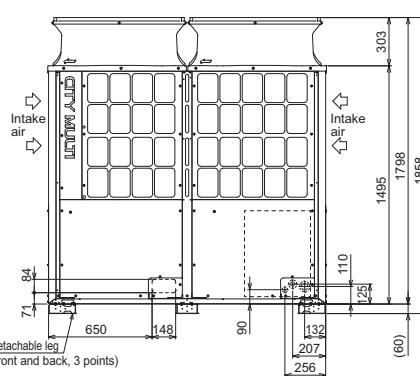
## Product Dimensions

PUHY-P500YNW-A2

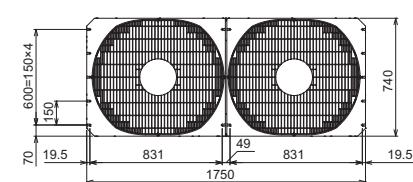
## Side View



## Front View



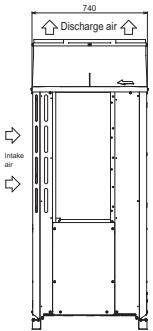
## Upper View



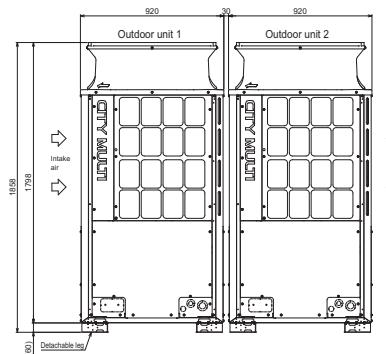
## Product Dimensions

PUHY-P450/500/550YSNW-A2

### Side View



## Front View



# Y Series VRF (67-95kW)

## Heat Pump Outdoor Unit (Heating or Cooling)



The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

**R410A**

OUTDOOR UNITS	PUHY-P600YSNW-A2	PUHY-P650YSNW-A2	PUHY-P700YSNW-A2	PUHY-P750YSNW-A2	PUHY-P800YSNW-A2	PUHY-P850YSNW-A2
CAPACITY (kW)	Heating (nominal max) 75.0 Cooling (nominal) 67.0 High Performance Heating (UK) 71.3 COP Priority Heating (UK) 68.3 Cooling (UK) 60.0	81.5 73.0 77.4 80.0 85.5 90.3 95.0 90.0 95.0	90.0 80.0 74.2 81.9 86.5 90.3 95.0 90.0 95.4	95.0 85.0 86.5 91.9 91.2 96.0 101.0 96.0 95.4	101.0 90.0 91.9 91.2 96.0 101.0 106.0 96.0 106.0	106.0 95.0 95.4 91.2 91.9 101.0 106.0 95.0 106.0
POWER INPUT (kW)	Heating (nominal max) 20.60 Cooling (nominal) 23.34 High Performance Heating (UK) 27.40 COP Priority Heating (UK) 20.60 Cooling (UK) 13.54	22.70 27.96 30.19 22.70 16.22	24.65 28.88 32.78 24.65 16.75	26.53 32.56 35.28 26.53 18.88	28.85 33.96 38.37 28.85 19.70	30.72 37.69 34.71 29.80 24.12
COP / EER (nominal max)	3.64 / 2.87	3.59 / 2.61	3.65 / 2.77	3.58 / 2.61	3.50 / 2.65	3.45 / 2.52
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High 240 / 240	185 / 300	270 / 270	270 / 300	270 / 305	300 / 305
PIPE SIZE mm (in)	Gas 28.58 (1-1/8") Liquid 15.88 (5/8")	28.58 (1-1/8") 15.88 (5/8")	34.93 (1-3/8") 19.05 (3/4")	34.93 (1-3/8") 19.05 (3/4")	34.93 (1-3/8") 19.05 (3/4")	41.28 (1-5/8") 19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling 67.5 / 64.0	68.5 / 66.5	67.5 / 65.0	69.0 / 67.0	71.0 / 67.5	73.0 / 68.5
SOUND POWER LEVEL (dBA)	Heating / Cooling 87.0 / 83.0	87.0 / 83.0	87.0 / 83.0	88.0 / 84.0	91.0 / 85.0	91.0 / 86.0
WEIGHT (kg)	226 + 226	213 + 277	277 + 277	277 + 277	277 + 293	277 + 293
DIMENSIONS (mm)	Width 920 + 920 Depth 740 (1798mm without legs) Height 1858	920 + 1240 740 1858	1240 + 1240 740 1858	1240 + 1240 740 1858	1240 + 1240 740 1858	1240 + 1240 740 1858
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating / Cooling [MAX] 33.0 / 37.4 [22.7 + 22.7]	36.4 / 44.8 [17.8 + 31.9]	39.5 / 46.3 [26.4 + 26.4]	42.5 / 52.2 [26.4 + 31.9]	46.2 / 54.4 [26.4 + 37.1]	49.2 / 60.4 [31.9 + 37.1]
GUARANTEED OPERATING RANGE (°C)	Heating / Cooling -20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1	1 x 25 / 1 x 25	1 x 20 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 32	1 x 32 / 1 x 40	1 x 32 / 1 x 40
MAINS CABLE No. Cores*1	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth	4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 13 / 27.1	16.3 / 34.0	19.6 / 40.9	19.6 / 40.9	20.6 / 43.0	20.6 / 43.0
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 34.7 / 72.5	35.2 / 73.5	44.8 / 93.5	44.8 / 93.5	44.7 / 93.3	46.5 / 97.1

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

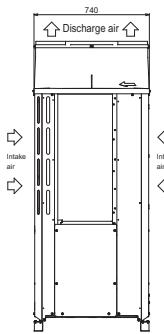
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

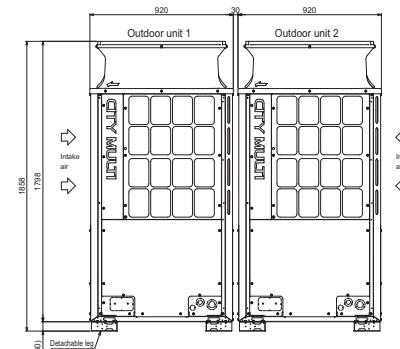
## Product Dimensions

PUHY-P600YSNW-A2

Side View



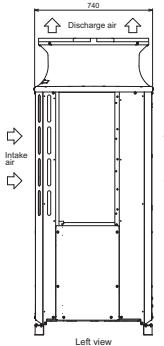
Front View



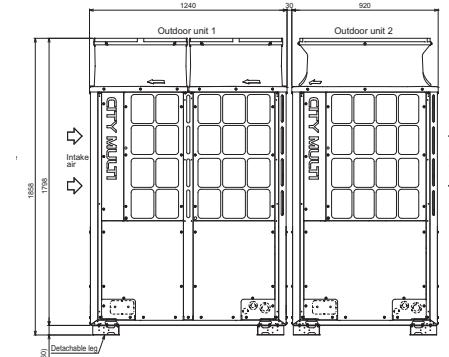
## Product Dimensions

PUHY-P650YSNW-A2

Side View



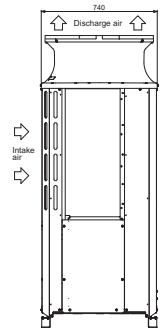
Front View



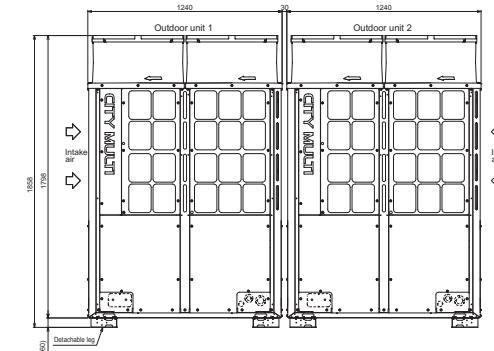
## Product Dimensions

PUHY-P700/750/800/850YSNW-A2

Side View



Front View



# Y Series VRF (100-125kW)

## Heat Pump Outdoor Unit (Heating or Cooling)



The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

**R410A**

OUTDOOR UNITS	PUHY-P900YSNW-A2	PUHY-P950YSNW-A2	PUHY-P1000YSNW-A2	PUHY-P1050YSNW-A2	PUHY-P1100YSNW-A2
CAPACITY (kW)	Heating (nominal max) 112.0 Cooling (nominal) 100.0 High Performance Heating (UK) 100.8 COP Priority Heating (UK) 96.3 Cooling (UK) 89.5	121.5 108.0 109.4 113.0 113.9 108.8 101.1	126.5 118.0 118.4 118.4 118.4 113.1 105.6	131.5 118.0 118.4 118.4 118.4 113.1 105.6	140.0 125.0 126.0 126.0 126.0 120.4 111.9
POWER INPUT (kW)	Heating (nominal max) 33.03 Cooling (nominal) 38.91 High Performance Heating (UK) 37.32 COP Priority Heating (UK) 32.04 Cooling (UK) 24.90	33.19 38.84 37.50 32.19 24.86	35.04 42.48 39.60 33.99 27.19	36.93 46.09 41.73 35.82 29.50	38.88 46.99 43.93 37.71 30.07
COP / EER (nominal max)	3.39 / 2.57	3.66 / 2.78	3.61 / 2.66	3.56 / 2.56	3.60 / 2.66
MAX No. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High 305 / 305 Gas 41.28 (1-5/8") Liquid 19.05 (3/4")	185 / 270 / 270 41.28 (1-5/8") 19.05 (3/4")	185 / 270 / 300 41.28 (1-5/8") 19.05 (3/4")	185 / 300 / 300 41.28 (1-5/8") 19.05 (3/4")	270 / 270 / 300 41.28 (1-5/8") 19.05 (3/4")
PIPE SIZE mm (in)					
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling 74.0 / 68.5	68.5 / 66.5	70.0 / 68.0	70.5 / 69.0	70.5 / 68.5
SOUND POWER LEVEL (dBA)	Heating / Cooling 93.0 / 87.0	88.0 / 84.0	89.0 / 85.0	89.0 / 86.0	90.0 / 86.0
WEIGHT (kg)	293 + 293	213 + 277 + 277	213 + 277 + 277	213 + 277 + 277	277 + 277 + 277
DIMENSIONS (mm)	Width 1240 + 1240 Depth 740 (1798mm without legs) Height 1858	920 + 1240 + 1240 740 1858	920 + 1240 + 1240 740 1858	920 + 1240 + 1240 740 1858	1240 + 1240 + 1240 740 1858
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating/Cooling [MAX] 52.9 / 62.4 [37.1 + 37.1]	53.2 / 62.2 [17.8 + 26.4 + 26.4]	56.1 / 68.1 [17.8 + 26.4 + 31.9]	59.2 / 73.9 [17.8 + 31.9 + 31.9]	62.3 / 75.3 [26.4 + 26.4 + 31.9]
GUARANTEED OPERATING RANGE (°C)	Heating/Cooling -20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1	1 x 40 / 1 x 40	1 x 20 / 1 x 32 / 1 x 32	1 x 20 / 1 x 32 / 1 x 32	1 x 20 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 32
MAINS CABLE No. Cores*1	4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 21.6 / 45.1	26.1 / 54.5	26.1 / 54.5	26.1 / 54.5	29.4 / 61.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 46.4 / 96.9	45.9 / 95.8	45.9 / 95.8	45.9 / 95.8	45.6 / 95.2

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

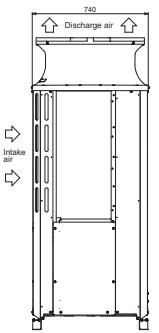
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

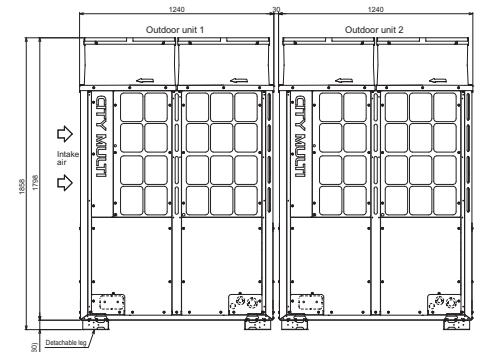
## Product Dimensions

PUHY-P900YSNW-A2

Side View



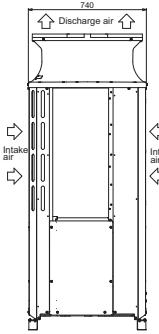
Front View



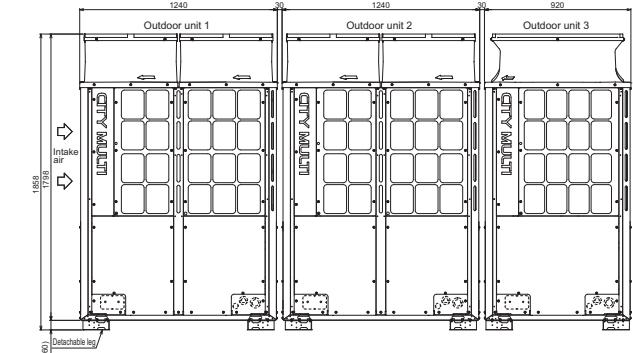
## Product Dimensions

PUHY-P950/1000/1050YSNW-A2

Side View



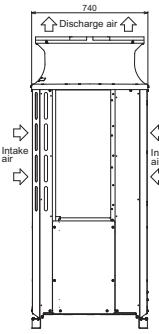
Front View



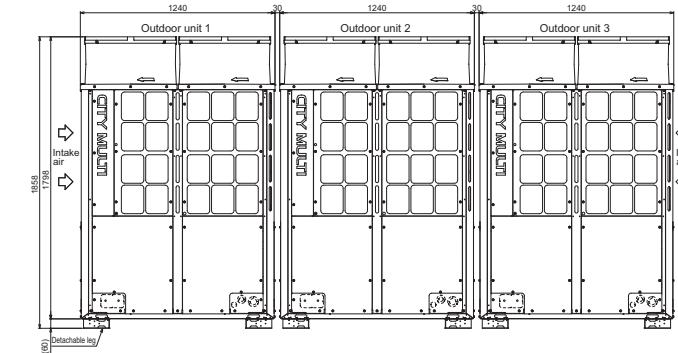
## Product Dimensions

PUHY-P1100YSNW-A2

Side View



Front View



# Y Series VRF (130-150kW)

## Heat Pump Outdoor Unit (Heating or Cooling)



The **PUHY-P** City Multi Y Series VRF Heat Pump system provides a simple and flexible solution where there is demand for one outdoor unit to provide all (or selected) indoor units with heating or cooling at a given time. These modular heat pump systems provide complete design flexibility for applications such as open-plan offices, call centres and retail spaces.

### Key Features & Benefits

- Energy efficient heat pump system
- Delivers high levels of thermal and acoustic comfort
- Unique 2-pipe system for ease of installation and maintenance
- Adjustable noise level options to suit application
- Connectable to a broad choice of indoor unit types and capacities

**R410A**

OUTDOOR UNITS	PUHY-P1150YSNW-A2	PUHY-P1200YSNW-A2	PUHY-P1250YSNW-A2	PUHY-P1300YSNW-A2	PUHY-P1350YSNW-A2
CAPACITY (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	145.0 130.0 130.5 124.7 116.4	150.0 135.0 135.0 129.0 120.8	156.0 140.0 140.4 134.2 125.3	162.0 145.0 145.8 139.3 129.8
POWER INPUT (kW)	Heating (nominal max) Cooling (nominal) High Performance Heating (UK) COP Priority Heating (UK) Cooling (UK)	40.84 50.58 46.15 39.61 32.37	42.61 54.43 48.15 41.33 34.84	44.95 55.77 50.79 43.60 35.69	47.23 57.08 53.37 45.81 36.53
COP / EER (nominal max)	3.55 / 2.57	3.52 / 2.48	3.47 / 2.51	3.43 / 2.54	3.39 / 2.57
MAX NO. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity	50~130% OU Capacity
AIRFLOW (m³/min)	High 270 / 300 / 300	300 / 300 / 300	300 / 300 / 305	300 / 305 / 305	305 / 305 / 305
PIPE SIZE mm (in)	Gas 41.28 (1-5/8") Liquid 19.05 (3/4")	41.28 (1-5/8") 19.05 (3/4")	41.28 (1-5/8") 19.05 (3/4")	41.28 (1-5/8") 19.05 (3/4")	41.28 (1-5/8") 19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling 71.5 / 69.5	72.0 / 70.0	74.0 / 70.0	75.0 / 70.0	76.0 / 70.5
SOUND POWER LEVEL (dBA)	Heating / Cooling 90.0 / 86.0	91.0 / 87.0	93.0 / 88.0	94.0 / 88.0	95.0 / 89.0
WEIGHT (kg)	277 + 277 + 277	277 + 277 + 277	277 + 277 + 293	277 + 293 + 293	293 + 293 + 293
DIMENSIONS (mm)	Width 1240 + 1240 + 1240 Depth 740 Height 1858	1240 + 1240 + 1240 740 1858			
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three
STARTING CURRENT (A)*1	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A)*1	Heating/Cooling [MAX] 65.4 / 81.1 [26.4 + 31.9 + 31.9]	68.3 / 87.2 [31.9 + 31.9 + 31.9]	72.0 / 89.4 [31.9 + 31.9 + 37.1]	75.7 / 91.5 [31.9 + 37.1 + 37.1]	79.4 / 93.5 [37.1 + 37.1 + 37.1]
GUARANTEED OPERATING RANGE (°C)	Heating/Cooling -20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52	-20~-15.5 / -5~-52
FUSE RATING (MCB sizes BS EN 60947-2) - (A)*1	1 x 32 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 32	1 x 32 / 1 x 32 / 1 x 40	1 x 32 / 1 x 40 / 1 x 40	1 x 40 / 1 x 40 / 1 x 40
MAINS CABLE No. Cores*1	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth	4 + earth / 4 + earth / 4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 29.4 / 61.4	29.4 / 61.4	30.4 / 63.5	31.4 / 65.6	32.4 / 67.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088) 45.6 / 95.2	45.6 / 95.2	47.3 / 98.8	47.2 / 98.6	47.1 / 98.3

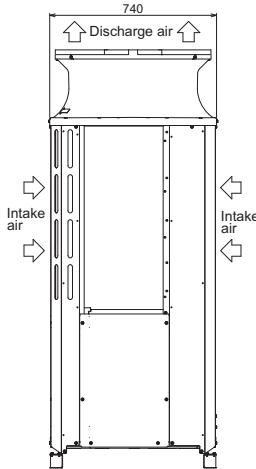
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling: indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating: indoor 20°C DB; outdoor 7°C DB, 6°C WB.

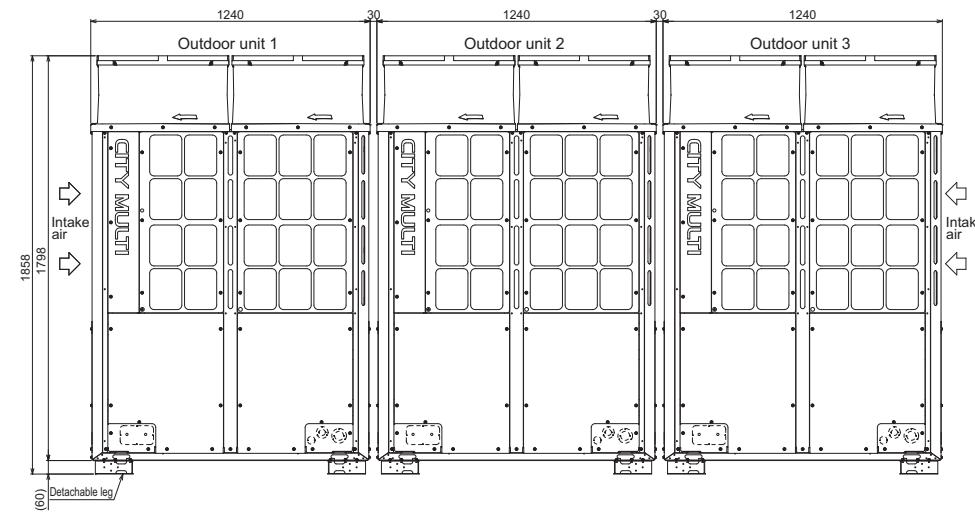
UK Conditions: Cooling: indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating: indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

Side View



Front View



# Y Series Single Fan (12.5-15.5kW)

## Mini VRF Heat Pump Outdoor Unit



VRF technology and efficiency can now be delivered in both small and large capacities, offering a cost-effective solution to connect up to 12 indoor units to one small, powerful, mini VRF unit. Delivering VRF efficiency, quality and functionality, with the additional flexibility of being free-standing or wall-hung, the **PUMY-SP** single fan side-blow unit makes the most of even the smallest plant spaces, making it ideal for high specification residential and retail applications in city centres.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Broad compatibility across M Series, Mr Slim and City Multi indoor units, providing design choice (see page 1.4.7 for M Series/Mr Slim)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard, allowing extra sound attenuation or the ability to duct discharge air away from the unit
- Available in both single and three phase options

**R410A**

OUTDOOR UNITS	PUMY-SP112VKM2	PUMY-SP112YKM2 <sup>(3)</sup>	PUMY-SP125VKM2	PUMY-SP125YKM2 <sup>(3)</sup>	PUMY-SP140VKM2	PUMY-SP140YKM2 <sup>(3)</sup>
CAPACITY (kW)	Heating (nominal max) 14.0 Cooling (nominal) 12.5 Heating (UK) 14.0 Cooling (UK) 9.8	14.0 12.5 14.0 9.8	16.0 14.0 16.0 11.0	16.0 14.0 16.0 11.0	16.5 15.5 16.5 12.2	16.5 15.5 16.5 12.2
POWER INPUT (kW)	Heating (nominal max) 3.66 Cooling (nominal) 4.46 Heating (UK) 4.69 Cooling (UK) 2.08	3.66 4.46 4.69 2.08	4.31 5.11 5.52 2.38	4.31 5.11 5.52 2.38	4.36 5.34 5.58 2.49	4.36 5.34 5.58 2.49
COP / EER (nominal max)	3.83 / 2.80	3.83 / 2.80	3.71 / 2.74	3.71 / 2.74	3.78 / 2.90	3.78 / 2.90
MAX NO. OF CONNECTABLE INDOOR UNITS	9	9	10	10	12	12
MAX CONNECTABLE CAPACITY	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity	50-130% OU Capacity
AIRFLOW (m <sup>3</sup> /min)	77	77	83	83	83	83
PIPE SIZE MM (in)	Gas 15.88 (5/8") Liquid 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8")
SOUND PRESSURE LEVEL (dBA)	52	52	53	53	54	54
SOUND POWER LEVEL (dBA)	72	72	73	73	74	74
WEIGHT (kg)	93	94	93	94	93	94
DIMENSIONS (mm)	Width 1050 Depth 330+40 Height 981	1050 330+40 981	1050 330+40 981	1050 330+40 981	1050 330+40 981	1050 330+40 981
ELECTRICAL SUPPLY	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz
PHASE	Single	Three	Single	Three	Single	Three
STARTING CURRENT (A)	14	7	14	7	14	7
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]	16.24 / 19.79 [30.5]	5.57 / 6.78 [13.0]	19.13 / 22.68 [30.5]	6.55 / 7.77 [13.0]	19.35 / 23.70 [30.5]	6.63 / 8.12 [13.0]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-20~15 / -5~52	-20~15 / -5~52	-20~15 / -5~52	-20~15 / -5~52	-20~15 / -5~52	-20~15 / -5~52
FUSE RATING (BS88) - HRC (A)	1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16
MAINS CABLE NO. CORES	3	4 + earth	3	4 + earth	3	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31	3.5 / 7.31
R410A (GWP 2088)						
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79	9.0 / 18.79
R410A (GWP 2088)						

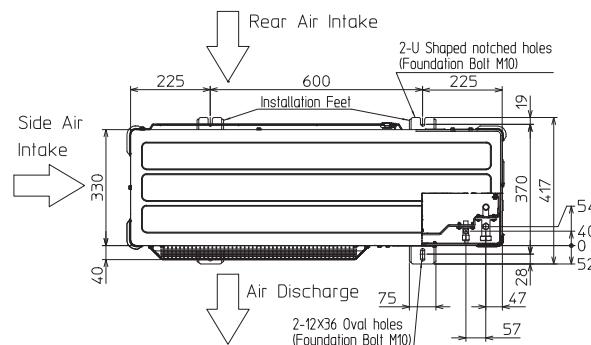
<sup>(3)</sup> Three Phase Note: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

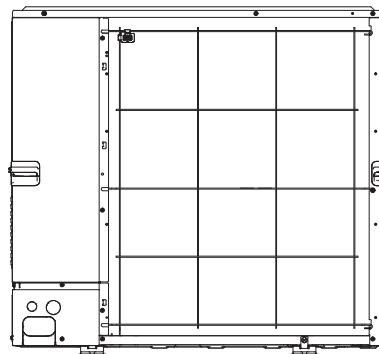
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

PIPING RESTRICTIONS	PUMY-SP112-140VKM2/YKM2
TOTAL PIPING LENGTH	120m max
FURTHEST PIPING LENGTH	70m max
FURTHEST PIPING LENGTH AFTER 1st BRANCH	50m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (30m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max

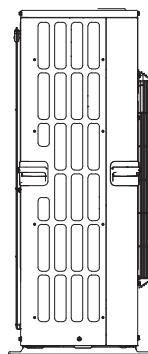
Upper View



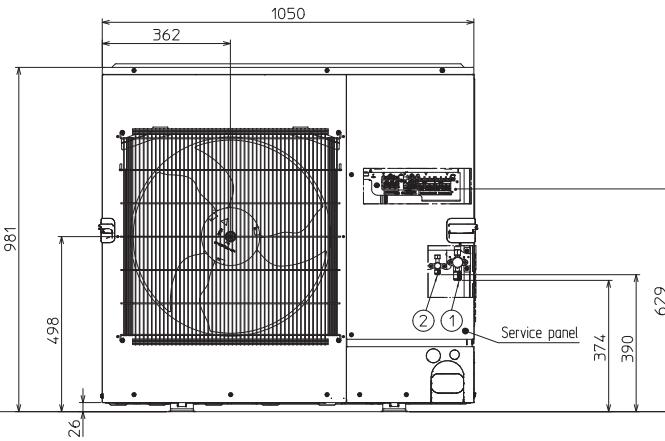
Rear View



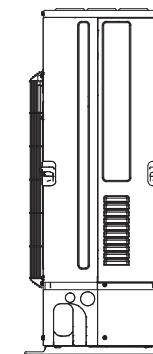
Left Side View



Front View

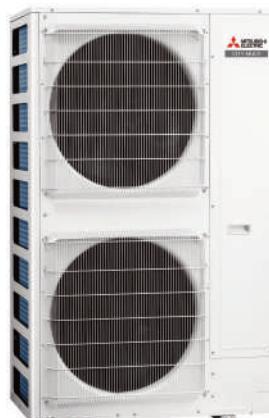
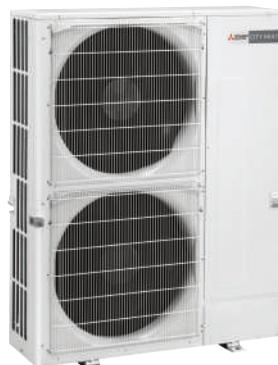


Right Side View



# Y Series Twin Fan (12.5-33.5kW)

## Mini VRF Heat Pump Outdoor Unit



VRF technology and efficiency can now be delivered in both small and large capacities, offering a cost-effective solution to connect up to 30 indoor units to one small, powerful, mini VRF unit. Delivering VRF efficiency, quality and functionality, with the additional flexibility of being free-standing or wall-hung, the **PUMY-P** side-blown unit makes the most of even the smallest plant spaces, making it ideal for high specification residential and retail applications in city centres.

### Key Features & Benefits

- Small footprint, long pipe-runs and wall-hanging capability provides flexibility of install
- Broad compatibility across M Series, Mr Slim\* and City Multi indoor units, providing design choice (see page 1.4.7 for M Series/Mr Slim)
- Choice of operation mode: 'silent mode' for noise sensitive areas or 'demand control' for maximum efficiency
- Unique fan capability provides 30 Pascals of static pressure as standard, allowing extra sound attenuation or the ability to duct discharge air away from the unit
- Available in both single and three phase options

\*Mr Slim units available for use with PUMY-P112-200 units only.

**R410A**

OUTDOOR UNITS	PUMY-P112VKM7	PUMY-P112YKM7 <sup>③</sup>	PUMY-P125VKM7	PUMY-P125YKM7 <sup>③</sup>	PUMY-P140VKM7	PUMY-P140YKM7 <sup>③</sup>	PUMY-P200YKM4	PUMY-P250YBM2 <sup>③</sup>	PUMY-P300YBM2 <sup>③</sup>
CAPACITY (kW)	Heating (nominal max) 14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
	Cooling (nominal) 12.5	12.5	14.0	14.0	15.5	15.5	22.4	28.0	33.5
	Heating (UK) 14.0	14.0	16.0	16.0	18.0	18.0	25.0	31.5	37.5
	Cooling (UK) 9.8	9.8	11.0	11.0	12.2	12.2	17.6	22.1	26.4
POWER INPUT (kW)	Heating (nominal max) 3.49	3.49	4.06	4.06	4.63	4.63	5.85	7.91	9.69
	Cooling (nominal) 4.34	4.34	5.00	5.00	5.17	5.17	7.18	8.21	11.96
	Heating (UK) 4.48	4.48	5.22	5.22	5.95	5.95	7.52	9.81	12.02
	Cooling (UK) 2.08	2.08	2.39	2.39	2.47	2.47	3.43	4.56	6.65
COP / EER (nominal max)	4.01 / 2.88	4.01 / 2.88	3.94 / 2.80	3.94 / 2.80	3.89 / 3.00	3.89 / 3.00	4.27 / 3.12	3.98 / 3.41	3.87 / 2.80
MAX NO. OF CONNECTABLE INDOOR UNITS	9	9	10	10	12	12	12	30	30
MAX CONNECTABLE CAPACITY	50-130% OU Capacity 110	50-130% OU Capacity 110	50-130% OU Capacity 110	50-130% OU Capacity 110	50-130% OU Capacity 110	50-130% OU Capacity 110	50-130% OU Capacity 141	183	183
AIRFLOW (m³/min)	Gas 15.88 (5/8") 9.52 (3/8")	Liquid 15.88 (5/8") 9.52 (3/8")	Gas 15.88 (5/8") 9.52 (3/8")	Liquid 15.88 (5/8") 9.52 (3/8")	Gas 15.88 (5/8") 9.52 (3/8")	Liquid 15.88 (5/8") 9.52 (3/8")	Gas 19.05 (3/4") 9.52 (3/8")*	Liquid 22.4 (7/8") 9.52 (3/8")	Gas 22.4 (7/8") 9.52 (3/8") 12.7 (1/2")
PIPE SIZE MM (in)	49	49	50	50	51	51	57	55	57
SOUND PRESSURE LEVEL (dBA)	69	69	70	70	71	71	76	73	75
SOUND POWER LEVEL (dBA)	123	125	123	125	123	125	141	192	192
WEIGHT (kg)	1050	1050	1050	1050	1050	1050	1050	1050	1050
DIMENSIONS (mm)	Width 330+40	Depth 330+40	Height 1338	Width 330+40	Depth 330+40	Height 1338	Width 330+40	Depth 330+40	Height 1338
ELECTRICAL SUPPLY	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	220-240v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE	Single	Three	Single	Three	Single	Three	Three	Three	Three
STARTING CURRENT (A)	14	7	14	7	14	7	7	7	7
NOMINAL SYSTEM RUNNING CURRENT (A) Heating / Cooling [MAX]	15.41 / 19.16 [29.5]	5.93 / 7.37 [13.0]	17.93 / 22.08 [29.5]	6.52 / 8.02 [13.0]	20.44 / 22.83 [29.5]	7.04 / 7.86 [13.0]	9.08 / 11.15 [19.0]	12.28 / 12.74 [28.4]	15.04 / 18.56 [31.74]
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46	-20~15 / -5~46
FUSE RATING (BS88 - HRC (A))	1 x 32	1 x 16	1 x 32	1 x 16	1 x 32	1 x 16	1 x 20	1 x 32	1 x 32
MAINS CABLE NO. CORES	3	4 + earth	3	4 + earth	3	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	4.8 / 10.0	7.3 / 15.2	9.3 / 19.4	9.3 / 19.4
R410A (GWP 2088)	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.5 / 28.2	22.4 / 46.8	22.4 / 46.8
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)									
R410A (GWP 2088)	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.7 / 28.6	13.5 / 28.2	22.4 / 46.8	22.4 / 46.8

<sup>③</sup> Three Phase Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.

UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

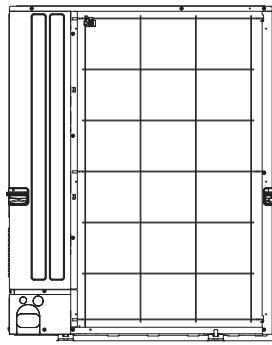
\*1 12.7mm (1/2") if furthest length ≥ 60m.

PIPING RESTRICTIONS	PUMY-P112-140VKM7/YKM7	PUMY-P200YKM4	PUMY-P250-300YBM2
TOTAL PIPING LENGTH	300m max	150m max	310m max
FURTHEST PIPING LENGTH	150m max	80m max	150m max
FURTHEST PIPING LENGTH AFTER 1st BRANCH	30m max	30m max	30m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)	50m max (40m max if outdoor installed below)	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max	15m max	15m max

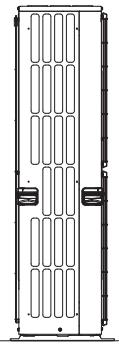
## Product Dimensions

PUMY-P112/125/140V р KM7/YKM7, PUMY-P200YKM4

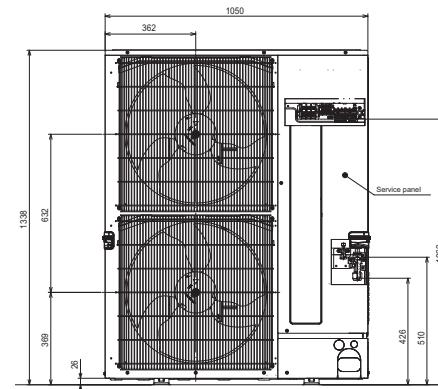
Rear View



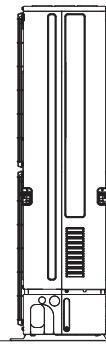
Left Side View



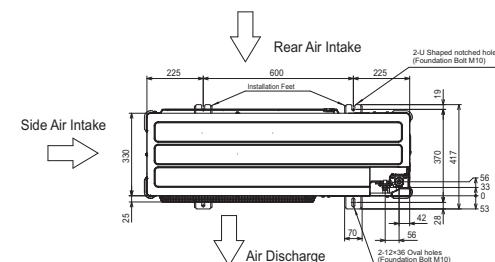
Front View



Right Side View



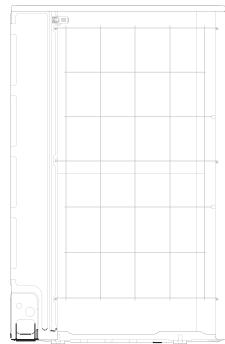
Upper View



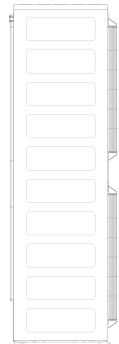
## Product Dimensions

PUMY-P250/300YBM2

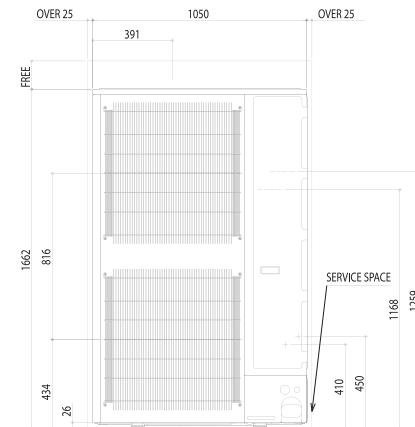
Rear View



Left Side View



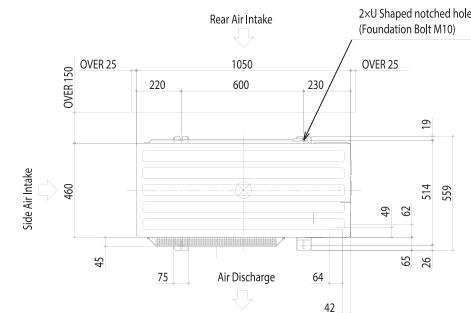
Front View



Right Side View



Upper View



# WR2 Series (22.4-56kW)

## Simultaneous Heating and Cooling with Double Heat Recovery, Water Cooled Condensing Unit



The City Multi WR2 Series Heat Recovery VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high end residential.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy on the refrigerant circuit and between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources, such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation

**R410A**

CONDENSING UNITS	PQRY-P200YLM-A1	PQRY-P250YLM-A1	PQRY-P300YLM-A1	PQRY-P350YLM-A1	PQRY-P400YLM-A1	PQRY-P400YSLM-A1	PQRY-P450YLM-A1	PQRY-P450YSLM-A1	PQRY-P500YLM-A1	PQRY-P500YSLM-A1
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	37.5	45.0	50.0	50.0	56.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	50.0	50.0	56.0
POWER INPUT (kW)	Heating (nominal max)	3.97	5.08	6.25	7.53	8.37	7.94	9.79	6.24	11.43
	Cooling (nominal)	3.71	4.90	6.04	7.14	8.03	7.70	9.29	5.69	11.17
OPERATING WATER VOLUME (m³/h)	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2	4.5 ~ 11.6	3.0+3.0~7.2+7.2
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal max)	6.29 / 6.03	6.20 / 5.71	6.25 / 5.54	5.97 / 5.60	5.97 / 5.60	6.29 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
MAX NO. OF CONNECTABLE INDOOR UNITS	20	25	30	35	40	40	45	45	50	50
MAX CONNECTABLE CAPACITY	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas 19.05 (3/4") Liquid 15.88 (5/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
SOUND PRESSURE LEVEL (dBA)	46	48	54	52	52	49	54	50	54	51
SOUND POWER LEVEL (dBA)	60	62	68	66	66	63	70	64	70.5	65
WEIGHT (kg)	173	173	173	217	217	173 + 173	217	173 + 173	217	173 + 173
DIMENSIONS (mm)	Width 880	880	880	880	880	880 + 880	880	880 + 880	880	880 + 880
	Depth 550	550	550	550	550	550	550	550	550	550
	Height 1100	1100	1100	1450	1450	1100	1450	1100	1450	1100
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)	8	8	8	8	8	8 / 8	8	8 / 8	8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A)*1 Heating / Cooling [MAX]	6.3 / 5.9 [16.1]	8.1 / 7.8 [16.1]	10.0 / 9.6 [18.6]	12.0 / 11.4 [23.1]	13.4 / 12.8 [27.6]	12.7 / 12.3 [16.1+16.1]	15.7 / 14.8 [32.9]	14.3 / 14.0 [16.1+16.1]	18.3 / 17.9 [39.2]	16.2 / 16.2 [16.1+16.1]
FUSE RATING (BS88) - HRC (A)*1	1 x 20	1 x 20	1 x 20	1 x 25	1 x 32	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20
MAINS CABLE No. Cores*1	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9
R410A (GWP 2088)										
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	28.0 / 58.5	30.0 / 62.6	31.0 / 64.7	46.0 / 96.1	47.0 / 98.1	50.0 / 104.4	47.0 / 98.1	51.0 / 106.4	48.0 / 100.2	51.0 / 106.5
R410A (GWP 2088)										

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule. PQRY-P200/250/300 are stock items.

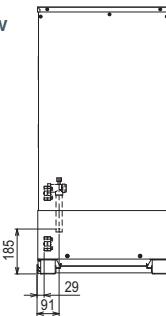
PIPING RESTRICTIONS	PQRY-P200-500Y(S)LM-A1
TOTAL PIPING LENGTH	550mm max*3 (300m) for sizes 200-300 / 750mm max*3 (500m) for sizes 350-500
FURTHEST PIPING LENGTH	165mm max
BETWEEN CONDENSING UNIT AND BC CONTROLLER (MAIN) - LENGTH	110mm max*4
BETWEEN INDOOR AND BC CONTROLLER (MAIN/SUB) - LENGTH	60mm max*5 (40m)
BETWEEN INDOOR AND CONDENSING UNIT - HEIGHT	50mm max (40m*1)
BETWEEN INDOOR AND INDOOR - HEIGHT	30mm max (20m*2)
BETWEEN INDOOR AND BC CONTROLLER (MAIN/SUB) - HEIGHT	15mm max (10m*2)
BETWEEN BC CONTROLLER (MAIN) AND BC CONTROLLER (SUB) - HEIGHT	15mm max (10m*6)

Notes: \*1 When condensing unit is below indoor. \*2 In case of P200, P250 indoor unit. \*3 Distance between condensing unit and BC Controller is 10m or less. \*4 Total piping length is 300m or less (500m for sizes 350-500). \*5 Height difference between the Main BC Controller and furthest indoor unit is 0m and no size P200 or P250 indoor unit is used. \*6 When using multiple sub BC Controllers, the height between them should be considered.

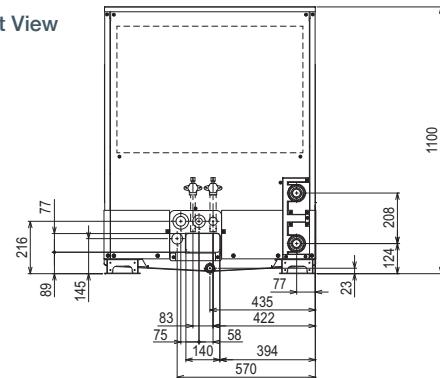
## Product Dimensions

PQRY-P200/250/300YLM-A1

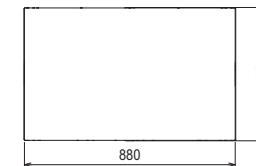
Side View



Front View



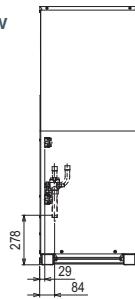
Upper View



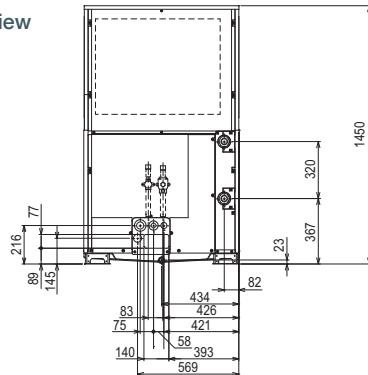
## Product Dimensions

PQRY-P350/400/450/500YLM-A1

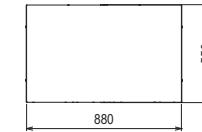
Side View



Front View



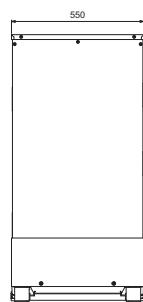
Upper View



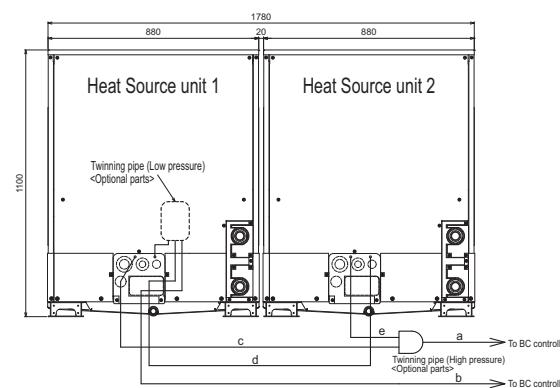
## Product Dimensions

PQRY-P400/450/500YSLM-A1

Side View



Front View



# WR2 Series (63-101kW)

**Simultaneous Heating and Cooling  
with Double Heat Recovery,  
Water Cooled Condensing Unit**



The City Multi WR2 Series Heat Recovery VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high end residential.

## Key Features & Benefits

- High efficiency modular systems, with ability to recover energy on the refrigerant circuit and between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources, such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation

**R410A**

CONDENSING UNITS	PQRY-P550YLM-A1	PQRY-P550YSLM-A1	PQRY-P600YLM-A1	PQRY-P600YSLM-A1	PQRY-P700YSLM-A1	PQRY-P750YSLM-A1	PQRY-P800YSLM-A1	PQRY-P850YSLM-A1	PQRY-P900YSLM-A1
CAPACITY (kW)	Heating (nominal max)	69.0	69.0	76.5	76.5	88.0	95.0	100.0	108.0
	Cooling (nominal)	63.0	63.0	69.0	69.0	80.0	85.0	90.0	96.0
POWER INPUT (kW)	Heating (nominal max)	12.27	11.31	14.51	12.75	14.73	15.90	16.75	18.49
	Cooling (nominal)	12.54	11.55	14.49	12.84	14.73	15.64	16.57	18.03
OPERATING WATER VOLUME (m³/h)	6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal max)	5.62 / 5.02	6.10 / 5.45	5.27 / 4.76	6.00 / 5.37	5.97 / 5.43	5.97 / 5.43	5.97 / 5.43	5.84 / 5.32	5.72 / 5.21
MAX NO. OF CONNECTABLE INDOOR UNITS	50	50	50	50	50	50	50	50	50
MAX CONNECTABLE CAPACITY	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas 28.58 (1 1/8") Liquid 22.2 (7/8")**	Gas 28.58 (1 1/8") Liquid 22.2 (7/8")**	Gas 34.93 (1 3/8") Liquid 22.2 (7/8")**	Gas 34.93 (1 3/8") Liquid 22.2 (7/8")**	Gas 34.93 (1 3/8") Liquid 28.58 (1 1/8")	Gas 34.93 (1 3/8") Liquid 28.58 (1 1/8")	Gas 34.93 (1 3/8") Liquid 28.58 (1 1/8")	Gas 41.28 (1 5/8") Liquid 28.58 (1 1/8")	Gas 41.28 (1 5/8") Liquid 28.58 (1 1/8")
SOUND PRESSURE LEVEL (dBA)	56.5	55	56.5	57	55	55	55	56	57
SOUND POWER LEVEL (dBA)	71.5	69	73	71	69	69	69	71.5	73
WEIGHT (kg)	247	173 + 173	247	173 + 173	217 + 217	217 + 217	217 + 217	217 + 217	217 + 217
DIMENSIONS (mm)	Width 880	880 + 880	880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880
	Depth 550	550	550	550	550	550	550	550	550
	Height 1450	1100	1450	1100	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz				
PHASE <sup>1</sup>	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)	8	8 / 8	8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating / Cooling [MAX]	19.6 / 20.1 [40.5]	18.1 / 18.5 [18.6+16.1]	23.2 / 23.2 [40.5]	20.4 / 20.5 [18.6+18.6]	23.6 / 23.6 [23.1+23.1]	25.4 / 25.0 [27.6+23.1]	26.8 / 26.5 [27.6+27.6]	29.6 / 28.9 [32.9+27.6]	31.6 / 31.0 [32.9+32.9]
FUSE RATING (BS88) - HRC (A) <sup>1</sup>	1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 25 / 1 x 25	1 x 32 / 1 x 25	1 x 32 / 1 x 32	1 x 40 / 1 x 32	1 x 40 / 1 x 40
MAINS CABLE NO. Cores <sup>1</sup>	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth				
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	11.7 / 24.4	10.0 / 20.9	11.7 / 24.4	10.0 / 20.9	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1
R410A (GWP 2088)	43.3 / 90.4	52.0 / 108.6	44.3 / 92.5	54.0 / 112.8	70.0 / 146.2	70.0 / 146.2	71.0 / 148.2	73.0 / 152.4	73.0 / 152.4
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)									
R410A (GWP 2088)									

Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

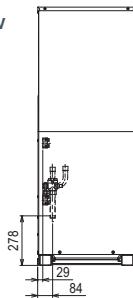
PIPING RESTRICTIONS	PQRY-P550-900Y(S)LM-A1
TOTAL PIPING LENGTH	750m max <sup>2</sup> (500m)
FURTHEST PIPING LENGTH	165m max
BETWEEN CONDENSING UNIT AND BC CONTROLLER (MAIN) - LENGTH	110m max <sup>3</sup>
BETWEEN INDOOR AND BC CONTROLLER (MAIN/SUB) - LENGTH	60m max <sup>4</sup> (40m)
BETWEEN INDOOR AND CONDENSING UNIT - HEIGHT	50m max (40m <sup>5</sup> )
BETWEEN INDOOR AND INDOOR - HEIGHT	30m max
BETWEEN INDOOR AND BC CONTROLLER (MAIN/SUB) - HEIGHT	15m max
BETWEEN BC CONTROLLER (MAIN) AND BC CONTROLLER (SUB) - HEIGHT	15m max (10m <sup>6</sup> )

Notes: \*1 When condensing unit is below indoor. \*2 In case of P200, P250 indoor unit. \*3 Distance between condensing unit and BC Controller is 10m or less. \*4 Total piping length is 300m or less (500m for sizes 350-500). \*5 Height difference between the Main BC Controller and furthest indoor unit is 0m and no size P200 or P250 indoor unit is used. \*6 When using multiple sub BC Controllers, the height between them should be considered.

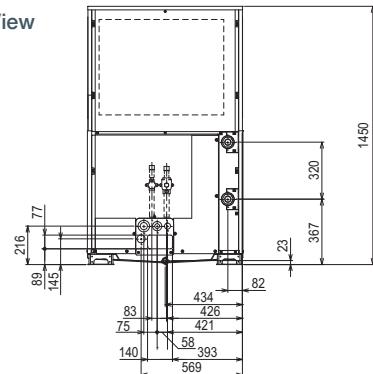
## Product Dimensions

PQRY-P550/600YLM-A1

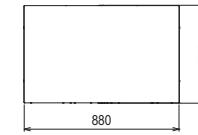
Side View



Front View



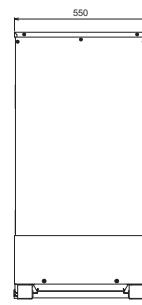
Upper View



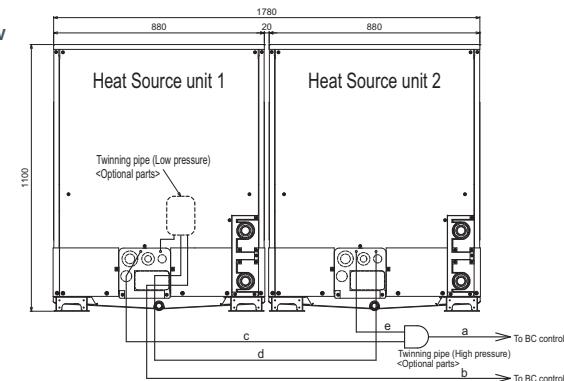
## Product Dimensions

PQRY-P550/600YSLM-A1

Side View



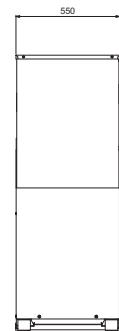
Front View



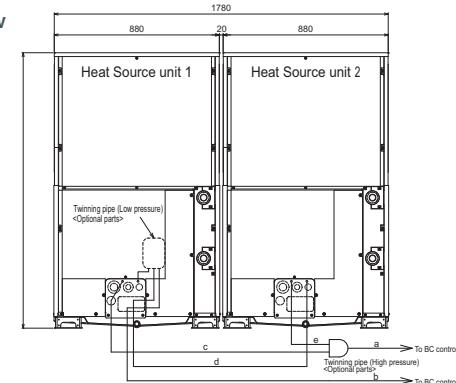
## Product Dimensions

PQRY-P700/750/800/850/900YSLM-A1

Side View



Front View



# WY Series (22.4-56kW)

## Heat Pump, Water Cooled Condensing Unit



The City Multi **WY** Series Heat Pump VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WY systems provide the ultimate solution for a breadth of applications requiring heating or cooling at a given time, such as open-plan spaces in offices, call centres and leisure facilities.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Benefits from a wide indoor unit range and advanced control options
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation

**R410A**

CONDENSING UNITS	PQHY-P200YLM-A1	PQHY-P250YLM-A1	PQHY-P300YLM-A1	PQHY-P350YLM-A1	PQHY-P400YLM-A1	PQHY-P400YSLM-A1	PQHY-P450YLM-A1	PQHY-P450YSLM-A1	PQHY-P500YLM-A1	PQHY-P500YSLM-A1
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	37.5	45.0	50.0	50.0	56.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	40.0	45.0	45.0	50.0	50.0	56.0
POWER INPUT (kW)	Heating (nominal max)	3.97	5.08	6.25	7.53	8.37	7.94	9.79	6.24	11.43
	Cooling (nominal)	3.71	4.90	6.04	7.14	8.03	7.70	9.29	5.69	10.16
OPERATING WATER VOLUME (m³/h)	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	3.0 + 3.0 ~ 7.2 + 7.2	4.5 ~ 11.6	3.0 + 3.0 ~ 7.2 + 7.2	4.5 ~ 11.6	3.0 + 3.0 ~ 7.2 + 7.2
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal max)	6.29 / 6.03	6.20 / 5.71	6.25 / 5.54	5.97 / 5.60	5.97 / 5.60	6.29 / 5.84	5.72 / 5.38	6.24 / 5.69	5.51 / 5.01	6.20 / 5.53
MAX NO. OF CONNECTABLE INDOOR UNITS	17	21	26	30	34	36	39	39	43	43
MAX CONNECTABLE CAPACITY	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%
PIPE SIZE mm (in)	Gas 19.05 (3/4") 9.52 (3/8")**	Liquid 22.2 (7/8") 9.52 (3/8")**	22.2 (7/8") 9.52 (3/8")**	28.58 (1 1/8") 12.7 (1/2")	28.58 (1 1/8") 15.88 (5/8")					
SOUND PRESSURE LEVEL (dBA)	46	48	54	52	52	49	54	50	54	51
SOUND POWER LEVEL (dBA)	60	62	68	66	66	63	70	64	70.5	65
WEIGHT (kg)	170	170	170	214	214	170 + 170	214	170 + 170	214	170 + 170
DIMENSIONS (mm)	Width 880	Width 880	Width 880	Width 880	Width 880	Width 880 + 880	Width 880	Width 880 + 880	Width 880	Width 880 + 880
	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550	Depth 550
	Height 1100	Height 1100	Height 1100	Height 1450	Height 1450	Height 1100	Height 1450	Height 1100	Height 1450	Height 1100
ELECTRICAL SUPPLY* <sup>2</sup>	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz	380~415v, 50Hz
PHASE <sup>2</sup>	Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)	8	8	8	8	8	8 / 8	8	8 / 8	8	8 / 8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>2</sup> Heating / Cooling [MAX]	6.3 / 5.9 [16.1]	8.1 / 7.8 [16.1]	10.0 / 9.6 [18.6]	12.0 / 11.4 [23.1]	13.4 / 12.8 [27.6]	12.7 / 12.3 [16.1 + 16.1]	15.7 / 14.8 [32.9]	14.3 / 14.0 [16.1 + 16.1]	18.3 / 17.9 [39.2]	16.2 / 16.2 [16.1 + 16.1]
FUSE RATING (BS88) - HRC (A) <sup>2</sup>	1 x 20	1 x 20	1 x 20	1 x 25	1 x 32	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20	1 x 40	1 x 20 / 1 x 20
MAINS CABLE No. Cores <sup>2</sup>	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9	6.0 / 12.5	10.0 / 20.9
R410A (GWP 2088)	21.0 / 43.8	28.0 / 58.5	29.5 / 61.6	41.5 / 86.7	50.0 / 104.4	50.0 / 104.4	51.5 / 107.5	51.5 / 107.5	53.5 / 111.7	53.5 / 111.7
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)										
R410A (GWP 2088)										

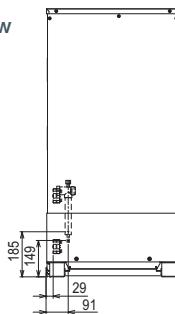
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

PIPING RESTRICTIONS	PQHY-P200-500Y(S)LM-A1
TOTAL PIPING LENGTH	300m max for sizes 200-300 / 500m for sizes 350-900
FURTHEST PIPING LENGTH	165m max
FURTHEST PIPING LENGTH AFTER 1ST BRANCH	40m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max

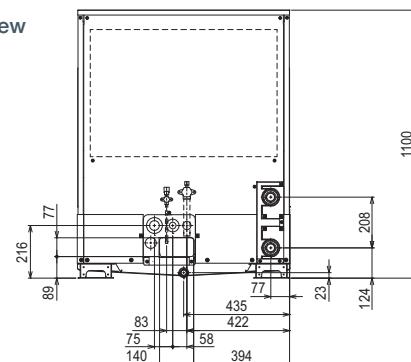
## Product Dimensions

PQHY-P200/250/300YLM-A1

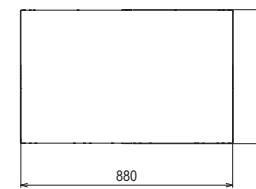
Side View



Front View



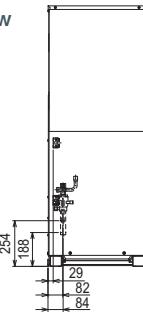
Upper View



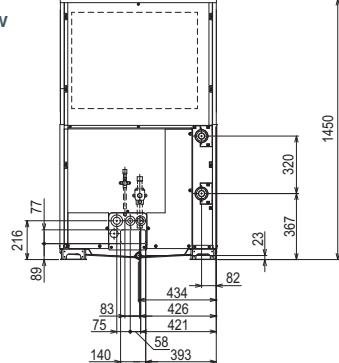
## Product Dimensions

PQHY-P350/400/450/500YLM-A1

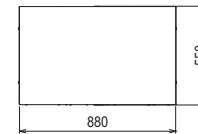
Side View



Front View



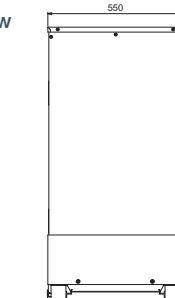
Upper View



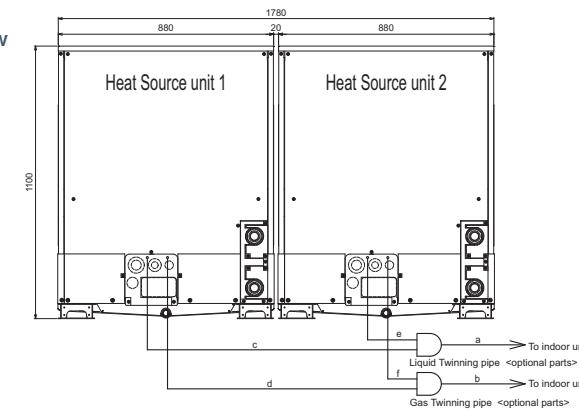
## Product Dimensions

PQHY-P400/450/500YSLM-A1

Side View



Front View



# WY Series (63-101kW)

## Heat Pump, Water Cooled Condensing Unit



The City Multi **WY** Series Heat Pump VRF system is ideal where a water loop is available and outdoor space is limited. These models utilise water, instead of air, as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WY systems provide the ultimate solution for a breadth of applications requiring heating or cooling at a given time, such as open-plan spaces in offices, call centres and leisure facilities.

### Key Features & Benefits

- High efficiency modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Benefits from a wide indoor unit range and advanced control options
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation

**R410A**

CONDENSING UNITS	PQHY-P550YLM-A1	PQHY-P550YSLM-A1	PQHY-P600YLM-A1	PQHY-P600YSLM-A1	PQHY-P700YSLM-A1	PQHY-P750YSLM-A1	PQHY-P800YSLM-A1	PQHY-P850YSLM-A1	PQHY-P900YSLM-A1	
CAPACITY (kW)	Heating (nominal max)	69.0	69.0	76.5	76.5	88.0	95.0	100.0	108.0	113.0
	Cooling (nominal)	63.0	63.0	69.0	69.0	80.0	85.0	90.0	96.0	101.0
POWER INPUT (kW)	Heating (nominal max)	12.27	11.31	14.51	12.75	14.73	15.90	16.75	18.49	19.74
	Cooling (nominal)	12.54	11.55	14.49	12.84	14.73	15.64	16.57	18.03	19.38
OPERATING WATER VOLUME (m³/h)	6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	6.0 ~ 14.4	3.0 + 3.0 ~ 7.2 + 7.2	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6	4.5 + 4.5 ~ 11.6 + 11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal max)	5.62 / 5.02	6.10 / 5.45	5.27 / 4.76	6.00 / 5.37	5.97 / 5.43	5.97 / 5.43	5.97 / 5.43	5.84 / 5.32	5.72 / 5.21	
MAX NO. OF CONNECTABLE INDOOR UNITS	47	47	50	50	50	50	50	50	50	
MAX CONNECTABLE CAPACITY	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%	50 ~ 130%
PIPE SIZE mm (in)	Gas 28.58 (1 1/8") Liquid 15.88 (5/8")	28.58 (1 1/8") 15.88 (5/8")	28.58 (1 1/8") 15.88 (5/8")	28.58 (1 1/8") 15.88 (5/8")	34.93 (1 3/8") 19.05 (3/4")	34.93 (1 3/8") 19.05 (3/4")	34.93 (1 3/8") 19.05 (3/4")	41.28 (1 5/8") 19.05 (3/4")	41.28 (1 5/8") 19.05 (3/4")	41.28 (1 5/8") 19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	56.5	55	56.5	57	55	55	55	56	57	
SOUND POWER LEVEL (dBA)	71.5	69	73	71	69	69	69	71.5	73	
WEIGHT (kg)	243	170 + 170	243	170 + 170	214 + 214	214 + 214	214 + 214	214 + 214	214 + 214	214 + 214
DIMENSIONS (mm)	Width 880	880 + 880	880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880	880 + 880
	Depth 550	550	550	550	550	550	550	550	550	550
	Height 1450	1100	1450	1100	1450	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY*1	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE*1	Three	Three	Three	Three	Three	Three	Three	Three	Three	
STARTING CURRENT (A)	8	8 / 8	8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8	8 / 8	
NOMINAL SYSTEM RUNNING CURRENT (A)*1 Heating / Cooling [MAX]	19.6 / 20.1 [40.5]	18.1 / 18.5 [18.6 + 16.1]	23.2 / 23.2 [40.5]	20.4 / 20.5 [18.6 + 18.6]	23.6 / 23.6 [23.1 + 23.1]	25.4 / 25.0 [27.6 + 23.1]	26.8 / 26.5 [27.6 + 27.6]	29.6 / 28.9 [32.9 + 27.6]	31.6 / 31.0 [32.9 + 32.9]	
FUSE RATING (BS88) - HRC (A)*1	1 x 50	1 x 20 / 1 x 20	1 x 50	1 x 20 / 1 x 20	1 x 25 / 1 x 25	1 x 32 / 1 x 25	1 x 32 / 1 x 32	1 x 40 / 1 x 32	1 x 40 / 1 x 40	
MAINS CABLE No. Cores*1	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	11.7 / 24.4	10.0 / 20.9	11.7 / 24.4	10.0 / 20.9	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	12.0 / 25.1	
R410A (GWP 2088)	55.5 / 115.9	54.5 / 113.8	57.0 / 119.0	55.5 / 115.9	65.5 / 136.8	67.5 / 140.9	67.5 / 140.9	70.0 / 146.2	70.0 / 146.2	
MIX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)										
R410A (GWP 2088)										

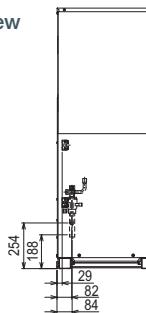
Notes: \*SEER/SCOP available separately in the 'City Multi VRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard. \*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. These products are made to order, please consult your local sales office for delivery schedule.

PIPING RESTRICTIONS	PQHY-P550-900Y(S)LM-A1
TOTAL PIPING LENGTH	500m max
FURTHEST PIPING LENGTH	165m max
FURTHEST PIPING LENGTH AFTER 1ST BRANCH	40m max
BETWEEN INDOOR AND OUTDOOR UNITS - HEIGHT	50m max (40m max if outdoor installed below)
BETWEEN INDOOR AND INDOOR UNITS - HEIGHT	15m max

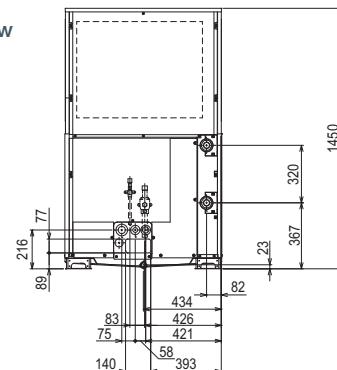
## Product Dimensions

PQHY-P550/600YLM-A1

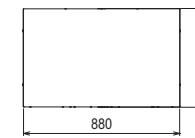
Side View



Front View



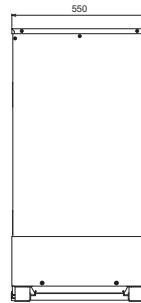
Upper View



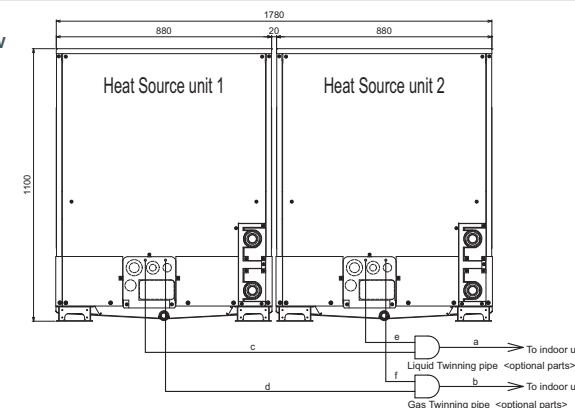
## Product Dimensions

PQHY-P550/600YSLM-A1

Side View



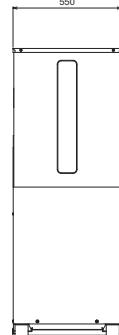
Front View



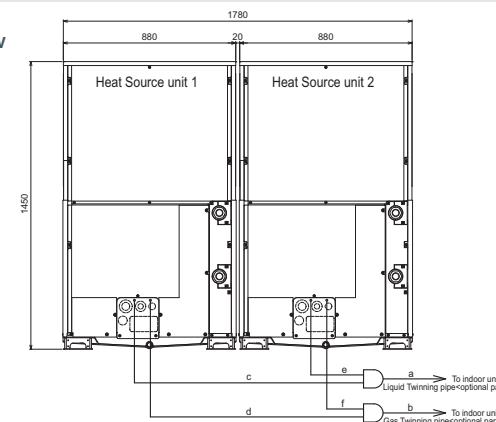
## Product Dimensions

PQHY-P700/750/800/850/900YSLM-A1

Side View



Front View



# PEFY-P-VMS1-E

## Ultra Thin Ceiling Concealed Ducted Indoor Unit



The **PEFY-P-VMS1-E** ceiling concealed ducted indoor unit has been designed with an ultra thin, slimline body, specifically for applications where ceiling void space is limited. With an extremely quiet operation, these units are ideal for applications such as hotel rooms.

### Key Features & Benefits

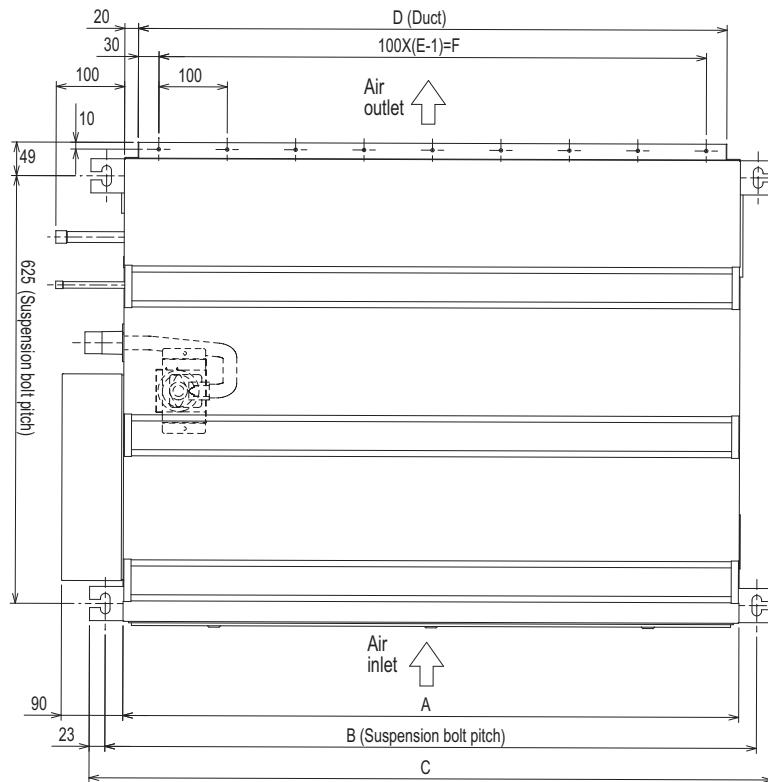
- Ultra thin body allowing installation in smaller spaces - height of only 200mm & width of only 790mm (size P15-32)
- Extremely quiet operation for minimal disturbance - as low as 22dBA (size P15-20)
- External static pressure of 5-50Pa, allowing flexibility of design and application
- Available in a 1.5kW size, ideal for hotel rooms
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

**R410A**

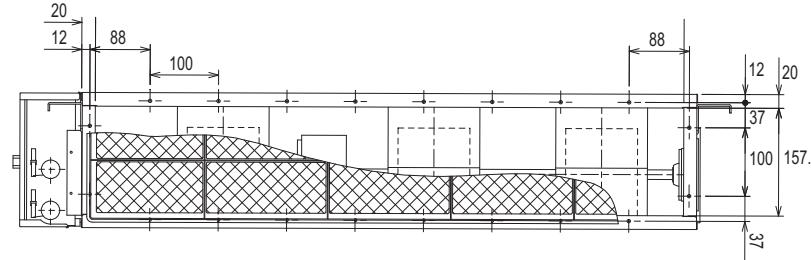
INDOOR UNITS		PEFY-P15VMS1-E	PEFY-P20VMS1-E	PEFY-P25VMS1-E	PEFY-P32VMS1-E	PEFY-P40VMS1-E	PEFY-P50VMS1-E	PEFY-P63VMS1-E
CAPACITY (kW)	Heating (nominal)	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	1.50 (1.40)	2.00 (1.70)	2.50 (2.10)	3.20 (2.50)	4.10 (3.00)	5.00 (3.70)	6.40 (4.70)
	UK Total Cooling - Mi	1.44	1.89	2.32	2.99	3.95	4.78	6.13
	UK Total Cooling - Lo	1.34	1.76	2.07	2.63	3.70	4.51	5.77
POWER INPUT (kW)	Heating (nominal)	0.03	0.03	0.04	0.05	0.05	0.07	0.07
	Cooling (nominal)	0.05	0.05	0.06	0.07	0.07	0.09	0.09
AIRFLOW (l/s)	Lo-Mi-Hi	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275
EXTERNAL STATIC PRESSURE (Pa)	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA)* <sup>1</sup> Lo-Mi-Hi	22-24-28	22-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36	
WEIGHT (kg)	19	19	19	20	24	24	24	28
DIMENSIONS (mm)	Width	790	790	790	790	990	990	1190
	Depth	700	700	700	700	700	700	700
	Height	200	200	200	200	200	200	200
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling	0.31 / 0.42	0.36 / 0.47	0.39 / 0.50	0.39 / 0.50	0.45 / 0.56	0.56 / 0.67	0.61 / 0.72	
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3	3	3	3	3

Note: \*1 Additional sound data is available for this model. Separated inlet and breakout sound power level and discharge sound power level data is available on request.

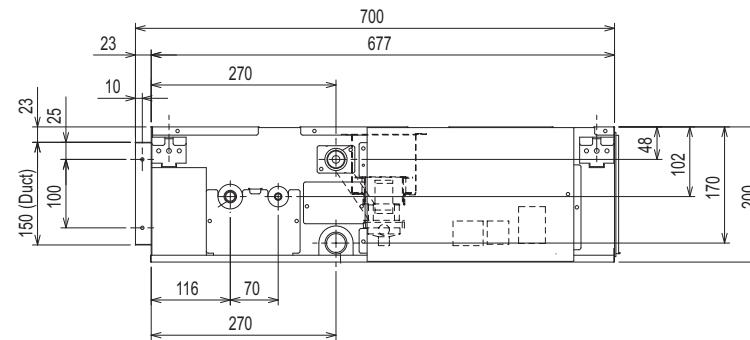
Upper View



Front View



Side View



Model	A	B	C	D	E	F
PEFY-P15-32VMS1-E	700	752	798	660	7	600
PEFY-P40-50VMS1-E	900	952	998	860	9	800
PEFY-P63VMS1-E	1100	1152	1198	1060	11	1000

# PEFY-M-VMA-A1

## Ceiling Concealed Ducted Indoor Unit



The **PEFY-M-VMA-A1** low-height ducted indoor unit is concealed within the ceiling space, offering unobtrusive air conditioning. The flexibility of duct layout allows airflow patterns to be arranged to suit any application.

### Key Features & Benefits

- Additional fan speed (compared to previous model) provides a wider range of airflows and more flexible air distribution
- High sensible cooling capacity combined with improved airflows, enabling better off-coil temperatures for enhanced occupant comfort levels
- Low height of 250mm, allowing installation in smaller spaces
- Flexibility of design and application with a wide range of external static pressure settings across the entire range (35-150Pa)
- Low noise levels facilitated through use of a centrifugal fan
- Drain pump included as standard
- CN105 connector available - connect to MELCOBEMS MINI for simple BEMS interfacing
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust.

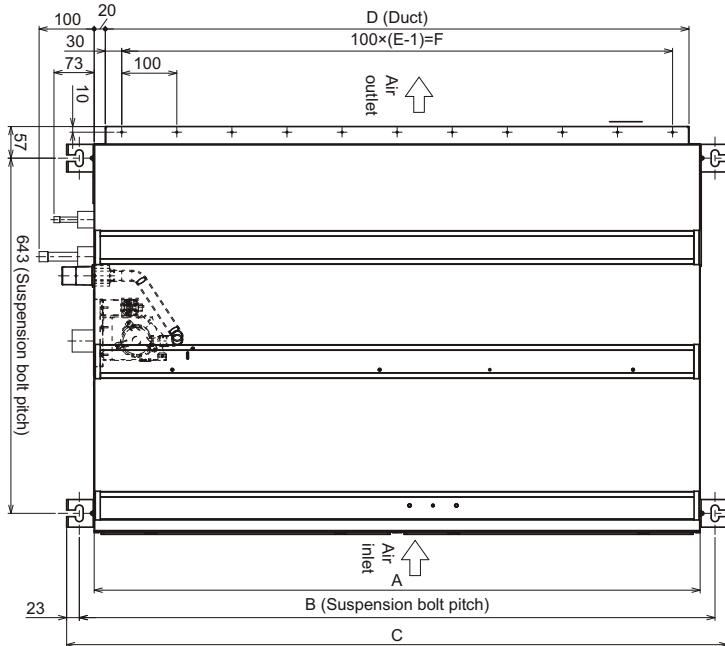
For more information, please refer to page 1.1.7

**R32** **R410A**

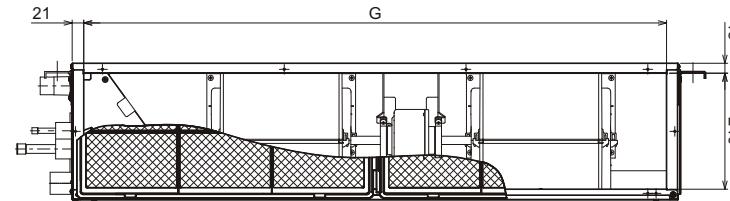
INDOOR UNITS	PEFY-M20VMA-A1	PEFY-M25VMA-A1	PEFY-M32VMA-A1	PEFY-M40VMA-A1	PEFY-M50VMA-A1	PEFY-M63VMA-A1	PEFY-M80VMA-A1	PEFY-M100VMA-A1	PEFY-M125VMA-A1	
CAPACITY (kW)										
Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	
UK Heating	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
UK Total Cooling - Hi (Sensible)	2.00 (1.90)	2.50 (2.10)	3.20 (2.60)	4.0 (3.60)	5.00 (4.80)	6.40 (5.40)	8.10 (7.20)	10.0 (8.40)	12.5 (9.70)	
UK Total Cooling - Mi1	1.92	2.40	3.05	3.57	4.27	5.79	6.86	9.64	12.37	
UK Total Cooling - Mi2	1.83	2.28	2.87	3.31	4.00	5.32	6.33	9.17	12.01	
UK Total Cooling - Lo	1.65	2.06	2.62	3.07	3.60	4.86	5.62	8.38	11.09	
POWER INPUT (kW)										
Heating (nominal)	0.04	0.04	0.06	0.09	0.13	0.23	0.22	0.21	0.22	
Cooling (nominal)	0.04	0.04	0.06	0.09	0.13	0.14	0.17	0.21	0.22	
AIRFLOW (l/s) Cooling	Lo-Mi2-Mi1-Hi	100-125-142-166	100-125-142-166	123-150-175-208	166-191-225-316	208-241-275-426	225-266-320-436	241-300-350-518	383-466-533-616	425-516-566-616
AIRFLOW (l/s) Heating	Lo-Mi2-Mi1-Hi	100-125-142-166	100-125-142-166	123-150-175-208	166-191-225-316	208-241-275-426	225-266-320-516	241-300-350-616	383-466-533-616	425-516-566-616
EXTERNAL STATIC PRESSURE (Pa)	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	40-50-70-100-150	40-50-70-100-150	40-50-70-100-150	40-50-70-100-150
SOUND PRESSURE LEVEL (dBA)* <sup>1</sup>	Lo-Mi2-Mi1-Hi Cooling	21.5-23-26.5-30	21.5-23-26.5-30	24-28-31.5-35.5	23.5-25.5-28.5-37	22-24-26.5-37	23-26-30-37.5	22-25-27.5-38.5	29.5-34-37.5-40	31.5-36.5-38.5-40.5
SOUND PRESSURE LEVEL (dBA)* <sup>1</sup>	Lo-Mi2-Mi1-Hi Heating	21.5-23-26.5-30	21.5-23-26.5-30	24-28-31.5-35.5	23.5-25.5-28.5-37	22-24-26.5-37	23-26-30-41.5	22-25-27.5-40.5	29.5-34-37.5-40	31.5-36.5-38.5-40.5
WEIGHT (kg)	21	21	21	25	30	30	37	37	38	
DIMENSIONS (mm)	Width Depth Height	700 732 250	700 732 250	900 732 250	1100 732 250	1100 732 250	1400 732 250	1400 732 250	1400 732 250	
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)	Heating / Cooling	0.33/0.33	0.33/0.33	0.48/0.48	0.67/0.67	0.90/0.90	1.48/0.95	1.41/1.11	1.38/1.38	1.33/1.33
FUSE RATING (BS88)- HRC (A)	6	6	6	6	6	6	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3	3	3	3	3	3	3

Note: \*1 Measured in an anechoic chamber with a 1m inlet duct and 2m air outlet duct, 1.5m below unit

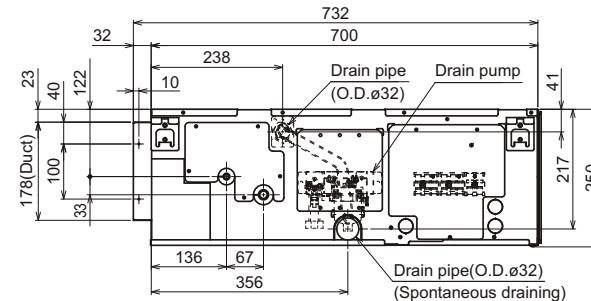
Upper View



Front View



Side View



Model	A	B	C	D	E	F	G
PEFY-M20,25,32VMA-A1	700	754	800	660	7	600	658
PEFY-M40VMA-A1	900	954	1000	860	9	800	858
PEFY-M50,63VMA-A1	1100	1154	1200	1060	11	1000	1058
PEFY-M80,100,125VMA-A1	1400	1454	1500	1360	14	1300	1358

# PEFY-P-VMHS-E

## High Static Pressure Ceiling Concealed Ducted Indoor Unit



With increased design flexibility as a result of increased external static pressure, the **PEFY-P-VMHS-E** ceiling concealed unit is an ideal choice for applications such as retail and warehouse spaces.

### Key Features & Benefits

- External static pressure of up to 250Pa for flexibility of design and application
- Greater versatility of duct extension, branching air outlet configuration
- Low noise levels facilitated through use of a centrifugal fan
- Duct can be connected to intake side

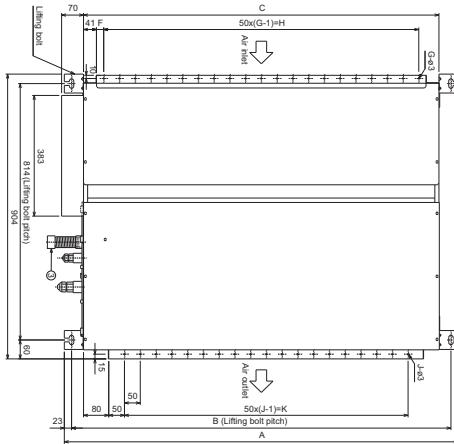
**R410A**

INDOOR UNITS		PEFY-P80VMHS-E	PEFY-P100VMHS-E	PEFY-P125VMHS-E	PEFY-P140VMHS-E	PEFY-P200VMHS-E	PEFY-P250VMHS-E
CAPACITY (kW)	Heating (nominal)	10.0	12.5	16.0	18.0	25.0	31.5
	Cooling (nominal)	9.0	11.2	14.0	16.0	22.4	28.0
	UK Heating	10.0	12.5	16.0	18.0	25.0	31.5
	UK Total Cooling - Hi (Sensible)	8.10 (6.10)	10.10 (8.30)	12.60 (9.50)	14.40 (10.80)	20.20 (15.60)	25.20 (19.30)
	UK Total Cooling - Mi	7.79	9.65	12.03	13.80	19.33	24.10
	UK Total Cooling - Lo	7.27	8.95	11.16	12.77	17.84	22.21
POWER INPUT (kW)	Heating (nominal)	0.09	0.16	0.16	0.19	0.63	0.82
	Cooling (nominal)	0.09	0.16	0.16	0.19	0.63	0.82
AIRFLOW (l/s)	Lo-Mi-Hi	300-358-417	442-533-633	442-533-633	467-567-667	833-1017-1200	967-1183-1400
EXTERNAL STATIC PRESSURE (Pa)	100-150-200	100-150-200	100-150-200	100-150-200	50-100-150-200-250	50-100-150-200-250	50-100-150-200-250
SOUND PRESSURE LEVEL (dBA) (150Pa)	Lo-Mi-Hi	25-27-30	27-31-34	27-31-34	27-32-36	36-39-43	39-42-46
WEIGHT (kg)		45	51	51	53	97	100
DIMENSIONS (mm)	Width	1030	1195	1195	1195	1250	1250
	Depth	900	900	900	900	1120	1120
	Height	380	380	380	380	470	470
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.61 / 0.61	1.01 / 1.01	1.01 / 1.01	1.19 / 1.19	3.32 / 3.32	4.43 / 4.43
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3

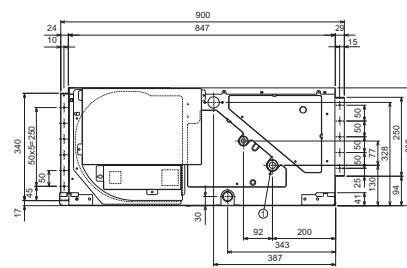
## Product Dimensions

PEFY-P80/100/125/140VMHS-E

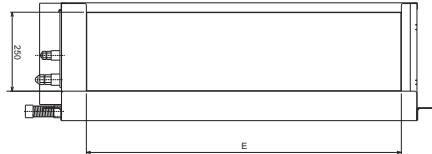
Upper View



Side View



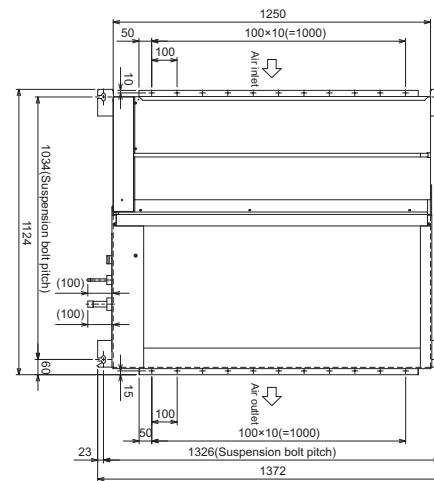
Front View



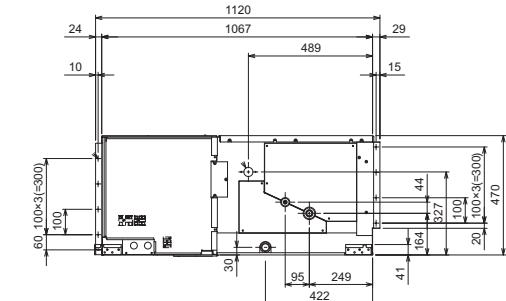
## Product Dimensions

PEFY-P200/250VMHS-E

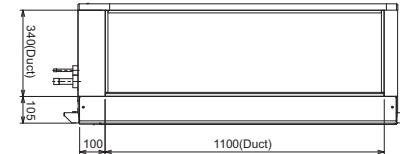
Upper View



Side View



Front View



Model	A	B	C	E	F	G	H	J	K
PEFY-P80VMHS-E	1085	1039	965	835	42.5	17	800	15	700
PEFY-P100-140VMHS-E	1250	1204	1130	1000	25	21	1000	19	900

1.5.59

Air Conditioning

CITY MULTI

PEFY-P-VMHS-E  
High Static Pressure Ceiling Concealed Ducted Indoor Unit

# PLFY-M-VEM6-E

## **4-Way Blow Ceiling Cassette Indoor Unit**



The **PLFY-M-VEM6-E** offers 72 different airflow patterns, with the ability to handle a multitude of ceiling applications up to 4.2 metres in height. The easy to install, slimline unit is ideal for maintaining constant temperatures, thanks to adjustable vanes that allow users to precisely direct air where it's needed.

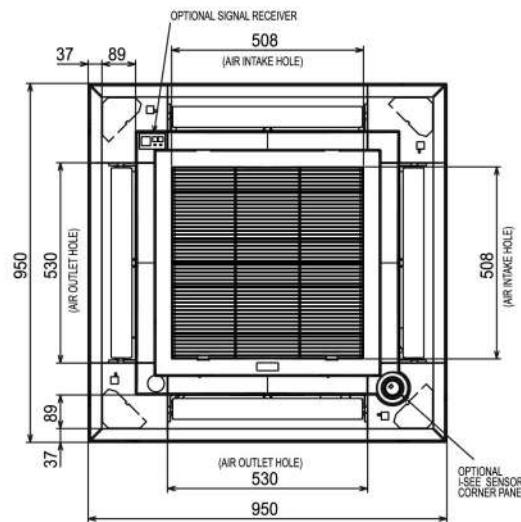
## Key Features & Benefits

- High sensible cooling capacity combined with improved airflows, enabling better off-coil temperatures for enhanced occupant comfort levels
  - Optional 3D i-see sensor grille (PLP-6EAE) provides customised comfort by automatically monitoring room occupancy, position and body temperatures
  - Optional filter lowering operation down to 4m (PLP-6EAJ), allowing for easier maintenance
  - Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
  - Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
  - Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust

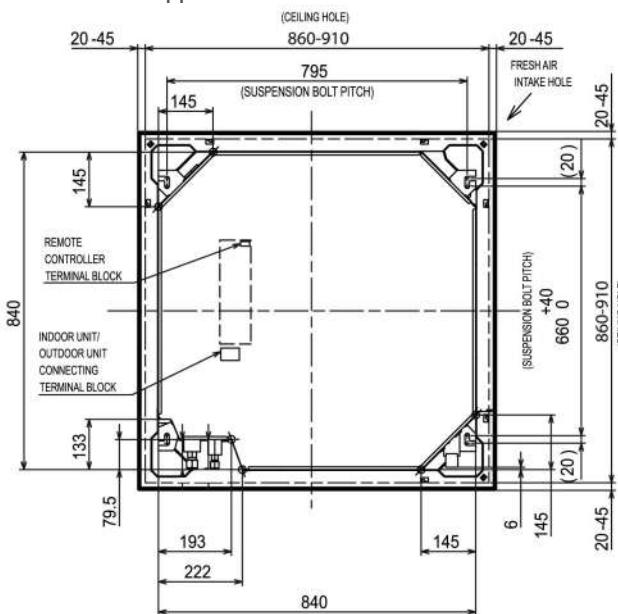
For more information, please refer to page 1.1.7

# R32 R410A

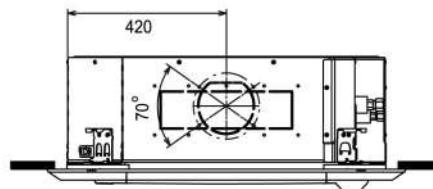
Lower View



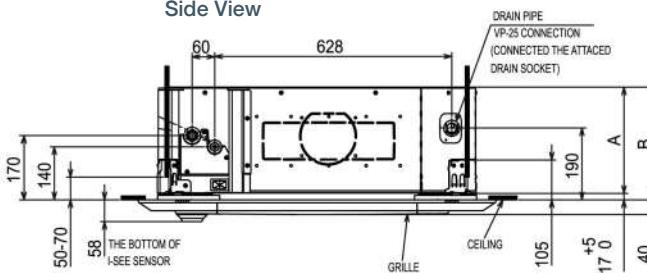
Upper View



Front View



Side View



Model	A	B
PLFY-M32,40VEM6-E	241	258
PLFY-M50,63,80,100,125VEM6-E	281	298

# PLFY-P-VFM-E

## **600x600 4-Way Blow Ceiling Cassette Indoor Unit**



The **PLFY-P-VFM-E** 600x600 cassette unit provides a smart air conditioning solution for tight ceiling spaces. Designed to fit directly into standard 600mm square ceiling grids, these units are a perfect choice for both offices and retail applications. The optional 3D i-see sensor grille optimises both energy consumption and comfort levels.

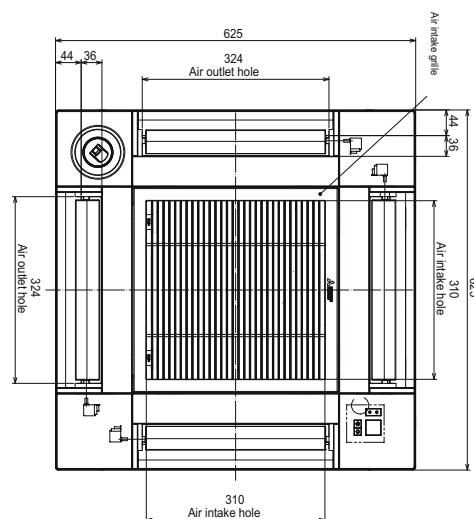
## Key Features & Benefits

- Stylish square slimline design - fits into narrow ceiling spaces with a height of only 245mm
  - Low noise levels for minimal disturbance - reduced noise value with 3D turbo fan
  - Increased comfort levels through advanced airflow
  - Easy installation - temporary hanging hook on grille and no screw removal for corner panel / control box
  - Optional 3D i-see sensor grille (SLP-2FAE) provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures
  - Optional black (Satin finish) grille (SLP-2FA-B), for environments that desire a premium quality feel
  - Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould

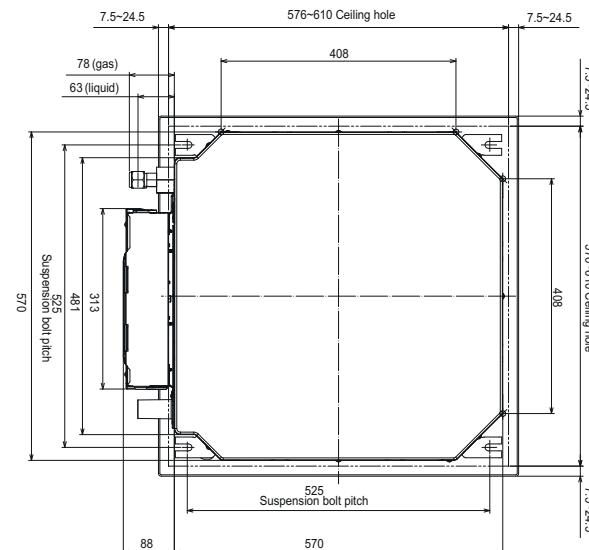
R410A

INDOOR UNITS		PLFY-P15VFM-E	PLFY-P20VFM-E	PLFY-P25VFM-E	PLFY-P32VFM-E	PLFY-P40VFM-E	PLFY-P50VFM-E	
CAPACITY (kW)	Heating (nominal)	1.9	2.5	3.2	4.0	5.0	6.3	
	Cooling (nominal)	1.7	2.2	2.8	3.6	4.5	5.6	
	UK Heating	1.9	2.5	3.2	4.0	5.0	6.3	
	UK Total Cooling - Hi (Sensible)	1.50 (1.30)	2.00 (1.60)	2.50 (2.00)	3.20 (2.40)	4.00 (2.90)	5.00 (3.60)	
	UK Total Cooling - Mi	1.48	1.94	2.38	3.06	3.78	4.78	
	UK Total Cooling - Lo	1.41	1.84	2.24	2.91	3.51	4.41	
POWER INPUT (kW)	Heating (nominal)	0.02	0.02	0.02	0.02	0.03	0.03	
	Cooling (nominal)	0.02	0.02	0.02	0.02	0.03	0.03	
AIRFLOW (l/s)	Lo-Mi-Hi	108-125-133	108-125-142	108-133-150	117-133-158	125-150-183	150-183-217	
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	26-28-30	26-29-31	26-30-33	26-30-34	28-33-39	33-39-43	
WEIGHT (kg)	(Grille)	14 (3)	14 (3)	14 (3)	15 (3)	15 (3)	15 (3)	
DIMENSIONS (mm)	Width (Grille)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)	
	Depth (Grille)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)	570 (625)	
	Height (Grille)	245 (10)	245 (10)	245 (10)	245 (10)	245 (10)	245 (10)	
ELECTRICAL SUPPLY	220-240v, 50Hz		220-240v, 50Hz		220-240v, 50Hz		220-240v, 50Hz	
PHASE	Single		Single		Single		Single	
RUNNING CURRENT (A) Heating / Cooling	0.14 / 0.19		0.16 / 0.21		0.17 / 0.22		0.18 / 0.23	
FUSE RATING (BS88) - HRC (A)	6		6		6		6	
MAINS CABLE No. Cores	3		3		3		3	
GRILLE MODEL REFERENCE	SLP-2FA		SLP-2FA		SLP-2FA		SLP-2FA	

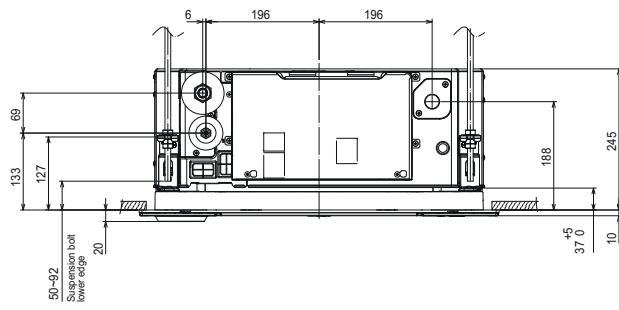
Upper View



Lower View



Side View



# PFFY-P-VCM-E

## Floor Standing Concealed Indoor Unit



The **PFFY-P-VCM-E** is a compact concealed unit that provides simple, effective air conditioning in perimeter zones. The unit is easy to install and, at only 200mm deep, offers an unobtrusive method of delivering a highly efficient air conditioning performance.

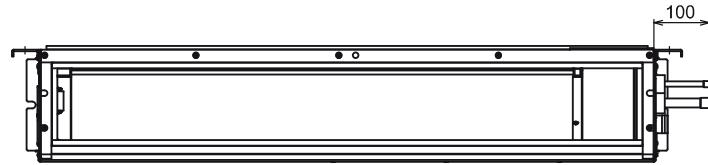
### Key Features & Benefits

- Concealed unit for hidden installation
- Ideal for perimeter installations and refurbishments
- 0-10-40-60Pa static pressure settings available for flexibility of design and application

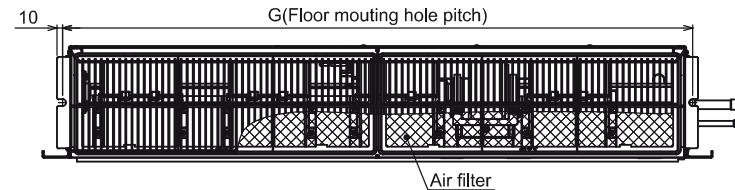
## R410A

INDOOR UNITS		PFFY-P20VCM-E	PFFY-P25VCM-E	PFFY-P32VCM-E	PFFY-P40VCM-E	PFFY-P50VCM-E	PFFY-P63VCM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.40)	4.10 (3.00)	5.00 (3.80)	6.40 (4.70)
	UK Total Cooling - Mi	1.92	2.40	3.05	3.95	4.81	6.11
	UK Total Cooling - Lo	1.77	2.21	2.87	3.70	4.48	5.71
POWER INPUT (kW)	Heating (nominal)	0.022	0.026	0.031	0.038	0.052	0.058
	Cooling (nominal)	0.022	0.026	0.031	0.038	0.052	0.058
AIRFLOW (l/s)	Lo-Mi-Hi	83-100-117	92-108-133	92-117-142	133-158-183	167-192-225	200-233-275
EXTERNAL STATIC PRESSURE (Pa)	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	21-23-26	22-25-29	23-26-30	25-27-30	28-31-34	28-32-35
WEIGHT (kg)		18	18	18.5	22.5	22.5	25.5
DIMENSIONS (mm)	Width	700	700	700	900	900	1100
	Depth	200	200	200	200	200	200
	Height	690	690	690	690	690	690
ELECTRICAL SUPPLY		220-240v, 50Hz					
PHASE		Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A)	Heating / Cooling	0.25 / 0.25	0.30 / 0.30	0.34 / 0.34	0.38 / 0.38	0.50 / 0.50	0.49 / 0.49
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3

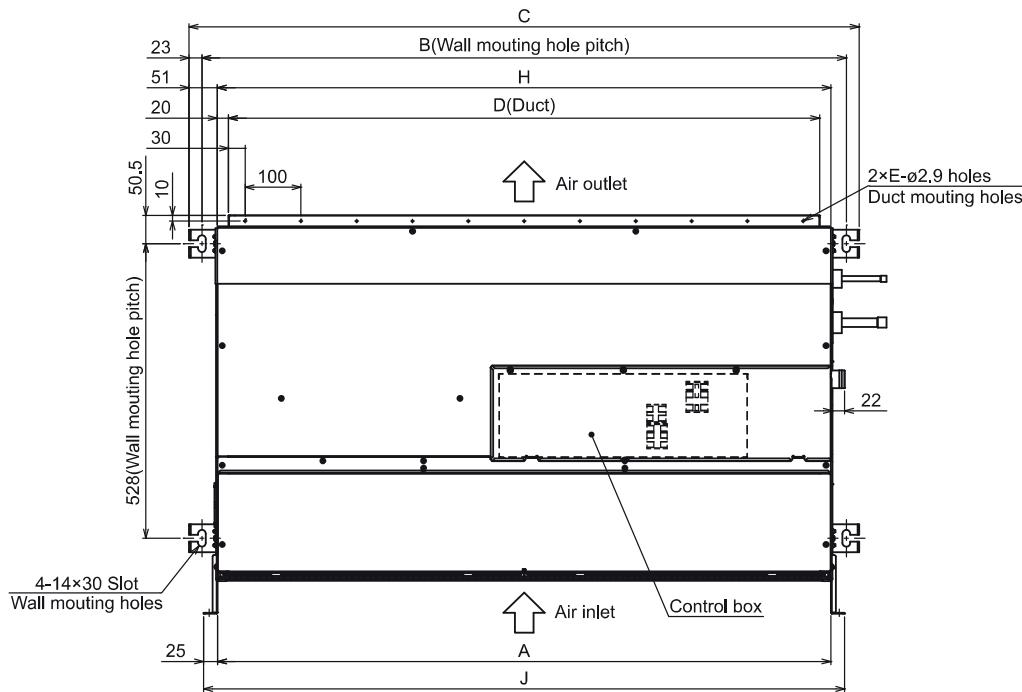
Upper View



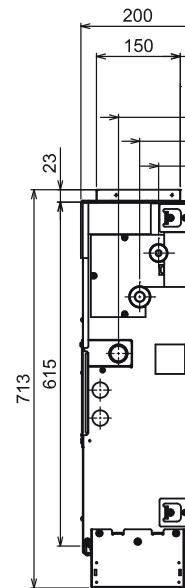
Lower View



Front View



Side View



Model	A	B	C	D	E	F	G	H	J
PFFY-P20-25-32VCM-E	700	756	802	660	7	600	730	700	750
PFFY-P40-50VCM-E	900	956	1002	860	9	800	930	900	950
PFFY-P63VCM-E	1100	1156	1202	1060	11	1000	1130	1100	1150

# PFFY-P-VEM-E

## Floor Standing Exposed Indoor Unit



The **PFFY-P-VEM-E** floor standing exposed unit is a stylish and quiet, compact cased unit that provides simple, effective air conditioning in perimeter zones. Constructed in a robust casement, and with a depth of only 217mm, it offers a flexible solution for applications such as offices, retail, high end residential and hospitals.

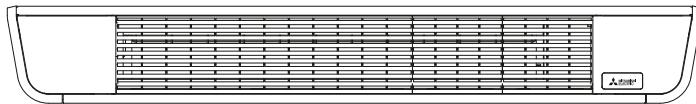
### Key Features & Benefits

- Perimeter air conditioning for retrofit applications where ceiling void not available
- Compact and stylish design in clear white and pearl grey, blends in with any interior
- DC fan motor and improved heat exchanger design, optimises system efficiency, allowing for low power consumption and running costs
- Wide airflow range with three fan settings (Low-Mid-High) for customised comfort
- Quiet operation as low as 23dBA, for minimal disturbance
- Can be floor mounted or wall mounted for better installation options
- Built-in housing for the remote controller on the unit chassis for convenient control
- Refrigerant pipe can be connected from the bottom or rear of the unit enabling improved installation flexibility

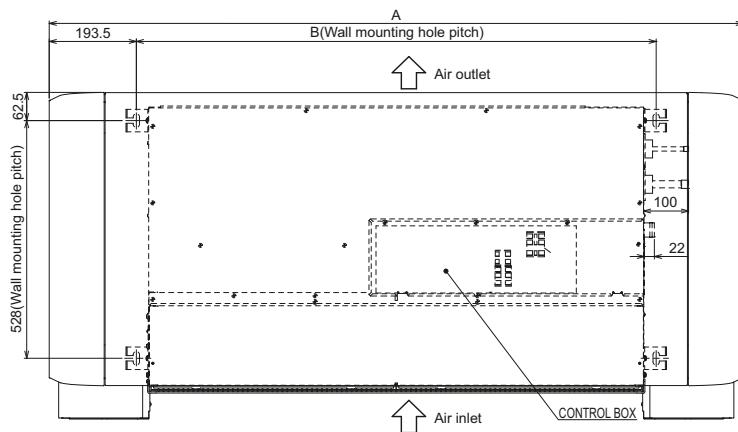
**R410A**

INDOOR UNITS		PFFY-P20VEM-E	PFFY-P25VEM-E	PFFY-P32VEM-E	PFFY-P40VEM-E	PFFY-P50VEM-E	PFFY-P63VEM-E
CAPACITY (kW)							
Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0	
Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1	
UK Heating	2.5	3.2	4.0	5.0	6.3	8.0	
UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.30)	4.00 (3.00)	5.00 (3.70)	6.40 (4.70)	
UK Total Cooling - Mi	1.92	2.36	3.03	3.85	4.80	6.13	
UK Total Cooling - Lo	1.78	2.20	2.74	3.61	4.55	5.77	
POWER INPUT (kW)							
Heating (nominal)	0.021	0.026	0.031	0.037	0.054	0.061	
Cooling (nominal)	0.021	0.026	0.031	0.037	0.054	0.061	
AIRFLOW (l/s)	Lo-Mi-Hi 83-100-117	92-108-133	92-117-142	133-158-183	167-192-225	200-233-275	
SOUND PRESSURE LEVEL (dBA) - Lo-Mi-Hi	23-27-31	25-29-34	25-31-36	29-33-36	34-37-41	32-36-40	
WEIGHT (kg)	29.5	29.5	30	35	35	39.5	
DIMENSIONS (mm)	Width 1142	1142	1142	1342	1342	1542	
	Depth 217	217	217	217	217	217	
	Height 726	726	726	726	726	726	
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling	0.25 / 0.25	0.30 / 0.30	0.35 / 0.35	0.38 / 0.38	0.56 / 0.56	0.50 / 0.50	
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	
MAINS CABLE No. Cores	3	3	3	3	3	3	

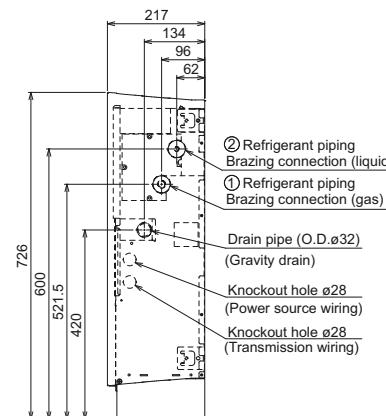
Upper View



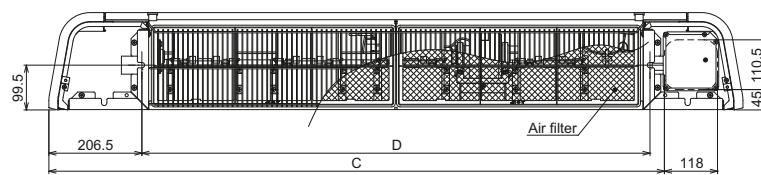
Front View



Side View



Lower View



Model	A	B	C	D	①Gas pipe	②Liquid pipe
PFFY-P20-25-32VEM-E	1142	755	967.5	729	ø12.7	ø6.35
PFFY-P40-50VEM-E	1342	955	1167.5	929		
PFFY-P63VEM-E	1542	1155	1367.5	1129	ø15.88	ø9.52

# PFFY-P-VKM-E

## Floor Standing Exposed Indoor Unit



The **PFFY-P-VKM-E** is extremely versatile and designed for wall attached installation at floor level. The auto swing vane provides a more natural and comfortable airflow throughout the room and the lightweight, compact design makes installation easy.

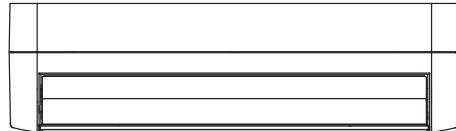
### Key Features & Benefits

- White, slimline design for easy installation
- Upper and lower vanes for optimum, powerful and efficient air distribution

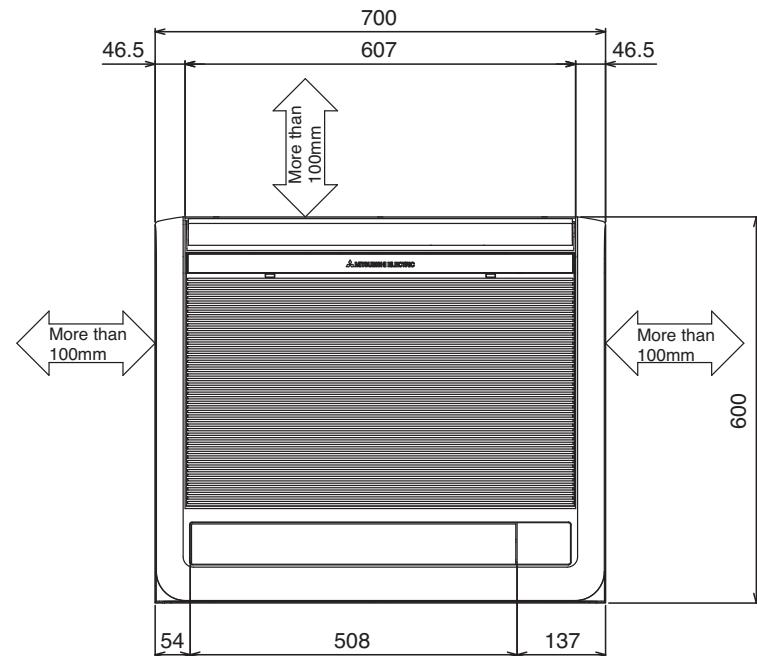
## R410A

INDOOR UNITS		PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0
	Cooling (nominal)	2.2	2.8	3.6	4.5
	UK Heating	2.5	3.2	4.0	5.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.30)	4.10 (2.90)
	UK Total Cooling - M2	1.94	2.42	3.10	3.98
	UK Total Cooling - M1	1.86	2.31	2.96	3.92
	UK Total Cooling - Lo	1.75	2.17	2.78	3.74
POWER INPUT (kW)	Heating (nominal)	0.025	0.025	0.025	0.028
	Cooling (nominal)	0.025	0.025	0.025	0.028
AIRFLOW (l/s)	Lo-M1-Mi2-Hi	98-113-127-145	102-117-133-152	102-117-133-152	133-150-158-178
SOUND PRESSURE LEVEL (dBA)	Lo-M1-Mi2-Hi	27-31-34-37	28-32-35-38	28-32-35-38	35-38-42-44
WEIGHT (kg)		15	15	15	15
DIMENSIONS (mm)	Width	700	700	700	700
	Depth	200	200	200	200
	Height	600	600	600	600
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.20 / 0.20	0.20 / 0.20	0.20 / 0.20	0.24 / 0.24
FUSE RATING (BS88) - HRC (A)		6	6	6	6
MAINS CABLE No. Cores		3	3	3	3

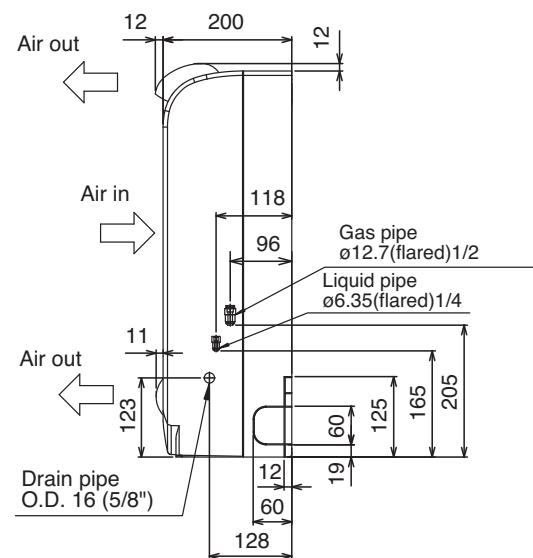
Upper View



Front View



Side View



# **PKFY-P-VLM-E / VKM-E**

## Wall Mounted Indoor Unit

The elegant, compact design of the **PKFY-P** wall mounted indoor unit, is an ideal unit choice for exposed applications. The units quiet operation promotes minimal disturbance in close proximity.

## Key Features & Benefits

- Compact flat panel design - only 773mm wide (sizes 10-32)
  - Widened vane control for improved air distribution and comfort
  - Reduced noise levels of 22dB(A) (sizes 10-25) enabling minimal disturbance
  - Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

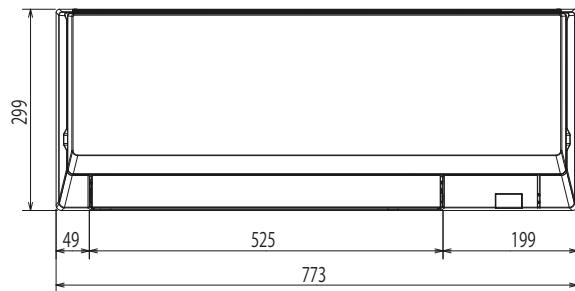


R410A

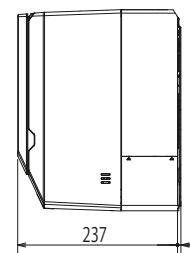
## Product Dimensions

PKFY-P10/15/20/25/32VLM-E

Front View



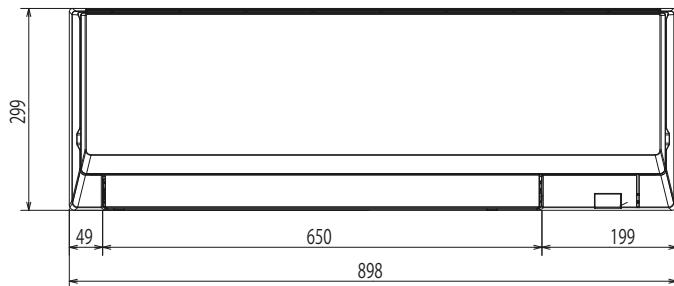
Side View



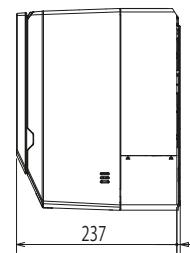
## Product Dimensions

PKFY-P40/50VLM-E

Front View



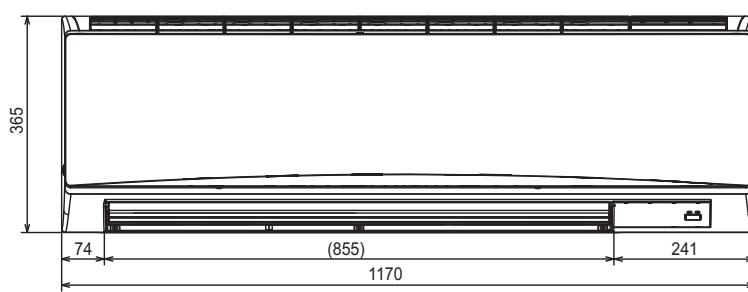
Side View



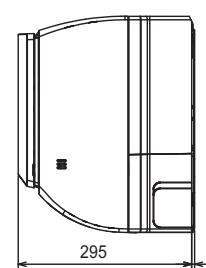
## Product Dimensions

PKFY-P63VKM-E

Front View



Side View



# PCFY-P-VKM-E

## Ceiling Suspended Indoor Unit



Designed for ultra-quiet operation and easy maintenance, the **PCFY-P-VKM-E** provides comfortable air conditioning for a wide range of applications where floor or wall space cannot be used practically.

### Key Features & Benefits

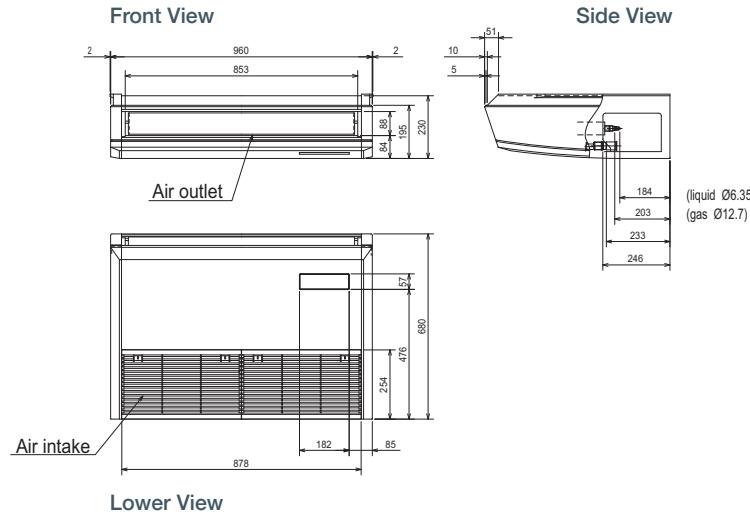
- Indoor unit designed for direct ceiling suspension
- Flush to wall installation for concealment of service connections
- Drain piping can be connected from left or right

**R410A**

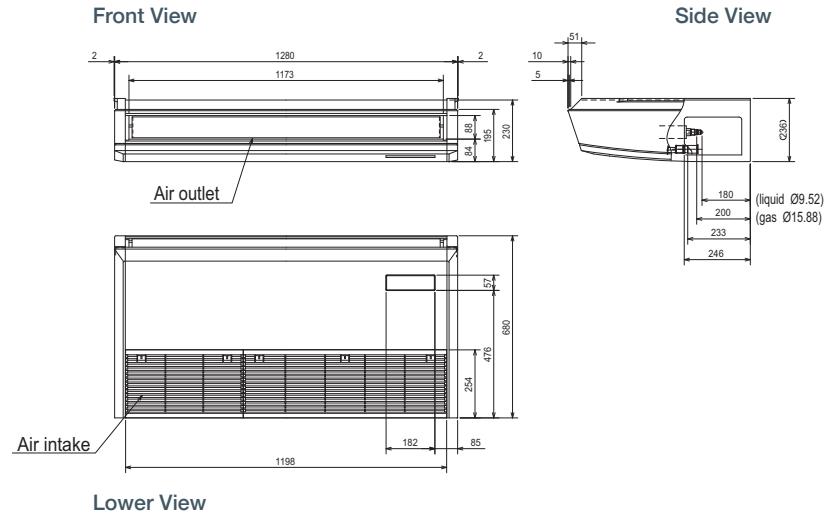
INDOOR UNITS		PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
CAPACITY (kW)	Heating (nominal)	5.0	8.0	12.5	16.0
	Cooling (nominal)	4.5	7.1	11.2	14.0
	UK Heating	5.0	8.0	12.5	16.0
	UK Total Cooling - Hi (Sensible)	4.10 (3.00)	6.40 (4.60)	10.10 (7.10)	12.60 (8.90)
	UK Total Cooling - M2	4.03	6.22	9.94	12.17
	UK Total Cooling - M1	3.92	6.09	9.70	11.66
	UK Total Cooling - Lo	3.79	5.93	9.23	11.00
POWER INPUT (kW)	Heating (nominal)	0.04	0.05	0.09	0.11
	Cooling (nominal)	0.04	0.05	0.09	0.11
AIRFLOW (l/s)	Lo-M1-M2-Hi	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
SOUND PRESSURE LEVEL (dBA)	Lo-M1-M2-Hi	29-32-34-36	31-33-35-37	36-38-41-43	36-39-42-44
WEIGHT (kg)		24	32	36	38
DIMENSIONS (mm)	Width	960	1280	1600	1600
	Depth	680	680	680	680
	Height	230	230	230	230
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.28 / 0.28	0.33 / 0.33	0.65 / 0.65	0.76 / 0.76
FUSE RATING (BS88) - HRC (A)		6	6	6	6
MAINS CABLE No. Cores		3	3	3	3

**Product Dimensions**

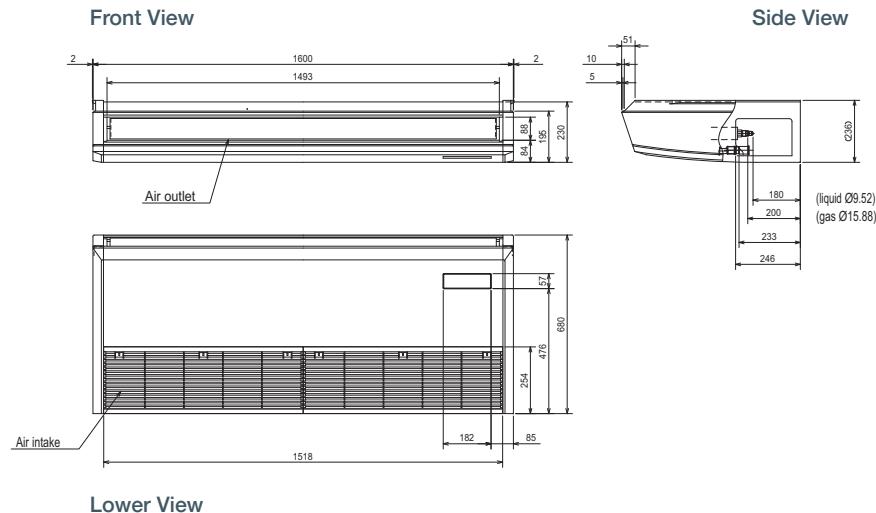
PCFY-P40VKM-E

**Product Dimensions**

PCFY-P63VKM-E

**Product Dimensions**

PCFY-P100/125VKM-E



# PWFY-P-VM-E1-BU

## VRF Sanitary Water Heater



Taking full advantage of heat recovery technology, the PWFY-P City Multi VRF Sanitary Water Heater is an ideal solution for providing an energy efficient hot water supply to commercial buildings. The simple addition of the booster unit to the existing VRF system makes this a very flexible solution for a variety of applications.

### Key Features & Benefits

- Energy efficient provision of hot water, achieving a flow temperature of up to 70°C
- Simple addition of the booster unit to the existing air conditioning system
- Eliminates the inconveniences of gas boiler installation, such as gas grid connection costs, meter installation and maintenance costs
- Uses the PAR-W21MAA controller

**R410A    R134a**

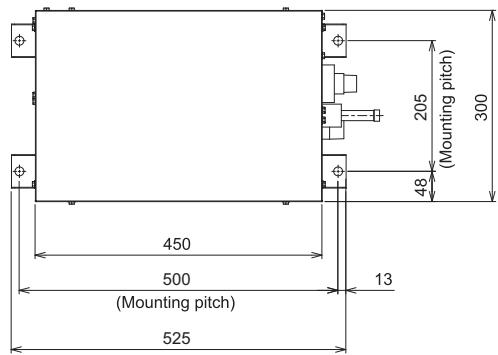
SANITARY WATER HEATER		PWFY-P100VM-E1-BU
CAPACITY (kW)	Hot water (nominal)* Hot water (UK)* <sup>2</sup>	12.5 8.0 2.48
POWER INPUT (kW)		PURY / PQRY
COMPATIBLE OUTDOOR / CONDENSING UNITS		15.88 (5/8") 9.52 (3/8") PT 3/4 Screw 28
PIPE SIZE mm (in)	Gas Liquid Water Connection Water pipe size	44
SOUND PRESSURE LEVEL (dBA)		70
MAX WATER TEMPERATURE (°C)		1.5
OPTIMUM WATER FLOW RATE (m <sup>3</sup> /h)		22.5
WATER PRESSURE DROP AT OPTIMUM FLOW RATE (kPa)		63
WEIGHT (kg)		450 300 848 (833 without legs)
DIMENSIONS (mm)	Width Depth Height	220-240v, 50Hz Single
ELECTRICAL SUPPLY		10.66
PHASE		25
RUNNING CURRENT (A)		3
FUSE RATING (BS88) - HRC (A)		CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R134a (GWP 1430)
MAINS CABLE No. Cores		1.1 / 1.6
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) R134a (GWP 1430)		

Notes:

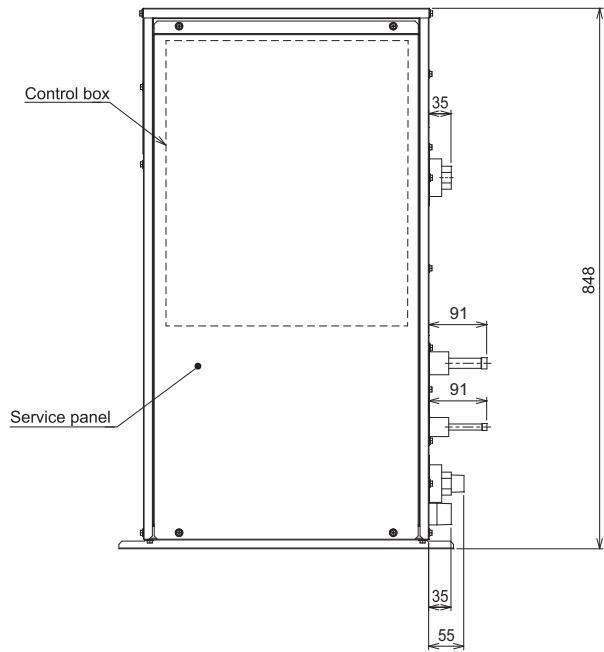
\*1 Nominal conditions: Outdoor 7/6°C , 65°C inlet water temperature, 1.5m<sup>3</sup>/h water flow rate, 7.5m refrigerant pipe. (Please note this is a spot condition and not capacity over tank heat up).

\*2 Typical capacity at -10°CWB outdoor temperature for tank heat up.

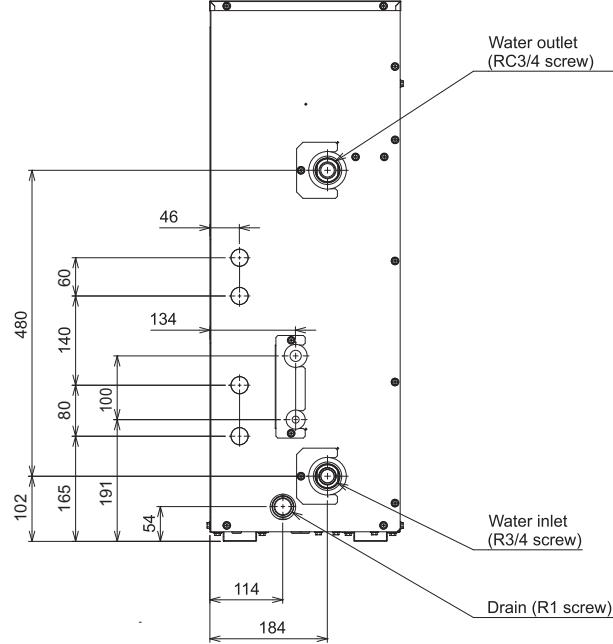
Upper View



Front View



Side View

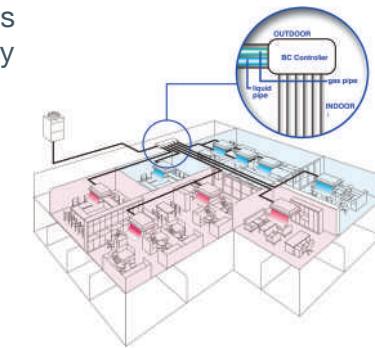


# BC Controllers

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Simultaneous heating and cooling
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections



**R32    R410A**



BC CONTROLLERS	CMB-M104V-J1	CMB-M106V-J1
NUMBER OF CONNECTIONS	4	6
WEIGHT (KG)	26	29
DIMENSIONS (MM)	Width 596 Depth 476 Height 250	Width 596 Depth 476 Height 250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.076	0.11
RUNNING CURRENT (A)	0.34	0.48
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Note: CMB-M-V-J1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-EP200-350YNW-A2, PURY-P200-350YNW-A2 & PQRY-P200-300YLM-A1 units only.

MAIN BC CONTROLLERS	CMB-M108V-JA1	CMB-M1012V-JA1	CMB-M1016V-JA1	CMB-P1016V-KA1
NUMBER OF CONNECTIONS	8	12	16	16
WEIGHT (kg)	48	60	68	69
DIMENSIONS (mm)	Width 911 Depth 622 Height 252	Width 1135 Depth 622 Height 252	Width 1135 Depth 622 Height 250	Width 1135 Depth 622 Height 250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (kW)	0.144	0.211	0.279	0.279
RUNNING CURRENT (A)	0.63	0.92	1.22	1.22
FUSE RATING (BS88) – HRC (A)	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3

Notes: CMB-M-V-JA1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-EP200-900Y(S)NW-A2, PURY-P200-900Y(S)NW-A2 & PQRY-P200-900Y(S)LM-A1 units only.  
CMB-P1016V-KA1 unit is for use with PURY-P950-1100YSNW-A2 and PURY-EP950-1100YSNW-A2 units only.

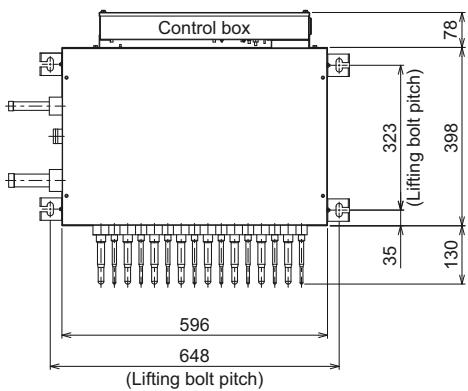
SUB BC CONTROLLERS	CMB-M104V-KB1	CMB-M108V-KB1
NUMBER OF CONNECTIONS	4	8
WEIGHT (KG)	23	31
DIMENSIONS (MM)	Width 596 Depth 476 Height 250	Width 596 Depth 476 Height 250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.068	0.135
RUNNING CURRENT (A)	0.30	0.59
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system.

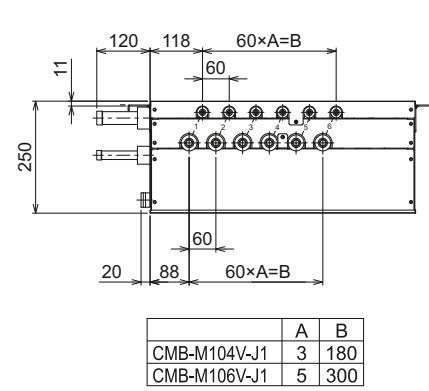
## Product Dimensions

CMB-M104/106V-J1

Upper View



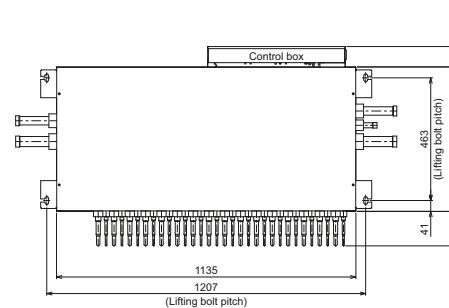
Side View



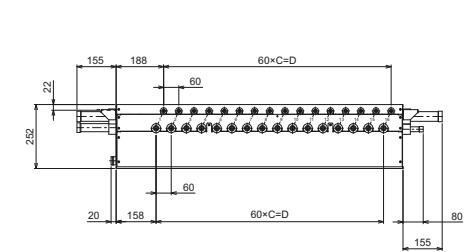
## Product Dimensions

CMB-M108/1012/1016V-JA1

Upper View



Side View

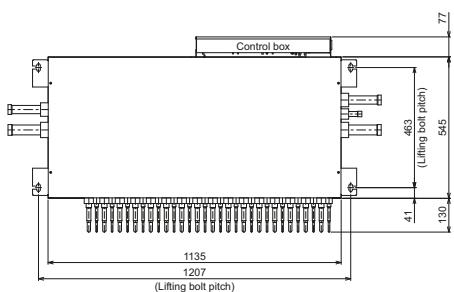


	A	B	C	D
CMB-M108V-JA1	911	983	7	420
CMB-M1012V-JA1	1135	1207	11	660
CMB-M1016V-JA1	1135	1207	15	900

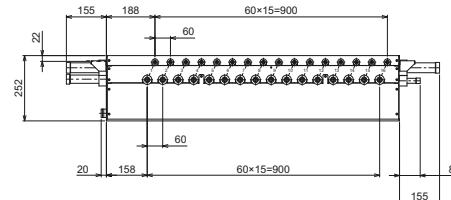
## Product Dimensions

CMB-P1016V-KA1

Upper View



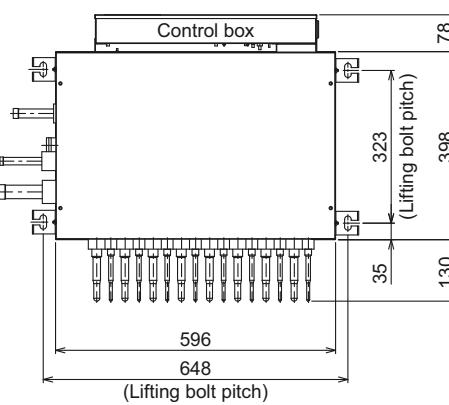
Side View



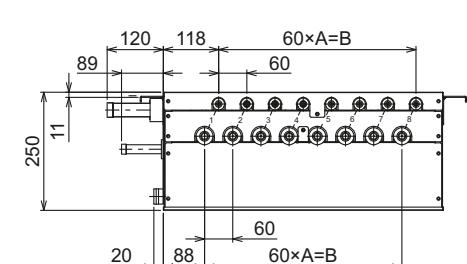
## Product Dimensions

CMB-M104/108V-KB1

Upper View



Side View



	A	B
CMB-M104V-KB1	3	180
CMB-M108V-KB1	7	420

# BC Controllers With Port Isolation Valves



At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port

**R32** **R410A**

BC CONTROLLERS with Port Isolation Valves	KS8-CMB-M104V-J1	KS8-CMB-M106V-J1
NUMBER OF CONNECTIONS	4	6
WEIGHT (KG)	29.7	34.1
DIMENSIONS (MM)	Width 596 Depth 476 Height 256	Width 596 Depth 476 Height 256
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.076	0.11
RUNNING CURRENT (A)	0.34	0.48
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	CMB-M106V-J1
BC BOX	CMB-M104V-J1	

Notes: For use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-350YNW-A2, PURY-EP200-350YNW-A2 & PQRY-P200-300YLM-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

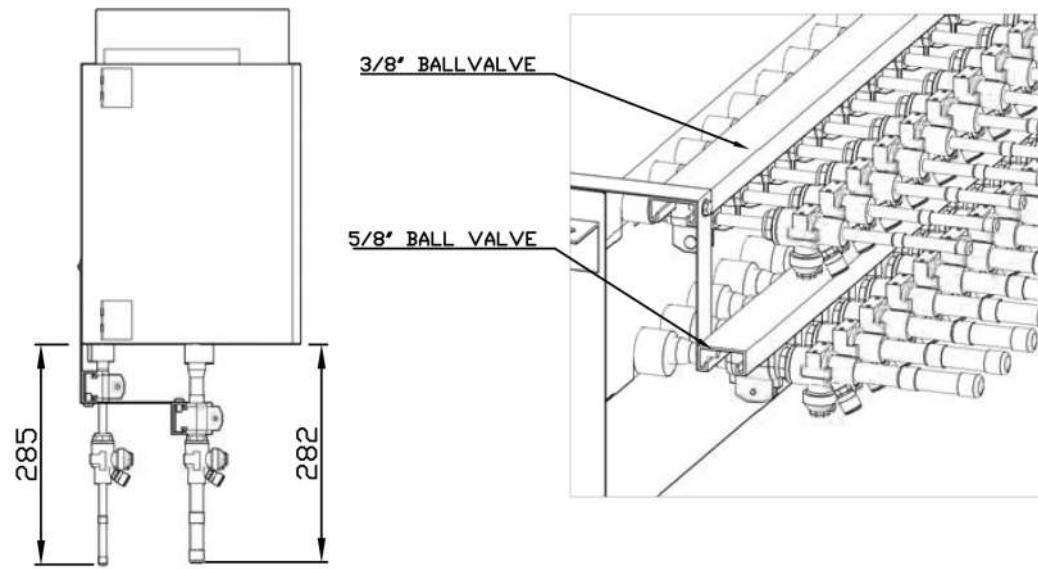
MAIN BC CONTROLLERS with Port Isolation Valves	KS8-CMB-M108V-JA1	KS8-CMB-M1012V-JA1	KS8-CMB-M1016V-JA1	KS8-CMB-P1016V-KA1
NUMBER OF CONNECTIONS	8	12	16	16
WEIGHT (KG)	54.9	70.1	81	82
DIMENSIONS (MM)	Width 911 Depth 622 Height 256	Width 1135 Depth 622 Height 256	Width 1135 Depth 622 Height 256	Width 1135 Depth 622 Height 256
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (KW)	0.144	0.211	0.279	0.279
RUNNING CURRENT (A)	0.63	0.92	1.22	1.22
FUSE RATING (BS88) – HRC (A)	6	6	6	6
MAINS CABLE NO. CORES	3	3	3	3
BC BOX	CMB-M108V-JA1	CMB-M1012V-JA1	CMB-M1016V-JA1	CMB-P1016V-KA1

Notes: V-JA1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-900Y(S)NW-A2, PURY-EP200-900Y(S)NW-A2 & PQRY-P200-900Y(S)LM-A1 units only. V-KA1 unit is for use with PURY-P950-1100YNW-A2 & PURY-EP950-1100YSNW-A2 units only. These products are made to order, please consult your local sales office for delivery schedule.

SUB BC CONTROLLERS with Port Isolation Valves	KS8-CMB-M104V-KB1	KS8-CMB-M108V-KB1
NUMBER OF CONNECTIONS	4	8
WEIGHT (KG)	26.7	37.6
DIMENSIONS (MM)	Width 596 Depth 476 Height 256	Width 596 Depth 476 Height 256
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.068	0.135
RUNNING CURRENT (A)	0.30	0.59
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3
BC BOX	CMB-M104V-KB1	CMB-M108V-KB1

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system. These products are made to order, please consult your local sales office for delivery schedule.

Side View



# BC Controllers With Port Isolation Valves & Acoustic Jacket



At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port
- Up to 5dBA reduction in sound pressure level with acoustic jacket

**R32** **R410A**

BC CONTROLLERS	KS8-KS5-CMB-M104V-J1	KS8-KS5-CMB-M106V-J1
NUMBER OF CONNECTIONS	4	6
WEIGHT (KG)	44.3	48.7
DIMENSIONS (MM)	Width Depth Height	670 760 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.076	0.11
RUNNING CURRENT (A)	0.34	0.48
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3
BC BOX	CMB-M104V-J1	CMB-M106V-J1

Notes: For use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-350YNW-A2, PURY-EP200-350YNW-A2 & PQRY-P200-300YLM-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

MAIN BC CONTROLLERS	KS8-KS5-CMB-M108V-JA1	KS8-KS5-CMB-M1012V-JA1	KS8-KS5-CMB-M1016V-JA1	KS8-KS5-CMB-P1016V-KA1
NUMBER OF CONNECTIONS	8	12	16	16
WEIGHT (KG)	78.3	98.7	109.6	110.6
DIMENSIONS (MM)	Width Depth Height	970 900 295	1195 900 295	1195 900 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (KW)	0.144	0.211	0.279	0.279
RUNNING CURRENT (A)	0.63	0.92	1.22	1.22
FUSE RATING (BS88) – HRC (A)	6	6	6	6
MAINS CABLE NO. CORES	3	3	3	3
BC BOX	CMB-M108V-JA1	CMB-M1012V-JA1	CMB-M1016V-JA1	CMB-P1016V-KA1

Notes: V-JA1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-900Y(S)NW-A2, PURY-EP200-900Y(S)NW-A2 & PQRY-P200-900Y(S)LM-A1 units only. V-KA1 unit is for use with PURY-P950-1100YNW-A2 & PURY-EP950-1100YSNW-A2 units only. These products are made to order, please consult your local sales office for delivery schedule.

SUB BC CONTROLLERS	KS8-KS5-CMB-M104V-KB1	KS8-KS5-CMB-M108V-KB1
NUMBER OF CONNECTIONS	4	8
WEIGHT (KG)	41.3	52.2
DIMENSIONS (MM)	Width Depth Height	670 760 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.068	0.135
RUNNING CURRENT (A)	0.30	0.59
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3
BC BOX	CMB-M104V-KB1	CMB-M108V-KB1

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system. These products are made to order, please consult your local sales office for delivery schedule.

# BC Controllers With Acoustic Jacket

At the heart of both the R2 and WR2 Series, the BC controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building.

## Key Features & Benefits

- Allows unique 2-pipe heat recovery application
- Heating and cooling at the same time on smaller systems
- Instructs the heat source unit/outdoor unit on the amount of refrigerant (liquid or gas) that is required to achieve the requested cooling or heating requirements
- Slim profile for more flexible installation
- Easy servicing and maintenance access through underside drain pan
- Brazed connections
- Isolation valves factory-fitted on each port
- Up to 5dBA reduction in sound pressure level with acoustic jacket

**R32** **R410A**

BC CONTROLLERS	KS5-CMB-M104V-J1	KS5-CMB-M106V-J1
NUMBER OF CONNECTIONS	4	6
WEIGHT (KG)	40.6	43.6
DIMENSIONS (MM)	Width Depth Height	670 570 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.076	0.11
RUNNING CURRENT (A)	0.34	0.48
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Notes: For use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-350YNW-A2, PURY-EP200-350YNW-A2 & PQRY-P200-300YLM-A1 units only. These products are made to order, please consult your local sales office for delivery schedule.

MAIN BC CONTROLLERS	KS5-CMB-M108V-JA1	KS5-CMB-M1012V-JA1	KS5-CMB-M1016V-JA1	KS5-CMB-P1016V-KA1
NUMBER OF CONNECTIONS	8	12	16	16
WEIGHT (KG)	71.4	88.6	96.6	97.6
DIMENSIONS (MM)	Width Depth Height	970 720 295	1195 720 295	1195 720 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (KW)	0.144	0.211	0.279	0.279
RUNNING CURRENT (A)	0.63	0.92	1.22	1.22
FUSE RATING (BS88) – HRC (A)	6	6	6	6
MAINS CABLE NO. CORES	3	3	3	3

Notes: V-JA1 units are for use with PURY-EM200-300YNW-A1, PURY-M200-300YNW-A1, PURY-P200-900Y(S)NW-A2, PURY-EP200-900Y(S)NW-A2 & PQRY-P200-900Y(S)LM-A1 units only. V-KA1 unit is for use with PURY-P950-1100YNW-A2 & PURY-EP950-1100YSNW-A2 units only. These products are made to order, please consult your local sales office for delivery schedule.

SUB BC CONTROLLERS	KS5-CMB-M104V-KB1	KS5-CMB-M108V-KB1
NUMBER OF CONNECTIONS	4	8
WEIGHT (KG)	37.6	45.6
DIMENSIONS (MM)	Width Depth Height	670 570 295
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (KW)	0.068	0.135
RUNNING CURRENT (A)	0.30	0.59
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE NO. CORES	3	3

Notes: Maximum index of 350 allowable on each Sub BC controller. Up to 11 Sub BC controllers connectable to one system. These products are made to order, please consult your local sales office for delivery schedule.

# Refrigerant Detection Systems



KSVD-01S-B



KSVD-01W-B White



KS8-IR16CIF-A



KS8-SSFPA

The refrigerant detection systems are designed to detect air conditioning leaks, with the option of providing pump down of City Multi VRF R2 systems.

These systems help safeguard against refrigerant levels exceeding permitted concentration levels and react effectively in the event of leaks.

## Key Features & Benefits

- Enables compliance with BS EN378 – Safety of Building Occupants, critical in hotel applications
- Can help achieve recognition within BREEAM Pollution Prevention Assessment, ideal for assisting in the design of modern, sustainable buildings
- Robust and tested leak detection with pump down option
- Flexible refrigerant gas detection systems - semiconductor or infrared, in standalone or cost effective aspirated panel options
- Pump down panel incorporating all elements required for safety and environmental protection along with ease of installation
- Actuated ball valves to isolate refrigerant on pump down
- Alarm system to alert occupants and staff of any leakages

## Semiconductor Refrigerant Leak Detection

	DESCRIPTION	MODEL REF.
Semiconductor Sensor	Semiconductor Stand Alone Refrigerant Detector White Semiconductor Stand Alone Refrigerant Detector Silver	KSGD-01W-B KSGD-01S-B
	Transformer 12Vdc Power Supply Transformer 24Vdc Power Supply	KSTR12-J1 KSTR24-J1
Semiconductor Sensor Panel	32 Channel System 64 Channel System	KS8 RAD32-C KS8 RAD64-B
Room Alarm Indicator	Room Alarm Indicator Satin Stainless Steel Room Alarm Indicator White Steel Room Alarm Indicator Polished Brass	KSRA-SS KSRA-WS KSRA-PB
Semiconductor Test Kit	Semiconductor Leak Detector Test Kit	KSGD01-ATK

## Infrared Refrigerant Leak Detection

	DESCRIPTION	MODEL REF.
Infrared Stand Alone Sensor	R32 Infrared Stand Alone Refrigerant Detector with Remote Sensor	KSIR-SP01 R32
Infrared Faceplate	Stainless Steel Room Faceplate with Alarm for Aspirated Panel	KS8-SSFPA
Infrared Tubing Ancillaries	100M Drum Sampling Tube for Aspirated Panel (Black) 250M Drum Sampling Tube for Aspirated Panel (Black) Sampling Tube Two Way Manifold for Aspirated Panel Inline Filter for Aspirated Panel End Of Line Filter for Aspirated Panel (Calibration) C/W Bracket	KS8-BST100 KS8-BST250 KS8-ST2M KS8-IF KS8-EF C/W BRACKET
Infrared Aspirated Panel	Infrared Aspirated 8 Channel Refrigerant Detector Panel Infrared Aspirated 16 Channel Refrigerant Detector Panel Infrared Aspirated 32 Channel Refrigerant Detector Panel 8/16/32 Remote Display Unit	KS8-IR8CIF-A KS8-IR16CIF-A KS8-IR32CIF-A KS8-RDU

KSIR-SP01



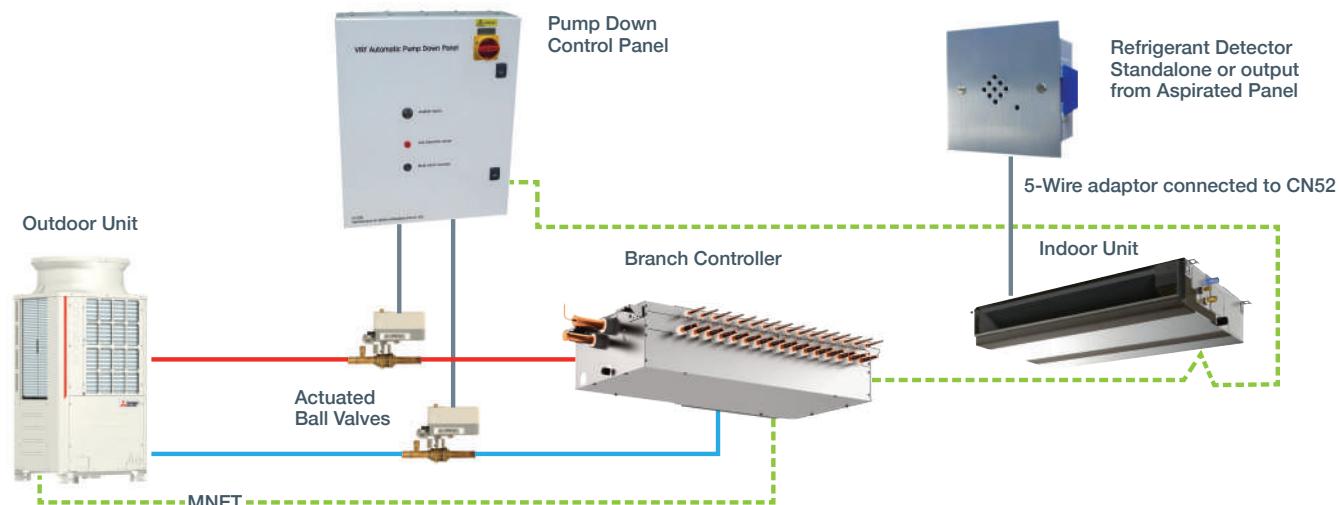


KS8-OC1

## Pump Down Systems

	DESCRIPTION	MODEL REF.
<b>City Multi Pump Down Control Panels</b>	City Multi R2 Automatic Pump Down Control Panel 1 Outdoor Unit City Multi R2 Automatic Pump Down Control Panel 2 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 3 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 4 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 5 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 6 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 7 Outdoor Units City Multi R2 Automatic Pump Down Control Panel 8 Outdoor Units	KS8-OC1 KS8-OC2 KS8-OC3 KS8-OC4 KS8-OC5 KS8-OC6 KS8-OC7 KS8-OC8
<b>Actuated Ball Valves for Pump Down Operation</b>	5/8" Actuated Ball Valve 3/4" Actuated Ball Valve 7/8" Actuated Ball Valve 1 1/8" Actuated Ball Valve 1 3/8" Actuated Ball Valve 1 5/8" Actuated Ball Valve	KS8-5/8 ABV KS8-3/4 ABV KS8-7/8 ABV KS8-1.1/8 ABV KS8-1.3/8 ABV KS8-1.5/8 ABV

### ▼ Installation Example City Multi Pump Down System



It is recommended that system design is completed with your local Mitsubishi Electric Sales Office

Please Note: commissioning is required on pump down systems

# City Multi VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Outdoor Units</b>	
Twining kit for PURY-EP/P400-650YSNW-A2	CMY-R100V рр4
Twining kit for PURY-EP/P700-1100YSNW-A2	CMY-R200V рр4
Twining kit for PUHY-P400-650YSNW-A2 / PQHY-P400-600YSLM-A1	CMY-Y100V рр3
Twining kit for PUHY-P700-900YSNW-A2 / PQHY-P650-900YSLM-A1	CMY-Y200V рр2
Twining kit for PUHY-P950-1350YSNW-A2	CMY-Y300V рр3
Twining kit for PQRY-P400-600YSLM-A1	CMY-Q100CBK2
Twining kit for PQRY-P700-900YSLM-A1	CMY-Q200CBK
Fin guard side surfaces S / L modules (2pc) (P200-P450)	PAC-FG01S-E
Fin guard side surfaces XL module (2 pc) (P500/P550)	PAC-FG02S-E
Fin guard rear surface S module (P200-P300)	PAC-FG01B-E
Fin guard rear surface L module (P350-P450)	PAC-FG02B-E
Fin guard rear surface XL module (P500/P550)	PAC-FG03B-E
Branch pipe (joint) for size 200 or below - total capacity of indoor units	CMY-Y102SS-G2
Branch pipe (joint) for size 201-400 - total capacity of indoor units or first branch of P200-P400	CMY-Y102LS-G2
Branch pipe (joint) for size 401-650 - total capacity of indoor units or first branch of P450-P650	CMY-Y202S-G2
Branch pipe (joint) for size 651 or above - total capacity of indoor units or first branch of P700-P1350	CMY-Y302S-G2
Branch pipe for 2 branches (PUMY)	CMY-Y62-G-E
Air outlet guide for PUMY-(S)P112-200	PAC-SH96SG-E
Air protect guide for PUMY-(S)P112-200	PAC-SH95AG-E
Drain socket set for PUMY-(S)P112-200	PAC-SG61DS-E
Air outlet guide for PUMY-P250/300	PAC-SK22SG-E
Air protect guide for PUMY-P250/300	PAC-SK21AG-E
Drain socket set for PUMY-P250/300	PAC-SK27DS-E
Differential pressure switch for PQRY-P200-300YLM-A1 / PQHY-P200-300YLM-A1	KS10-EP100S
<b>Ceiling Concealed Ducted Indoor Units</b>	
Long life filter for PEFY-P80VMHS-E	PAC-KE88LAF
Long life filter for PEFY-P100-140VMHS-E	PAC-KE89LAF
Long life filter for PEFY-P200-250VMHS-E	PAC-KE85LAF
Filter box for PEFY-P80VMHS-E (necessary when long life filter is used)	PAC-KE99TB
Filter box for PEFY-P100-140VMHS-E (necessary when long life filter is used)	PAC-KE140TB-F
Filter box for PEFY-P200-250VMHS-E (necessary when long life filter is used)	PAC-KE250TB-F
Plasma Quad Connect air purifying device for PEFY-P-VMS1-E / PEFY-M-VMA-A1	MAC-100FT-E
Plasma Quad Connect metal fitment for PEFY-P-VMS1-E	PAC-HA11PAR
Plasma Quad Connect metal fitment for PEFY-M-VMA-A1	PAC-HA31PAR

# City Multi VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>4-Way Blow Cassette Indoor Units</b>	
Grille for PLFY-P-VFM-E	SLP-2FA
Black grille (Satin finish) for PLFY-P-VFM-E	SLP-2FA-B
3D i-see sensor grille for PLFY-P-VFM-E	SLP-2FAE
Grille for PLFY-M-VEM6-E	PLP-6EA
Black grille (Matt finish) for PLFY-M-VEM6-E	PLP-6EAB
3D i-see sensor grille for PLFY-M-VEM6-E	PLP-6EAE
Self elevating grille for PLFY-M-VEM6-E	PLP-6EAJ
Corner panel with i-see sensor for PLFY-M-VEM6-E	PAC-SE1ME-E
Corner panel with signal receiver for PLFY-M-VEM6-E	PAR-SE9FA-E
Shutter plate for PLFY-M-VEM6-E	PAC-SJ37SP-E
Multi-function casement for PLFY-M-VEM6-E	PAC-SJ41TM-E
High efficiency filter for PLFY-M-VEM6-E (must be used with PAC-SJ41TM-E)	PAC-SH59KF-E
V Blocking air purifying filter for PLFY-M-VEM6-E	PAC-SK53KF-E
V Blocking air purifying filter for PLFY-P-VFM-E	PAC-SK54KF-E
Plasma Quad Connect air purifying device (x1) with multi-function casement for PLFY-M-VEM6-E	PAC-SK51FT-E
<b>Floor Standing Indoor Units</b>	
Back panel for PFFY-P20-32VEM-E	PAC-BP32VEM-E
Back panel for PFFY-P40/50VEM-E	PAC-BP50VEM-E
Back panel for PFFY-P63VEM-E	PAC-BP63VEM-E
<b>Wall Mounted Indoor Units</b>	
Plasma Quad Connect air purifying device for PKFY-P-VLM-E/VKM-E	MAC-100FT-E
<b>BC Controllers</b>	
Joint pipe	CMY-R160-J1
Joint and reducer for connection to Sub BC Controllers (P200-P650 OU)	CMY-R101S-G
Joint and reducer for connection to Sub BC Controllers (P700-P1100 OU)	CMY-R102S-G
<b>Indoor Units</b>	
Remote temperature sensor	PAC-SE41TS-E
Discreet remote temperature sensor	KS9-BS1-A
LEV kit interface	PAC-LV11M
<b>VRF Sanitary Water Heater</b>	
Controller	PAR-W21MAA-J





# City Multi Hybrid VRF

The Modern Alternative





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## R410A Water Cooled Condensing Units

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## Indoor Units

PEFY-WP-VMS1-E Ultra Thin Ceiling Concealed Ducted	1.6.12
PEFY-WP-VMA-E Ceiling Concealed Ducted	1.6.14
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1.6.28

## Accessories / Optional Extras

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CITY MULTI

Energy Efficient HVRF Systems

R32 | HybridVRF

# Hybrid VRF (HVRF) - The Modern Alternative

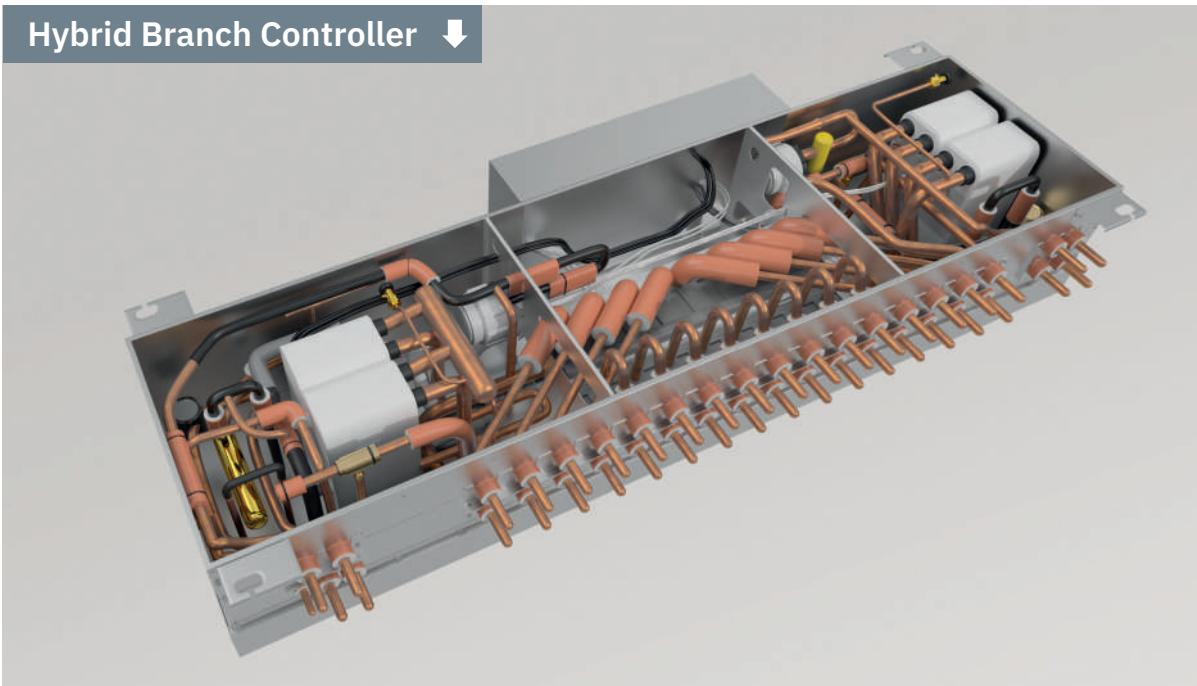
The award-winning City Multi Hybrid VRF is a totally unique 2-pipe heat recovery VRF system, whereby the outdoor unit is connected to a Hybrid Branch Controller (HBC) and water pipework is used between the HBC and indoor units.

You can install and design it as VRF whilst enjoying the features of a Chiller system, providing a complete and modern solution for office buildings, hotels, medical centres, schools, high rise buildings, shopping centres and other commercial premises. Built and assembled in the same factory as our VRF units, it therefore carries City Multi's distinctive DNA in terms of technology, efficiency and reliability.

Hybrid VRF is quick, easy and flexible to design and install using the same control and network as VRF systems. The decentralised system means phased installation is possible with the same high levels of seasonal efficiency expected with VRF.

With water pipework connecting the indoor units, Hybrid VRF provides comfortable and stable air temperature control with no refrigerant in occupied spaces, meaning simple compliance to BS EN378 and removing the need for leak detection. By lowering the total amount of refrigerant in the system, this also lowers the embodied carbon of Hybrid VRF, when compared to a standard system.

**Hybrid Branch Controller** ↓



## Outdoor / Condensing Unit Range

	P (kW)	200	250	300	350	400	450	500			
<b>Heat Recovery - R2 Series</b>											
High Efficiency PURY-EM (YNW)	<b>R32</b>				S	S	S	L	L	L	XL
Standard Efficiency PURY-M (YNW)	<b>R32</b>				S	S	S	L	L	L	XL
<b>Heat Recovery - WR2 Series</b>											
PQRY-P (YLM)	<b>R410A</b>				●	●	●	●	●	●	●

## Indoor Unit Range

Model	Range	P (kW)	10	15	20	25	32	40	50	63	80
Ceiling Concealed Ducted	PEFY-WP-VMS1-E (Ultra Thin)		●	●	●	●	●	●	●	●	
	PEFY-WP-VMA-E				●	●	●	●	●	●	●
4-Way Blow Ceiling Cassette	PLFY-WL-VEM-E						●	●	●	●	●
	PLFY-WL-VFM-E (600 x 600)				●	●	●	●	●		
Floor Standing	PFFY-WL-VCM-A (Concealed)				●	●	●	●	●	●	
	PFFY-WL-VEM-A (Exposed)				●	●	●	●	●	●	
Wall Mounted	PKFY-WL-VLM-E / VKM-E		●	●	●	●	●	●	●	●	
Ceiling Suspended	PCFY-WL-VKM-E						●		●	●	●

# R2 Series HVRF High Efficiency (22.4-56kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



Delivering outstanding Seasonal Energy Efficiency, the award-winning City Multi R2 Series HVRF High Efficiency system provides simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-EM** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- High efficiency system delivers outstanding seasonal energy performance
- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Adjustable noise level options to suit application
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Decentralised system allows for phased installation - ideal for Cat A to Cat B fit-outs



OUTDOOR UNITS	PURY-EM200YNW-A1	PURY-EM250YNW-A1	PURY-EM300YNW-A1	PURY-EM300YNW-A1 X 2HBC	PURY-EM350YNW-A1	PURY-EM350YNW-A1 X 2HBC	PURY-EM400YNW-A1	PURY-EM450YNW-A1	PURY-EM500YNW-A1	
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	37.5	37.5	45.0	45.0	50.0	56.0	63.0
	Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	50.0	56.0
	High Performance Heating (UK)	25.0	31.5	37.5	37.5	42.8	42.8	47.5	50.4	58.0
	COP Priority Heating (UK)	22.8	28.7	32.3	32.3	38.7	38.7	43.0	49.3	54.8
	Cooling (UK)	20.1	25.1	30.0	30.0	35.8	35.8	40.3	44.8	50.1
POWER INPUT (kW)	Heating (nominal max)	6.23	8.84	10.46	9.93	13.10	12.16	13.88	15.77	17.45
	Cooling (nominal)	5.13	7.69	10.03	8.52	13.91	11.33	13.84	15.24	18.06
	High Performance Heating (UK)	7.54	10.70	14.33	13.60	17.95	16.66	16.10	18.29	20.24
	COP Priority Heating (UK)	6.23	8.84	10.46	9.93	13.10	12.16	13.46	15.30	16.93
	Cooling (UK)	2.98	4.46	5.82	4.94	8.07	6.57	8.87	9.77	11.58
COP / EER (nominal max)	4.01 / 4.36	3.56 / 3.64	3.58 / 3.33	3.77 / 3.93	3.43 / 2.87	3.70 / 3.53	3.60 / 3.25	3.55 / 3.28	3.61 / 3.10	
MAX No. OF CONNECTABLE INDOOR UNITS	30	37	45	45	35	35	40	45	50	
MAX CONNECTABLE CAPACITY	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	
AIRFLOW (m³/min)	High	170	185	240	240	250	250	315	315	295
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	67.0 / 61.0	64.0 / 62.5	64.0 / 62.5	69.0 / 65.0	70.0 / 65.5	64.5 / 63.5
SOUND POWER LEVEL (dBA)	Heating / Cooling	78.0 / 76.0	80.0 / 78.5	86.5 / 80.0	86.5 / 80.0	83.0 / 81.0	83.0 / 81.0	88.0 / 83.0	89.0 / 83.0	84.0 / 82.0
WEIGHT (kg)		231	231	231	231	276	276	280	305	348
DIMENSIONS (mm)	Width	920	920	920	920	1240	1240	1240	1240	1750
	Depth	740	740	740	740	740	740	740	740	740
(1798mm without legs) Height		1858	1858	1858	1858	1858	1858	1858	1858	1858
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A) <sup>1</sup>	8	8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating/Cooling [MAX]	9.9 / 8.2 [16.1]	14.1 / 12.3 [21.8]	16.7 / 16.0 [23.9]	15.9 / 13.6 [23.9]	21.0 / 22.3 [30.0]	19.5 / 18.1 [30.0]	22.2 / 22.1 [35.9]	25.2 / 24.4 [36.9]	27.9 / 28.9 [46.9]	
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>	1 x 20	1 x 25	1 x 25	1 x 25	1 x 32	1 x 32	1 x 40	1 x 40	1 x 50	
MAINS CABLE No. Cores <sup>1</sup>	4	4	4	4	4	4	4	4	4	
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	8 / 5.4	8 / 5.4	8 / 5.4	10.8 / 7.3	10.8 / 7.3	
R32 (GWP 675)										
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	13.5 / 9.1	13.5 / 9.1	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	19.5 / 13.2	19.5 / 13.2	19.5 / 13.2	
R32 (GWP 675)										

Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.

Nominal Conditions: Cooling: indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating: indoor 20°C DB; outdoor 7°C DB, 6°C WB.

UK Conditions: Cooling: indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating: indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. Specification subject to change.

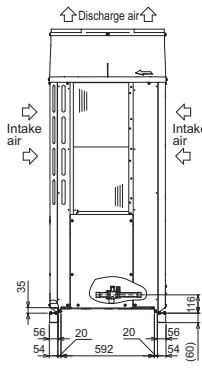
R410A equivalent systems are also available - please contact your local sales office for further information.

**R32** | HybridVRF

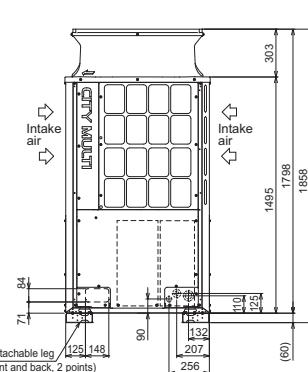
### Product Dimensions

PURY-EM200/250/300YNW-A1

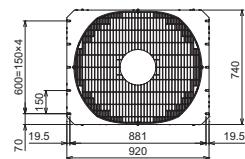
Side View



Front View



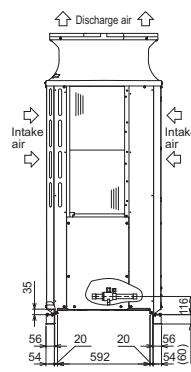
Upper View



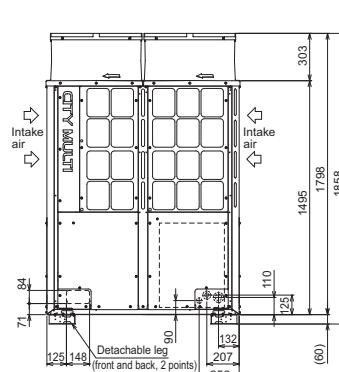
### Product Dimensions

PURY-EM350/400/450YNW-A1

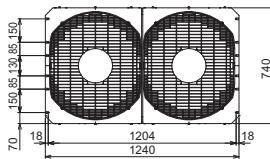
Side View



Front View



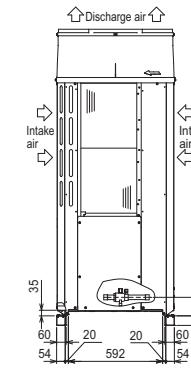
Upper View



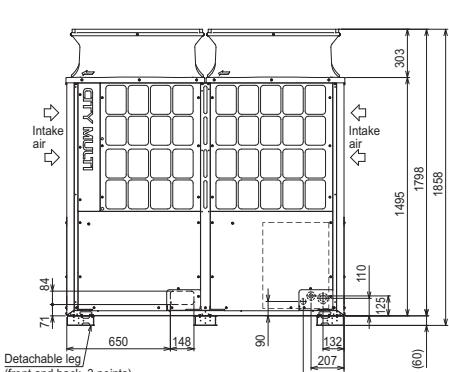
### Product Dimensions

PURY-EM500YNW-A1

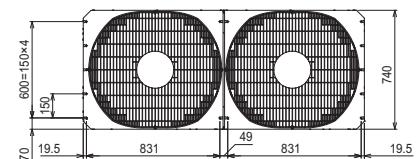
Side View



Front View



Upper View



# R2 Series HVRF Standard Efficiency (22.4-56kW)

## Simultaneous Heating and Cooling with Heat Recovery Outdoor Unit



The award-winning City Multi R2 Series HVRF Heat Recovery system meets the demand for simultaneous heating and cooling, with the added benefit of heat recovery. By utilising lower GWP R32 refrigerant, the **PURY-M** helps businesses achieve their Corporate Social Responsibility targets, as well as future-proof their buildings and equipment.

### Key Features & Benefits

- Heat recovery achieves energy savings of up to 30% over heat pump systems
- Provides simultaneous heating and cooling with a high level of thermal comfort
- Adjustable noise level options to suit application
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Decentralised system allows for phased installation - ideal for Cat A to Cat B fit-outs



OUTDOOR UNITS		PURY-M200YNW-A1	PURY-M250YNW-A1	PURY-M300YNW-A1	PURY-M300YNW-A1 X 2HBC	PURY-M350YNW-A1	PURY-M350YNW-A1 X 2HBC	PURY-M400YNW-A1	PURY-M450YNW-A1	PURY-M500YNW-A1	
CAPACITY (kW)		Heating (nominal max)	25.0	31.5	37.5	37.5	45.0	45.0	45.0	56.0	63.0
		Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	50.0	56.0
		High Performance Heating (UK)	25.0	31.5	37.5	37.5	42.8	42.8	42.8	50.4	58.0
		COP Priority Heating (UK)	22.8	28.7	32.3	32.3	38.7	38.7	38.7	49.3	54.8
		Cooling (UK)	20.1	25.1	30.0	30.0	35.8	35.8	40.3	44.8	50.1
POWER INPUT (kW)		Heating (nominal max)	6.39	9.15	11.00	10.33	13.14	12.16	14.08	16.18	18.26
		Cooling (nominal)	5.53	8.40	11.65	9.88	14.93	12.15	15.15	15.47	22.25
		High Performance Heating (UK)	7.73	11.07	15.07	14.15	18.00	16.66	16.33	18.77	21.18
		COP Priority Heating (UK)	6.39	9.15	11.00	10.33	13.14	12.16	13.66	15.69	17.71
		Cooling (UK)	3.21	4.87	6.76	5.73	8.66	7.05	9.71	9.92	14.26
COP / EER (nominal max)		3.91 / 4.05	3.44 / 3.33	3.40 / 2.87	3.63 / 3.39	3.42 / 2.67	3.70 / 3.29	3.55 / 2.97	3.46 / 3.23	3.45 / 2.51	
MAX NO. OF CONNECTABLE INDOOR UNITS	30	37	45	45	35	35	40	45	45	50	
MAX CONNECTABLE CAPACITY	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	50-150% OU Capacity	
AIRFLOW (m³/min)	High	170	185	240	240	250	250	315	315	295	
PIPE SIZE mm (in)	Gas	19.05 (3/4")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	28.58 (1-1/8")	
	Liquid	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")	
SOUND PRESSURE LEVEL (dBA)	Heating / Cooling	59.0 / 59.0	61.0 / 60.5	67.0 / 61.0	67.0 / 61.0	64.0 / 62.5	64.0 / 62.5	69.0 / 65.0	70.0 / 65.5	64.5 / 63.5	
SOUND POWER LEVEL (dBA)	Heating / Cooling	78.0 / 76.0	80.0 / 78.5	86.5 / 80.0	86.5 / 80.0	83.0 / 81.0	83.0 / 81.0	88.0 / 83.0	89.0 / 83.0	84.0 / 82.0	
WEIGHT (kg)		227	227	227	227	270	270	273	293	337	
DIMENSIONS (mm)	Width	920	920	920	920	1240	1240	1240	1240	1750	
	Depth	740	740	740	740	740	740	740	740	740	
(1798mm without legs)	Height	1858	1858	1858	1858	1858	1858	1858	1858	1858	
ELECTRICAL SUPPLY <sup>1</sup>		380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	
PHASE <sup>1</sup>		Three	Three	Three	Three	Three	Three	Three	Three	Three	
STARTING CURRENT (A) <sup>1</sup>		8	8	8	8	8	8	8	8	8	
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating/Cooling [MAX]	10.2 / 8.8 [16.1]	14.6 / 13.4 [22.5]	17.6 / 18.6 [25.6]	16.5 / 15.8 [25.6]	21.0 / 23.9 [31.6]	19.5 / 19.4 [31.6]	22.5 / 24.2 [39.3]	25.9 / 24.8 [40.2]	29.2 / 35.6 [56.6]		
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	-20~15.5 / -5~52	
FUSE RATING (MCB sizes BS EN 60947-2) - (A) <sup>1</sup>	1 x 20	1 x 25	1 x 32	1 x 32	1 x 32	1 x 32	1 x 40	1 x 50	1 x 63		
MAINS CABLE No. Cores <sup>1</sup>	4	4	4	4	4	4	4	4	4		
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	5.2 / 3.5	8 / 5.4	8 / 5.4	8 / 5.4	10.8 / 7.3	10.8 / 7.3		
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	13.5 / 9.1	13.5 / 9.1	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	15.5 / 10.5	19.5 / 13.2	19.5 / 13.2	19.5 / 13.2		
R32 (GWP 675)											

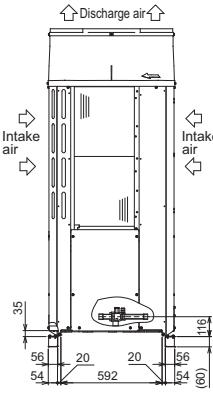
Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
Nominal Conditions: Cooling; indoor 27°C DB, 19°C WB; outdoor 35°C DB, 24°C WB. Nominal Max Conditions: Heating; indoor 20°C DB; outdoor 7°C DB, 6°C WB.  
UK Conditions: Cooling; indoor 21°C DB, 15°C WB; outdoor 27°C DB. UK Conditions: Heating; indoor 20°C DB, outdoor 0°C DB, -1°C WB.

\*1 A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules. Specification subject to change.  
R410A equivalent systems are also available - please contact your local sales office for further information.

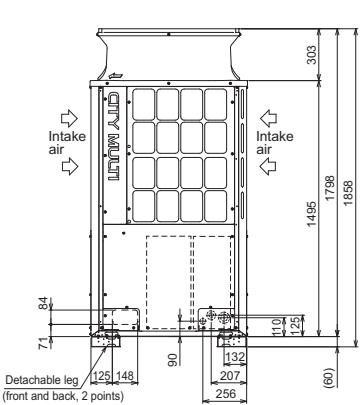
### Product Dimensions

PURY-M200/250/300YNW-A1

Side View



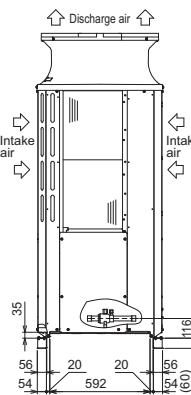
Front View



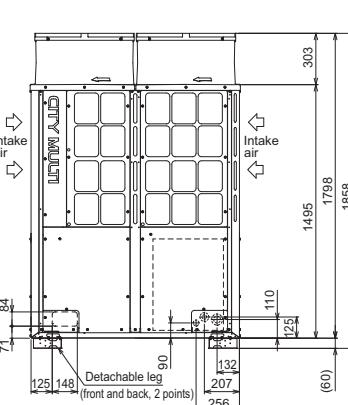
### Product Dimensions

PURY-M350/400/450YNW-A1

Side View



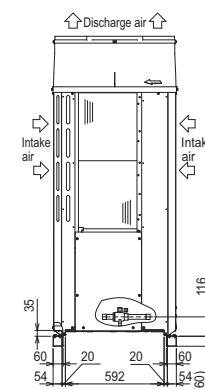
Front View



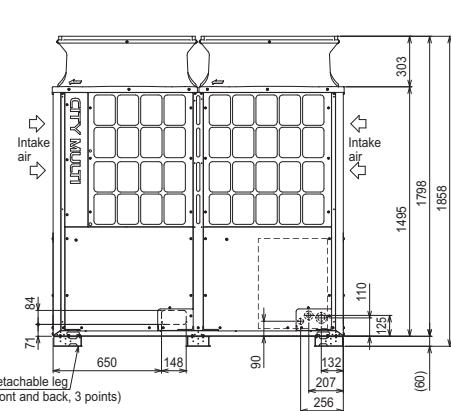
### Product Dimensions

PURY-M500YNW-A1

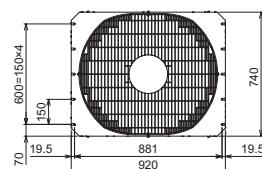
Side View



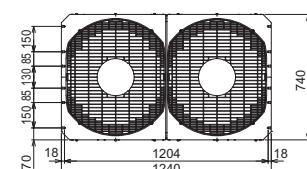
Front View



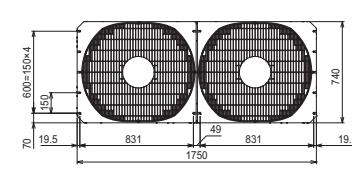
Upper View



Upper View



Upper View



# WR2 Series HVRF (22.4-56kW)

**Simultaneous Heating and Cooling  
with Double Heat Recovery,  
Water Cooled Condensing Unit**



The City Multi **WR2** Series HVRF Heat Recovery system is ideal where a water loop is available and outdoor space is limited. These models utilise water instead of air as the energy transfer medium, and benefit from all of the same technology and flexibility as air sourced VRF systems. City Multi WR2 systems provide the ultimate solution for a breadth of applications requiring simultaneous heating and cooling, including hotels, offices, leisure, retail and high-end residential.

## Key Features & Benefits

- High efficiency, modular systems, with ability to recover energy between units on the water circuit, in either a closed or open loop building, or ground source application
- Able to utilise waste heat from commercial sources such as server cooling, or renewable heat from landlord loops, rivers, lakes or geothermal sources
- Very low impact footprint and service space requirements, ideal for internal location
- Provides continuous heating in winter, without the need for defrost operation

**R410A**

CONDENSING UNITS	PQRY-P 200YLM-A1	PQRY-P250YLM-A1	PQRY-P300YLM-A1	PQRY-P300YLM-A1 (2 X MAIN)	PQRY-P350YLM-A1	PQRY-P350YLM-A1 (2 X MAIN)	PQRY-P400YLM-A1	PQRY-P450YLM-A1	PQRY-P500YLM-A1
CAPACITY (kW)	Heating (nominal max)	25.0	31.5	37.5	37.5	45.0	45.0	50.0	56.0
	Cooling (nominal)	22.4	28.0	33.5	33.5	40.0	40.0	45.0	56.0
POWER INPUT (kW)	Heating (nominal max)	4.04	5.41	7.13	6.79	8.87	8.25	9.45	11.11
	Cooling (nominal)	3.97	5.44	7.55	6.71	9.98	8.72	10.05	13.07
OPERATING WATER VOLUME (m³/h)	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	3.0 ~ 7.2	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
GUARANTEED OPERATING RANGE (°C) Heating / Cooling	-5~45 / -5~45	10~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45	-5~45 / -5~45
COP / EER (nominal max)	6.18 / 5.64	5.82 / 5.14	5.25 / 4.43	5.52 / 4.99	5.07 / 4.00	5.45 / 4.58	5.29 / 4.47	5.04 / 4.14	4.82 / 3.84
MAX NO. OF CONNECTABLE INDOOR UNITS	20	25	30	30	35	35	40	45	50
MAX CONNECTABLE CAPACITY	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%	50 ~ 150%
PIPE SIZE mm (in)	Gas 19.05 (3/4") Liquid 15.88 (6/8")	22.2 (7/8")	22.2 (7/8")	22.2 (7/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")	28.58 (1 1/8")
SOUND PRESSURE LEVEL (dBA)	46	48	54	54	52	52	52	54	54
SOUND POWER LEVEL (dBA)	60	62	68	68	66	66	66	70	70.5
WEIGHT (kg)	173	173	173	173	217	217	217	217	217
DIMENSIONS (mm)	Width 880	880	880	880	880	880	880	880	880
	Depth 550	550	550	550	550	550	550	550	550
	Height 1100	1100	1100	1100	1450	1450	1450	1450	1450
ELECTRICAL SUPPLY <sup>1</sup>	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz	380-415v, 50Hz
PHASE <sup>1</sup>	Three	Three	Three	Three	Three	Three	Three	Three	Three
STARTING CURRENT (A)	8	8	8	8	8	8	8	8	8
NOMINAL SYSTEM RUNNING CURRENT (A) <sup>1</sup> Heating / Cooling [MAX]	6.4 / 6.3 [16.1]	8.6 / 8.7 [16.1]	11.4 / 12.1 [18.6]	10.8 / 10.7 [18.6]	14.2 / 16.0 [23.1]	13.2 / 13.9 [23.1]	15.1 / 16.1 [27.6]	17.8 / 19.3 [32.9]	20.9 / 23.3 [39.2]
FUSE RATING (BS88) - HRC (A) <sup>1</sup>	1 x 20	1 x 20	1 x 20	1 x 20	1 x 25	1 x 25	1 x 32	1 x 40	1 x 40
MAINS CABLE No. Cores <sup>1</sup>	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth	4 + earth
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	5.0 / 10.4	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5	6.0 / 12.5
R410A (GWP 2088)	28.0 / 58.5	30.0 / 62.6	31.0 / 64.7	31.0 / 64.7	46.0 / 96.1	46.0 / 96.1	47.0 / 98.1	47.0 / 98.1	48.0 / 100.2

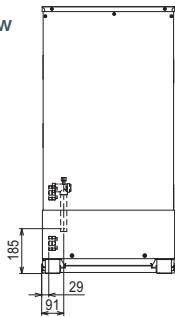
Notes: \*SEER/SCOP available separately in the 'City Multi HVRF Seasonal Efficiency' document. Based on Ecodesign Lot 21/6 to EN14825 standard.  
PQRY-P-YLM-A1 units are not compatible with CMB-VM350/500-AA vertical HBC controllers.

<sup>1</sup>A separate power supply is required for each module. Where more than one figure is quoted there are multiple modules.

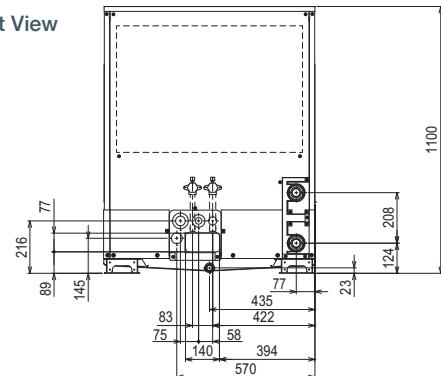
## Product Dimensions

PQRY-P200/250/300YLM-A1

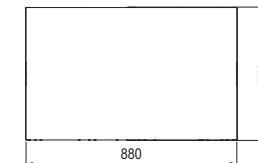
Side View



Front View



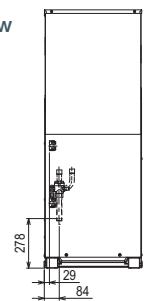
Upper View



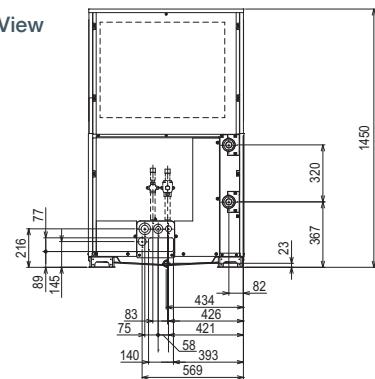
## Product Dimensions

PQRY-P350/400/450/500YLM-A1

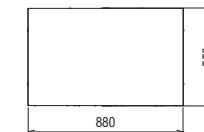
Side View



Front View



Upper View



# PEFY-WP-VMS1-E

## Ultra Thin Ceiling Concealed Ducted Indoor Unit



The **PEFY-WP-VMS1-E** ceiling concealed ducted indoor unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. It has been designed with an ultra thin, slimline body, specifically for applications where ceiling void space is limited. With an extremely quiet operation, these units are ideal for applications such as hotel rooms.

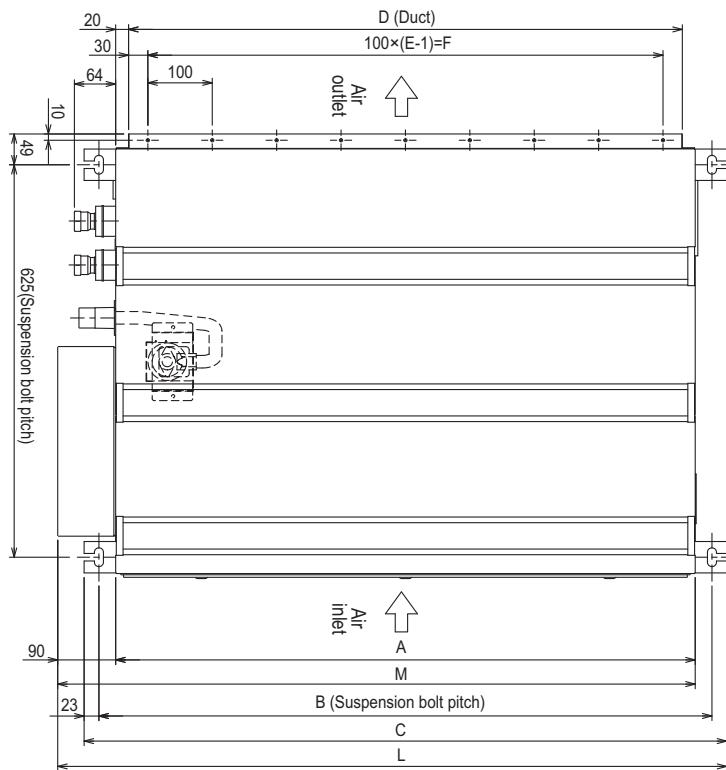
### Key Features & Benefits

- Ultra thin body allowing installation in smaller spaces - height of only 200mm & width of only 790mm (size WP10-25)
- Extremely quiet operation for minimal disturbance - as low as 22dBA (size WP10-20)
- External static pressure of 5-50Pa, allowing flexibility of design and application
- Available in 1.1 and 1.5kW sizes, which are ideal for hotel rooms
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

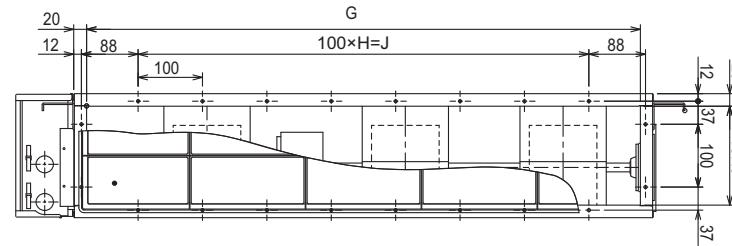
INDOOR UNITS		PEFY-WP10VMS1-E	PEFY-WP15VMS1-E	PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
CAPACITY (kW)	Heating (nominal)	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	Cooling (nominal)	1.2	1.7	2.2	2.8	3.6	4.5	5.6
	UK Heating	1.4	1.9	2.5	3.2	4.0	5.0	6.3
	UK Total Cooling - Hi (Sensible)	1.10 (1.00)	1.50 (1.50)	2.00 (1.70)	2.50 (2.00)	3.20 (2.70)	4.00 (3.20)	5.00 (4.00)
	UK Total Cooling - Mi	1.07	1.44	1.89	2.32	3.03	3.82	4.78
	UK Total Cooling - Lo	1.03	1.34	1.76	2.08	2.88	3.61	4.51
POWER INPUT (kW)	Heating (nominal)	0.03	0.03	0.03	0.04	0.05	0.07	0.07
	Cooling (nominal)	0.03	0.05	0.05	0.06	0.07	0.09	0.09
AIRFLOW (l/s)	Lo-Mi-Hi	67-75-83	83-100-117	92-108-133	92-117-150	133-150-183	158-183-217	200-233-275
EXTERNAL STATIC PRESSURE (Pa)	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50	5-15-35-50
SOUND PRESSURE LEVEL (dBA) - Lo-Mi-Hi	22-23-25	22-24-28	22-25-29	23-26-30	28-30-33	30-32-35	30-33-36	
WEIGHT (kg)	19	19	20	20	25	25	25	27
DIMENSIONS (mm)	Width	790	790	790	790	990	990	1190
	Depth	700	700	700	700	700	700	700
	Height	200	200	200	200	200	200	200
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling	0.21 / 0.21	0.33 / 0.44	0.38 / 0.49	0.40 / 0.51	0.50 / 0.61	0.62 / 0.73	0.66 / 0.77	
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3	3	3	3	3
WATER PIPE CONNECTION	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW

Note: HRV indoor units can only be configured with the CMB-WM HBC (HRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

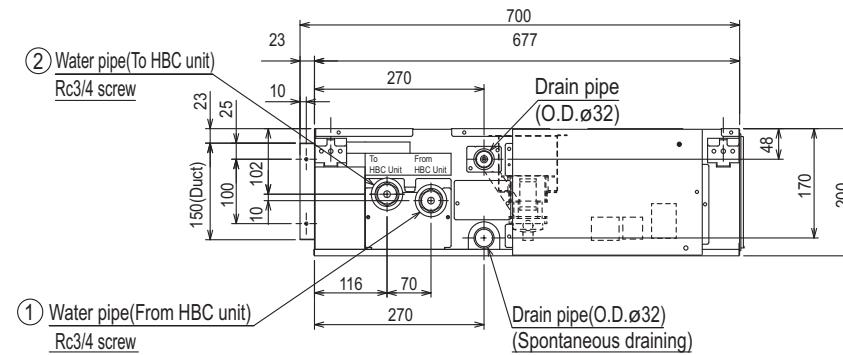
Upper View



Front View



Side View



Model	A	B	C	D	E	F	G	H	J	K	L	M	① Water pipe (From HBC unit)	② Water pipe (To HBC unit)
PEFY-WP10VMS1-E	700	752	798	660	7	600	660	5	500	16	839	790		
PEFY-WP15VMS1-E														Rc3/4 screw
PEFY-WP20VMS1-E														
PEFY-WP25VMS1-E														
PEFY-WP32VMS1-E	900	952	998	860	9	800	860	7	700	20	1039	990		
PEFY-WP40VMS1-E														
PEFY-WP50VMS1-E	1100	1152	1198	1060	11	1000	1060	9	900	24	1239	1190		

# PEFY-WP-VMA-E

## Ceiling Concealed Ducted Indoor Unit



The **PEFY-WP-VMA-E** low-height ducted indoor unit is concealed within the ceiling space and connects to the Hybrid Branch Controller, using water as the heat transfer medium. Offering unobtrusive air conditioning, the flexibility of duct layout allows airflow patterns to be arranged to suit any application.

### Key Features & Benefits

- Low height allowing installation in smaller spaces - only 250mm
- Centrifugal fan minimises noise levels to as low as 23dBA (sizes 20-25) for minimal disturbance
- Wide range of external static pressure settings across entire range (35-150Pa) offers flexibility of application
- Drain pump included as standard
- CN105 connector available - connect to MELCOBEMS MINI for simple BEMS interfacing
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

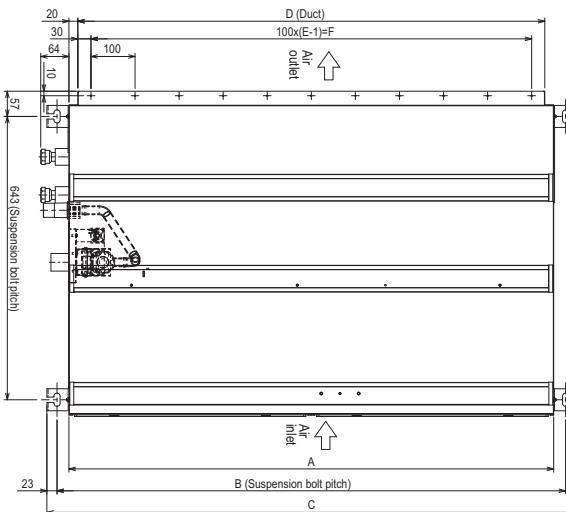
INDOOR UNITS		PEFY-WP20VMA-E	PEFY-WP25VMA-E	PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E	PEFY-WP63VMA-E	PEFY-WP80VMA-E
CAPACITY (kW)	Heating (nominal)	2.5	3.2	4.0	5.0	6.3	8.0	10.0
	Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	7.1	9.0
	UK Heating	2.5	3.2	4.0	5.0	6.3	8.0	10.0
	UK Total Cooling - Hi (Sensible)	2.00 (1.80)	2.50 (2.50)	3.20 (3.00)	4.00 (3.80)	5.00 (4.20)	6.40 (5.10)	8.10 (7.20)
	UK Total Cooling - Mi	1.92	2.40	3.07	3.84	4.80	6.15	7.76
	UK Total Cooling - Lo	1.79	2.24	2.85	3.53	4.41	5.64	7.17
POWER INPUT (kW)	Heating (nominal)	0.05	0.07	0.9	0.12	0.12	0.12	0.22
	Cooling (nominal)	0.07	0.09	0.11	0.14	0.14	0.14	0.24
AIRFLOW (l/s)	Lo-Mi-Hi	125-150-175	167-200-233	200-242-283	242-300-350	242-300-350	242-300-350	383-467-550
EXTERNAL STATIC PRESSURE (Pa)	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150	35-50-70-100-150
SOUND PRESSURE LEVEL (dBA) (50Pa) Lo-Mi-Hi	23-26-29	23-27-30	25-29-32	26-29-34	26-29-34	26-29-34	26-33-37	28-33-37
WEIGHT (kg)	21	26	26	31	31	31	31	40
DIMENSIONS (mm)	Width	700	900	900	1100	1100	1100	1400
	Depth	732	732	732	732	732	732	732
	Height	250	250	250	250	250	250	250
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling	0.44 / 0.55	0.53 / 0.64	0.63 / 0.74	1.04 / 1.15	1.04 / 1.15	1.04 / 1.15	1.04 / 1.15	1.36 / 1.47
FUSE RATING (BS88) - HRC (A)	6	6	6	6	6	6	6	6
MAINS CABLE No. Cores	3	3	3	3	3	3	3	3
WATER PIPE CONNECTION	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	1 1/4" BSP SCREW	1 1/4" BSP SCREW

Note: HRV indoor units can only be configured with the CMB-WM HBC (HRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

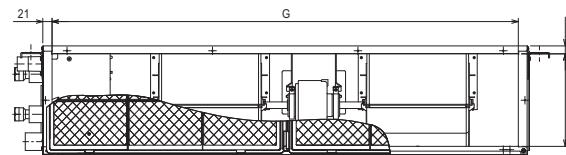
## Product Dimensions

PEFY-WP20/25/32/40/50VMA-E

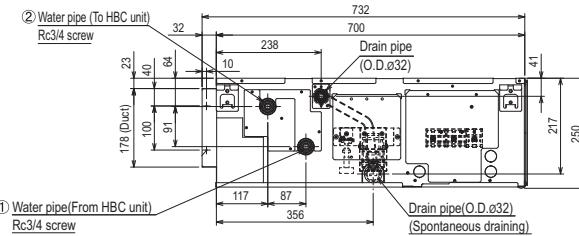
## Upper View



## Front View



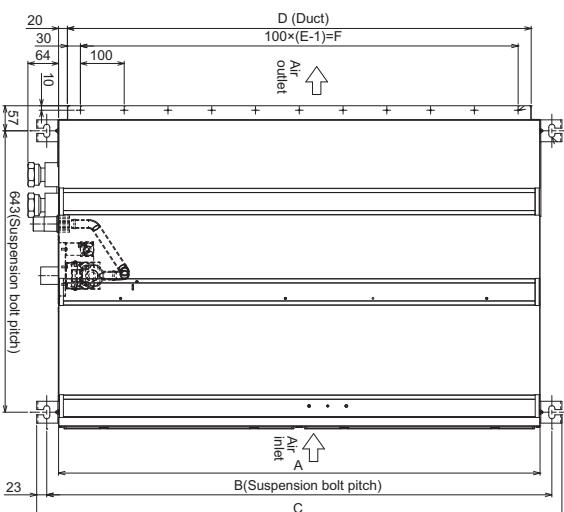
## Side View



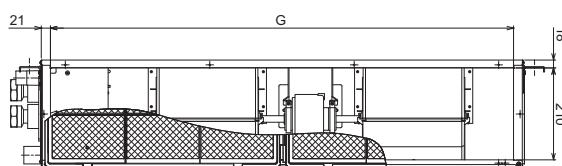
## Product Dimensions

PEFY-WP63/80VMA-E

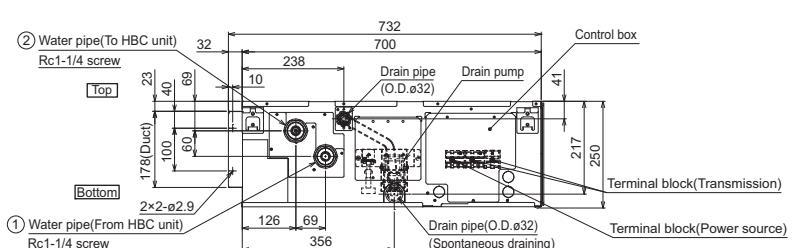
## Upper View



## Front View



## Side View



1.6.15

## Air Conditioning

CITY MULTI

PEFY-WP-VMA-E Ceiling Concealed Ducted Indoor Unit

# PLFY-WL-VEM-E

## 4-Way Blow Ceiling Cassette Indoor Unit



The **PLFY-WL-VEM-E** ceiling cassette unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Offering 72 different airflow patterns, with the ability to handle a multitude of ceiling applications up to 4.2 metres in height, the easy to install, slimline unit is ideal for maintaining constant temperatures, thanks to adjustable vanes that allow users to precisely direct air where it's needed.

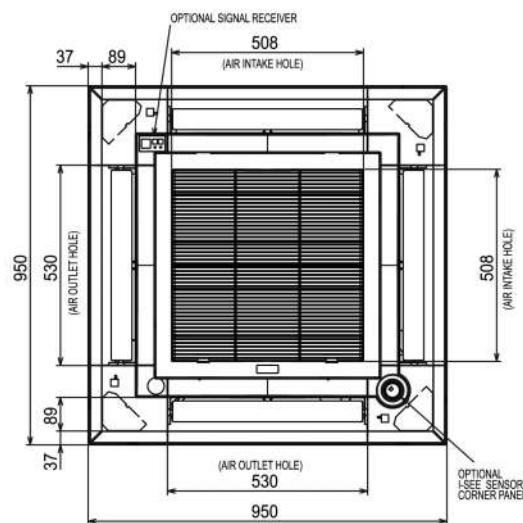
### Key Features & Benefits

- Enhanced airflow control through directional vanes
- Optional 3D i-see sensor grille (PLP-6EAE) provides customised comfort by automatically monitoring room occupancy, position and body temperatures
- Optional filter lowering operation down to 4m (PLP-6EAJ), allowing for easier maintenance
- Optional black (Matt finish) grille (PLP-6EAB), for environments that desire a premium quality feel
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

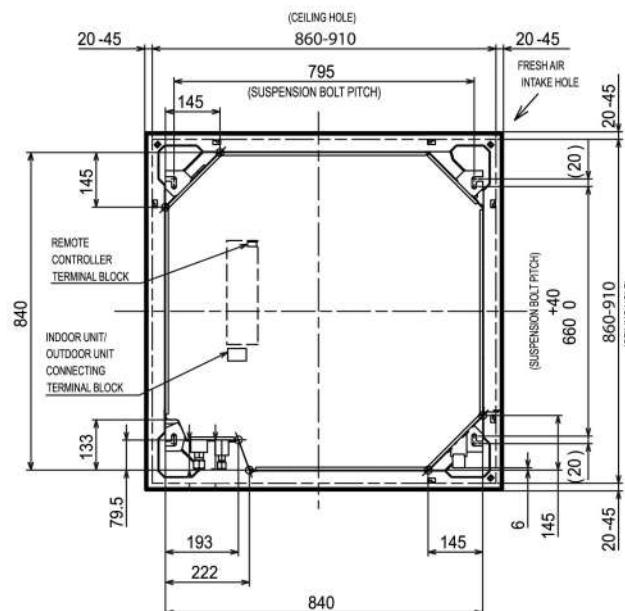
INDOOR UNITS		PLFY-WL32VEM-E	PLFY-WL40VEM-E	PLFY-WL50VEM-E	PLFY-WL63VEM-E	PLFY-WL80VEM-E
CAPACITY (kW)	Heating (nominal)	4.0	5.0	6.3	8.0	10.0
	Cooling (nominal)	3.6	4.5	5.6	7.1	9.0
	UK Heating	4.0	5.0	6.3	8.0	8.0
	UK Total Cooling - Hi (Sensible)	3.20 (3.20)	4.00 (3.60)	5.00 (4.20)	6.40 (5.00)	8.10 (6.10)
	UK Total Cooling - M2	3.16	3.95	4.87	6.26	7.94
	UK Total Cooling - Mi1	3.09	3.87	4.66	6.02	7.53
	UK Total Cooling - Lo	3.02	3.77	4.39	5.73	6.95
POWER INPUT (kW)	Heating (nominal)	0.03	0.03	0.04	0.04	0.05
	Cooling (nominal)	0.03	0.03	0.04	0.05	0.05
AIRFLOW (l/s)	Lo-M1-M2-Hi	233-250-267-283	233-250-267-283	233-267-300-333	250-283-317-350	250-300-350-383
SOUND PRESSURE LEVEL (dBA)	Lo-M1-M2-Hi	26-27-29-30	26-28-29-31	27-29-31-33	27-29-31-33	27-30-33-35
WEIGHT (kg)		20	20	20	23	23
DIMENSIONS (mm)	Width (Grille)	840 (950)	840 (950)	840 (950)	840 (950)	840 (950)
	Depth (Grille)	840 (950)	840 (950)	840 (950)	840 (950)	840 (950)
	Height (Grille)	258 (40)	258 (40)	258 (40)	298 (40)	298 (40)
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50/60Hz	220-240v, 50/60Hz
PHASE		Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.27 / 0.33	0.29 / 0.35	0.34 / 0.40	0.34 / 0.40	0.40 / 0.46
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
GRILLE MODEL REFERENCE		PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA	PLP-6EA
WATER PIPE CONNECTION		20mm I.D	20mm I.D	20mm I.D	30mm I.D	30mm I.D

Note: HRV indoor units can only be configured with the CMB-WM HBC (HRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

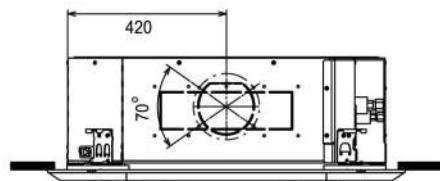
Lower View



Upper View

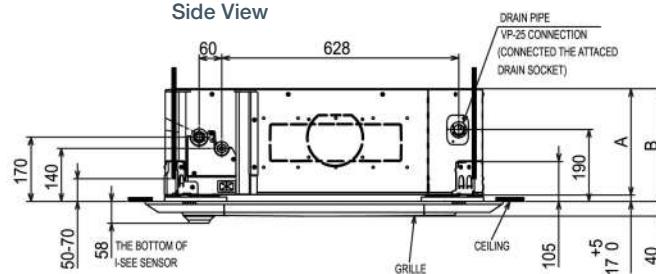


Front View



	A	B
32/40/50	241	258
63/80	281	298

Side View



# PLFY-WL-VFM-E

## 600x600 4-Way Blow Ceiling Cassette Indoor Unit



The **PLFY-WL-VFM-E** ceiling cassette unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Providing a smart air conditioning solution for tight ceiling spaces, and designed to fit directly into standard 600mm square ceiling grids, these units are a perfect choice for both offices and retail applications. The optional 3D i-see sensor grille optimises both energy consumption and comfort levels.

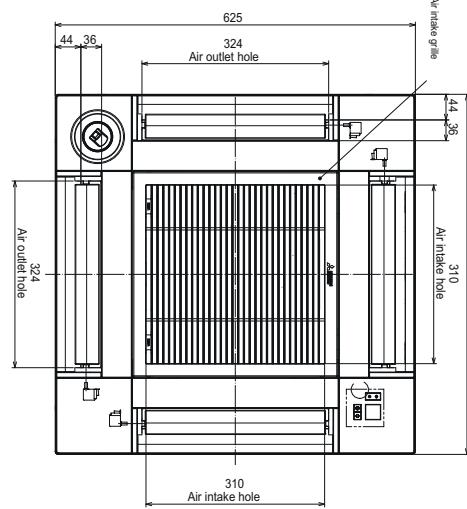
### Key Features & Benefits

- Stylish square, slimline design - fits into narrow ceiling spaces with a height of only 245mm
- Low noise levels for minimal disturbance - reduced noise value with 3D turbo fan
- Enhanced airflow control through directional vanes
- Easy installation - temporary hanging hook on grille and no screw removal for corner panel / control box
- Optional 3D i-see sensor grille (SLP-2FAE) provides energy efficient, customised comfort by automatically monitoring room occupancy, position and body temperatures
- Optional black (Satin finish) grille (SLP-2FA-B), for environments that desire a premium quality feel
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Optional V Blocking filter provides in-room air purification, neutralising viruses, allergens, dust and mould

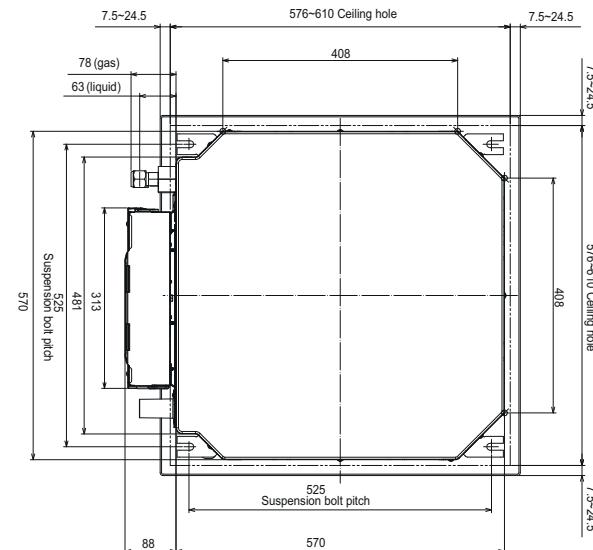
INDOOR UNITS	PLFY-WL15VFM-E	PLFY-WL20VFM-E	PLFY-WL25VFM-E	PLFY-WL32VFM-E	PLFY-WL40VFM-E
CAPACITY (kW)					
Heating (nominal)	1.9	2.5	3.2	4.0	5.0
Cooling (nominal)	1.7	2.2	2.8	3.6	4.5
UK Heating	1.9	2.5	3.2	4.0	5.0
UK Total Cooling - Hi (Sensible)	1.50 (1.30)	2.00 (1.60)	2.50 (2.00)	3.20 (2.60)	4.00 (3.10)
UK Total Cooling - Mi	1.44	1.92	2.38	2.92	3.88
UK Total Cooling - Lo	1.36	1.89	2.26	2.52	2.98
POWER INPUT (kW)					
Heating (nominal)	0.02	0.02	0.03	0.04	0.05
Cooling (nominal)	0.02	0.02	0.03	0.04	0.05
AIRFLOW (l/s)	Lo-Mi-Hi	100-117-133	108-117-133	108-125-150	108-150-200
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	25-26-29	27-29-31	27-30-34	27-40-43
WEIGHT (kg)	(Grille)	13 (3)	14 (3)	14 (3)	14 (3)
DIMENSIONS (mm)	Width (Grille)	570 (625)	570 (625)	570 (625)	570 (625)
	Depth (Grille)	570 (625)	570 (625)	570 (625)	570 (625)
	Height (Grille)	245 (10)	245 (10)	245 (10)	245 (10)
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single	Single
RUNNING CURRENT (A)	Heating / Cooling	0.18 / 0.24	0.20 / 0.26	0.23 / 0.29	0.32 / 0.38
FUSE RATING (BS88) - HRC (A)		6	6	6	6
MAINS CABLE No. Cores		3	3	3	3
GRILLE MODEL REFERENCE		SLP-2FA	SLP-2FA	SLP-2FA	SLP-2FA
WATER PIPE CONNECTION		20mm I.D	20mm I.D	20mm I.D	20mm I.D

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

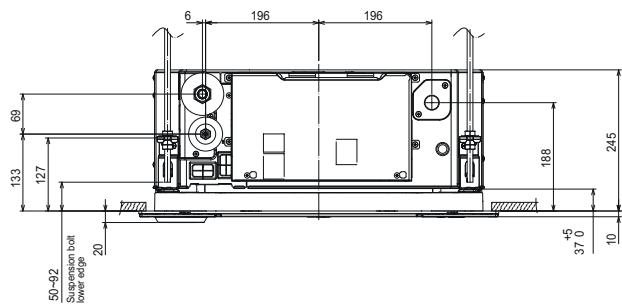
Upper View



Lower View



Side View



# PFFY-WL-VCM-A

## Floor Standing Concealed Indoor Unit



The **PFFY-WL-VCM-A** floor standing concealed unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium.

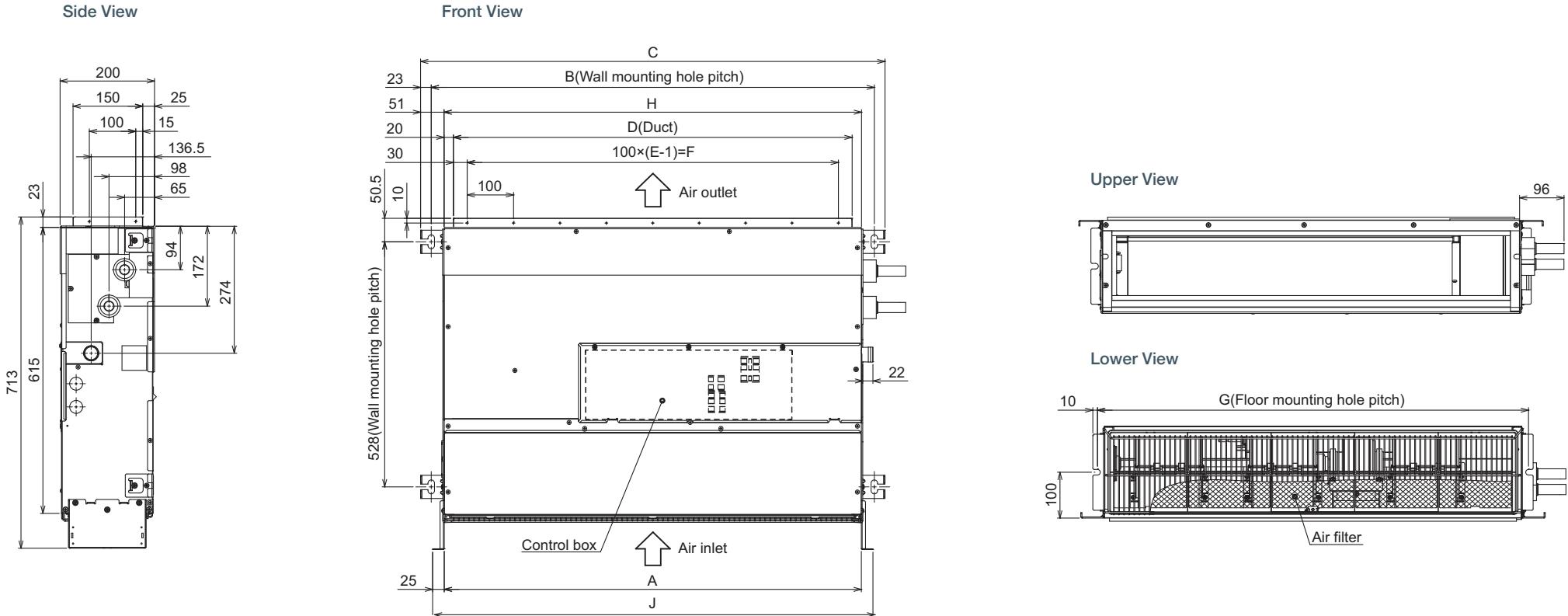
This range of easy to install units provide simple, effective air conditioning in perimeter zones, and at only 200mm deep offer an unobtrusive method of delivering a highly efficient air conditioning performance.

### Key Features & Benefits

- Small footprint, concealed unit - for hidden installation or low visual impact
- Noise levels as low as 21dBA for minimal disturbance
- Four static pressure settings - 0/10/40/60Pa, ideal for ducting in perimeter zones
- Front or bottom airflow options for better installation flexibility and customised comfort
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378

INDOOR UNITS		PFFY-WL20VCM-A	PFFY-WL25VCM-A	PFFY-WL32VCM-A	PFFY-WL40VCM-A	PFFY-WL50VCM-A
CAPACITY (kW)						
Heating (nominal)	2.5	3.2	4.0	5.0	6.3	
Cooling (nominal)	2.2	2.8	3.6	4.5	5.6	
UK Heating	2.5	3.2	4.0	5.0	6.3	
UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.40)	4.00 (3.00)	5.00 (3.80)	
UK Total Cooling - Mi	1.92	2.37	3.05	3.85	4.81	
UK Total Cooling - Lo	1.78	2.14	2.87	3.61	4.50	
POWER INPUT (kW)						
Heating (nominal)	0.022	0.029	0.035	0.038	0.062	
Cooling (nominal)	0.022	0.029	0.035	0.038	0.062	
AIRFLOW (l/s)	Lo-Mi-Hi	83-100-117	92-117-142	108-125-150	133-158-183	175-208-242
EXTERNAL STATIC PRESSURE (Pa)		0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60	0-10-40-60
SOUND PRESSURE LEVEL (dBA) (20Pa) Lo-Mi-Hi		21-23-26	22-26-30	25-28-32	25-27-30	28-32-35
WEIGHT (kg)		18	18	18.5	22.5	22.5
DIMENSIONS (mm)						
Width		700	700	700	900	900
Depth		200	200	200	200	200
Height		615	615	615	615	615
ELECTRICAL SUPPLY		220-240v, 50Hz				
PHASE		Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.24 / 0.24	0.32 / 0.32	0.36 / 0.36	0.36 / 0.36	0.50 / 0.50
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
WATER PIPE CONNECTION		20mm I.D				

Note: HRV indoor units can only be configured with the CMB-WM HBC (HRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.



Model	A	B	C	D	E	F	G	H	J	①Water pipe (From HBC/Hydro unit)	②Water pipe (To HBC/Hydro unit)
PFFY-WL20-25VCM-A	700	756	802	660	7	600	730	700	750	O.D.ø22	O.D.ø22
PFFY-WL40-50VCM-A	900	956	1002	860	9	800	930	900	950		

# PFFY-WL-VEM-A

## Floor Standing Exposed Indoor Unit



The **PFFY-WL-VEM-A** floor standing exposed unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. It is the first unit of its kind in the HVRF range, and is unique to Mitsubishi Electric in the R32 market. The stylish design and quiet operation provide simple and effective air conditioning in perimeter zones. Constructed in a robust casement, and with a depth of only 217mm, it offers a flexible solution for applications such as offices, retail, high end residential and hospitals.

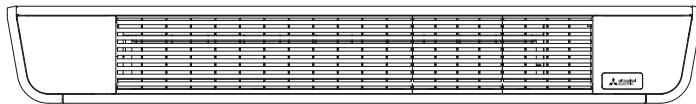
### Key Features & Benefits

- Perimeter air conditioning for retrofit applications where ceiling void not available
- Compact and stylish design in clear white and pearl grey, blends in with any interior
- DC fan motor and improved heat exchanger design, optimises system efficiency, allowing for low power consumption and running costs
- Wide airflow range with three fan settings (Low-Mid-High) for customised comfort
- Quiet operation as low as 23dBA, for minimal disturbance
- Can be floor mounted or wall mounted for better installation options
- Built-in housing for the remote controller on the unit chassis for convenient control
- Water pipe can be connected from the bottom or rear of the unit enabling improved installation flexibility

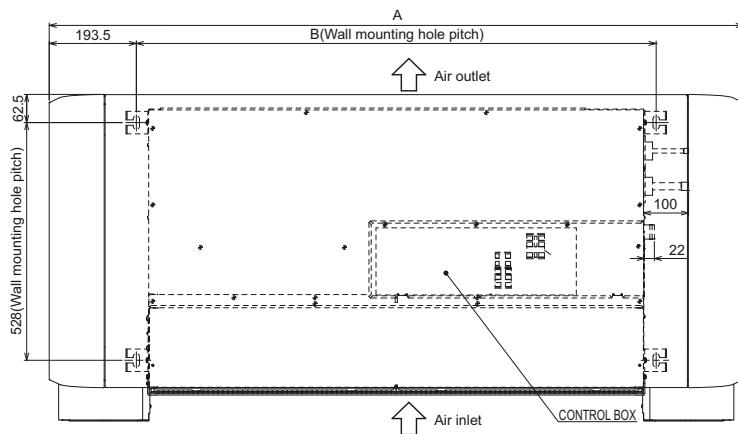
INDOOR UNITS		PFFY-WL20VEM-A	PFFY-WL25VEM-A	PFFY-WL32VEM-A	PFFY-WL40VEM-A	PFFY-WL50VEM-A
CAPACITY (kW)	Heating (nominal) Cooling (nominal)	2.5 2.2	3.2 2.8	4.0 3.6	5.0 4.5	6.3 5.6
UK Heating	2.5	3.2	4.0	5.0	6.3	
UK Total Cooling - Hi (Sensible)	2.00 (1.60)	2.50 (1.90)	3.20 (2.40)	4.00 (3.00)	5.00 (3.80)	
UK Total Cooling - Mi	1.92	2.37	3.05	3.85	4.81	
UK Total Cooling - Lo	1.78	2.14	2.87	3.61	4.50	
POWER INPUT (kW)	Heating (nominal) Cooling (nominal)	0.021 0.021	0.029 0.029	0.036 0.036	0.037 0.037	0.064 0.064
AIRFLOW (l/s)	Lo-Mi-Hi	83-100-117	92-117-142	108-125-150	133-158-183	175-208-242
SOUND PRESSURE LEVEL (dBA)	Lo-Mi-Hi	23-27-31	25-31-36	29-33-37	29-33-36	35-40-43
WEIGHT (kg)		29.5	29.5	30	35	35
DIMENSIONS (mm)	Width Depth Height	1142 217 726	1142 217 726	1142 217 726	1342 217 726	1342 217 726
ELECTRICAL SUPPLY		220-240v, 50Hz				
PHASE		Single	Single	Single	Single	Single
RUNNING CURRENT (A)	Heating / Cooling	0.25 / 0.25	0.33 / 0.33	0.38 / 0.38	0.38 / 0.38	0.65 / 0.65
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3
WATER PIPE CONNECTION		20mm I.D				

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

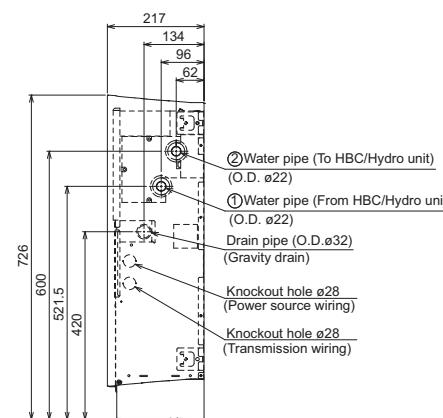
Upper View



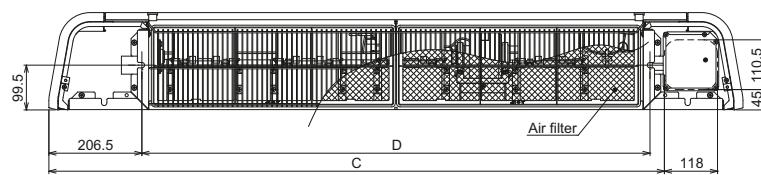
Front View



Side View



Lower View



Model	A	B	C	D	① Water pipe (From HBC/Hydro unit)	② Water pipe (To HBC/Hydro unit)
PFFY-WL20 25-32VEM-A	1142	755	967.5	729	O.D.ø22	O.D.ø22
PFFY-WL40-50VEM-A	1342	955	1167.5	929		

# PKFY-WL-VLM-E / VKM-E

## Wall Mounted Indoor Unit



The **PKFY-WL** wall mounted indoor unit connects to the Hybrid Branch Controller and uses water as the heat transfer medium. Elegant and compact in design, it is an ideal unit choice for exposed applications. The unit's quiet operation promotes minimal disturbance in close proximity.

### Key Features & Benefits

- Compact flat panel design - only 773mm wide (sizes 10-32)
- Widened vane control for improved air distribution and comfort
- Reduced noise levels of 22dB(A) (sizes 10-25) enabling minimal disturbance
- No refrigerant in occupied spaces, removing the need for leak detection under BS EN378
- Higher air off temperatures than standard VRF, allowing for improved comfort levels
- Compatible with Plasma Quad Connect - an innovative, bolt-on air purifying device which neutralises viruses, bacteria, allergens, PM2.5, mould and dust. For more information, please refer to page 1.1.7

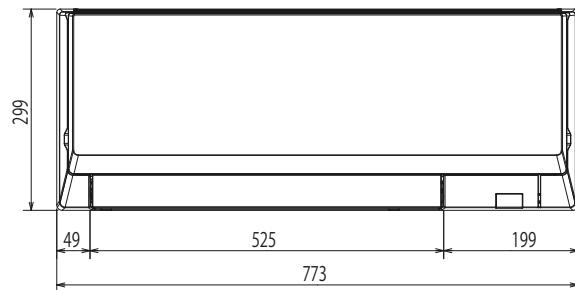
INDOOR UNITS		PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E	PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E	PKFY-WL50VKM-E	PKFY-WL63VKM-E
CAPACITY (kW)		Heating (nominal) 1.4	1.9	2.5	3.2	4.0	5.0	6.3	8.0
		Cooling (nominal) 1.2	1.7	2.2	2.8	3.6	4.5	5.6	7.1
		UK Heating 1.4	1.9	2.5	3.2	4.0	5.0	6.3	8.0
		UK Total Cooling - Hi (Sensible) 1.10 (0.90)	1.50 (1.10)	2.00 (1.50)	2.50 (1.90)	3.20 (2.40)	4.00 (3.00)	5.00 (4.10)	6.40 (5.00)
		UK Total Cooling - Mi2 1.08	1.45	1.92	2.38	3.09	3.82	-	-
		UK Total Cooling - Mi1 1.05	1.38	1.78	2.13	2.90	3.53	-	-
		UK Total Cooling - Lo 1.00	1.30	1.61	1.82	2.65	3.12	4.88	6.05
POWER INPUT (kW)		Heating (nominal) 0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05
		Cooling (nominal) 0.02	0.02	0.03	0.04	0.04	0.05	0.04	0.05
AIRFLOW (l/s)	Lo-M1-Mi2-Hi	55-63-68-75	55-63-72-82	67-83-100-117	67-90-117-140	105-127-150-173	107-137-167-198	300-333	300-367
SOUND PRESSURE LEVEL (dBA)	Lo-M1-Mi2-Hi	22-26-28-30	22-26-29-32	22-28-33-36	22-30-36-41	29-34-38-41	30-36-41-45	39-42	39-45
WEIGHT (kg)		11	11	11	11	13	13	20	20
DIMENSIONS (mm)		Width 773	773	773	773	898	898	1170	1170
		Depth 237	237	237	237	237	237	295	295
		Height 299	299	299	299	299	299	365	365
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50/60Hz	220-240v, 50/60Hz
PHASE		Single	Single	Single	Single	Single	Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.15 / 0.20	0.15 / 0.20	0.20 / 0.25	0.30 / 0.35	0.30 / 0.35	0.40 / 0.45	0.40 / 0.46	0.50 / 0.56
FUSE RATING (BS88) - HRC (A)		6	6	6	6	6	6	6	6
MAINS CABLE No. Cores		3	3	3	3	3	3	3	3
WATER PIPE CONNECTION		3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW	3/4" BSP SCREW

Note: HVRF indoor units can only be configured with the CMB-WM HBC (HVRF) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

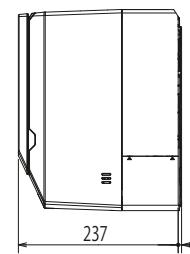
**Product Dimensions**

PKFY-WL10/15/20/25VLM-E

Front View

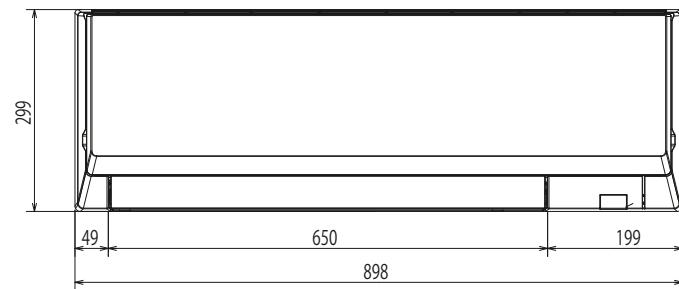


Side View

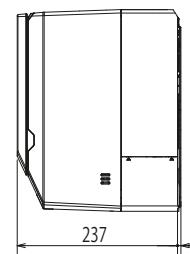
**Product Dimensions**

PKFY-WL32/40VLM-E

Front View

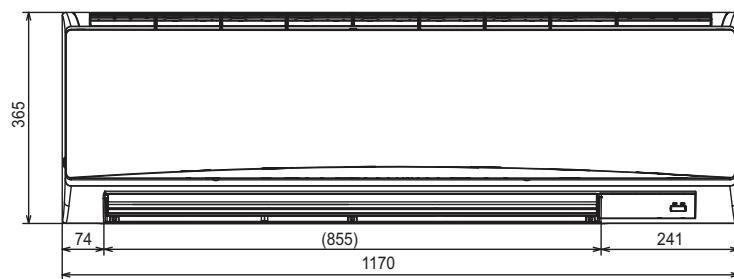


Side View

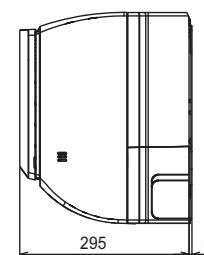
**Product Dimensions**

PKFY-WL50/63VKM-E

Front View



Side View



# PCFY-WL-VKM-E

## Ceiling Suspended Indoor Unit



Designed for ultra-quiet operation and easy maintenance, the **PCFY-WL-VKM-E** provides comfortable air conditioning for a wide range of applications where floor or wall space cannot be used practically.

### Key Features & Benefits

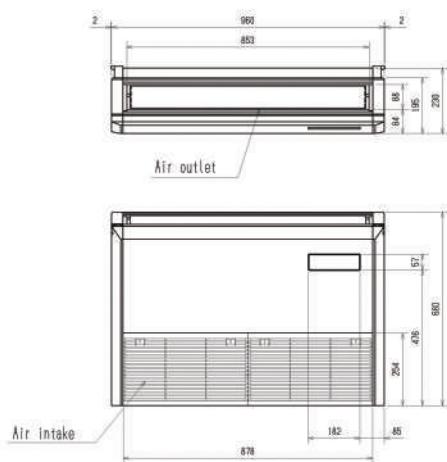
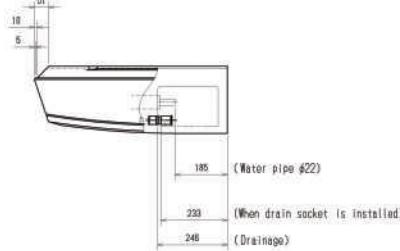
- Indoor unit designed for direct ceiling suspension
- Flush to wall installation for concealment of service connections
- Drain piping can be connected from left or right

INDOOR UNITS		PCFY-WL40VKM-E	PCFY-WL63VKM-E	PCFY-WL80VKM-E
CAPACITY (kW)	Heating (nominal) Cooling (nominal) UK Heating	5.0 4.5 5.0	8.0 7.1 8.0	10.0 9.0 10.0
	UK Total Cooling - Hi (Sensible) UK Total Cooling - M2 UK Total Cooling - M1 UK Total Cooling - Lo	4.00 (3.00) 3.93 3.82 3.69	6.40 (4.80) 6.22 3.09 5.93	8.10 (6.10) 7.97 7.78 7.40
POWER INPUT (kW)	Heating (nominal) Cooling (nominal)	0.04 0.04	0.06 0.06	0.08 0.08
AIRFLOW (l/s)	Lo-M1-M2-Hi	167-183-200-217	233-250-267-300	350-400-433-467
SOUND PRESSURE LEVEL (dBA)	Lo-M1-M2-Hi	32-35-37-39	34-37-40-43	39-40-42-44
WEIGHT (kg)		25	32	39
DIMENSIONS (mm)	Width Depth Height	960 680 230	1280 680 230	1600 680 230
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single	Single
RUNNING CURRENT (A) Heating / Cooling		0.34 / 0.34	0.52 / 0.52	0.69 / 0.69
FUSE RATING (BS88) - HRC (A)		6	6	6
MAINS CABLE No. Cores		3	3	3
WATER PIPE CONNECTION		20mm I.D	30mm I.D	30mm I.D

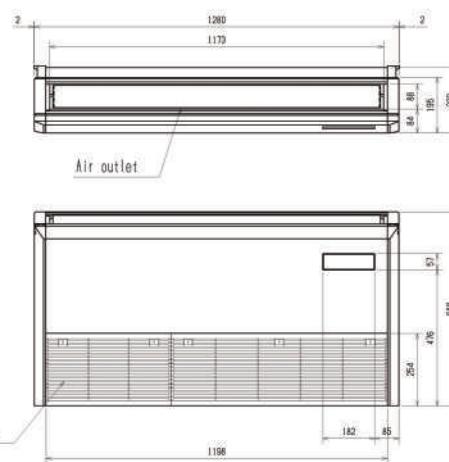
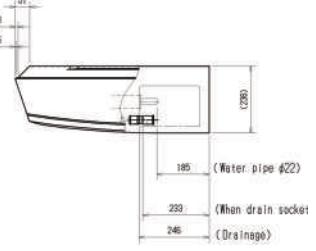
Note: HRV indoor units can only be configured with the CMB-WM HBC (HRV) and PURY-(E)M YNW-A1 or PQRY-P YLM-A1 outdoor units.

**Product Dimensions**

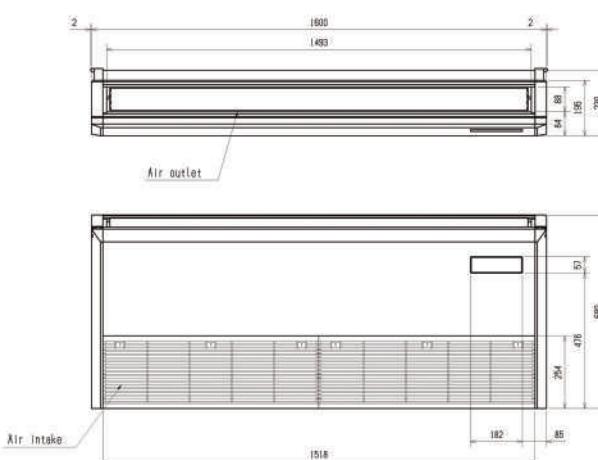
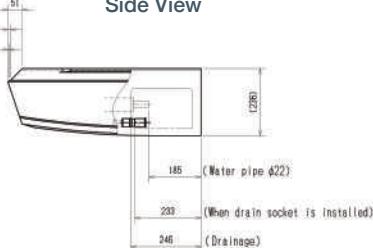
PCFY-WL40VKM-E

**Front View****Side View****Lower View****Product Dimensions**

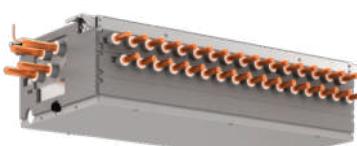
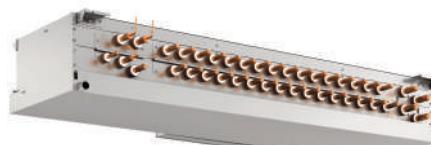
PCFY-WL63VKM-E

**Front View****Side View****Lower View****Product Dimensions**

PCFY-WL80VKM-E

**Front View****Side View****Lower View**

# HBC Controllers



At the heart of both the R2 and WR2 Series, the HBC Controller makes simultaneous heating and cooling possible. Improved system efficiency is achieved when energy is transferred intelligently around the building. The **HBC Controller** is available as a 6, 8 or 16 port model, and now includes both horizontal and vertical types, offering greater freedom and flexibility in system design.

## Key Features & Benefits

- Valves, pumps and heat exchanger all contained within the HBC
- Manageable, phased installation through modular HBC system design - ideal for Cat A to Cat B applications
- Intuitive load adjusting flow control valves, inverter driven pumps and heat recovery for maximum efficiency
- Where ceiling space is tight or congested, the compact vertical HBC can be considered as an alternative to the traditional horizontal type HBC box
- The vertical HBC's reduced footprint enables easier installation and service access

**R32** **R410A**

MAIN HBC CONTROLLERS	CMB-WM108V-AA	CMB-WM1016V-AA	CMB-WM350F-AA	CMB-WM500F-AA
NUMBER OF CONNECTIONS	8	16	6	6
ORIENTATION	Horizontal	Horizontal	Vertical	Vertical
COMPATIBILITY	R32 / R410A	R32 / R410A	R32	R32
WEIGHT (kg)	86 (96)*	98 (111)*	196 (216)*	209 (233)*
DIMENSIONS (mm)	Width 540 (630) Depth (Control Box) 300 Height	1520 540 (630) 1800 300 1500	800 500 1500	800 500 1500
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single	Single	Single
POWER INPUT (kW)	0.46	0.46	1.50	1.50
RUNNING CURRENT (A)	2.83	2.83	6.52	6.52
FUSE RATING (BS88) – HRC (A)	6	6	10	10
MAINS CABLE No. Cores	3	3	3	3

SUB HBC CONTROLLERS	CMB-WM108V-BB	CMB-WM1016V-BB
NUMBER OF CONNECTIONS	8	16
ORIENTATION	Horizontal	Horizontal
COMPATIBILITY	R32 / R410A	R32 / R410A
WEIGHT (kg)	40 (45)*	53 (62)*
DIMENSIONS (mm)	Width 930 Depth (Control Box) 540 (630) Height 310	1210 540 (630) 310
ELECTRICAL SUPPLY	220-240v, 50Hz	220-240v, 50Hz
PHASE	Single	Single
POWER INPUT (kW)	0.01	0.01
RUNNING CURRENT (A)	0.14	0.14
FUSE RATING (BS88) – HRC (A)	6	6
MAINS CABLE No. Cores	3	3

Notes: CMB-WM-V-AA (Main) and CMB-WM-V-BB (Sub) units are for use with PURY-(E)M200-500YNW-A1, PQRY-P200-500YLM-A1 outdoor/condenser units and HVRF indoor units only. CMB-WM-F-AA (Main) and CMB-WM-V-BB (Sub) units are for use with PURY-(E)M200-500YNW-A1 outdoor units and HVRF indoor units only.

One CMB-WM-V-AA unit can be used on PURY-(E)M200-250YNW-A1 and PQRY-P200-250YLM-A1 units. One CMB-WM-V-AA unit can be used on PURY-(E)M300-350YNW-A1 and PQRY-P300-350YLM-A1 units with a system efficiency reduction.

Two CMB-WM-V-AA units can be used in parallel on PURY-(E)M300-500YNW-A1 and PQRY-P300-500YLM-A1 outdoor/condenser units. PURY-(E)M400-500YNW-A1 requires two CMB-WM-V-AA units.

One CMB-WM-F-AA can only be used on PURY-(E)M200-500YNW-A1 outdoor units.

A CMB-WM-V-AA and a CMB-WM-F-AA cannot be connected to the same R32 outdoor unit.

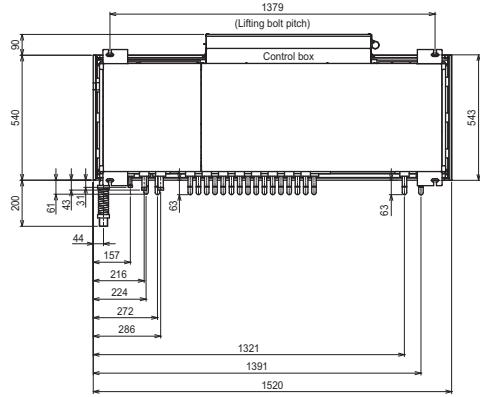
CMB-WM-V-BB units are for use with PURY-(E)M200-500YNW-A1, PQRY-P200-500YLM-A1 outdoor/condenser units and HVRF indoor units only, when accompanied by a CMB-WM-V-AA or CMB-WM-F-AA unit.

\*() Includes Water

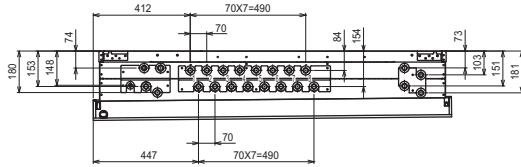
## Product Dimensions

CMB-WM108V-AA

## Upper View



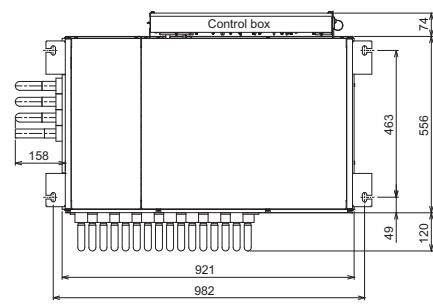
## Side View



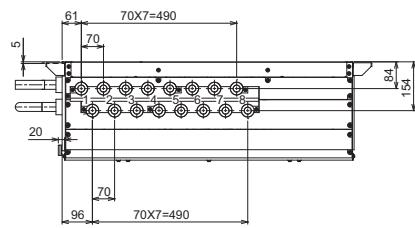
## Product Dimensions

CMB-WM108V-BB

## Upper View



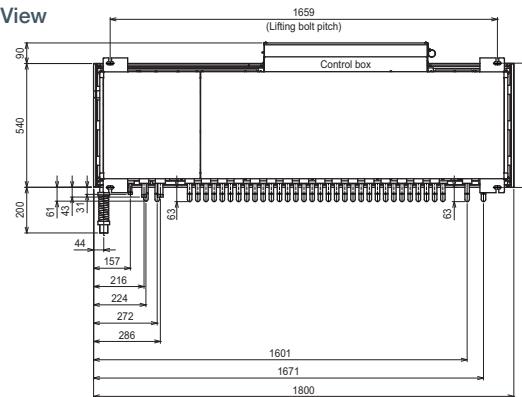
## Side View



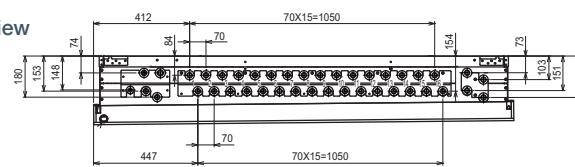
## Product Dimensions

CMB-WM1016V-AA

## Upper View



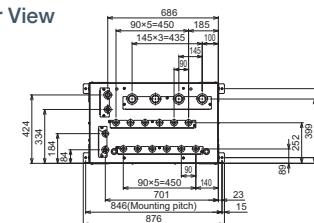
### Side View



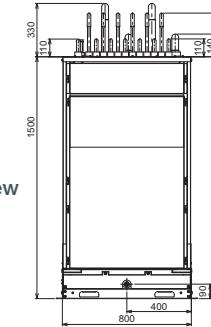
## Product Dimensions

CMB-WM350/500F-AA

## Upper View



Front View



Side View



1.6.29

## Air Conditioning



CITY MULTI

HBC Controllers (HVRF)

# City Multi Hybrid VRF Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Outdoor Units</b>	
Fin Guard Side surfaces S / L modules (2pc) (P200-P450)	PAC-FG01S-E
Fin Guard Side surfaces XL module (2 pc) (P500)	PAC-FG02S-E
Fin Guard Rear surface S module (P200-P300)	PAC-FG01B-E
Fin Guard Rear surface L module (P350-P450)	PAC-FG02B-E
Fin Guard Rear surface XL module (P500)	PAC-FG03B-E
Differential pressure switch for PQRY-P200-300YLM-A1	KS10-EP100S
<b>Indoor Units</b>	
Remote Temperature Sensor	PAC-SE41TS-E
Discreet Remote Temperature Sensor	KS9-BS1-A
<b>Ceiling Concealed Ducted Indoor Units</b>	
Plasma Quad Connect air purifying device for PEFY-WP-VMS1-E / PEFY-WP-VMA-E	MAC-100FT-E
Plasma Quad Connect metal fitment for PEFY-WP-VMS1-E	PAC-HA11PAR
Plasma Quad Connect metal fitment for PEFY-WP-VMA-E	PAC-HA31PAR
<b>4-Way Blow Cassette Indoor Units</b>	
Grille for PLFY-WL-VFM-E	SLP-2FA
Black grille (Satin finish) for PLFY-WL-VFM-E	SLP-2FA-B
3D i-see sensor grille for PLFY-WL-VFM-E	SLP-2FAE
Grille for PLFY-WL-VEM-E	PLP-6EA
Black grille (Matt finish) for PLFY-WL-VEM-E	PLP-6EAB
3D i-see sensor grille for PLFY-WL-VEM-E	PLP-6EAE
Self elevating grille for PLFY-WL-VEM-E	PLP-6EAJ
Corner panel with i-see sensor for PLFY-WL-VEM-E	PAC-SE1ME-E
Corner panel with signal receiver for PLFY-WL-VEM-E	PAR-SE9FA-E
Shutter plate for PLFY-WL-VEM-E	PAC-SJ37SP-E
Multi-function casement for PLFY-WL-VEM-E	PAC-SJ41TM-E
High efficiency filter for PLFY-WL-VEM-E (must be used with PAC-SJ41TM-E)	PAC-SH59KF-E
V Blocking air purifying filter for PLFY-WL-VEM-E	PAC-SK53KF-E
V Blocking air purifying filter for PLFY-WL-VFM-E	PAC-SK54KF-E
Plasma Quad Connect air purifying device (x1) with multi-function casement for PLFY-WL-VEM-E	PAC-SK51FT-E
<b>Floor Standing Indoor Units</b>	
Back panel for PFFY-WL20-32VEM-A	PAC-BP32VEM-E
Back panel for PFFY-WL40/50VEM-A	PAC-BP50VEM-E
<b>Wall Mounted Indoor Units</b>	
Plasma Quad Connect air purifying device for PKFY-WL-VLM-E / VKM-E	MAC-100FT-E



# Commercial Heat Pumps & Chillers

A new generation of energy saving  
and innovative technology





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<b>i-FX-WQ-G05</b>	R513A Water Source Polyvalent Unit	<b>2.45</b>			

## Commercial Heat Pumps & Chillers

# The Innovative Commercial Heat Pump & Chiller Range

Mitsubishi Electric has developed a range of heat pumps and chillers specifically designed for heating and cooling commercial buildings.

The Ecodan® range provides renewable heating, challenging traditional heating solutions, whilst meeting the energy and carbon reduction demands of today and beyond. At the same time the e-Series modular chiller range provides a low-carbon, flexible and cost effective option, allowing up to six individual units to be connected together to provide a system capacity from 150kW to 1,080kW, in either cooling only or heat pump options.

In 2015 Mitsubishi Electric purchased Climaveneta, enhancing our product line up and marking our full scale entry into the chiller market.

Climaveneta is a strong European brand, supported by 45 years of customer trust and high quality production. Its range of energy-saving, low-noise and innovative heat pump and chiller technology further expands the application and customisation capabilities we are now able to offer.

Through our technical expertise, long experience and innovative product range, we enable building operators everywhere to significantly improve energy efficiency, reduce running costs and adhere to increasingly tough legislation.

**We believe that global climate challenges need local solutions. Our aim is to help individuals and businesses reduce the energy consumption of their buildings and their running costs.**



**ecodan®**  
Renewable Heating Technology



**e-series**



**INTΣGRA**



**CLIMAVENETA**

## Commercial Heat Pumps & Chillers

### Our Commercial Heating range at a glance

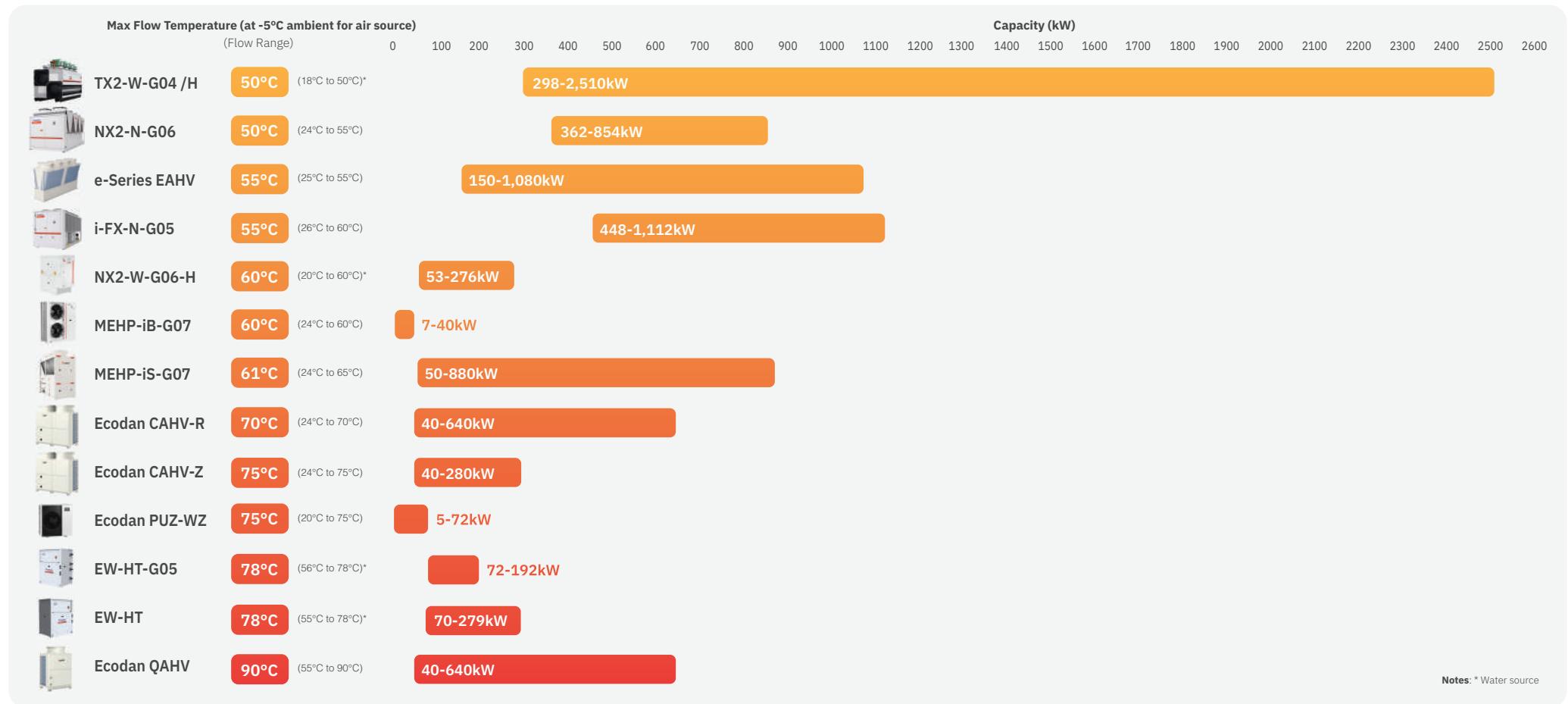
The range of heat pumps on the market is now wider than it ever has been. This means it's possible to select exactly the right equipment for the specific application. Our commercial heat pumps fall into three broad ranges:



**Mitsubishi Electric** - Modular heat pumps manufactured to the highest quality standard, and suitable for a range of different applications.

**Climaveneta** - Commercial heat pumps that use a wide range of low and lower GWP refrigerants, alongside the latest fixed speed/inverter scroll and screw compressors.

**Ecodan** - A range of renewable heat pumps that efficiently and reliably generate sustainable space heating and hot water all year round.





# Hydrodan EHWT17D-MHEDW R32 Water to Water Heat Pump



Certificate Number: 037-0101-22  
Product Type: Heat Pumps (Water/Water)  
Product Reference: EHWT17D-MHEDW

The **Ecodan Hydrodan** is a water to water heat pump, designed to produce heating and hot water in residential apartments, and connect to a 5th generation ambient temperature heat network deployed throughout the building. The use of these networks helps to reduce overheating in apartments and also produces negligible distribution losses. The local heat network can be maintained at ambient temperature by a Mitsubishi Electric commercial heat pump, environmental source or connected to a district heat network.

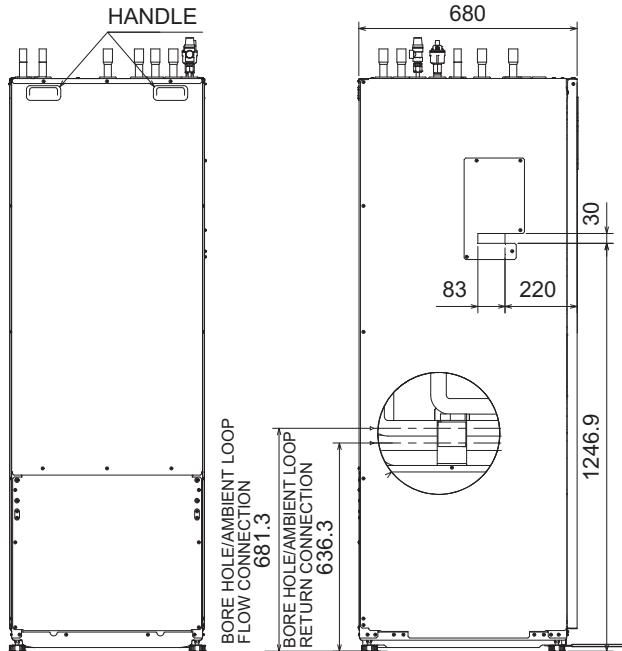
## Key Features & Benefits

- Removable heat pump module - simple for repairs
- Highly efficient heating and hot water production - low running costs for owners
- Low quantity R32 refrigerant - low environmental impact
- PIC valve network control - simple pressure balancing and flow control
- Ultra-low noise output - no disturbance for owners



MODEL	EHWT17D-MHEDW		
CAPACITY INFORMATION	L20 / W35	Heating Capacity (min-max) kW Power Input (min-max) kW COP (Nom.) -	1.2 - 8.0 0.3 - 1.0 9.2
	L20 / W45	Heating Capacity (min-max) kW Power Input (min-max) kW COP (Nom.) -	1.1 - 7.5 0.5 - 1.3 6.3
	L20 / W55 (DHW)	Heating Capacity (DHW) kW Power Input (DHW) kW COP (DHW) -	6.3 1.3 5.0
	L25 / W35	Heating Capacity (min-max) kW Power Input (min-max) kW COP (Nom.) -	1.5 - 9.3 0.2 - 1.0 11.3
	L25 / W45	Heating Capacity (min-max) kW Power Input (min-max) kW COP (Nom.) -	1.3 - 8.5 0.4 - 1.3 7.8
	L25 / W55 (DHW)	Heating Capacity (DHW) kW Power Input (DHW) kW COP (DHW) -	6.8 1.5 5.4
		Heating Circuit Flow Rate (min - max) l/min	7.1 - 27.7
LOOP INFORMATION		Control Type -	PICV + Actuator
		Inlet Temperature Range (min - max) °C	10 - 30
		Flow Rate (min - max) l/min	7.2 - 24
		Maximum Loop Pressure Rating bar	10
		Pipe Connection Size mm	28
ELECTRICAL INFORMATION		Voltage/Phase/Frequency v/ph/Hz	230v/1ph/50Hz
		Fuse Rating - Heat Pump/Immersion Heater A	16/20
		Number of Connections -	2
		Immersion Rating (Tank) kW	3
		Start up Current A	3.1
GENERAL INFORMATION		Unit Dimensions (WxDxH) mm	595 x 680 x 1750
		Compressor Type -	Rotary compressor
		Domestic Hot Water Tank Volume (net) l	170
		Weight (empty) kg	166
		Weight (full) kg	345
		Refrigerant -	R32
		Volume of Refrigerant kg	0.9
		Heating Temperature Range °C	20 - 60
		Hot Water Temperature Range °C	40 - 60
		Internal Water Volume Loop Side / Heating Side l	3.16 / 5.47
		Sound Power Level dBA	38
		Sound Pressure Level @1m dBA	27

Rear View

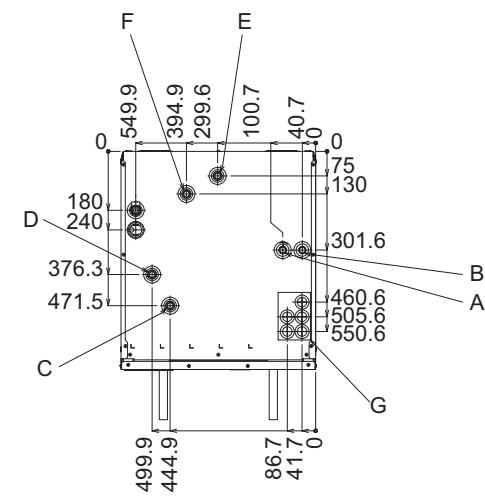
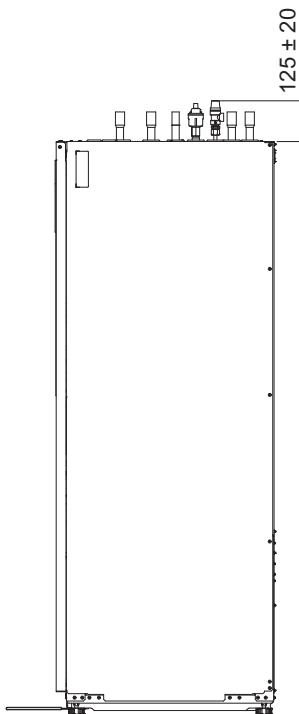
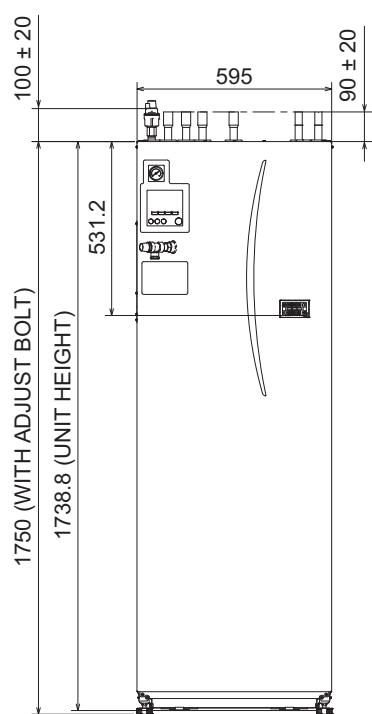


Left Side View

Front View

Right Side View

Upper View



Letter	Pipe description	Connection size/type
A	DHW outlet connection	22 mm/Compression
B	Cold water inlet connection	22 mm/Compression
C	Space heating return connection	28 mm/Compression
D	Space heating flow connection	28 mm/Compression
E	Ambient loop return connection	28 mm/Compression
F	Ambient loop flow connection	28 mm/Compression
G	Electrical cable inlets 	For inlets 1 and 2, run low-voltage wires including external input wires and thermistor wires. For inlets 3, 4 and 5, run high-voltage wires including power cable, and external output wires. *For a wireless receiver (option) cable and ecodan Wi-Fi interface (option) cable, use inlet 1.

e-series

# EAHV

## R32 Modular Air Source Heat Pump

(150 to 1,080kW)



The R32 e-Series **EAHV** range allows for up to 6 individual units to be connected together to provide a system capacity from 150kW to 1,080kW. Using this modular approach reduces space requirements and simplifies lifting and installation.

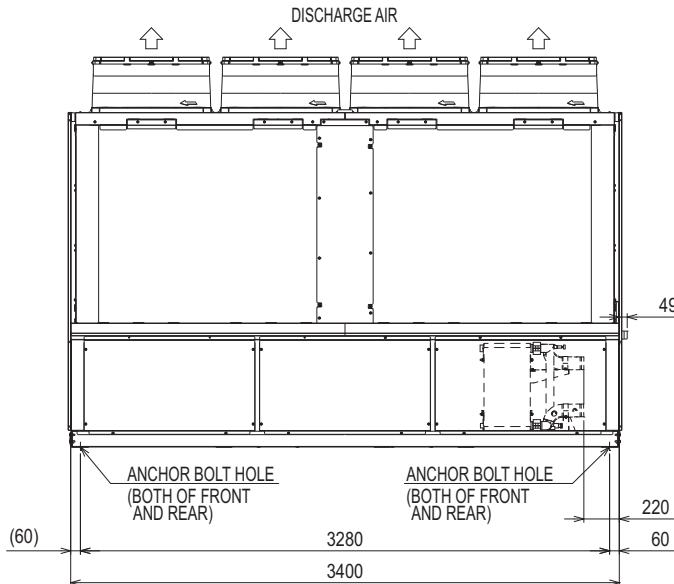
### Key Features & Benefits

- Highly efficient inverter scroll compressors
- Modular to maximise space saving
- Y-shaped heat exchangers allow for a greater surface area, maximising efficiency, whilst also keeping the units much narrower than conventional heat pumps

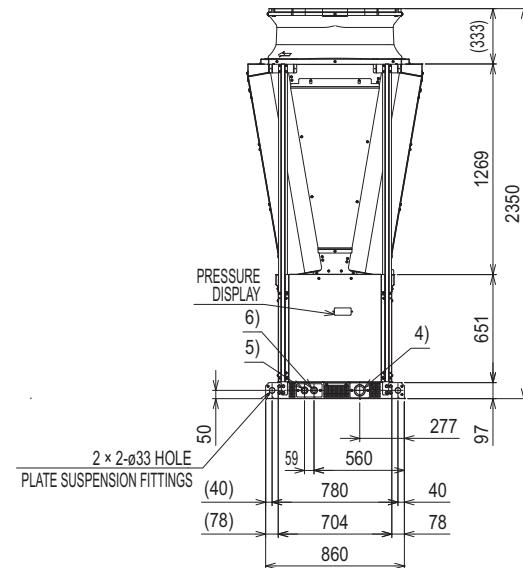
MODEL	EAHV-M1500YCL-N		EAHV-M1800YCL-N	
POWER SOURCE	3-phase 4-wire 380-400-415v 50/60Hz		3-phase 4-wire 380-400-415v 50/60Hz	
COOLING CAPACITY <sup>1</sup>	150		180	
	Power Input	kW	44.73	57.02
	EER		3.35	3.16
	IPLV <sup>6</sup>		6.42	6.31
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
COOLING CAPACITY (EN14511) <sup>2</sup>	Power Input	kW	149.18	178.80
	EER		45.55	58.22
	Eurovent Efficiency Class		A	B
	SEER		5.52	5.36
	Performance (Ƞ <sub>s.c</sub> )	%	217.8	211.4
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
HEATING CAPACITY <sup>3</sup>	Power Input	kW	150	180
	COP		42.61	53.09
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
HEATING CAPACITY (EN14511) <sup>4</sup>	Power Input	kW	150.82	181.20
	COP		43.43	54.29
	SCOP Low/Medium <sup>7</sup>		3.31/2.88	3.31/2.88
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
CURRENT INPUT	Cooling Current 380-400-415V <sup>1</sup>	A	76 - 72 - 69	96 - 91 - 88
	Heating Current 380-400-415V <sup>3</sup>	A	72 - 68 - 66	90 - 85 - 82
	Maximum Current	A	120	120
WATER PRESSURE DROP <sup>1</sup>	Standard Piping	kPa	56	79
	Inside Header Piping	kPa	134	190
TEMP RANGE	Cooling	°C	Outlet water 4~30	Outlet water 4~30
	Heating	°C	Outlet water 25~55	Outlet water 25~55
	Outdoor (Cooling)	°C	-15~52	-15~52
	Outdoor (Heating)	°C	-20~43	-20~43
CIRCULATING WATER VOLUME RANGE		m <sup>3</sup> /h	12.9~43.0	12.9~43.0
SOUND PRESSURE LEVEL (Measured in anechoic room) at 1m <sup>1</sup>	dB (A)		65	67
SOUND POWER LEVEL (Measured in anechoic room) <sup>1</sup>	dB (A)		83	85
DIAMETER OF WATER PIPE (Standard piping)	Inlet	mm (in)	65A (2 1/2) housing type joint	65A (2 1/2) housing type joint
	Outlet	mm (in)	65A (2 1/2) housing type joint	65A (2 1/2) housing type joint
DIAMETER OF WATER PIPE (Inside header piping)	Inlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
	Outlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
EXTERNAL FINISH	Polyester powder coating steel plate		Polyester powder coating steel plate	Polyester powder coating steel plate
EXTERNAL DIMENSION	3400 x 1080 x 2350		3400 x 1080 x 2350	3400 x 1080 x 2350
NET WEIGHT	Standard Piping	kg (lbs)	1280 (2822)	1280 (2822)
	Inside Header Piping	kg (lbs)	1307 (2881)	1307 (2881)
DESIGN PRESSURE	R32	MPa	4.15	4.15
	Water	MPa	1.0	1.0
HEAT EXCHANGER	Water Side		Stainless steel plate and copper brazing	Stainless steel plate and copper brazing
	Air Side		Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
COMPRESSOR	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting Method		Inverter	Inverter
	Quantity		4	4
FAN	Motor Output	kW	11.5 x 4	11.5 x 4
	Air Flow Rate	m <sup>3</sup> /min	270 x 4	270 x 4
		L/s	4500 x 4	4500 x 4
		cfm	9534 x 4	9534 x 4
	Type, Quantity		Propeller fan x 4	Propeller fan x 4
	Starting Method		Inverter	Inverter
REFRIGERANT	Motor Output	kW	0.92 x 4	0.92 x 4
	External Static Pressure	Pa	20	20
	Type x Charge		R32 x 11.5 (kg) x 4 <sup>5</sup>	R32 x 11.5 (kg) x 4 <sup>5</sup>
	Control		LEV	LEV

- Notes:**
- Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB / 75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is not included in cooling capacity and power input.
  - Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is included in cooling capacity and power input based on EN14511.
  - Under normal heating conditions at outdoor temp 7°CDB/6°CWB (44.6°FDB/42.8°FWB) outlet water temp 45°C (113°F) inlet water temp 40°C (104°F). Pump input is not included in heating capacity and power input.
  - Under normal heating conditions at outdoor temp 7°CDB/6°CWB (44.6°FDB/42.8°FWB) outlet water temp 45°C (113°F) inlet water temp 40°C (104°F). Pump input is included in heating capacity and power input based on EN14511.
  - Amount of factory-charged refrigerant is 3 (kg) x 4. Please add the refrigerant at the field.
  - IPLV is calculated in accordance with ARIH 550-590.
  - This value is not certified by Eurovent.
  - Please don't use the steel material for the water piping.
  - Please always make water circulate, or pull the circulation water out completely when not in use.
  - Please do not use groundwater or well water in direct.
  - The water circuit must be closed circuit.
  - Due to continuous improvement, the above specifications may be subject to change without notice.
  - This model doesn't equip with a pump.

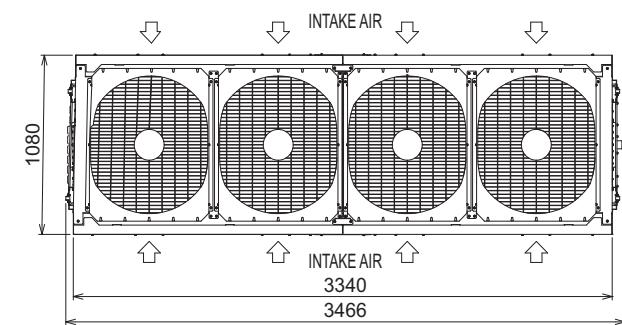
Front View



Side View



Upper View



# MEHP-iB-G07

## R32 Air Source Heat Pump

(6 to 40kW)



Mitsubishi Electric's **MEHP-iB-G07** heat pump provides a compact and convenient solution to your small-scale heating needs. As a reversible heat pump it can provide both heating and cooling very efficiently, with inverter driven compressors and EC fans as standard, enhancing energy saving at part load conditions.

### Key Features & Benefits

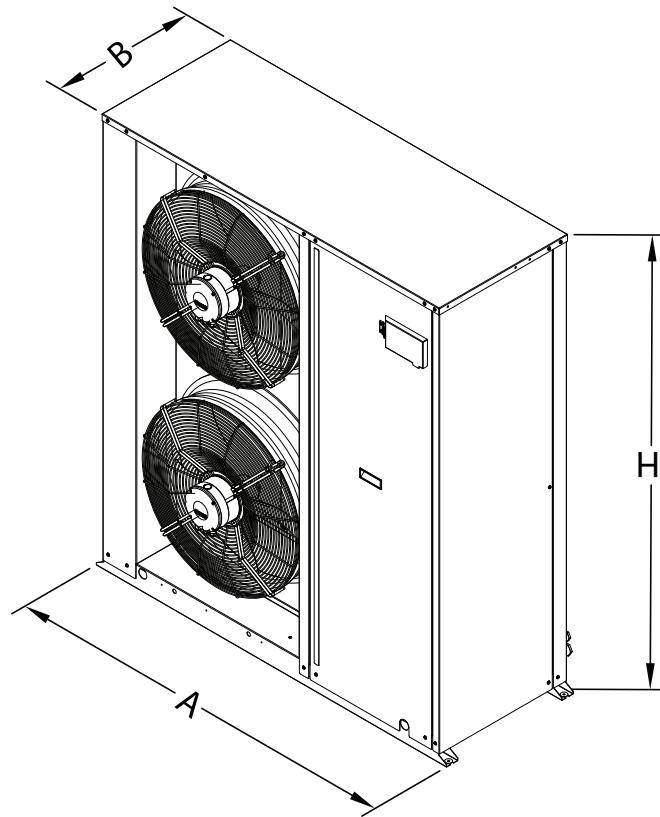
- Extended heating envelope
- Up to 60°C supply water temperature
- Operates down to -20°C ambient temperatures
- Smart defrost for improved efficiency and performance
- Exceptional SCOP LT (A+++)\*
- Compact design

\*Regulation (EU) No. 813/2013

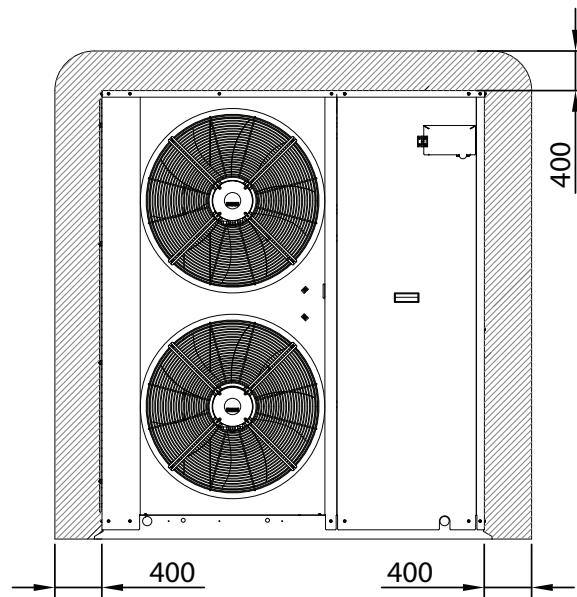


MODEL	07V	09V	11V	15V	15Y	18Y	23Y	27Y	35Y	40Y
<b>PERFORMANCE - HEATING ONLY</b>										
<b>GROSS VALUE<sup>1</sup></b>										
TOTAL HEATING CAPACITY	kW	6.74	8.77	11.24	15.04	15.27	17.24	23.80	27.23	34.19
TOTAL POWER INPUT	kW	2.05	2.46	3.28	4.50	4.24	4.85	6.72	8.02	10.69
COP	kW/kW	3.29	3.57	3.42	3.33	3.61	3.55	3.51	3.39	3.20
<b>EN14511 VALUES<sup>1,2</sup></b>										
TOTAL HEAT CAPACITY	kW	6.68	8.72	11.20	15.00	15.20	17.10	23.70	27.10	34.00
COP	kW/kW	3.26	3.55	3.42	3.32	3.57	3.52	3.52	3.38	3.18
<b>SEASONAL PERFORMANCE - LOW TEMPERATURE<sup>3</sup></b>										
RATED HEAT OUTPUT AT T <sub>design</sub> , h	kW	5	6	8	10	10	14	18	21	26
SCOP		4.46	4.57	4.47	4.21	4.71	4.61	4.76	4.51	4.45
PERFORMANCE η <sub>s</sub>	%	176	180	176	165	185	182	187	177	175
<b>SEASONAL PERFORMANCE - MEDIUM TEMPERATURE<sup>4</sup></b>										
RATED HEAT OUTPUT AT T <sub>design</sub> , h		4	6	8	9	9	12	15	19	23
SCOP		2.85	3.2	3.21	2.85	3.21	3.25	3.42	3.21	3.21
PERFORMANCE η <sub>s</sub>	%	111	125	126	111	125	127	134	125	136
<b>PERFORMANCE - COOLING ONLY</b>										
<b>GROSS VALUE<sup>5</sup></b>										
TOTAL COOLING CAPACITY	kW	6.20	7.72	10.37	13.49	13.52	15.62	19.70	25.85	30.90
TOTAL POWER INPUT	kW	2.04	2.67	3.49	4.36	4.25	5.57	6.98	8.71	11.16
EER	kW/kW	3.04	2.89	2.98	3.10	3.18	2.80	2.82	2.96	2.76
<b>EN14511 VALUES<sup>5,2</sup></b>										
TOTAL COOLING CAPACITY	kW	6.68	8.72	11.20	15.00	15.20	17.10	23.70	27.10	34.00
EER	kW/kW	3.26	3.55	3.42	3.32	3.57	3.52	3.52	3.38	3.18
<b>SEASONAL PERFORMANCE<sup>6</sup></b>										
Prated,C	kW	6.3	7.8	10.4	13.6	13.6	15.7	19.8	26.0	31.1
SEER		4.74	4.68	4.73	4.45	5.17	5.01	4.88	4.82	4.81
PERFORMANCE η <sub>s</sub>	%	187.0	184.0	186.0	175.0	204.0	197.0	192.0	190.0	189.0
<b>ELECTRICAL DATA</b>										
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
F.L.A. <sup>7</sup>	Total A	19	20	25	30	12	13	17	24	26
<b>EXCHANGERS</b>										
MINIMUM WATER FLOW	Heat Exchanger l/s	0.181	0.225	0.303	0.378	0.397	0.458	0.578	0.742	0.906
MINIMUM WATER CONTENT	System l	36	60	75	71	74	80	113	181	193
<b>HEAT EXCHANGER USER SIDE IN HEATING</b>										
WATER FLOW	l/s	0.325	0.423	0.543	0.726	0.737	0.832	1.149	1.314	1.65
PRESSURE DROP <sup>1</sup>	kPa	9.59	11.4	13	15.7	16.2	15.9	19.7	20.1	22.9
<b>HEAT EXCHANGER USER SIDE IN COOLING</b>										
WATER FLOW	l/s	0.297	0.369	0.496	0.645	0.647	0.747	0.942	1.236	1.477
PRESSURE DROP <sup>5</sup>	kPa	7.98	8.66	10.8	12.4	12.5	12.8	13.2	17.8	18.4
<b>REFRIGERANT CIRCUIT</b>										
COMPRESSORS	No.	1	1	1	1	1	1	1	1	1
CIRCUITS	No.	1	1	1	1	1	1	1	1	1
REGULATION		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
MINIMUM CAPACITY STEP	%	32	41	40	28	29	28	29	40	33
REFRIGERANT	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32
REFRIGERANT CHARGE <sup>8</sup>	kg	1.90	3.50	3.60	3.90	3.90	4.55	6.20	6.90	8.85
OIL CHARGE	kg/kW	0.35	0.40	0.70	1.20	1.00	1.00	1.00	2.30	2.30
RC (ASHRAE) <sup>9</sup>	kg/kW	0.31	0.46	0.35	0.29	0.29	0.29	0.32	0.27	0.29
<b>FANS</b>										
QUANTITY	No.	1	1	2	2	1	2	2	2	2
AIRFLOW <sup>1</sup>	m <sup>3</sup> /s	0.93	1.02	1.84	1.84	1.84	1.95	2.34	4.52	4.35
POWER INPUT	kW	0.11	0.11	0.22	0.22	0.22	0.22	0.39	0.78	0.78
<b>NOISE LEVELS</b>										
TOTAL SOUND PRESSURE <sup>10</sup>	dB(A)	53	53	54	55	55	56	61	62	63
TOTAL SOUND POWER LEVEL IN COOLING <sup>11,12</sup>	dB(A)	67	68	69	70	70	71	76	78	79
TOTAL SOUND POWER LEVEL IN HEATING <sup>11,13</sup>	dB(A)	65	65	69	70	70	76	78	79	78
<b>SIZE AND WEIGHT<sup>14</sup></b>										
WIDTH (A)	mm	900	900	900	900	900	1450	1450	1450	1700
DEPTH (B)	mm	370	420	420	420	420	550	550	550	650
HEIGHT (H)	mm	940	1240	1240	1390	1390	1200	1200	1700	1700
OPERATION WEIGHT	kg	82	105	115	115	135	170	200	260	315

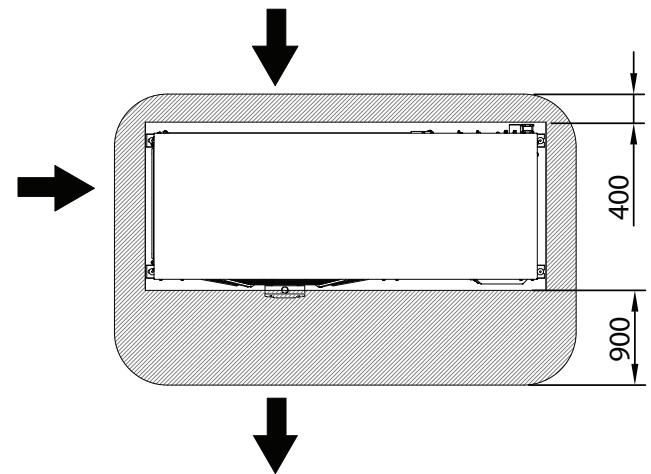
Eurovent Certified Data



Front View



Top View



# MEHP-iS-G07

## R32 Modular Air Source Heat Pump

(50 to 880kW)



Mitsubishi Electric's **MEHP-iS-G07** heat pump range is manufactured to the highest quality standards. Featuring a compact design and modular expansion capabilities, it is suitable for many different applications, from comfort to industrial applications.

### Key Features & Benefits

- Hot water up to 65°C
- Best-in-class for low noise levels
- Compact design and modular expansion
- New Smart Coordinated Defrost
- Exceptional performance at part load operating conditions



MODEL	0051	0061	0071	0082	0092	0102	0112
<b>PERFORMANCE - HEATING ONLY</b>							
EN14511 VALUES <sup>1,2</sup>							
TOTAL HEATING CAPACITY	kW	50.00	60.00	70.00	80.00	90.00	100.3
COP	kW/kW	3.44	3.38	3.15	3.32	3.12	3.35
<b>SEASONAL PERFORMANCE - LOW TEMPERATURE<sup>4</sup></b>							
RATED HEAT OUTPUT AT Tdesign, h	kW	40.0	48.0	55.0	64.0	72.0	80.0
SCOP		4.39	4.33	4.34	4.35	4.12	4.30
PERFORMANCE ηs	%	172	170	171	171	162	169
<b>SEASONAL PERFORMANCE - MEDIUM TEMPERATURE<sup>4</sup></b>							
RATED HEAT OUTPUT AT Tdesign, h	kW	40.0	48.0	48.0	64.0	64.0	82.0
SCOP		3.43	3.37	3.37	3.37	3.23	3.39
PERFORMANCE ηs	%	134	132	132	132	126	133
<b>PERFORMANCE - COOLING ONLY</b>							
EN14511 VALUE <sup>1,3</sup>							
COOLING CAPACITY	kW	48.00	53.00	60.00	68.30	74.10	85.90
EER	kW/kW	2.81	2.64	2.34	2.73	2.45	2.68
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
Prated,C	kW	48.0	53.0	60.0	68.3	74.1	85.9
SEER		4.63	4.58	4.46	4.49	4.46	4.81
PERFORMANCE ηs	%	182	180	175	177	175	189
<b>ELECTRICAL DATA</b>							
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>6</sup>	Total	A	52	60	60	78	78
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW	l/s	1.667	1.667	1.667	2.222	2.222	2.778
MINIMUM WATER CONTENT	System	l	400	480	560	640	720
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS	No.	1	1	1	2	2	2
CIRCUITS	No.	1	1	1	1	1	1
REFRIGERANT		R32	R32	R32	R32	R32	R32
THEORETICAL REFRIGERANT CHARGE	kg	13.50	13.50	12.00	17.50	17.00	21.50
<b>FANS</b>							
QUANTITY	No.	2	2	2	3	3	4
AIRFLOW	m <sup>3</sup> /s	5.89	5.89	5.89	8.89	8.89	11.77
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>7</sup>	dB(A)	59	60	62	62	63	63
TOTAL SOUND POWER LEVEL IN COOLING <sup>8,9</sup>	dB(A)	77	78	80	80	81	82
TOTAL SOUND POWER LEVEL IN HEATING <sup>8,10</sup>	dB(A)	77	78	80	80	81	82
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A)	mm	2085	2085	2085	2600	2600	3225
DEPTH (B)	mm	1100	1100	1100	1100	1100	1100
HEIGHT (H)	mm	2400	2400	2400	2400	2400	2400
OPERATION WEIGHT	kg	710	710	710	960	960	1085

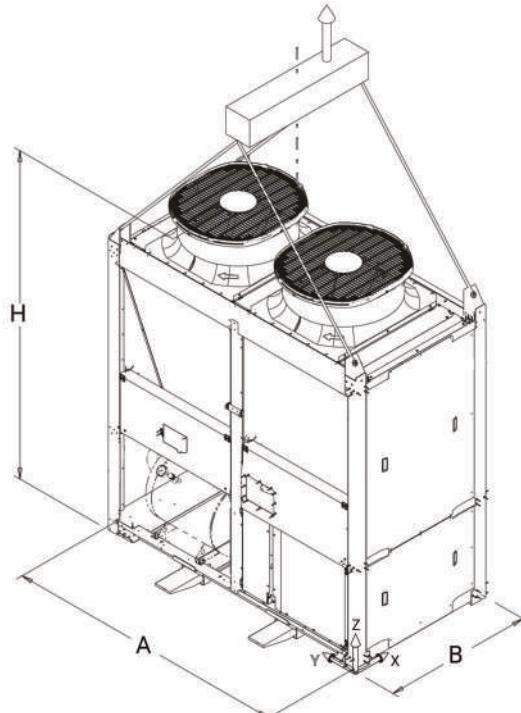
#### Notes:

1. Values in compliance with EN14511.
2. Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heatexchanger air (in) 7°C - 87% R.H
3. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
4. Seasonal space heating energy efficiency class [REGULATION (EU) N. 813/2013] - Average Weather Conditions. Calculation with variable waterflow and variable temperature.
5. Parameter calculated according to [REGULATION (EU) N. 2016/2281]
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
8. Sound power level on the basis of measurement taken in compliance with ISO 9614.
9. Sound power level in cooling, outdoors.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

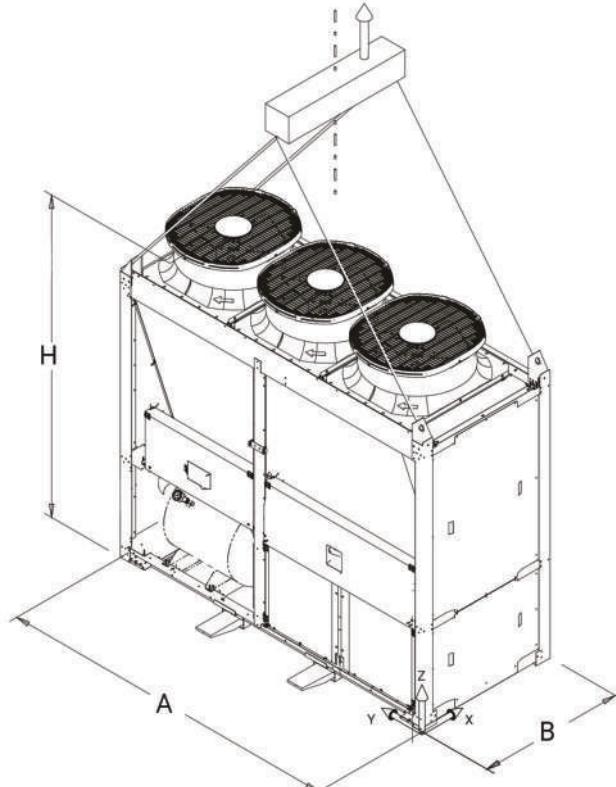
ELCA Engine ver.4.8.7.0.

Eurovent Certified Data

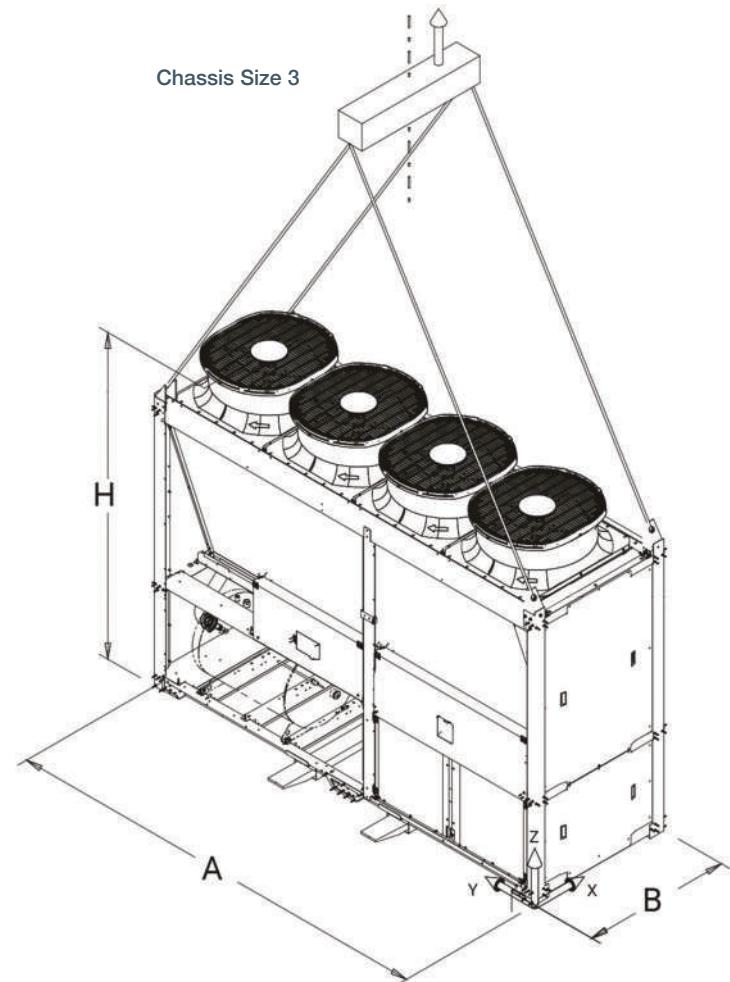
Chassis Size 1



Chassis Size 2



Chassis Size 3



SIZE	A [mm]	B [mm]	H [mm]
MEHP/MECH-iS-G07 0051	2085	1100	2400
MEHP/MECH-iS-G07 0061	2085	1100	2400
MEHP/MECH-iS-G07 0071	2085	1100	2400

SIZE	A [mm]	B [mm]	H [mm]
MEHP/MECH-iS-G07 0082	2600	1100	2400
MEHP/MECH-iS-G07 0092	2600	1100	2400

SIZE	A [mm]	B [mm]	H [mm]
MEHP/MECH-iS-G07 0102	3225	1100	2400
MEHP/MECH-iS-G07 0112	3225	1100	2400



# CAHV-Z R290 Air Source Heat Pump



The Mitsubishi Electric Ecoden **CAHV-Z** air source heat pump utilises low GWP R290 refrigerant, offering a robust, low carbon system for the provision of sanitary hot water and space heating. This innovative heat pump solution can operate as a single system or form part of a multiple unit system, making it suitable for a wide range of commercial applications, including schools and hospitals.

A multiple unit system has the ability to cascade available units on and off to meet the load requirements of a building. As an example of this unique modulation, a 7 unit system allows increments of capacity all the way up to 280kW\*. With cascade and rotation built in as standard, the Ecoden CAHV-Z is perfectly set up to reliably generate sustainable space heating and hot water all year round.

\* At nominal conditions A7W35

## Key Features & Benefits

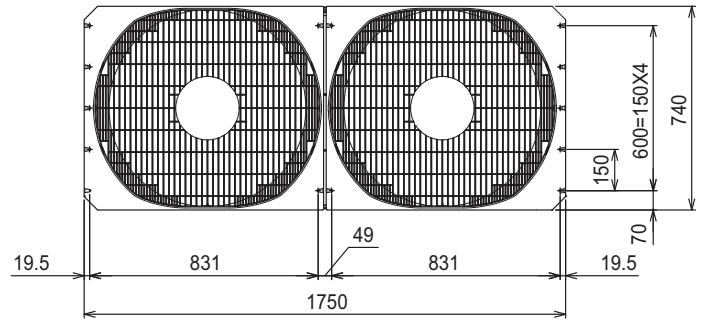
- Low GWP R290 refrigerant and reduced embodied carbon helps achieve CSR targets
- Achieves 75°C outlet temperature down to -15°C ambient temperature for continuous heating provision
- Multiple unit cascade control up to 280kW\* capacity provides design flexibility
- Water flow temperatures from 24°C to 75°C without boost heaters, results in cost and energy savings

**R290**

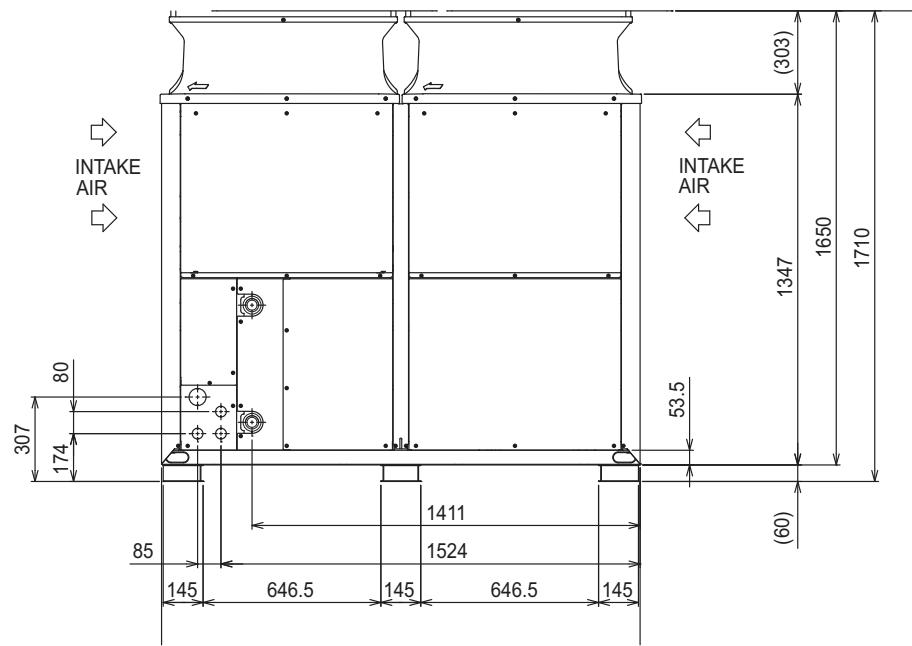
MODEL	CAHV-Z450YA-HPB(-BS)	
CAPACITY(EN14511) <sup>1</sup>	kW	40
TEMPERATURE RANGE	Outlet water temperature	24 - 75°C
	Outdoor temperature D.B.	-25 - 43°C
WATER PIPE DIAMETER AND TYPE	Inlet mm (in)	38.1 (1 1/2"), screwed-type joint
	Outlet mm (in)	38.1 (1 1/2"), screwed-type joint
EXTERNAL FINISH		Acrylic painted steel sheet <Munsell 5Y 8/1 or similar>
EXTERNAL DIMENSIONS (Width X Depth X Height)	mm	1750 x 740 x 1710
FAN	Type and quantity	Propeller fan x 2
	Control and driving mechanism	Inverter control, direct driven by motor
REFRIGERANT		R290

**Notes:** 1. Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB, the outlet water temperature of 45°C, and the inlet water temperature of 40°C.

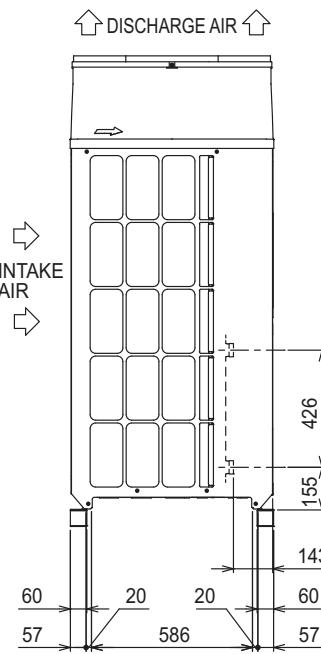
Upper View



Front View



Side View





# CAHV-R R454C Air Source Heat Pump



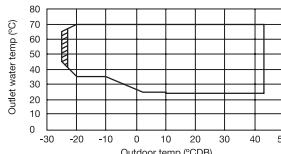
**MCS**  
**CERTIFIED**

Certificate Number: 037-0113-23  
Product (Type): Outdoor Air/Water  
Product Reference: CAHV-R450YA-HPB-(BS)

Certificate Number: 037-0113-23  
Product Type: Air Source Heat Pump  
Product Reference: CAHV-R450YA-HPB-(BS)

## Notes:

- Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB, the outlet water temperature of 45°C, and the inlet water temperature of 40°C.
- Under normal heating conditions at the outdoor temperature of -5°CDB/-6°CWB and the outlet water temperature of 55°C.
- Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB when the unit is set to the "Capacity Priority" mode through the dry NC-contact.
- The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JRA4060.
- 5.



Outdoor temp. -25°CDB/Outlet water temp. 45-65°C  
Outdoor temp. -20°CDB/Outlet water temp. 35-70°C  
Outdoor temp. 43°CDB/Outlet water temp. 24-70°C

6. 4.0 - 15.0 m³/h under the following conditions:

- When the outdoor temperature is below 0°C,
- When the outlet water temperature is 30°C or below AND the outdoor temperature is 6°C or below.

The Mitsubishi Electric Ecodan **CAHV-R** air source heat pump utilises low GWP R454C refrigerant, offering a robust, low carbon system for the provision of sanitary hot water and space heating. This innovative heat pump solution can operate as a single system or form part of a multiple unit system, making it suitable for a wide range of commercial applications, including schools and hospitals.

A multiple unit system has the ability to cascade available units on and off to meet the load requirements of a building. As an example of this unique modulation, a 16 unit system allows 0.5kW increments of capacity, from 7.8kW all the way up to 640kW\*. With cascade and rotation built in as standard, the Ecodan CAHV-R is perfectly set up to reliably generate sustainable space heating and hot water all year round.

\* At nominal conditions A7W35

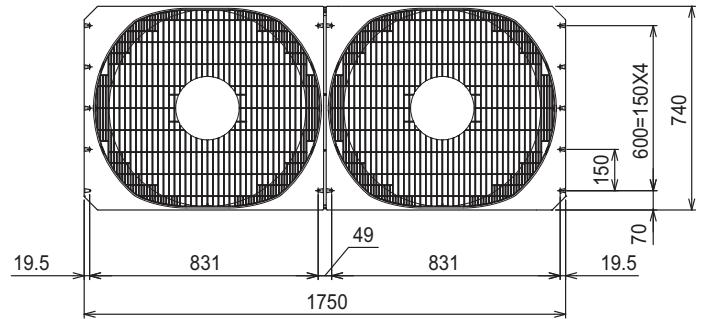
## Key Features & Benefits

- Low GWP R454C refrigerant and reduced embodied carbon helps achieve CSR targets
- Achieves 70°C outlet temperature down to -20°C ambient temperature for continuous heating provision
- Multiple unit cascade control from 7.8kW to 640kW\* capacity provides design flexibility
- Water flow temperatures from 24°C to 70°C without boost heaters, results in cost and energy savings
- Advanced heat exchange design combined with the properties of R454C refrigerant enables a shorter defrost time

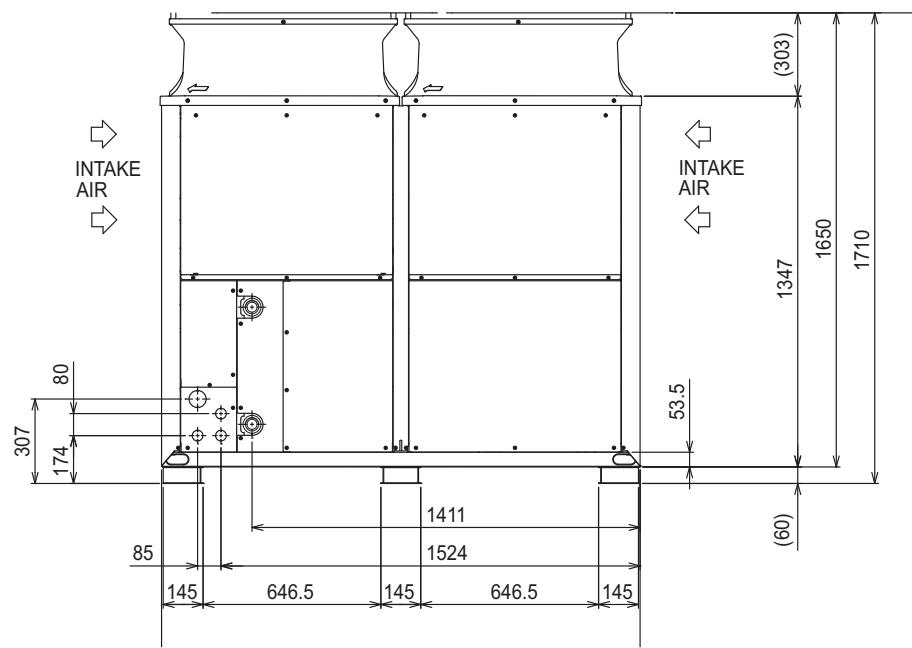
**R454C**

MODEL	CAHV-R450YA-HPB-(BS)	
POWER SOURCE	3-phase 4-wire 380-400-415V 50/60 Hz	
CAPACITY(EN1451) <sup>1</sup>	kW	40
Power input	kW	14.03
Current input	A	23.7-22.5-21.7
COP (kW/kW)		2.85
SCOP Low/Medium		3.57/3.24
CAPACITY <sup>2</sup>	kW	33.4
Power input	kW	16.6
Current input	A	28.0-26.6-25.7
COP (kW/kW)		2.01
MAXIMUM CURRENT INPUT	A	44.0-41.8-40.3
WATER PRESSURE DROP <sup>1</sup>		10.2 kPa (1.47 psi)
TEMPERATURE RANGE <sup>5</sup>	Outlet water temperature	24 - 70°C
	Outdoor temperature	-25 - 43°C
CIRCULATING WATER VOLUME RANGE <sup>5</sup>		25 l/min - 250 l/min
SOUND PRESSURE LEVEL (measured 1m below the unit in an anechoic room) <sup>1-4</sup>	dB(A)	64
SOUND PRESSURE LEVEL (measured 1m below the unit in an anechoic room) <sup>3-4</sup>	dB(A)	72
WATER PIPE DIAMETER AND TYPE	Inlet	38.1 (1 1/2"), housing type joint
	Outlet	38.1 (1 1/2"), housing type joint
EXTERNAL FINISH		Acrylic painted steel sheet <Munsell 5Y 8/1 or similar>
EXTERNAL DIMENSIONS (Width x Depth x Height)	mm	1750 x 740 x 1710
NET WEIGHT	kg	359
DESIGN PRESSURE	R454C	3.85
	Water	1.0
HEAT EXCHANGER	Water-side	Copper brazed stainless steel sheet
	Air-side	Plate fins and copper tubes
COMPRESSOR	Type	Inverter scroll hermetic compressor
	Manufacturer	MITSUBISHI ELECTRIC CORPORATION
	Starting method	Inverter
	Motor output	12.1
	Lubricant	FVC32EA
FAN	Air flow rate	2500 x 2
	External static pressure	10 Pa (1mm H2O)
	Type and quantity	Propeller fan x 2
	Control and driving mechanism	Inverter control, direct driven by motor
	Motor output	0.92 x 2
HIC (HEAT INTER-CHANGER) CIRCUIT		Copper pipe
PROTECTION DEVICES	High pressure	High-pressure sensor and switch set at 3.85 MPa (643 psi)
	Inverter circuit	Overheat and overcurrent protection
	Compressor	Overheat protection
	Fan motor	Thermal switch
DEFROSTING METHOD	Auto-defrost mode (Reversed refrigerant cycle)	
REFRIGERANT	Type and factory charge	R454C, 9.0 kg
	Flow and temperature control	LEV and HIC circuit

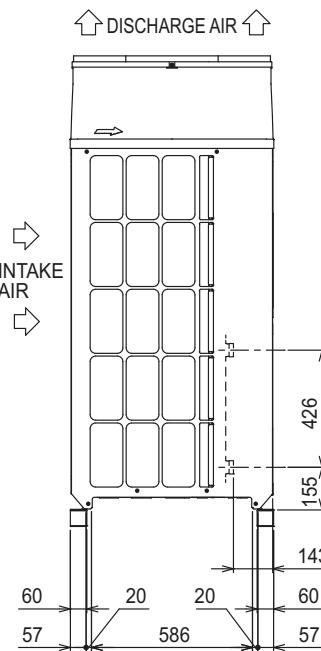
Upper View



Front View



Side View





# QAHV R744 Air Source Heat Pump



Certificate Number: 037-0112-23  
Product (Type): Outdoor Air/Water  
Product Reference: QAHV-N560YA-HPB

Specifically designed for commercial sanitary hot water application, where gas boilers, combined heat and power systems (CHP) or electric water heating have been traditionally utilised, the 40kW Ecodan **QAHV** provides a low carbon solution for hotels, apartment blocks, leisure centres, hospitals, care homes, restaurants and education.

Utilising the natural and stable refrigerant CO<sub>2</sub> (R744), the environmentally clean solution enables compliance to strict local planning laws and boosts BREEAM points. With the increasing decarbonisation of the electrical grid, the QAHV provides a high efficiency, low carbon hot water delivery solution with leaving water temperature up to 90°C.

## Key Features & Benefits

- High efficiency at high flow temperatures
- Utilises CO<sub>2</sub> refrigerant which has a GWP of 1
- Uses a unique twisted and spiral gas cooler to enhance energy efficiency
- Full heating capacity down to -3°C outdoor temperature and operates down to -25°C
- Super low noise levels
- Able to utilise with an indirect system

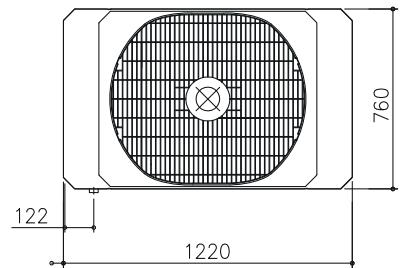
**R744**

MODEL	QAHV-N560YA-HPB
WATER HEATING 65°C <sup>1</sup>	CAPACITY (kW) 40 POWER INPUT (kW) 10.31 CURRENT INPUT (A) 16.3 COP 3.88
WATER HEATING 65°C <sup>2</sup>	CAPACITY (kW) 40 POWER INPUT (kW) 10.97 CURRENT INPUT (A) 18.3 COP 3.65
WATER HEATING 65°C <sup>3</sup>	CAPACITY (kW) 40 POWER INPUT (kW) 11.6 CURRENT INPUT (A) 18.7 COP 3.44
WATER HEATING ENERGY EFFICIENCY CLASS	FOR MEDIUM TEMPERATURE APPLICATION A
TEMPERATURE RANGE	INLET WATER TEMPERATURE (°C) 5 ~ 63 OUTLET WATER TEMPERATURE (°C) 55 ~ 90 OUTDOOR TEMPERATURE (°C) -25~43
ELECTRICAL	MAX CURRENT INPUT (A) 33.8 ELECTRICAL SUPPLY (V / Hz) 380-415v, 50Hz PHASE 3 FUSE RATING - MCB SIZES (A) <sup>5</sup> 40
WATER DETAIL	INLET / OUTLET (mm (in.)) 19.05 (Rc 3/4") / 19.05 (Rc 3/4") ALLOWABLE EXTERNAL PUMP HEAD (kPa) 77
DIMENSIONS (mm)	WIDTH 1220 DEPTH 760 HEIGHT 1837 (1777 without legs)
WEIGHT (kg)	400
NOISE LEVEL	SOUND PRESSURE <sup>4</sup> (dB(A)) 56
REFRIGERANT	TYPE R744 (GWP 1) REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t) 6.5 / 0.0065

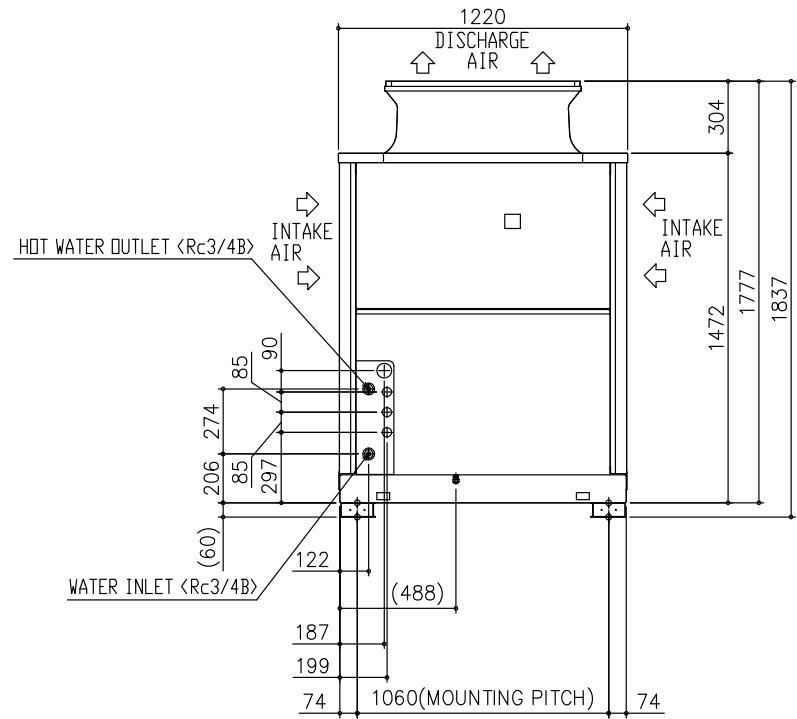
### Notes:

1. Under Normal heating conditions at the outdoor temp, 16°CDB/12°CWB, the outlet water temperature 65°C, and the inlet water temperature 17°C
2. Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 9°C
3. Under Normal heating conditions at the outdoor temp, 7°CDB/6°CWB, the outlet water temperature 65°C, and the inlet water temperature 15°C
4. Measured 1m from the front of the unit in an anechoic room
5. MCB Sizes BS EN60898-2 & BS EN60947-2

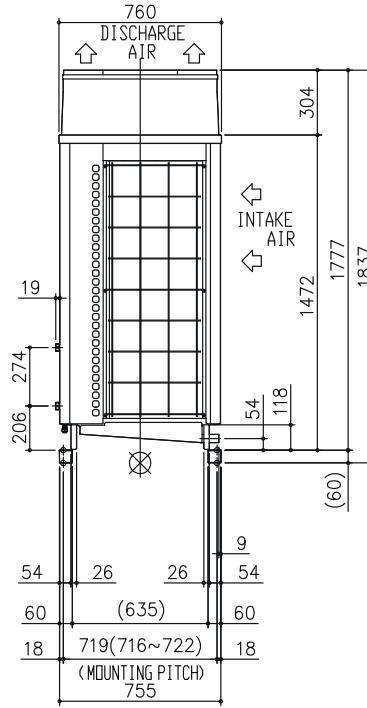
Upper View



Front View



Side View



# NX2-N-G06

## R454B Air Source Heat Pump

(365 to 580kW)

Standard Version (/K)



**CLIMAVENETA**

Mitsubishi Electric's **NX2-N-G06** is our flexible air source heat pump, using rotary scroll compressors, axial-flow fans, shell and tubes exchanger and an electronic expansion valve as standard.

### Key Features & Benefits

- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors in a multi-circuit configuration
- EC fans available as an option for improved efficiency
- Low GWP refrigerant R454B

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546
<b>PERFORMANCE - HEATING ONLY<sup>2 3</sup></b>							
TOTAL HEATING CAPACITY kW	365.2	387.0	415.4	470.0	513.3	560.7	580.5
COP kW/kW	3.02	3.06	3.04	2.98	3.00	3.05	3.07
<b>SEASONAL PERFORMANCE HEATING (EN14825 VALUE) - LOW TEMPERATURE<sup>11</sup></b>							
RATED HEAT OUTPUT AT Tdesign, h kW	268.0	294.0	323.0	369.0	388.0	363.0	373.0
SCOP %	3.60	3.70	3.73	3.66	3.53	3.49	3.53
SEASONAL SPACE HEATING EFFICIENCY %	141	145	146	143	138	137	138
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
COOLING CAPACITY kW	334.3	354.7	382.0	430.2	475.1	515.9	533.1
EER kW/kW	2.69	2.78	2.67	2.62	2.68	2.78	2.79
<b>SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281)<sup>12</sup></b>							
Prated,C kW	334.3	354.7	382.0	430.2	475.1	515.9	533.1
SEER %	3.93	4.04	4.07	4.01	3.93	4.07	4.10
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>10</sup> Total A	257	270	297	333	365	392	405
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
MINIMUM WATER CONTENT l/s	27.58	26.72	29.92	36.11	36.11	38.89	38.89
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	4	4	4	6	6	6	6
CIRCUITS No.	2	2	2	3	3	3	3
THEORETICAL REFRIGERANT CHARGE kg	65	68	68	84	87	98	113
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>5</sup> dB(A)	76	76	76	76	76	76	76
TOTAL SOUND POWER LEVEL IN COOLING <sup>6 7</sup> dB(A)	96	96	96	96	97	97	97
TOTAL SOUND POWER LEVEL IN HEATING <sup>6 8</sup> dB(A)	96	96	96	96	97	97	97
<b>SIZE AND WEIGHT<sup>9</sup></b>							
WIDTH (A) mm	3905	3905	3905	4515	5690	5690	5690
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2450	2450	2450	2450	2450	2450	2450
OPERATION WEIGHT kg	3030	3110	3150	4040	4400	4530	4600

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C; Plant (side) heat exchanger recovery water (in/out) 40.00°C/45.00°C.
5. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
6. Sound power on the basis of measurements taken in compliance with ISO 9614.
7. Sound power level in cooling, outdoors.
8. Sound power level in heating, outdoors.
9. Unit in standard configuration, without optional accessories.
10. Values calculated referring to the version with the maximum number of fans working at the max absorbed current. Safety values to be considered when cabling the unit for power supply and line-protections. Data valid for standard units without any additional option.
11. Seasonal space heating energy efficiency class LOW TEMPERATURE (REGULATION (EU) N. 813/2013).
12. Parameter calculated according to (REGULATION (EU) N. 2016/2281).

Eurovent Certified Data

# NX2-N-G06

## R454B Air Source Heat Pump

(362 to 569kW)

Super-Low Noise Version (/SL)



**CLIMAVENETA**

Mitsubishi Electric's **NX2-N-G06** is our flexible air source heat pump, using rotary scroll compressors, axial-flow fans, shell and tubes exchanger and an electronic expansion valve as standard.

### Key Features & Benefits

- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors in a multi-circuit configuration
- EC fans available as an option for improved efficiency
- Low GWP refrigerant R454B

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546
PERFORMANCE - HEATING ONLY <sup>2 3</sup>							
TOTAL HEATING CAPACITY kW	362.5	379.6	420.6	471.4	511.7	552.6	569.4
COP kW/kW	3.13	3.11	3.16	3.09	3.11	3.13	3.12
SEASONAL PERFORMANCE HEATING (EN14825 VALUE) - LOW TEMPERATURE <sup>11</sup>							
RATED HEAT OUTPUT AT Tdesign, h kW	227.0	252.0	319.0	294.0	390.0	356.0	378.0
SCOP kW/kW	3.67	3.71	3.78	3.67	3.80	3.73	3.72
SEASONAL SPACE HEATING EFFICIENCY %	144	145	148	144	149	146	146
PERFORMANCE - COOLING ONLY <sup>1 2</sup>							
COOLING CAPACITY kW	316.0	336.4	370.2	409.0	443.6	486.1	505.7
EER kW/kW	2.44	2.51	2.54	2.38	2.38	2.49	2.51
SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281) <sup>12</sup>							
Prated,C kW	316.0	336.4	370.2	409.0	443.6	486.1	505.7
SEER	4.10	4.13	4.23	4.14	4.10	4.19	4.19
ELECTRICAL DATA							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>10</sup> Total A	257	270	297	333	365	392	405
EXCHANGERS							
MINIMUM WATER FLOW l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
MINIMUM WATER CONTENT l/s	27.58	26.72	29.92	36.11	36.11	38.89	38.89
REFRIGERANT CIRCUIT							
COMPRESSORS No.	4	4	4	6	6	6	6
CIRCUITS No.	2	2	2	3	3	3	3
THEORETICAL REFRIGERANT CHARGE kg	72	74	85	96	106	112	113
NOISE LEVELS							
TOTAL SOUND PRESSURE <sup>5</sup> dB(A)	68	68	68	68	68	69	69
TOTAL SOUND POWER LEVEL IN COOLING <sup>6 7</sup> dB(A)	88	88	88	89	89	90	90
TOTAL SOUND POWER LEVEL IN HEATING <sup>6 8</sup> dB(A)	89	89	89	90	90	91	91
SIZE AND WEIGHT <sup>9</sup>							
WIDTH (A) mm	4515	5080	5080	5690	5690	6865	7430
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2450	2450	2450	2450	2450	2450	2450
OPERATION WEIGHT kg	3330	3460	3630	4640	4750	5050	5170

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C; Plant (side) heat exchanger recovery water (in/out) 40.00°C/45.00°C.
5. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
6. Sound power on the basis of measurements taken in compliance with ISO 9614.
7. Sound power level in cooling, outdoors.
8. Sound power level in heating, outdoors.
9. Unit in standard configuration, without optional accessories.
10. Values calculated referring to the version with the maximum number of fans working at the max absorbed current. Safety values to be considered when cabling the unit for power supply and line-protections. Data valid for standard units without any additional option.
11. Seasonal space heating energy efficiency class LOW TEMPERATURE (REGULATION (EU) N. 813/2013).
12. Parameter calculated according to (REGULATION (EU) N. 2016/2281).

Eurovent Certified Data

# NX2-N-G06

## R454B Air Source Heat Pump

(376 to 854kW)

High Efficiency Version (/A)



**CLIMAVENETA**

Mitsubishi Electric's **NX2-N-G06** is our flexible air source heat pump, using rotary scroll compressors, axial-flow fans, shell and tubes exchanger and an electronic expansion valve as standard.

### Key Features & Benefits

- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors in a multi-circuit configuration
- EC fans available as an option for improved efficiency
- Low GWP refrigerant R454B

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546	0606	0708	0738	0768	0808		
<b>PERFORMANCE - HEATING ONLY<sup>2 3</sup></b>														
TOTAL HEATING CAPACITY	kW	376.8	397.7	427.2	493.1	531.6	574.2	596.6	640.6	753.4	795.3	826.0	854.1	
COP	kW/kW	3.19	3.19	3.20	3.17	3.19	3.20	3.20	3.26	3.26	3.28	3.26	3.26	
<b>SEASONAL PERFORMANCE HEATING (EN14825 VALUE) - LOW TEMPERATURE<sup>11</sup></b>														
RATED HEAT OUTPUT AT Tdesign, h	kW	271.0	296.0	321.0	368.0	386.0	356.0	371.0	-	-	-	-	-	
SCOP	kW/kW	3.76	3.83	3.79	3.90	3.81	3.80	3.83	-	-	-	-	-	
SEASONAL SPACE HEATING EFFICIENCY	%	147	150	149	153	149	149	150	-	-	-	-	-	
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>														
COOLING CAPACITY	kW	344.9	361.1	399.3	446.0	499.5	525.3	543.0	598.8	696.0	724.2	761.4	798.6	
EER	kW/kW	2.92	2.95	2.96	2.90	2.92	2.94	2.95	3.01	3.01	3.01	3.03	3.02	
SEASONAL EFFICIENCY IN COOLING (REG.EU 2016/2281) <sup>12</sup>														
Prated,C	kW	344.9	361.1	399.3	446.0	499.5	525.3	543.0	598.8	696.0	724.2	761.4	798.6	
SEER		4.28	4.39	4.44	4.36	4.28	4.37	4.37	4.56	4.56	4.56	4.58	4.56	
<b>ELECTRICAL DATA</b>														
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
MAX F.L.A. <sup>10</sup>	Total	A	265	278	305	344	377	404	417	443	511	537	564	590
<b>EXCHANGERS</b>														
MINIMUM WATER FLOW	l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50	17.50	21.14	22.67	23.72	24.69	
MINIMUM WATER CONTENT	l/s	27.58	26.72	29.92	36.11	36.11	38.89	38.89	41.67	51.72	56.67	56.67	60.36	
<b>REFRIGERANT CIRCUIT</b>														
COMPRESSORS	No.	4	4	4	6	6	6	6	8	8	8	8	8	
CIRCUITS	No.	2	2	2	3	3	3	3	4	4	4	4	4	
THEORETICAL REFRIGERANT CHARGE	kg	81	86	87	109	112	124	133	133	162	173	174	176	
<b>NOISE LEVELS</b>														
TOTAL SOUND PRESSURE <sup>5</sup>	dB(A)	77	77	77	76	77	77	77	78	77	78	78	78	
TOTAL SOUND POWER LEVEL IN COOLING <sup>6 7</sup>	dB(A)	97	97	97	97	98	98	98	99	99	100	100	100	
TOTAL SOUND POWER LEVEL IN HEATING <sup>6 8</sup>	dB(A)	97	97	97	97	98	98	98	0	0	0	0	0	
<b>SIZE AND WEIGHT<sup>9</sup></b>														
WIDTH (A)	mm	5080	5080	5080	6255	7430	7430	7430	7430	9780	9780	9780	9780	
DEPTH (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT (H)	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	
OPERATION WEIGHT	kg	3350	3440	3480	4650	4900	5060	5140	5200	6580	6760	6800	6840	

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C; Plant (side) heat exchanger recovery water (in/out) 40.00°C/45.00°C.
5. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
6. Sound power on the basis of measurements taken in compliance with ISO 9614.
7. Sound power level in cooling, outdoors.
8. Sound power level in heating, outdoors.
9. Unit in standard configuration, without optional accessories.
10. Values calculated referring to the version with the maximum number of fans working at the max absorbed current. Safety values to be considered when cabling the unit for power supply and line-protections. Data valid for standard units without any additional option.
11. Seasonal space heating energy efficiency class LOW TEMPERATURE (REGULATION (EU) N. 813/2013).
12. Parameter calculated according to (REGULATION (EU) N. 2016/2281).

Eurovent Certified Data

# i-FX-N-G05

## R513A Air Source Heat Pump

(453 to 1,112kW)

High Efficiency Version (/A)



**CLIMAVENETA**

**Notes:**  
 1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger air (in) 35.0°C.  
 2. Values in compliance with EN14511  
 3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger air (in) 7.0°C - 87% R.H.  
 4. Seasonal space heating energy efficiency class [REGULATION (EU) N. 813/2013] - Average Weather Conditions. Calculation with variable waterflow and variable temperature.  
 5. Parameter calculated according to [REGULATION (EU) N. 2016/2281] - EN14825.  
 6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.  
 7. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.  
 8. Sound power level on the basis of measurement taken in compliance with ISO 9614.  
 9. Sound power level in cooling, outdoors.  
 10. Sound power level in heating, outdoors.  
 11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

Mitsubishi Electric's i-FX-N-G05 is our high performance reversible air source heat pump, complete with Variable Speed Drive (VSD) screw compressors and EC fans as standard.

### Key Features & Benefits

- Very high seasonal efficiency in a compact footprint, offering full inverter technology
- High efficiency inverter screw compressors providing a dual refrigeration circuit resulting in lower running costs and resilient operation
- EC Fans supplied as standard
- Available options include; inbuilt hydronic pumps (fixed speed or inverter), thermal and energy meters, Smart LAN functions and many more
- Cu/Al Auxiliary Heat Exchangers supplied as standard, other protection coatings are available
- Smart defrost to increase operation time, increase COP and minimise impact on leaving water temperature

**R513A**

MODEL	0472	0512	0572	0602	0652	0772	0902	1002	1152	
<b>PERFORMANCE - HEATING ONLY <sup>2 3</sup></b>										
TOTAL HEATING CAPACITY	kW	453.2	506.8	547.9	575.7	664.3	748.1	872.0	1007	1112
COP	kW/kW	3.23	3.29	3.26	3.27	3.26	3.32	3.31	3.39	3.36
<b>SEASONAL EFFICIENCY IN HEATING - LOW TEMPERATURE <sup>4</sup></b>										
RATED HEAT OUTPUT AT Tdesign, h	kW	348.0	384.0	-	-	-	-	-	-	
SCOP		4.00	4.03	-	-	-	-	-	-	
<b>PERFORMANCE - COOLING ONLY <sup>1 2</sup></b>										
COOLING CAPACITY	kW	464.6	517.4	549.4	590.4	669.4	763.6	898.8	1033	1153
EER	kW/kW	2.78	2.88	2.80	2.78	2.79	2.85	2.84	2.91	2.93
<b>SEASONAL EFFICIENCY IN COOLING <sup>5</sup></b>										
Prated,C	kW	464.6	517.4	549.4	590.4	669.4	763.6	898.8	1033	1153
SEER		4.74	4.78	4.83	4.84	4.76	4.82	4.83	4.79	4.84
PERFORMANCE $\eta_s$	%	187	188	190	190	188	190	190	189	191
<b>ELECTRICAL DATA</b>										
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>6</sup>	Total A	354	384	407	429	482	531	632	749	821
<b>EXCHANGERS</b>										
MINIMUM WATER FLOW	l/s	11.67	14.69	14.69	14.25	15.50	18.06	22.22	22.22	27.78
MINIMUM WATER CONTENT	System l	1630	1800	1920	2070	2340	2670	3150	3620	4040
<b>REFRIGERANT CIRCUIT</b>										
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2
<b>THEORETICAL REFRIGERANT CHARGE</b>										
kg	233	259	253	276	288	391	495	518	618	
<b>NOISE LEVELS</b>										
TOTAL SOUND PRESSURE <sup>7</sup>	dB(A)	80	81	81	81	81	81	82	82	
TOTAL SOUND POWER LEVEL IN COOLING <sup>8 9</sup>	dB(A)	100	102	102	102	103	103	105	105	
TOTAL SOUND POWER LEVEL IN HEATING <sup>8 10</sup>	dB(A)	101	103	103	103	104	104	106	106	
<b>SIZE AND WEIGHT <sup>11</sup></b>										
WIDTH (A)	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800
DEPTH (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H)	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580
OPERATION WEIGHT	kg	6400	6894	7033	7256	7518	8551	9835	11578	12651

# i-FX-N-G05

## R513A Air Source Heat Pump

(448 to 1,101kW)

## Super-Low Noise, High Efficiency Version (/SL-A)



 CLIMAVET

Mitsubishi Electric's **i-FX-N-G05** is our high performance reversible air source heat pump, complete with Variable Speed Drive (VSD) screw compressors and EC fans as standard.

## Key Features & Benefits

- Very high seasonal efficiency in a compact footprint, offering full inverter technology
  - High efficiency inverter screw compressors providing a dual refrigeration circuit resulting in lower running costs and resilient operation
  - EC Fans supplied as standard
  - Available options include; inbuilt hydronic pumps (fixed speed or inverter), thermal and energy meters, Smart LAN functions and many more
  - Cu/Al Auxiliary Heat Exchangers supplied as standard, other protection coatings are available
  - Smart defrost to increase operation time, increase COP and minimise impact on leaving water temperature

R513A

Model		0472	0512	0572	0602	0652	0772	0902	1002	1152	
Performance - Heating Only <sup>2 3</sup>											
Total Heating Capacity	kW	448.6	500.4	542.4	568.3	657.9	740.6	863.2	997.3	1101	
COP	kW/kW	3.24	3.30	3.28	3.28	3.27	3.34	3.32	3.42	3.38	
Seasonal Efficiency in Heating - Low Temperature <sup>4</sup>											
Rated Heat Output at Tdesign, h	kW	347.0	383.0	-	-	-	-	-	-	-	
SCOP		4.02	4.03	-	-	-	-	-	-	-	
Performance - Cooling Only <sup>1 2</sup>											
Cooling Capacity	kW	443.6	497.1	531.4	570.3	648.7	740.2	869.6	997.3	1113	
EER	kW/kW	2.62	2.77	2.67	2.61	2.67	2.74	2.73	2.79	2.79	
Seasonal Efficiency in Cooling <sup>5</sup>											
Prated,C	kW	443.6	497.1	531.4	570.3	648.7	740.2	869.6	997.3	1113	
SEER		4.71	4.77	4.81	4.80	4.74	4.80	4.82	4.78	4.82	
Performance ηs	%	185	188	190	189	187	189	190	188	190	
Electrical Data											
Power Supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
Max F.L.A. <sup>6</sup>	Total	A	354	384	407	429	482	531	632	749	821
Exchangers											
Minimum Water Flow	l/s	11.67	14.69	14.69	14.25	15.50	18.06	22.22	22.22	27.78	
Minimum Water Content	System	l	1630	1800	1920	2070	2340	2670	3150	3620	4040
Refrigerant Circuit											
Compressors	No.	2	2	2	2	2	2	2	2	2	
Circuits	No.	2	2	2	2	2	2	2	2	2	
Theoretical Refrigerant Charge	kg	243	271	285	307	317	391	541	536	598	
Noise Levels											
Total Sound Pressure <sup>7</sup>	dB(A)	72	73	73	73	73	73	73	74	74	
Total Sound Power Level in Cooling <sup>8 9</sup>	dB(A)	92	94	94	94	95	95	97	97	97	
Total Sound Power Level in Heating <sup>8 10</sup>	dB(A)	93	95	95	95	95	96	96	98	98	
Size and Weight <sup>11</sup>											
Width (A)	mm	4900	5800	5800	5800	7000	7900	10000	11800	11800	
Depth (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	
Height (H)	mm	2580	2580	2580	2580	2580	2580	2580	2580	2580	
Operation Weight	kg	6672	7155	7307	7550	7791	8921	10101	11840	15158	

# NX2-W-G06-H

## R454B Water-to-Water Heat Pump

(53 to 276kW)



**CLIMAVENETA**

Designed to accommodate a variety of applications, Climaveneta's **NX2-W-G06-H** is a compact and flexible water-to-water heat pump, which is reversible on the hydraulic side.

### Key Features & Benefits

- Exceptional SEER and SCOP performance
- Rotary Scroll compressors with IDV technology
- Up to 60°C supply water temperature
- Advanced decentralised control options (MultiManager)

- Low GWP R454B refrigerant
- Inbuilt safety equipment for an A2L refrigerant
- Compatible with Variable Primary Flow (VPF)
- Compact design

**R454B**

MODEL	0042	0052	0062	0072	0082	0092	0112	0122	0142	0162	0182	0202	0222	0242		
PERFORMANCE - HEATING ONLY																
GROSS VALUE <sup>1</sup>																
TOTAL HEATING CAPACITY	kW	53.5	62.6	73.4	83.3	92.6	105.4	121.3	136.8	158.9	176.7	207.4	222.9	244.9	275.6	
TOTAL POWER INPUT	kW	12.5	14.3	16.5	18.6	20.6	23.7	27.2	30.3	35.5	39.7	45.6	48.8	53.9	59.9	
COP	kW/kW	4.28	4.38	4.45	4.48	4.50	4.45	4.46	4.52	4.48	4.45	4.55	4.57	4.54	4.60	
EN14511 VALUES <sup>1,2</sup>																
TOTAL HEAT CAPACITY	kW	53.6	62.7	73.5	83.5	92.7	105.5	121.5	136.9	159.1	176.9	207.6	223.2	245.3	275.9	
COP	kW/kW	4.04	4.12	4.23	4.25	4.32	4.28	4.29	4.35	4.31	4.28	4.35	4.39	4.34	4.36	
SEASONAL PERFORMANCE - LOW TEMPERATURE <sup>3</sup>																
RATED HEAT OUTPUT AT Tdesignh	kW	63	74	87	99	110	125	144	163	189	210	247	265	291	325	
SCOP		6.29	6.51	6.74	6.71	6.87	6.89	6.83	6.83	6.83	6.78	6.81	6.81	7.13	6.61	
PERFORMANCE n <sub>s</sub>	%	243	254	262	261	267	268	265	265	263	264	277	277	256		
SEASONAL PERFORMANCE - MEDIUM TEMPERATURE <sup>4</sup>																
RATED HEAT OUTPUT AT Tdesignh	kW	59	69	80	91	101	115	133	150	175	194	227	244	269	302	
SCOP		4.48	4.64	4.76	4.78	4.97	4.93	4.93	4.93	4.94	4.86	4.89	4.97	5.14	4.84	
PERFORMANCE n <sub>s</sub>	%	171	178	182	183	191	189	189	189	190	186	188	191	197	186	
PERFORMANCE - COOLING ONLY																
GROSS VALUE <sup>5</sup>																
TOTAL COOLING CAPACITY	kW	45.84	53.92	64.85	73.47	82.96	94.45	108.5	122.6	142.0	157.2	184.6	200.2	217.8	242.1	
TOTAL POWER INPUT	kW	10.04	11.34	13.18	14.94	16.13	18.48	21.38	23.89	27.78	31.48	36.25	38.67	42.78	48.13	
EER	kW/kW	4.58	4.77	4.91	4.93	5.16	5.10	5.70	5.13	5.11	4.99	5.10	5.17	5.09	5.03	
EN14511 VALUES <sup>5,2</sup>																
TOTAL COOLING CAPACITY	kW	45.7	53.8	64.7	73.3	82.8	94.3	108.3	122.4	141.7	156.9	184.3	199.8	217.4	241.7	
EER	kW/kW	4.39	4.56	4.74	4.72	5.00	4.97	4.93	4.98	4.96	4.83	4.92	5.00	4.91	4.84	
SEASONAL PERFORMANCE <sup>6</sup>																
P <sub>Rated,C</sub>	kW	45.7	53.8	64.7	73.3	82.8	94.3	108.3	122.4	141.7	156.9	184.3	199.8	217.4	241.7	
SEER		6.31	6.63	7.01	7.04	7.18	7.41	6.97	7.09	7.2	7.02	7.22	7.17	7.13	6.80	
PERFORMANCE n <sub>s</sub>	%	250	262	278	279	284	293	276	281	285	278	286	284	282	269	
ELECTRICAL DATA																
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>7</sup>	Total	A	32	37	42	48	53	59	68	76	91	99	113	121	135	149
EXCHANGERS																
MINIMUM WATER FLOW	Evaporator	l/s	1.333	1.583	1.917	2.167	2.444	2.806	3.222	3.639	4.222	4.667	5.472	5.944	6.472	7.194
MINIMUM WATER CONTENT	User Side	l	180	240	313	350	339	472	466	574	712	712	929	921	940	926
MINIMUM WATER FLOW	Condenser	l/s	1.056	1.222	1.472	1.667	1.889	2.139	2.472	2.778	3.250	3.611	4.222	4.556	4.972	5.556
HEAT EXCHANGER IN HEATING <sup>1</sup>																
WATER FLOW	User Side	l/s	2.584	3.022	3.542	4.021	4.471	5.087	5.857	6.602	7.671	8.529	10.01	10.76	11.82	13.3
PRESSURE DROP <sup>2</sup>	User Side	kPa	25.3	25.2	29.0	34.4	15.3	15.2	15.7	16.3	17.0	20.7	21.4	22.7	23.5	29.6
WATER FLOW	Source Side	l/s	3.331	3.92	4.609	5.243	5.837	6.622	7.632	8.631	10	11.11	13.1	14.11	15.48	17.47
PRESSURE DROP <sup>2</sup>	Source Side	kPa	84.1	91.1	55.8	55.3	54.3	54.2	59.4	60.1	61.2	62.0	71.2	63.4	75.7	94.6
HEAT EXCHANGER USER SIDE IN COOLING <sup>3</sup>																
WATER FLOW	User Side	l/s	2.192	2.579	3.101	3.513	3.967	4.517	5.188	5.865	6.788	7.519	8.83	9.572	10.41	11.58
PRESSURE DROP <sup>2</sup>	User Side	kPa	36.4	39.4	25.3	24.8	25.1	25.2	27.4	27.7	28.2	28.4	32.3	29.2	34.3	41.5
WATER FLOW	Source Side	l/s	2.66	3.107	3.716	4.21	4.721	5.38	6.186	6.981	8.086	8.988	10.52	11.38	12.41	13.82
PRESSURE DROP <sup>2</sup>	Source Side	kPa	26.8	26.6	32.0	37.7	17.1	17.0	17.5	18.3	23.0	23.7	25.3	26.0	31.9	
REFRIGERANT CIRCUIT																
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CAPACITY STEPS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CIRCUITS	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
REGULATION	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	STEP	
MINIMUM CAPACITY STEP	%	48	42	35	31	43	33	42	37	32	39	33	37	44	49	
REFRIGERANT	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	
REFRIGERANT CHARGE <sup>8</sup>	kg	3.4	4.7	5.0	6.0	7.2	8.6	9.9	11.3	12.5	13.3	16.3	19.3	19.7	19.8	
OIL CHARGE	kg	6.0	6.3	6.3	6.9	6.9	9.4	9.7	9.7	9.7	12.2	12.2	12.2	12.2	12.2	
RC (ASHRAE) <sup>9</sup>	kg/kW	0.08	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.08	
NOISE LEVELS																
TOTAL SOUND PRESSURE <sup>10</sup>	dB(A)	57	58	59	61	61	63	63	63	69	70	70	70	72	72	
TOTAL SOUND POWER LEVEL IN COOLING <sup>11</sup>	dB(A)	73	74	75	77	77	80	80	80	86	87	87	87	89	89	
TOTAL SOUND POWER LEVEL IN HEATING <sup>11</sup>	dB(A)	74	75	76	78	78	81	81	81	87	88	88	88	90	90	
SIZE AND WEIGHT <sup>12</sup>																
WIDTH	mm	885	885	885	885	885	885	885	885	885	885	885	885	885	885	
DEPTH	mm	1320	1320	1320	1320	1320	1640	1640	1640	1640	1640	1640	1640	1640	1640	
HEIGHT	mm	1495	1495	1495	1495	1495	1805	1805	1805	1805	1805	1805	1805	1805	1805	
OPERATING WEIGHT	kg	470	490	510	530	560	670	690	700	770	820	860	890	960	970	

Eurovent Certified Data

# EW-HT-G05

## R513A High Temperature Water-to-Water Heat Pump

(72 to 129kW)



**CLIMAVENETA**

#### Notes:

1. Plant (side) heat exchanger water (in/out) 70°C/78°C; Source (side) heat exchanger water (in/out) 45°C/40°C.
2. Values in compliance with EN14511.
3. Seasonal space heating energy efficiency class MEDIUM TEMPERATURE in AVERAGE climate conditions. [REGULATION (EU) N. 813/2013].
4. Average sound pressure level at 1m dista nce, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
5. Sound power on the basis of measurements made in compliance with ISO 9614.
6. Sound power level in heating, indoors.
7. Unit in standard configuration/execution, without optional accessories.
8. Seasonal space heating energy efficiency.
9. Fixed flow rate and variable temperature calculation.

The Climaveneta **EW-HT-G05** is perfect for applications requiring high temperature water of up to 78°C, a key feature for your decarbonisation project by complementing your air source heat pumps to create a cascade system, replacing fossil fuel heating systems.

### Key Features & Benefits

- High temperature water (78°C) for replacing fossil fuel heating systems
- Low GWP Refrigerant R513A (GWP100 = 631)\*
- Compact footprint of only 1m<sup>2</sup>
- High temperature supply water of up to 78°C
- Advanced controls with W3000+ microprocessor
- Reliable and efficient with 2 independent refrigerant circuits
- Compatible with Master-Client controls, Keyboard In Pocket (KIP) interface and Building Energy Management System (BEMS) via interface cards
- Factory fitted options such as refrigerant leak detection, touch screen display, energy meter and additional soundproofing available

\*IPCC AR4

**R513A**

MODEL	0182	0202	0262	0302		
<b>PERFORMANCE - HEATING ONLY</b>						
<b>GROSS VALUE<sup>1</sup></b>						
TOTAL HEATING CAPACITY	kW	72.9	85.9	105	129	
TOTAL POWER INPUT	kW	19.8	22.9	28.6	34.3	
COP	kW/kW	3.68	3.75	3.68	3.77	
<b>EN14511 VALUES<sup>1,2</sup></b>						
TOTAL HEAT CAPACITY	kW	73.0	86.0	105.2	129.3	
COP	kW/kW	3.64	3.71	3.64	3.73	
<b>SEASONAL PERFORMANCE - MEDIUM TEMPERATURE<sup>3,9</sup></b>						
RATED HEAT OUTPUT AT Tdesignh	kW	42	48.0	60	74	
SCOP		3.15	3.11	3.10	3.19	
PERFORMANCE η <sub>B</sub> <sup>8</sup>	%	118	116	116	120	
<b>ELECTRICAL DATA</b>						
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	
FLA. <sup>7</sup>	Total	A	38	43	49	64
<b>EXCHANGERS</b>						
MINIMUM WATER CONTENT	User Side	l	270	319	390	480
MINIMUM WATER FLOW	Source Side	l/s	1.33	1.65	1.98	2.29
<b>HEAT EXCHANGER IN HEATING<sup>1</sup></b>						
WATER FLOW	User Side	l/s	2.23	2.63	3.21	3.95
PRESSURE DROP <sup>2</sup>	User Side	kPa	15.90	14.00	14.20	15.80
WATER FLOW	Source Side	l/s	2.62	3.11	3.78	4.68
PRESSURE DROP <sup>2</sup>	Source Side	kPa	19.3	17.7	18.2	20.9
<b>REFRIGERANT CIRCUIT</b>						
COMPRESSORS	No.	2	2	2	2	
NO. OF CAPACITY STEPS	No.	2	2	2	2	
CIRCUITS	No.	2	2	2	2	
REGULATION		STEPS	STEPS	STEPS	STEPS	
MINIMUM CAPACITY STEP	%	50	50	50	50	
REFRIGERANT		R513A	R513A	R513A	R513A	
REFRIGERANT CHARGE	kg	8.40	8.80	10.50	10.90	
OIL CHARGE		6.80	6.80	6.60	6.80	
<b>NOISE LEVELS</b>						
TOTAL SOUND PRESSURE <sup>4</sup>	dB(A)	58	58	60	60	
TOTAL SOUND POWER LEVEL IN HEATING <sup>5,6</sup>	dB(A)	74	74	76	76	
<b>SIZE AND WEIGHT<sup>7</sup></b>						
WIDTH (A)	mm	1223	1223	1223	1223	
DEPTH (B)	mm	877	877	877	877	
HEIGHT (H)	mm	1496	1496	1496	1496	
OPERATION WEIGHT	kg	380	390	415	430	

# EW-HT R134a High Temperature Water-to-Water Heat Pump (70 to 279kW)



**CLIMAVENETA**

## Notes:

1. Plant (side) heat exchanger water (in/out) 70°C/78°C; Source (side) heat exchanger water (in/out) 45°C/40°C.
2. Values in compliance with EN14511.
3. Seasonal space heating energy efficiency class MEDIUM TEMPERATURE in AVERAGE climate conditions. [REGULATION (EU) N. 813/2013].
4. Average sound pressure level at 1m dista nce, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
5. Sound power on the basis of measurements made in compliance with ISO 9614.
6. Sound power level in heating, indoors.
7. Unit in standard configuration/execution, without optional accessories.
8. Seasonal space heating energy efficiency.
9. Fixed flow rate and variable temperature calculation.

The Climaveneta **EW-HT** is perfect for applications requiring high temperature water of up to 78°C, a key feature for your decarbonisation project by complementing your air source heat pumps to create a cascade system, replacing fossil fuel heating systems.

## Key Features & Benefits

- High temperature water (78°C) for replacing fossil fuel heating systems
- Compact footprint of only 1m<sup>2</sup>
- High temperature supply water of up to 78°C
- Advanced controls with W3000+ microprocessor
- Reliable and efficient with 2 independent refrigerant circuits
- Compatible with Master-Client controls, Keyboard In Pocket (KIP) interface and Building Energy Management System (BEMS) via interface cards
- Factory fitted options such as refrigerant leak detection, touch screen display, energy meter and additional soundproofing available

**R134a**

MODEL	0152	0182	0202	0262	0302	0412	0512	0612		
PERFORMANCE - HEATING ONLY										
GROSS VALUE <sup>1</sup>										
TOTAL HEATING CAPACITY	kW	70.2	79.3	92.5	113	139	181	225	279	
TOTAL POWER INPUT	kW	17.0	18.9	22.0	27.9	34.2	43.7	55.1	67.6	
COP	kW/kW	4.13	4.20	4.20	4.05	4.08	4.14	4.08	4.13	
EN14511 VALUES <sup>1,2</sup>										
TOTAL HEAT CAPACITY	kW	70.4	79.5	92.7	113	140	181	225	280	
COP	kW/kW	4.01	4.07	4.08	3.94	3.98	4.04	4.01	4.06	
SEASONAL PERFORMANCE - MEDIUM TEMPERATURE <sup>3,9</sup>										
RATED HEAT OUTPUT AT Tdesignh	kW	38.6	43.6	50.0	61.6	78.1	104	128	157	
SCOP		3.27	3.39	3.45	3.30	3.30	3.25	3.27	3.3	
PERFORMANCE η <sub>s</sub> <sup>8</sup>	%	123	128	130	124	124	122	123	124	
ELECTRICAL DATA										
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>7</sup>	Total	A	35	38	43	49	64	79	99	125
EXCHANGERS										
MINIMUM WATER CONTENT	User Side	l	250	290	330	410	530	680	850	1050
MINIMUM WATER FLOW	Source Side	l/s	0.94	1.06	1.22	1.50	2.03	2.69	3.31	4.08
HEAT EXCHANGER IN HEATING <sup>1</sup>										
WATER FLOW	User Side	l/s	2.15	2.42	2.83	3.45	4.26	5.52	6.87	8.54
PRESSURE DROP <sup>2</sup>	User Side	kPa	23.9	25	24.2	24.2	19.7	19.8	19.8	20.1
WATER FLOW	Source Side	l/s	2.62	2.97	3.47	4.19	5.18	6.74	8.35	10.41
PRESSURE DROP <sup>2</sup>	Source Side	kPa	45.4	46.7	51.8	53.8	49.7	50.1	37.6	37.7
REFRIGERANT CIRCUIT										
COMPRESSORS	No.	2	2	2	2	2	2	2	2	
NO. OF CAPACITY STEPS	No.	2	2	2	2	2	2	2	2	
CIRCUITS	No.	2	2	2	2	2	2	2	2	
REGULATION										
MINIMUM CAPACITY STEP	%	50	50	50	50	50	50	50	50	
REFRIGERANT		R134a								
REFRIGERANT CHARGE	kg	6.00	7.00	8.10	9.10	9.90	11.0	13.2	14.3	
OIL CHARGE		5.30	6.80	6.80	6.80	6.80	9.40	13.6	12.6	
NOISE LEVELS										
TOTAL SOUND PRESSURE <sup>4</sup>	dB(A)	58	58	58	60	60	62	62	64	
TOTAL SOUND POWER LEVEL IN HEATING <sup>5,6</sup>	dB(A)	74	74	74	76	76	78	78	80	
SIZE AND WEIGHT <sup>7</sup>										
WIDTH (A)	mm	1223	1223	1223	1223	1223	1223	1223	1223	
DEPTH (B)	mm	877	877	877	877	877	877	877	877	
HEIGHT (H)	mm	1496	1496	1496	1496	1496	1496	1496	1496	
OPERATION WEIGHT	kg	365	380	390	415	430	610	675	740	

# TX2-W-G04 /H

## R1234ze

### Water-to-Water Heat Pump

(298 to 2,510kW)



**CLIMAVENETA**

- Notes:**
- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger water (in/out) 30.00°C/35.00°C.
  - Plant (side) exchanger hot water temperature (in/out) 40.00°C/45.00°C; Source (side) exchanger water temperature (in/out) 10.00°C/6.71°C (or the maximum calculated temperature coming from the maximum flow rate allowed).
  - Values in compliance with EN14511.
  - Unit performance with inverter compressor at maximum speeds.
  - Unit performance with inverter compressor at nominal speed.
  - Parameter calculated according to [Regulation (EU) N. 2016/2281].
  - Data valid for standard units without any additional options and only indicative. Safety values to be considered when coding the unit for power supply and line-protection. Refer to databook.
  - Theoretical - refer to serial plate for actual charge volumes.
  - Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  - Sound power level in cooling, indoors, on the basis of measurement taken in compliance with ISO 9614.
  - Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The Climaveneta **TX2-W-G04 /H** is a high performance water source reversible (on the hydraulic side) heat pump optimised for comfort heating and cooling. It uses state of the art oil free centrifugal compressors and low GWP refrigerant R1234ze, ensuring high efficiency and silent operation.

## Key Features & Benefits

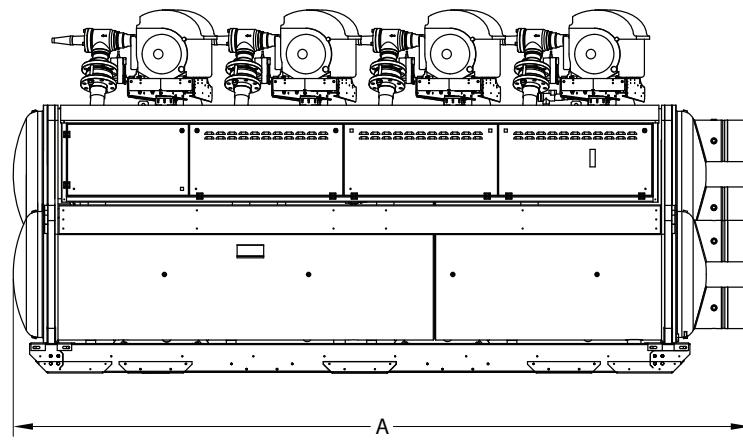
- Exceptional efficiency in a compact footprint
- Silent operation achieved using state of the art oil free centrifugal compressors optimised for R1234ze
- High quality shell and tube heat exchangers
- Low GWP refrigerant ( $GWP_{100} = 1$ )\*
- Large variety of sizes to suit a wide variety of applications
- Flexible composition with water connections to the evaporator and condenser that can be deployed on the right or left, to fit any application

\*IPCC AR5

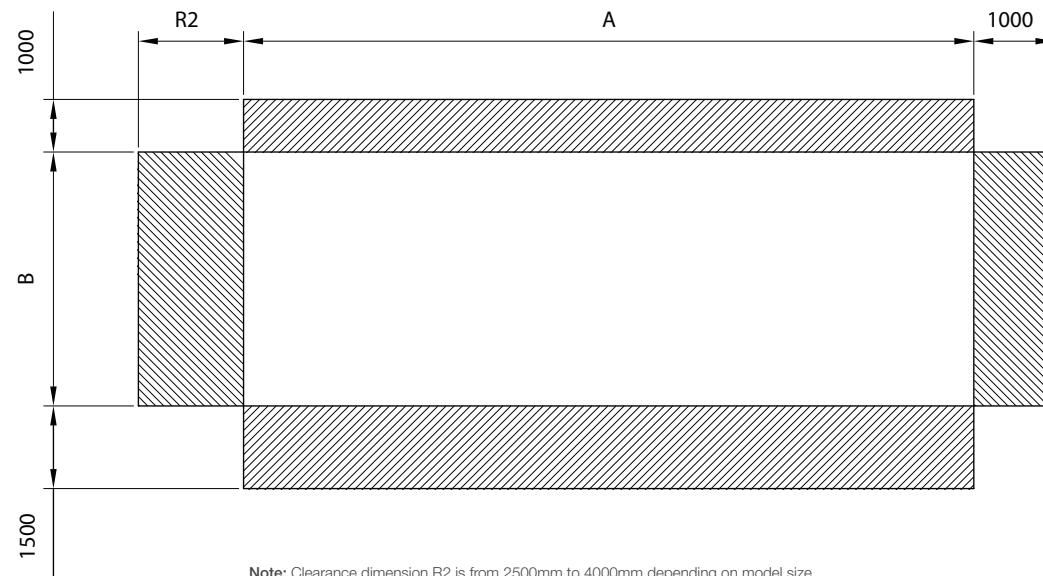
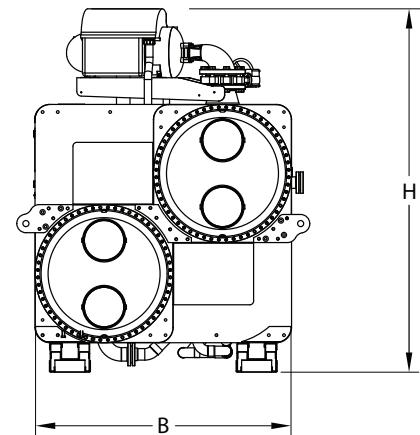
**R1234ze**

MODEL	0251	0351	0551	0602	0702	0872	1022	1203	1314	1363	1404	1553	1584	1914	2064		
<b>PERFORMANCE - HEATING ONLY (GROSS VALUE) <sup>2*4</sup></b>																	
TOTAL HEATING CAPACITY	kW	297.9	406.7	643.6	731.1	828.8	1034.0	1269.0	1398.0	1576.0	1650.0	1691.0	1905.0	1869.0	2342.0	2510.0	
TOTAL POWER INPUT	kW	59.3	84.3	137.4	144.7	169.7	220.6	272.4	299.6	309.8	357.0	334.5	391.4	383.2	474.7	523.2	
COP	kW/kW	5.02	4.82	4.68	5.05	4.88	4.69	4.66	4.67	5.09	4.62	5.06	4.87	4.88	4.93	4.80	
<b>PERFORMANCE - HEATING ONLY <sup>2*3*5</sup></b>																	
TOTAL HEAT CAPACITY	kW	263.6	366.2	546.0	642.2	743.4	907.5	1,091.0	1,245.0	1,394.0	1,448.0	1,494.0	1,623.0	1,639.0	2,009.0	2,146.0	
COP	kW/kW	5.04	4.93	5.30	5.14	4.98	5.12	5.24	5.01	5.21	5.09	5.21	5.41	5.20	5.38	5.37	
<b>PERFORMANCE - COOLING ONLY <sup>1*3*5</sup></b>																	
TOTAL COOLING CAPACITY	kW	209.3	299.8	425.2	511.6	601.6	725.4	850.5	1,016.0	1,108.0	1,146.0	1,197.0	1,264.0	1,319.0	1,571.0	1,681.0	
EER	kW/kW	5.67	5.78	6.04	5.87	5.79	5.88	5.98	5.75	6.07	5.83	6.13	6.20	6.08	6.19	6.16	
<b>SEASONAL PERFORMANCE - AMBIENT REFRIGERATION <sup>6</sup></b>																	
Prated,C	kW	209.3	299.8	425.2	511.6	601.6	725.4	850.5	1,016.0	1,108.0	1,146.0	1,197.0	1,264.0	1,319.0	1,571.0	1,681.0	
SEER		8.99	9.15	9.77	9.36	9.25	9.53	10.02	9.33	9.50	9.31	9.65	10.16	9.54	9.83	10.13	
<b>ELECTRICAL DATA</b>																	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/500	400/3/500	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>7</sup>	Total	A	117	165	231	282	330	396	462	561	612	627	660	693	726	858	924
<b>EXCHANGERS</b>																	
MINIMUM WATER FLOW IN COOLING <sup>1</sup>	Evaporator	l/s	17.61	17.61	40.28	45.83	40.28	50.00	72.22	61.94	85.28	87.78	85.28	108.30	85.28	134.20	134.20
MINIMUM WATER FLOW IN HEATING <sup>2</sup>	Condenser	l/s	8.61	11.67	18.61	21.11	21.11	28.61	35.28	38.06	44.44	41.39	48.06	50.83	48.06	59.72	69.17
<b>HEAT EXCHANGER IN HEATING <sup>2</sup></b>																	
PRESSURE DROP AT HEAT EXCHANGER	User Side	kPa	28.50	29.70	25.20	28.00	37.50	30.80	29.80	26.20	29.30	29.70	29.00	31.00	34.90	34.10	29.20
WATER FLOW	User Side	l/s	12.71	17.66	26.34	30.98	35.86	43.78	52.62	60.07	67.26	69.88	72.08	78.33	79.09	96.95	103.60
PRESSURE DROP AT HEAT EXCHANGER	Source Side	kPa	77.40	80.40	64.90	68.10	80.70	82.60	80.70	67.10	82.90	66.90	82.90	81.50	82.90	83.10	84.00
WATER FLOW	Source Side	l/s	17.28	17.61	36.11	42.21	40.28	50.00	72.03	61.94	85.28	87.78	85.28	107.90	85.28	133.40	134.20
<b>HEAT EXCHANGER IN COOLING <sup>1</sup></b>																	
PRESSURE DROP AT HEAT EXCHANGER	User Side	kPa	26.10	53.40	20.60	22.90	41.30	39.80	25.80	41.30	32.00	26.10	37.40	25.60	45.40	26.40	30.20
WATER FLOW	User Side	l/s	10.03	14.36	20.35	24.48	28.79	34.72	40.70	48.61	53.01	54.82	57.29	60.49	63.11	75.18	80.42
PRESSURE DROP AT HEAT EXCHANGER	Source Side	kPa	24.10	26.50	20.20	23.60	32.70	26.10	24.00	23.30	24.40	24.80	24.40	24.70	29.70	27.40	23.50
WATER FLOW	Source Side	l/s	11.70	16.69	23.58	28.47	33.50	40.32	47.21	56.67	61.36	63.83	66.22	69.85	72.96	86.83	92.94
<b>REFRIGERANT CIRCUIT</b>																	
COMPRESSORS	No.		1	1	1	2	2	2	3	4	3	4	3	4	4	4	
CIRCUITS	No.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	
<b>REFRIGERANT CHARGE <sup>8</sup></b>																	
kg	140	180	177	237	247	358	310	624	730	565	1036	617	1036	890	876		
<b>NOISE LEVELS</b>																	
TOTAL SOUND PRESSURE <sup>9</sup>	dB(A)	75	76	78	76	77	78	79	78	80	78	79	79	80	80	80	
TOTAL SOUND POWER LEVEL IN COOLING <sup>1*5*10</sup>	dB(A)	93	94	96	95	96	97	98	98	99	98	99	99	99	100	100	
TOTAL SOUND POWER LEVEL IN HEATING <sup>2*5*10</sup>	dB(A)	93	94	96	95	96	97	98	98	99	98	99	99	99	100	100	
<b>SIZE AND WEIGHT <sup>11</sup></b>																	
WIDTH (A)	mm	2910	2910	2910	2910	2910	3050	3050	3710	4690	3710	4690	4690	4720	4720	4720	
DEPTH (B)	mm	1000	1000	1000	1560	1560	1620	1710	1710	1660	1710	1890	1660	1890	1890	1890	
HEIGHT (H)	mm	1950	1950	1950	2190	2190	2190	2260	2260	2260	2400	2400	2400	2400	2400	2400	
OPERATION WEIGHT	kg	2280	2430	2630	3780	3010	4880	4910	7060	8520	7040	9760	7950	9760	10130	10340	

Front View



Side View



Note: Clearance dimension R2 is from 2500mm to 4000mm depending on model size.

## Commercial Heat Pumps & Chillers

# Our INTEGRA Simultaneous Heating & Cooling Range - An Overview

INTEGRA polyvalent heat pumps units, commonly known as 4-pipe systems, offer an innovative and efficient solution for customers requiring both heating and cooling at the same time.

Their ability to recover heat from the cooling circuit gives them exceptional versatility, combined with high energy efficiency and makes them an ideal choice for a wide range of buildings, such as large offices, hotels and hospitals alongside other premises with variable temperature control needs. The systems can be customised to adapt to the specific demands of each environment.

### TER Value

In all cases where INTEGRA simultaneously produces hot and cold water, the real efficiency of the unit must be considered as the sum of heating and cooling. Measuring efficiency through traditional EER and COP indices is therefore limiting.

To objectively measure the performance in contemporary loads conditions, we calculate TER - Total Efficiency Ratio. TER is calculated as the ratio of the sum of the heating and cooling power and electrical power input. TER reaches its maximum value when the loads are completely balanced and is the most effective way to represent the real efficiency of the unit.



## Commercial Heat Pumps & Chillers



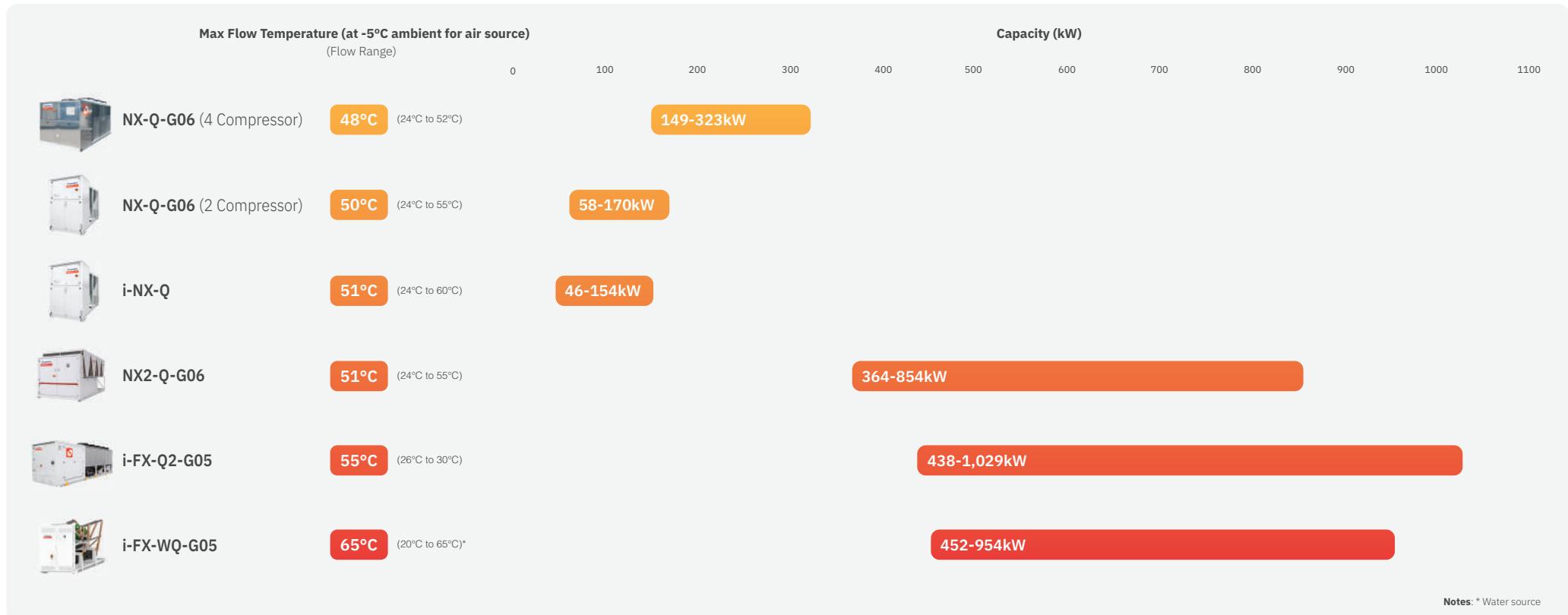
### Our INTEGRA range at a glance

INTEGRA polyvalent heat pumps units, commonly known as 4-pipe systems, offer an innovative and efficient solution for customers requiring both heating and cooling at the same time.



#### Climaveneta

Commercial polyvalent heat pumps that use a range of low GWP refrigerants, alongside the latest inverter scroll and screw compressors.



# i-NX-Q

## R410A Air Source Polyvalent Unit

(48 to 165kW)



Mitsubishi Electric's **i-NX-Q** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using Variable Speed Drive (VSD) scroll compressors as standard.

### Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- High efficiency inverter scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

## R410A

MODEL	0152P	0182P	0202P	0252P	0262P	0302P	0352P	0402P	0502P	0552P	
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>											
COOLING CAPACITY	kW	47.02	52.96	61.43	68.63	79.78	89.07	101.9	116.3	134.7	154.3
RECOVERY HEAT EXCHANGER CAPACITY	kW	60.15	68.75	79.38	89.70	103.6	116.8	131.1	151.2	175.6	200.4
TOTAL POWER INPUT	kW	14.08	16.98	19.25	22.64	25.54	29.85	31.46	37.66	44.18	49.98
TER	kW/kW	7.612	7.170	7.315	6.992	7.178	6.898	7.406	7.102	7.024	7.096
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>											
TOTAL HEAT CAPACITY	kW	48.10	56.10	66.30	74.10	85.70	95.50	108.30	122.9	143.6	165.2
COP	kW/kW	3.190	3.16	3.21	3.12	3.29	3.22	3.35	3.28	3.30	3.29
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>											
TOTAL COOLING CAPACITY	kW	44.7	51.2	60.8	67.5	79.0	87.8	100.7	114.0	132.9	151.7
EER	kW/kW	2.93	2.84	2.99	2.78	2.93	2.74	3.07	2.86	2.92	2.95
<b>SEASONAL PERFORMANCE<sup>5</sup></b>											
RATED HEAT OUTPUT AT Tdesignh	kW	33.0	40.0	47.0	53.0	64.0	71.0	81.0	91.0	107.0	123.0
SCOP		3.85	3.97	3.87	3.97	3.94	3.96	4.08	4.11	4.12	4.16
<b>ELECTRICAL DATA</b>											
POWER SUPPLY	V/ph/Hz	400/3+N/50									
MAX F.L.A. <sup>6</sup>	Total A	69	69	76	76	75	75	109	109	111	113
<b>EXCHANGERS</b>											
MINIMUM WATER FLOW IN COOLING <sup>4</sup>	Evaporator l/s	1.056	1.222	1.417	1.583	1.861	2.083	2.389	2.722	3.167	3.639
MINIMUM WATER FLOW IN HEATING <sup>1</sup>	Condenser l/s	1.333	1.528	1.750	1.944	2.250	2.528	2.611	3.056	3.528	4.056
<b>REFRIGERANT CIRCUIT</b>											
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2
<b>REFRIGERANT CHARGE<sup>7</sup></b>											
REFRIGERANT CHARGE <sup>7</sup>	kg	16.4	20.6	22.2	22.6	30.6	30.8	38.4	38.8	53.2	60.0
<b>NOISE LEVELS</b>											
TOTAL SOUND PRESSURE <sup>8</sup>	dB(A)	52	53	55	55	55	56	56	57	59	61
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup>	dB(A)	84	85	87	87	87	88	88	89	91	93
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup>	dB(A)	84	85	87	87	87	88	88	89	91	93
<b>SIZE AND WEIGHT<sup>11</sup></b>											
WIDTH (A)	mm	2000	2000	2625	2625	2625	2625	3250	3250	3875	4500
DEPTH (B)	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
HEIGHT (H)	mm	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070
OPERATION WEIGHT	kg	800	820	930	930	1050	1050	1290	1300	1480	1630

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013] - Average Weather Conditions.
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data



# i-NX-Q

## R410A Air Source Polyvalent Unit

(51 to 153kW)

Super-Low Noise Version (/SL)



Mitsubishi Electric's i-NX-Q is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using Variable Speed Drive (VSD) scroll compressors as standard.

### Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- High efficiency inverter scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R410A**

MODEL	0152P	0182P	0202P	0252P	0262P	0302P	0352P	0402P	0502P	0552P	
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>											
COOLING CAPACITY	kW	46.05	52.93	57.65	65.09	75.01	84.46	94.47	109.2	126.20	145.2
RECOVERY HEAT EXCHANGER CAPACITY	kW	59.22	68.77	74.09	84.59	96.84	110.2	120.9	141.2	164.0	188.1
TOTAL POWER INPUT	kW	14.14	17.04	17.62	20.92	23.40	27.71	28.37	34.43	40.58	46.15
TER	kW/kW	7.447	7.142	7.477	7.154	7.343	7.026	7.591	7.272	7.151	7.222
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>											
TOTAL HEAT CAPACITY	kW	51.20	59.00	62.50	70.70	78.50	93.10	98.10	114.2	132.4	153.2
COP	kW/kW	3.370	3.31	3.40	3.29	3.38	3.37	3.45	3.35	3.36	3.38
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>											
TOTAL COOLING CAPACITY	kW	45.6	52.3	56.3	62.9	70.9	84.0	89.5	105.0	119.9	138.4
EER	kW/kW	3.23	3.03	3.01	2.77	2.73	2.87	2.90	2.81	2.72	2.78
<b>SEASONAL PERFORMANCE<sup>5</sup></b>											
RATED HEAT OUTPUT AT Tdesignh	kW	37.0	43.0	45.0	52.0	59.0	70.0	74.0	79.0	97.0	115.0
SCOP		3.93	3.97	3.98	4.00	3.97	4.04	4.09	4.01	4.11	4.13
<b>ELECTRICAL DATA</b>											
POWER SUPPLY	V/ph/Hz	400/3+N/50									
MAX F.L.A. <sup>6</sup>	Total A	71	71	76	76	75	77	109	111	111	113
<b>EXCHANGERS</b>											
MINIMUM WATER FLOW IN COOLING <sup>4</sup>	Evaporator l/s	1.056	1.222	1.417	1.583	1.861	2.083	2.389	2.722	3.167	3.639
MINIMUM WATER FLOW IN HEATING <sup>1</sup>	Condenser l/s	1.333	1.528	1.750	1.944	2.250	2.528	2.611	3.056	3.528	4.056
<b>REFRIGERANT CIRCUIT</b>											
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup>	kg	26.7	27.3	27.8	29.2	31.2	43.8	40.6	45.8	53.4	60.0
<b>NOISE LEVELS</b>											
TOTAL SOUND PRESSURE <sup>8</sup>	dB(A)	47	47	48	49	49	50	50	51	53	55
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup>	dB(A)	79	79	80	81	81	82	82	83	85	87
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup>	dB(A)	79	79	80	81	81	82	82	83	85	87
<b>SIZE AND WEIGHT<sup>11</sup></b>											
WIDTH (A)	mm	2625	2625	2625	2625	2625	3250	3250	3250	3875	4500
DEPTH (B)	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
HEIGHT (H)	mm	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070
OPERATION WEIGHT	kg	960	960	990	990	1080	1210	1330	1440	1520	1660

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013] - Average Weather Conditions.
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

**INTΣGRA**

**CLUMAVENETA**

# NX-Q-G06

## R454B 2 Compressor

### Air Source

### Polyvalent Unit

(58 to 170kW)



Mitsubishi Electric's **NX-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using two high efficiency scroll compressors as standard.

#### Key Features & Benefits

- Low GWP refrigerant R454B provides an environmentally friendly solution
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0202P	0252P	0262P	0302P	0402P	0502P	0602P
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>							
COOLING CAPACITY kW	56.4	61.6	70.0	83.3	107.3	133.9	169.3
RECOVERY HEAT EXCHANGER CAPACITY kW	70.3	76.8	87.5	103.9	134.1	168.7	213.9
TOTAL POWER INPUT kW	14.79	16.32	18.64	22.07	28.72	37.33	47.98
TER kW/kW	8.575	8.485	8.456	8.483	8.404	8.108	7.987
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>							
TOTAL HEAT CAPACITY kW	58.3	64.7	72.3	86.6	110.8	139.3	170.6
COP kW/kW	3.55	3.58	3.59	3.61	3.60	3.58	3.48
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
TOTAL COOLING CAPACITY kW	55.7	61.4	68.6	82.0	106.1	132.1	161.5
EER kW/kW	3.37	3.41	3.29	3.41	3.38	3.32	3.04
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
Prated,C kW	55.7	61.4	68.6	82.0	106.1	132.1	161.5
SEER	4.03	4.16	3.99	4.11	4.09	4.02	3.70
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3+N/50						
MAX F.L.A. <sup>6</sup> Total A	40	43	48	59	79	98	123
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW IN COOLING <sup>7 4</sup> Evaporator l/s	1.639	1.750	2.000	2.361	3.056	3.889	4.778
MINIMUM WATER FLOW IN HEATING <sup>7 1</sup> Condenser l/s	1.639	1.750	2.000	2.361	3.056	3.889	4.778
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	2	2	2	2	2	2	2
CIRCUITS No.	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	20.6	25.6	27.8	33.4	48.2	54.4	54.9
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	53	53	53	54	55	56	56
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	85	85	85	86	87	88	88
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	85	85	85	86	87	88	88
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A) mm	2625	2625	2625	3250	3875	4500	4500
DEPTH (B) mm	1350	1350	1350	1350	1350	1350	1350
HEIGHT (H) mm	2070	2070	2070	2070	2070	2070	2070
OPERATION WEIGHT kg	950	990	1000	1130	1310	1620	1650

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Value in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C / 45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes. b
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

**INTEGRA**

**CLIMAVENETA**

# NX-Q-G06

## R454B 2 Compressor

### Air Source

### Polyvalent Unit

(59 to 135kW)

Super-Low Noise Version (/SL)



Mitsubishi Electric's NX-Q-G06 is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using two high efficiency scroll compressors as standard.

#### Key Features & Benefits

- Low GWP refrigerant R454B provides an environmentally friendly solution
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0202P	0252P	0262P	0302P	0402P	0502P
COOLING WITH HEAT RECOVERY <sup>1 2 3</sup>						
COOLING CAPACITY kW	56.4	61.6	70.0	83.3	107.3	134.0
RECOVERY HEAT EXCHANGER CAPACITY kW	70.3	76.8	87.5	103.9	134.1	168.7
TOTAL POWER INPUT kW	14.80	16.31	18.65	22.07	28.72	37.22
TER kW/kW	8.568	8.488	8.448	8.482	8.403	8.135
PERFORMANCE - HEATING ONLY <sup>4 2</sup>						
TOTAL HEAT CAPACITY kW	59.8	64.5	73.8	87.6	111.8	135.8
COP kW/kW	3.66	3.62	3.70	3.69	3.68	3.61
PERFORMANCE - COOLING ONLY <sup>1 2</sup>						
TOTAL COOLING CAPACITY kW	56.1	60.6	68.6	81.3	104.0	125.3
EER kW/kW	3.46	3.33	3.32	3.40	3.32	3.02
SEASONAL PERFORMANCE <sup>5</sup>						
Prated,C kW	56.1	60.6	68.6	81.3	104.0	125.3
SEER kW/kW	4.14	4.08	4.04	4.11	4.02	3.70
ELECTRICAL DATA						
POWER SUPPLY V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
MAX F.L.A. <sup>6</sup> Total A	42	45	50	61	82	98
EXCHANGERS						
MINIMUM WATER FLOW IN COOLING <sup>7</sup> Evaporator l/s	1.611	1.750	2.000	2.389	3.056	3.889
MINIMUM WATER FLOW IN HEATING <sup>1</sup> Condenser l/s	1.611	1.750	2.000	2.389	3.056	3.889
REFRIGERANT CIRCUIT						
COMPRESSORS No.	2	2	2	2	2	2
CIRCUITS No.	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	25.9	26.9	37.8	44.0	49.7	53.5
NOISE LEVELS						
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	48	48	48	49	50	52
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	80	80	80	81	82	84
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	80	80	80	81	82	84
SIZE AND WEIGHT <sup>11</sup>						
WIDTH (A) mm	3250	3250	3250	3875	4500	4500
DEPTH (B) mm	1350	1350	1350	1350	1350	1350
HEIGHT (H) mm	2070	2070	2070	2070	2070	2070
OPERATION WEIGHT kg	1060	1060	1120	1270	1490	1630

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Value in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C/45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes. b
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

**INTEGRA**

**CLIMAVENETA**

# NX-Q-G06

## R454B 4 Compressor

### Air Source

### Polyvalent Unit

(157 to 323kW)



Mitsubishi Electric's NX-Q-G06 is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using four high efficiency scroll compressors as standard.

#### Key Features & Benefits

- Low GWP refrigerant R454B provides an environmentally friendly solution
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0604	0704	0804	0904	1004	1104	1204
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>							
COOLING CAPACITY kW	144.6	165.6	186.1	210.9	235.9	269.0	303.7
RECOVERY HEAT EXCHANGER CAPACITY kW	188.8	216.0	243.1	274.6	306.3	350.8	395.0
TOTAL POWER INPUT kW	47.72	54.57	61.63	68.87	76.32	88.71	99.91
TER kW/kW	6.987	6.993	6.963	7.049	7.105	6.987	7.003
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>							
TOTAL HEAT CAPACITY kW	157.5	174.6	197.1	220.5	250.9	288.4	323.7
COP kW/kW	2.92	2.90	2.94	2.98	2.94	2.99	3.00
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
TOTAL COOLING CAPACITY kW	143.5	159.3	180.9	202.3	230.1	265.6	298.0
EER kW/kW	2.58	2.45	2.53	2.52	2.55	2.62	2.63
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
Prated,C kW	143.5	159.3	180.9	202.3	230.1	265.6	298.0
SEER	3.52	3.52	3.67	3.75	3.59	3.75	3.83
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>6</sup> Total A	115	133	152	169	193	218	243
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW IN COOLING <sup>7 4</sup> Evaporator l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
MINIMUM WATER FLOW IN HEATING <sup>7 1</sup> Condenser l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	4	4	4	4	4	4	4
CIRCUITS No.	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	38.3	38.4	54.2	57.3	60.5	72.5	97.2
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	60	60	60	61	62	63	63
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	92	92	92	93	94	95	95
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	92	92	92	93	94	95	95
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A) mm	3110	3110	3110	4110	4110	4110	4110
DEPTH (B) mm	2220	2220	2220	2220	2220	2220	2220
HEIGHT (H) mm	2150	2150	2150	2150	2150	2150	2150
OPERATION WEIGHT kg	1660	1730	1850	2130	2370	2540	2680

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

 Eurovent Certified Data



# NX-Q-G06

## R454B 4 Compressor

### Air Source

### Polyvalent Unit

(150 to 304kW)

Low Noise Version (/LN)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **NX-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using four high efficiency scroll compressors as standard.

### Key Features & Benefits

- Low GWP refrigerant R454B provides an environmentally friendly solution
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0604	0704	0804	0904	1004	1104	1204
COOLING WITH HEAT RECOVERY <sup>1 2 3</sup>							
COOLING CAPACITY kW	144.8	165.7	186.3	211.1	236.1	269.3	304.1
RECOVERY HEAT EXCHANGER CAPACITY kW	188.8	216.1	243.2	274.6	306.4	351.0	396.1
TOTAL POWER INPUT kW	47.50	54.31	61.35	68.60	75.96	88.27	99.33
TER kW/kW	7.023	7.031	7.000	7.080	7.143	7.027	7.050
PERFORMANCE - HEATING ONLY <sup>4 2</sup>							
TOTAL HEAT CAPACITY kW	150.2	165.8	186.4	212.2	238.7	273.2	304.9
COP kW/kW	2.98	2.94	2.96	3.02	2.99	3.00	2.98
PERFORMANCE - COOLING ONLY <sup>1 2</sup>							
TOTAL COOLING CAPACITY kW	137.0	150.5	169.7	190.8	217.9	249.9	278.8
EER kW/kW	2.47	2.27	2.30	2.31	2.39	2.40	2.36
SEASONAL PERFORMANCE <sup>5</sup>							
Prated,C kW	137.0	150.5	169.7	190.8	217.9	249.9	278.8
SEER	3.59	3.56	3.57	3.70	3.60	3.75	3.72
ELECTRICAL DATA							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>6</sup> Total A	115	133	152	169	193	218	243
EXCHANGERS							
MINIMUM WATER FLOW IN COOLING <sup>7</sup> Evaporator l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
MINIMUM WATER FLOW IN HEATING <sup>7</sup> Condenser l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
REFRIGERANT CIRCUIT							
COMPRESSORS No.	4	4	4	4	4	4	4
CIRCUITS No.	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	38	38	54	57	61	73	97
NOISE LEVELS							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	54	54	54	55	56	57	57
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	86	86	86	87	88	89	89
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	87	87	87	88	89	90	90
SIZE AND WEIGHT <sup>11</sup>							
WIDTH (A) mm	3110	3110	3110	4110	4110	4110	4110
DEPTH (B) mm	2220	2220	2220	2220	2220	2220	2220
HEIGHT (H) mm	2150	2150	2150	2150	2150	2150	2150
OPERATION WEIGHT kg	1660	1730	1850	2130	2370	2540	2680

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Value in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C/45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# NX-Q-G06

## R454B 4 Compressor

### Air Source

### Polyvalent Unit

(149 to 310kW)

Super-Low Noise Version (/SL)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **NX-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using four high efficiency scroll compressors as standard.

### Key Features & Benefits

- Low GWP refrigerant R454B provides an environmentally friendly solution
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0604	0704	0804	0904	1004	1104	1204
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>							
COOLING CAPACITY kW	144.8	165.7	186.2	211.1	236.1	269.2	304.0
RECOVERY HEAT EXCHANGER CAPACITY kW	188.8	216.1	243.1	274.6	306.4	350.9	396.0
TOTAL POWER INPUT kW	47.48	54.37	61.53	68.63	75.93	88.35	99.48
TER kW/kW	7.027	7.021	6.978	7.077	7.146	7.019	7.037
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>							
TOTAL HEAT CAPACITY kW	149.8	167.6	193.2	213.1	238.1	277.2	310.6
COP kW/kW	3.05	3.03	3.01	3.00	3.05	3.10	3.03
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
TOTAL COOLING CAPACITY kW	136.0	153.0	175.7	192.4	216.0	250.0	281.8
EER kW/kW	2.48	2.40	2.46	2.33	2.39	2.45	2.42
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
PRated,C kW	136.0	153.0	175.7	192.4	216.0	250.0	281.8
SEER	3.72	3.79	3.67	3.67	3.73	3.91	3.76
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>6</sup> Total A	115	133	160	176	193	218	251
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW IN COOLING <sup>7</sup> Evaporator l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
MINIMUM WATER FLOW IN HEATING <sup>7</sup> Condenser l/s	4.444	4.917	5.611	6.278	7.139	8.250	9.250
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	4	4	4	4	4	4	4
CIRCUITS No.	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	49.5	63.1	63.2	63.3	73.8	99.0	99.0
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	50	50	51	51	51	53	54
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	82	82	83	83	83	85	86
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	83	83	84	84	84	86	87
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A) mm	3110	3110	4110	4110	4110	5110	5110
DEPTH (B) mm	2220	2220	2220	2220	2220	2220	2220
HEIGHT (H) mm	2150	2150	2150	2150	2150	2150	2150
OPERATION WEIGHT kg	1750	1850	2070	2230	2480	2810	2930

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C / 45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# NX2-Q-G06

## R454B Air Source Polyvalent Unit

(367 to 583kW)

Standard Version (/K)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **NX2-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using high efficiency scroll compressors.

### Key Features & Benefits

- Smart and independent management of the defrost cycles
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Electronic expansion valve supplied as standard
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>							
COOLING CAPACITY kW	346.9	366.8	403.0	451.8	494.3	533.0	550.6
RECOVERY HEAT EXCHANGER CAPACITY kW	445.5	468.8	514.9	581.4	633.4	691.2	704.1
TOTAL POWER INPUT kW	107.0	110.3	121.3	140.3	151.2	160.6	166.5
TER kW/kW	7.41	7.57	7.57	7.36	7.46	7.56	7.53
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>							
TOTAL HEAT CAPACITY kW	367.0	388.9	417.5	472.3	515.9	563.5	583.4
COP kW/kW	3.03	3.08	3.06	3.00	3.02	3.06	3.08
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
TOTAL COOLING CAPACITY kW	334.3	354.7	382.0	430.2	475.1	515.9	533.1
EER kW/kW	2.69	2.78	2.67	2.62	2.68	2.78	2.79
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
Prated,C kW	334.3	354.7	382.0	430.2	475.1	515.9	533.1
SEER 3.92	4.04	4.06	4.00	3.93	4.07	4.09	
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	257	270	297	333	365	392	405
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
MINIMUM WATER FLOW IN HEATING <sup>11</sup> Condenser l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	4	4	4	6	6	6	6
CIRCUITS No.	2	2	2	3	3	3	3
REFRIGERANT CHARGE <sup>7</sup> kg	77.4	93.6	93.6	97.2	108	124	125
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	64	64	64	64	65	65	65
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	96	96	96	96	97	97	97
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	96	96	96	96	97	97	97
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A) mm	3905	3905	3905	4515	5690	5690	5690
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2450	2450	2450	2450	2450	2450	2450
OPERATION WEIGHT kg	3400	3490	3530	4670	5030	5170	5230

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# NX2-Q-G06

## R454B Air Source Polyvalent Unit

(364 to 572kW)

Super-Low Noise Version (/SL)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **NX2-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using high efficiency scroll compressors.

### Key Features & Benefits

- Smart and independent management of the defrost cycles
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Electronic expansion valve supplied as standard
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>							
COOLING CAPACITY kW	346.9	366.8	403.0	451.8	494.3	533.0	550.5
RECOVERY HEAT EXCHANGER CAPACITY kW	445.4	468.8	514.9	581.4	633.4	681.2	704.0
TOTAL POWER INPUT kW	106.8	110.2	121.3	140.1	150.9	160.3	166.2
TER kW/kW	7.42	7.59	7.57	7.37	7.47	7.57	7.55
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>							
TOTAL HEAT CAPACITY kW	364.3	381.5	422.7	473.7	514.2	555.4	572.2
COP kW/kW	3.15	3.13	3.18	3.10	3.12	3.15	3.13
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>							
TOTAL COOLING CAPACITY kW	316.0	336.4	370.2	409.0	443.6	486.1	505.7
EER kW/kW	2.44	2.51	2.54	2.38	2.38	2.49	2.51
<b>SEASONAL PERFORMANCE<sup>5</sup></b>							
Prated,C kW	316.0	336.4	370.2	409.0	443.6	486.1	505.7
SEER	4.09	4.13	4.23	4.13	4.10	4.19	4.19
<b>ELECTRICAL DATA</b>							
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	249	265	291	325	350	381	397
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
MINIMUM WATER FLOW IN HEATING <sup>1</sup> Condenser l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS No.	4	4	4	6	6	6	6
CIRCUITS No.	2	2	2	3	3	3	3
REFRIGERANT CHARGE <sup>7</sup> kg	87.3	92.7	107	113	128	128	128
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	56	56	56	57	57	57	57
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	88	88	88	89	89	90	90
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	89	89	89	90	90	91	91
<b>SIZE AND WEIGHT<sup>11</sup></b>							
WIDTH (A) mm	4515	5080	5080	5690	5690	6865	7430
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2450	2450	2450	2450	2450	2450	2450
OPERATION WEIGHT kg	3700	3840	4010	5280	5390	5690	5800

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# NX2-Q-G06

## R454B Air Source Polyvalent Unit

(378 to 854kW)

High Efficiency Version (/A)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **NX2-Q-G06** is our range of air source simultaneous heating and cooling (polyvalent / 4-pipe) using high efficiency scroll compressors.

### Key Features & Benefits

- Smart and independent management of the defrost cycles
- Exceptional seasonal efficiency in a compact footprint
- High efficiency scroll compressors providing a dual refrigeration circuit
- Electronic expansion valve supplied as standard
- Wide range of options available including: inbuilt hydronic pumps, dual pressure relief valves, BEMS interface cards, EC Fans and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R454B**

MODEL	0344	0364	0404	0446	0506	0526	0546	0606	0708	0738	0768	0808
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>												
COOLING CAPACITY kW	346.9	366.8	403.0	451.8	494.3	533.0	550.6	605.6	695.7	734.1	769.7	807.2
RECOVERY HEAT EXCHANGER CAPACITY kW	445.5	468.9	515.0	581.4	633.4	681.3	704.1	772.6	890.9	938.6	983.8	1030.0
TOTAL POWER INPUT kW	107.2	110.5	121.6	140.7	151.6	160.8	166.8	181.5	212.1	221.4	232.1	241.8
TER kW/kW	7.39	7.56	7.55	7.35	7.44	7.55	7.52	7.59	7.48	7.56	7.55	7.60
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>												
TOTAL HEAT CAPACITY kW	378.7	399.7	429.4	495.5	534.2	577.0	599.6	640.6	753.4	795.3	826.0	854.1
COP kW/kW	3.20	3.21	3.21	3.19	3.20	3.21	3.21	3.26	3.26	3.28	3.26	3.26
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>												
TOTAL COOLING CAPACITY kW	344.9	361.1	399.3	446.0	499.5	525.3	543.0	598.8	696.0	724.2	761.4	798.6
EER kW/kW	2.92	2.95	2.96	2.90	2.92	2.94	2.95	3.01	3.01	3.01	3.03	3.02
<b>SEASONAL PERFORMANCE<sup>5</sup></b>												
Prated,C kW	344.9	361.1	399.3	446.0	499.5	525.3	543.0	598.8	696.0	724.2	761.4	798.6
SEER 4.28	4.28	4.38	4.44	4.36	4.28	4.37	4.36	4.56	4.56	4.56	4.58	4.56
<b>ELECTRICAL DATA</b>												
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	265	278	305	344	377	404	417	443	511	537	564	590
<b>EXCHANGERS</b>												
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50	17.50	21.14	22.67	23.72	24.69
MINIMUM WATER FLOW IN HEATING <sup>11</sup> Condenser l/s	10.58	11.31	12.33	13.89	13.89	17.50	17.50	17.50	21.14	22.67	23.72	24.69
<b>REFRIGERANT CIRCUIT</b>												
COMPRESSORS No.	4	4	4	6	6	6	6	6	8	8	8	8
CIRCUITS No.	2	2	2	3	3	3	3	3	4	4	4	4
<b>REFRIGERANT CHARGE<sup>7</sup></b>												
REFRIGERANT CHARGE kg	100	101	107	128	128	137	142	142	178	190	190	190
<b>NOISE LEVELS</b>												
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	65	65	65	64	65	65	65	66	66	67	67	67
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	97	97	97	97	98	98	98	99	99	100	100	100
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	97	97	97	97	98	98	98	98				
<b>SIZE AND WEIGHT<sup>11</sup></b>												
WIDTH (A) mm	5080	5080	5080	6255	7430	7430	7430	7430	9780	9780	9780	9780
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
OPERATION WEIGHT kg	3720	3820	3860	5290	5530	5700	5780	5840	7440	7640	7680	7720

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
5. Parameter calculated according to [Regulation (EU) N. 2016/2281].
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# i-FX-Q2-G05

## R513A Air Source Polyvalent Unit

(463 to 1,029kW)

High Efficiency Version (/CA)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **i-FX-Q2-G05** is our flagship range for air source simultaneous heating and cooling (polyvalent / 4-pipe). Thanks to its Variable Speed Drive (VSD) screw compressors and EC fans fitted as standard it brings exceptional seasonal efficiency by recovering heat from the cooling circuit to be used in the heating circuit.

### Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- High efficiency inverter screw compressors providing a dual refrigeration circuit
- EC fans supplied as standard
- Low GWP refrigerant R513A
- Wide range of options available including: inbuilt hydronic pumps, thermal and energy meters, Smart LAN functions and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R513A**

MODEL	0502	0532	0602	0652	0702	0802	0902	1002	1102
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>									
COOLING CAPACITY kW	488.1	532.5	570.1	623.5	682.1	783.9	913.9	986.8	1101
RECOVERY HEAT EXCHANGER CAPACITY kW	623.1	681.2	728.8	795.2	872.3	1002	1168	1257	1405
TOTAL POWER INPUT kW	145.7	160.5	170.6	185.6	205.6	234.7	275.7	292.5	329.6
TER kW/kW	7.63	7.56	7.62	7.65	7.56	7.61	7.55	7.67	7.60
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>									
TOTAL HEAT CAPACITY kW	463.4	491.5	531.3	599.0	659.5	765.3	871.2	938.3	1029
COP kW/kW	3.31	3.27	3.00	3.34	3.32	3.38	3.33	3.36	3.35
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>									
TOTAL COOLING CAPACITY kW	487.0	530.8	569.5	626.3	688.4	786.9	914.4	984.6	1082
EER kW/kW	2.99	2.99	2.99	2.99	2.99	2.99	3.03	3.01	2.86
SEASONAL PERFORMANCE <sup>5</sup>									
Prated.C kW	487.0	530.8	569.5	626.3	688.4	786.9	914.4	984.6	1082
SEER	5.16	5.10	5.12	5.09	5.13	5.03	4.74	4.67	4.65
<b>ELECTRICAL DATA</b>									
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	362	362	387	458	484	515	576	625	699
<b>EXCHANGERS</b>									
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	11.11	11.11	16.39	16.39	16.39	25.00	25.00	30.56	30.56
MINIMUM WATER FLOW IN HEATING <sup>7</sup> Condenser l/s	10.97	10.97	16.08	17.83	14.31	17.67	17.67	22.19	29.69
<b>REFRIGERANT CIRCUIT</b>									
COMPRESSORS No.	2	2	2	2	2	2	2	2	2
CIRCUITS No.	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	255	255	300	305	370	460	475	420	425
<b>NOISE LEVELS</b>									
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	67	67	68	69	69	68	70	70	70
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	100	100	101	102	102	101	103	103	103
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	100	100	101	102	102	101	103	103	103
<b>SIZE AND WEIGHT<sup>11</sup></b>									
WIDTH (A) mm	8150	8150	8900	9650	10400	10400	10750	12250	12250
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2530	2530	2530	2530	2530	2530	2530	2530	2530
OPERATION WEIGHT kg	8350	8380	9080	9590	10060	11010	12490	14170	14210

Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511.
- Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
- Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013] - Average Weather Conditions.
- Data valid for standard units without any additional options and only indicate. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
- Theoretical - refer to serial plate for actual charge volumes.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
- Sound power level in heating, outdoors.
- Unit in standard configuration, without optional accessories.

# i-FX-Q2-G05

## R513A Air Source Polyvalent Unit

(459 to 1,018kW)

Super-Low Noise, High Efficiency Version (/SL-CA)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **i-FX-Q2-G05** is our flagship range for air source simultaneous heating and cooling (polyvalent / 4-pipe). Thanks to its Variable Speed Drive (VSD) screw compressors and EC fans fitted as standard it brings exceptional seasonal efficiency by recovering heat from the cooling circuit to be used in the heating circuit.

### Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- High efficiency inverter screw compressors providing a dual refrigeration circuit
- EC fans supplied as standard
- Low GWP refrigerant R513A
- Wide range of options available including: inbuilt hydronic pumps, thermal and energy meters, Smart LAN functions and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R513A**

MODEL	0502	0532	0602	0652	0702	0802	0902	1002	1102
COOLING WITH HEAT RECOVERY <sup>1 2 3</sup>									
COOLING CAPACITY kW	488.1	532.6	570.1	623.5	682.1	783.8	913.9	986.8	1100
RECOVERY HEAT EXCHANGER CAPACITY kW	623.1	681.4	728.8	795.2	872.3	1002	1168	1257	1405
TOTAL POWER INPUT kW	145.5	160.3	170.4	185.3	205.4	234.5	274.6	291.6	329.3
TER kW/kW	7.64	7.57	7.62	7.66	7.57	7.61	7.58	7.70	7.61
PERFORMANCE - HEATING ONLY <sup>4 2</sup>									
TOTAL HEAT CAPACITY kW	459.0	486.8	526.4	593.3	653.7	756.8	860.7	929.0	1018
COP kW/kW	3.33	3.28	3.31	3.35	3.34	3.39	3.33	3.38	3.36
PERFORMANCE - COOLING ONLY <sup>1 2</sup>									
TOTAL COOLING CAPACITY kW	467.1	508.0	548.6	603.6	664.5	765.1	880.5	951.2	1038
EER kW/kW	2.86	2.85	2.88	2.92	2.94	2.91	2.85	2.87	2.66
SEASONAL PERFORMANCE <sup>5</sup>									
Prated.C kW	467.1	508.0	548.6	603.6	664.5	765.1	880.5	951.2	1038
SEER	5.11	5.08	5.08	5.08	5.13	4.97	4.71	4.63	4.61
ELECTRICAL DATA									
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	362	362	387	458	484	515	576	625	699
EXCHANGERS									
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	11.11	11.11	16.39	16.39	16.39	25.00	25.00	30.56	30.56
MINIMUM WATER FLOW IN HEATING <sup>7</sup> Condenser l/s	10.97	10.97	16.08	17.83	14.31	17.67	17.67	22.19	29.69
REFRIGERANT CIRCUIT									
COMPRESSORS No.	2	2	2	2	2	2	2	2	2
CIRCUITS No.	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	255	255	300	305	370	460	475	420	425
NOISE LEVELS									
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	57	58	58	59	59	59	61	61	59
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	90	91	91	92	92	92	94	94	92
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	90	91	91	92	92	92	94	94	92
SIZE AND WEIGHT <sup>11</sup>									
WIDTH (A) mm	8150	8150	8900	9650	10400	10400	10750	12250	12250
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2530	2530	2530	2530	2530	2530	2530	2530	2530
OPERATION WEIGHT kg	8800	8830	9530	10040	10510	11450	12940	14620	14660

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
4. Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C + 87% R.H.
5. Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013] - Average Weather Conditions.
6. Data valid for standard units without any additional options and only indicate. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Theoretical - refer to serial plate for actual charge volumes.
8. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
9. Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
10. Sound power level in heating, outdoors.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# i-FX-Q2-G05

## R513A Air Source Polyvalent Unit

(438 to 898kW)

Extra-Low Noise, High Efficiency Version (/XL-CA)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **i-FX-Q2-G05** is our flagship range for air source simultaneous heating and cooling (polyvalent / 4-pipe). Thanks to its Variable Speed Drive (VSD) screw compressors and EC fans fitted as standard it brings exceptional seasonal efficiency by recovering heat from the cooling circuit to be used in the heating circuit.

### Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- High efficiency inverter screw compressors providing a dual refrigeration circuit
- EC fans supplied as standard
- Low GWP refrigerant R513A
- Wide range of options available including: inbuilt hydronic pumps, thermal and energy meters, Smart LAN functions and many more
- Copper/Aluminium auxiliary heat exchanger with other protection coating options available

**R513A**

MODEL	0502	0532	0602	0652	0702	0802	0902	1002
<b>COOLING WITH HEAT RECOVERY<sup>1 2 3</sup></b>								
COOLING CAPACITY kW	463.2	507.6	547.7	589.8	649.8	750.6	882.2	920.2
RECOVERY HEAT EXCHANGER CAPACITY kW	590.9	648.3	696.5	752.2	829.8	959.9	1126	1178
TOTAL POWER INPUT kW	137.2	151.5	159.7	174.6	193.8	224.9	262.8	278.0
TER kW/kW	7.68	7.63	7.79	7.69	7.63	7.61	7.64	7.55
<b>PERFORMANCE - HEATING ONLY<sup>4 2</sup></b>								
TOTAL HEAT CAPACITY kW	438.6	466.8	507.3	566.3	627.3	728.8	834.0	898.0
COP kW/kW	3.35	3.31	3.35	3.37	3.36	3.41	3.37	3.41
<b>PERFORMANCE - COOLING ONLY<sup>1 2</sup></b>								
TOTAL COOLING CAPACITY kW	442.5	483.0	525.3	571.2	632.0	731.4	847.1	911.7
EER kW/kW	2.87	2.83	2.90	2.94	2.95	2.91	2.86	2.87
<b>SEASONAL PERFORMANCE<sup>5</sup></b>								
Prated.C kW	442.5	483.0	525.3	571.2	632.0	731.4	847.1	911.7
SEER	5.10	5.08	5.10	5.04	5.19	5.00	4.60	4.56
<b>ELECTRICAL DATA</b>								
POWER SUPPLY V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX FLA <sup>6</sup> Total A	333	352	387	420	464	515	576	625
<b>EXCHANGERS</b>								
MINIMUM WATER FLOW IN COOLING <sup>4</sup> Evaporator l/s	11.11	11.11	16.39	16.39	16.39	25.00	25.00	30.56
MINIMUM WATER FLOW IN HEATING <sup>7</sup> Condenser l/s	10.97	10.97	16.08	17.83	14.31	17.67	17.67	22.19
<b>REFRIGERANT CIRCUIT</b>								
COMPRESSORS No.	2	2	2	2	2	2	2	2
CIRCUITS No.	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE <sup>7</sup> kg	255	255	300	305	370	460	475	420
<b>NOISE LEVELS</b>								
TOTAL SOUND PRESSURE <sup>8</sup> dB(A)	53	54	55	55	55	56	55	56
TOTAL SOUND POWER LEVEL IN COOLING <sup>9</sup> dB(A)	86	87	88	88	88	89	88	89
TOTAL SOUND POWER LEVEL IN HEATING <sup>10</sup> dB(A)	87	88	89	89	89	90	89	90
<b>SIZE AND WEIGHT<sup>11</sup></b>								
WIDTH (A) mm	8150	8150	8900	9650	10400	10400	10750	12250
DEPTH (B) mm	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H) mm	2530	2530	2530	2530	2530	2530	2530	2530
OPERATION WEIGHT kg	8800	8830	9530	10040	10510	11450	12940	14620

**Notes:**

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511.
- Plant (side) heat exchanger water (in/out) 12°C/7°C; Plant (side) heat exchanger water (in/out) 40°C / 45°C.
- Plant (side) exchanger hot water temperature (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013] - Average Weather Conditions.
- Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
- Theoretical - refer to serial plate for actual charge volumes.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power level in cooling, outdoors, on the basis of measurement taken in compliance with ISO 9614.
- Sound power level in heating, outdoors.
- Unit in standard configuration, without optional accessories.

# i-FX-WQ-G05

## R513A Water Source Polyvalent Unit

(451 to 953kW)



**INTEGRA**

**CLIMAVENETA**

Mitsubishi Electric's **i-FX-WQ-G05** is our high performance water source simultaneous heating and cooling unit (Polyvalent / 6-pipe) that is fitted with Variable Speed Drive (VSD) screw compressors as standard.

### Key Features & Benefits

- Compact and considered design
- Exceptional efficiency with inverter screw compressors across twin circuits
- High quality shell and tube heat exchangers
- Dual Pressure Relief Valves (PRV) and Electronic Expansion Valves (EEV) as standard
- Low GWP refrigerant R513A
- A wide range of options including; acoustic enclosure, thermal and energy meters, smart LAN functions and many more

**R513A**

MODEL	0402	0452	0532	0592	0632	0702	0792	0852	
<b>COOLING WITH HEAT RECOVERY<sup>5-2</sup></b>									
COOLING CAPACITY	kW	353.9	401.5	471.2	520.7	558.6	626.9	700.7	750.4
RECOVERY HEAT EXCHANGER CAPACITY	kW	451.9	512.9	597.0	662.0	712.0	800.2	888.8	953.9
TOTAL POWER INPUT	kW	106.1	120.7	136.1	153.3	166.3	187.8	203.4	220.5
TER	kW/kW	7.59	7.57	7.85	7.71	7.64	7.59	7.81	7.73
<b>PERFORMANCE - HEATING ONLY<sup>3-2</sup></b>									
TOTAL HEAT CAPACITY	kW	451.9	512.9	597.0	662.0	712.0	800.2	888.8	953.9
COP	kW/kW	4.29	4.28	4.42	4.35	4.31	4.29	4.40	4.36
<b>PERFORMANCE - COOLING ONLY<sup>1-2</sup></b>									
TOTAL COOLING CAPACITY	kW	407.6	462.3	544.5	602.9	648.0	725.8	813.3	871.5
EER	kW/kW	5.03	5.01	5.22	5.15	5.10	5.06	5.21	5.14
<b>SEASONAL PERFORMANCE IN COOLING - AMBIENT REFRIGERATION</b>									
Prated,C	kW	394.4	447.3	526.2	582.2	624.8	700.1	784.4	840.7
SEER		6.48	6.49	6.51	6.57	6.53	6.52	6.54	6.54
<b>ELECTRICAL DATA</b>									
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAX F.L.A. <sup>8</sup>	Total A	241	270	304	338	381	428	454	480
<b>EXCHANGERS</b>									
MINIMUM WATER FLOW IN COOLING <sup>4</sup>	Evaporator l/s	12.50	15.28	17.22	17.22	21.67	24.44	26.11	26.11
MINIMUM WATER FLOW TO HEAT EXCHANGER	Source l/s	7.02	7.97	9.16	10.06	11.00	12.25	13.83	15.00
MINIMUM WATER FLOW IN HEATING <sup>1</sup>	Condenser l/s	12.50	15.28	17.22	17.22	21.67	24.44	26.11	26.11
<b>REFRIGERANT CIRCUIT</b>									
COMPRESSORS	No.	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2
<b>THEORETICAL REFRIGERANT CHARGE</b>									
	kg	80	80	102	102	126	152	152	137
<b>NOISE LEVELS</b>									
TOTAL SOUND PRESSURE <sup>7</sup>	dB(A)	65	65	66	67	67	67	67	67
TOTAL SOUND POWER LEVEL IN COOLING <sup>8-9</sup>	dB(A)	97	97	98	99	99	99	99	99
TOTAL SOUND POWER LEVEL IN HEATING <sup>8-10</sup>	dB(A)	97	97	98	99	99	99	99	99
<b>SIZE AND WEIGHT<sup>11</sup></b>									
WIDTH (A)	mm	5000	5000	5000	5000	5000	5550	5550	5550
DEPTH (B)	mm	1400	1400	1400	1400	1400	1400	1400	1400
HEIGHT (H)	mm	1950	1950	2050	2050	2050	2050	2050	2050
OPERATION WEIGHT	kg	4010	4030	5520	5860	5984	6414	6884	7294

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Source (side) heat exchanger water (in/out) 14.00°C/30.00°C.
2. Values in compliance with EN14511.
3. Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C; Source (side) heat exchanger water (in/out) 14.00°C/7.00°C.
4. Plant (side) cooling exchanger water (in/out) 12.00°C/7.00°C; Plant (side) heat exchanger water (in/out) 40.00°C/45.00°C.
5. Plant (side) cooling exchanger water \*7.00°C (same water flow rate found during the cooling mode); Plant (side) heat exchanger water \*/45.00°C (same water flow rate found during the heating mode).
6. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to databook.
7. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
8. Sound power level on the basis of measurements taken in compliance with ISO 9614.
9. Sound power level in cooling.
10. Sound power level in heating.
11. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

## Commercial Heat Pumps & Chillers

# Our Chiller Range - An Overview

Consisting of a wide range of models, the Mitsubishi Electric range of chillers are a new generation of water chiller designed for comfort and process cooling applications.

Modern multi-function buildings, shopping centres, large business centres and process cooling are just some of the examples where increased comfort and precision control are required. The Mitsubishi Electric range of chillers can deliver all of this and more through their ability to be easily integrated into ever increasingly complex building systems.

In order to maximise performance, reliability and overall system efficiency, the Mitsubishi Electric range of products bring advanced technology and know-how together in customisable packages to aid design, specification, installation and on-going operation.

- Advanced modular technology
- Scalable and fully customisable
- Air source and water cooled versions
- Plate or Shell & Tube heat exchanger options



## Flexible Application Options

### Comfort Cooling

By using hydronic terminals, a simple application of a chiller can include cooling a space or environment to a set temperature. By using water as the medium of energy, high sensible cooling and stable room temperatures can be achieved.

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>■ Retail stores / Shopping centres</li> <li>■ Airports</li> <li>■ Offices</li> <li>■ Cinemas / Theatres</li> </ul> | <ul style="list-style-type: none"> <li>■ Schools / Universities</li> <li>■ Museums</li> <li>■ Hotels and Resorts</li> <li>■ Hospitals / Healthcare</li> </ul> |
|---|---|

### Process Cooling

During manufacturing processes, many substances become hot and if overheated can negatively effect the productivity and efficiency of the process. By correctly applying a chiller it is possible to ensure optimum temperatures and conditions are maintained at a steady state.

- Manufacturing processes
- Automotive and Electronic processes
- Energy and Power generation
- Industrial technology
- IT Cooling



## Commercial Heat Pumps & Chillers

### Our Chiller range at a glance

A wide range of advanced, customisable models for use in efficiently cooling a space or an environment to a set temperature. Our chillers fall into two broad ranges:



**Mitsubishi Electric** - Modular chillers manufactured to the highest quality standard, and suitable for a range of different applications, from comfort to industrial and even IT cooling processes.

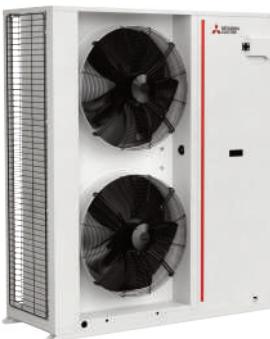
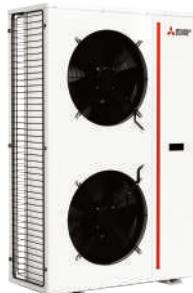
**Climaveneta** - Chillers that use a wide range of low and lower GWP refrigerants, alongside the latest fixed speed/inverter scroll and screw compressors.



# MECH-iB-G07

## R32 Air Cooled Chiller

(15 to 38kW)



Mitsubishi Electric's **MECH-iB-G07** chiller provides a compact and convenient solution to your small-scale cooling needs. Designed to meet the highest of quality standards, the range uses variable speed scroll compressors optimised for using the lower GWP refrigerant R32.

### Key Features & Benefits

- Extended cooling envelope
- Compact design
- Providing fluid leaving temperatures as low as -12°C
- Operates down to -20°C ambient temperatures
- Low GWP R32 Refrigerant
- High seasonal efficiency (EER, SEER, SEPR)
- Plug & Play with Integrated hydronic pump, flow switch and expansion vessel

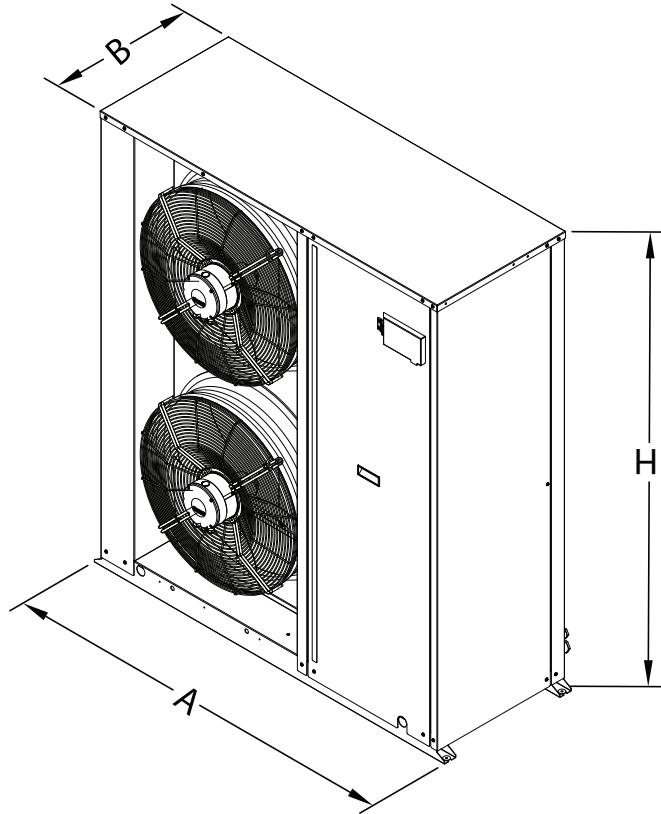
**R32**

MODEL	15Y	18Y	23Y	27Y	35Y	40Y
<b>PERFORMANCE - COOLING ONLY</b>						
<b>GROSS VALUE<sup>1</sup></b>						
TOTAL COOLING CAPACITY	kW	14.93	17.79	21.03	27.73	32.51
TOTAL POWER INPUT	kW	4.83	5.23	6.50	8.42	9.90
EER	kW/kW	3.09	3.40	3.23	3.29	3.28
<b>EN14511 VALUES<sup>1 2</sup></b>						
TOTAL COOLING CAPACITY	kW	15.00	17.90	21.10	27.80	32.70
EER	kW/kW	3.10	3.40	3.25	3.31	3.30
<b>SEASONAL PERFORMANCE<sup>3</sup></b>						
Prated, C	kW	15.0	17.9	21.1	27.8	32.7
SEER		5.23	5.4	5.66	5.39	5.46
PERFORMANCE HS	%	206.0	213.0	223.0	212.0	215.0
<b>ELECTRICAL DATA</b>						
POWER SUPPLY	Total	V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
FLA. <sup>4</sup>	A		11	12	15	20
<b>EXCHANGERS</b>						
MINIMUM WATER FLOW	Heat Exchanger	l/s	0.389	0.464	0.581	0.728
MINIMUM WATER CONTENT	System	l	75	90	115	140
<b>HEAT EXCHANGER USER SIDE IN COOLING<sup>1 2</sup></b>						
WATER FLOW	l/s	0.714	0.851	1.005	1.326	1.554
PRESSURE DROP	kPa	15.2	21.6	15.1	20.5	25.1
<b>REFRIGERANT CIRCUIT</b>						
COMPRESSORS	l/s	1	1	1	1	1
CIRCUITS	kPa	1	1	1	1	1
REGULATION		Stepless	Stepless	Stepless	Stepless	Stepless
MINIMUM CAPACITY STEP	%	32	34	29	30	26
REFRIGERANT		R32	R32	R32	R32	R32
REFRIGERANT CHARGE <sup>5</sup>	kg	2.10	2.83	3.60	4.74	5.67
OIL CHARGE		1.00	1.00	1.00	2.30	2.30
RC (ASHRAE) <sup>6</sup>	kg/kW	0.14	0.16	0.17	0.17	0.18
<b>FANS</b>						
QUANTITY	No.	2	2	1	2	2
AIRFLOW	m <sup>3</sup> /s	1.84	1.95	2.34	4.52	4.35
POWER INPUT	kW	0.22	0.22	0.39	0.78	0.78
<b>NOISE LEVELS</b>						
TOTAL SOUND PRESSURE <sup>7</sup>	dB(A)	39	40	45	46	47
TOTAL SOUND POWER LEVEL IN COOLING <sup>8 9</sup>	dB(A)	70	71	76	78	79
<b>SIZE AND WEIGHT<sup>10</sup></b>						
WIDTH (A)	mm	900	900	1450	1450	1450
DEPTH (B)	mm	420	420	550	550	550
HEIGHT (H)	mm	1390	1390	1200	1700	1700
OPERATION WEIGHT	kg	144	155	207	256	272

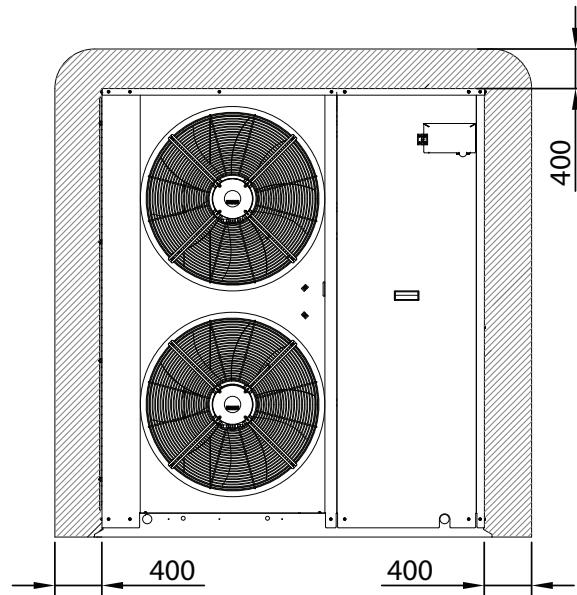
#### Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C
- Values in compliance with EN14511
- Parameter calculated according to [Regulation (EU) N. 2016/2281]
- Values calculated referring to the version with the maximum number of fans working at the max absorbed current. Safety values to be considered when cabling the unit for power supply and line-protection. Data valid for standard units without any additional options and only indicative. Refer to databook.
- Theoretical - refer to serial plate for actual charge volumes
- Rate in accordance with AHR standard 550/590
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurement taken in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Unit in standard configuration, without optional accessories.

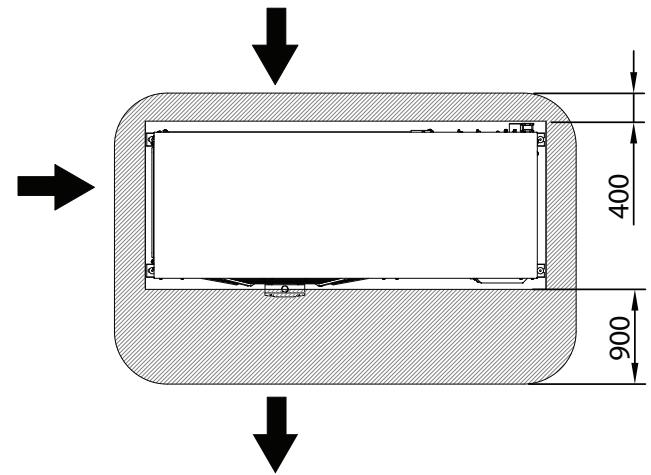
Eurovent Certified Data



Front View



Top View



# MECH-iS-G07

## R32 Modular Air Cooled Chiller

(50 to 880kW)



Mitsubishi Electric's **MECH-iS-G07** chiller range is manufactured to the highest quality standards. Featuring a compact design and modular expansion capabilities, it is suitable for many different applications, from comfort to industrial applications and even IT cooling processes.

### Key Features & Benefits

- Industry leading seasonal performance (SEER)
- Extremely quiet unit in a compact design
- Wide operating envelope down to -20°C ambient\*
- Variable speed fans with Brushless DC motors (BLDC) and inverter compressors in an acoustic enclosure as standard
- Lower GWP Refrigerant R32
- Wide range of options available including: inbuilt hydronic pumps, buffer vessels, energy meters, Smart LAN functions and many more
- Aluminum micro-channel heat exchangers as standard with options for copper/aluminum coils with protection coating

\*Additional low temperature protections may be required.



MODEL	0051	0061	0071	0082	0092	0102	0112
<b>PERFORMANCE - COOLING ONLY</b>							
EN 14511 VALUES <sup>1,2</sup>							
TOTAL COOLING CAPACITY	kW	50.0	60.0	70.0	80.0	90.0	100.0
EER	kW/kW	3.28	3.11	2.58	3.02	2.74	3.15
<b>SEASONAL PERFORMANCE<sup>3</sup></b>							
Prated,C	kW	50.0	60.0	70.0	80.0	90.0	100.0
SEER		5.29	5.28	4.98	5.15	5.12	5.32
<b>PERFORMANCE η<sub>s</sub></b>							
ELECTRICAL DATA	%	209.0	208.0	196.0	203.0	202.0	210.0
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. <sup>4</sup>	Total	A	52	60	60	78	78
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW	Heat Exchanger	l/s	1.67	1.67	1.67	2.22	2.22
MINIMUM WATER CONTENT	System	l	200	200	280	360	360
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS	No.	1	1	1	2	2	2
CIRCUITS	No.	1	1	1	1	1	1
REFRIGERANT		R32	R32	R32	R32	R32	R32
<b>THEORETICAL REFRIGERANT CHARGE</b>							
FANS	kg	8	8	8	11	11	13
QUANTITY	No.	2	2	2	3	3	4
AIRFLOW	m <sup>3</sup> /s	6.86	7.01	7.01	9.84	9.84	12.97
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>5</sup>	dB(A)	45	46	48	48	49	50
TOTAL SOUND POWER LEVEL IN COOLING <sup>6,7</sup>	dB(A)	77	78	80	80	81	82
<b>SIZE AND WEIGHT<sup>8</sup></b>							
WIDTH (A)	mm	2085	2085	2085	2600	2600	3225
DEPTH (B)	mm	1100	1100	1100	1100	1100	1100
HEIGHT (H)	mm	2400	2400	2400	2400	2400	2400
OPERATION WEIGHT	kg	630	630	630	830	830	940

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511
3. Parameter calculated according to [Regulation (EU) N. 2016/2281]
4. Data valid for standard units without any additional options and only indicative. Contact your local representative for support.
5. Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
6. Sound power on the basis of measurement taken in compliance with ISO 9614.
7. Sound power level in cooling, outdoors.
8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

For dimensional drawings of this model please see page 2.13

# MECH-iF-G05

## R513A High Performance Air Cooled Chiller

(414 to 921kW)



Mitsubishi Electric's new **MECH-iF-G05** high performance chiller brings a new class of efficiency with its proprietary Variable Speed Drive (VSD) screw compressor cooling. Available with three configurations for noise performance (Standard, NR Kit and SL version), it features a wide operating envelope and a patented Reduced Exergy Depletion (RED) Cooler, further driving efficiencies and energy saving.

### Key Features & Benefits

- Best in class efficiency
- Mitsubishi Electric's proprietary single screw compressor
- 3 noise configurations available
- CU/AL coil treatments available
- Wide operating envelope down to -20°C ambient\*

\*Additional low temperature options may be required.

**R513A**

MODEL	0411	0802	0902	0411	0802	0902	0411	0802	0902		
VERSION	-	-	-	-NR	-NR	-NR	-SL	-SL	-SL		
PERFORMANCE - COOLING ONLY											
GROSS VALUE <sup>1</sup>											
TOTAL COOLING CAPACITY	kW	414.4	814.7	921.1	411.0	807.0	913.0	407.1	799.6	903.7	
TOTAL POWER INPUT	kW	133.7	249.6	289.6	134.5	251.0	291.1	135.6	252.8	293.1	
EER	kW/kW	3.10	3.26	3.18	3.06	3.22	3.14	3.00	3.16	3.08	
EN14511 VALUES <sup>1,2</sup>											
TOTAL COOLING CAPACITY	kW	413.9	814.1	920.4	410.6	806.3	912.4	406.6	799.0	903.1	
EER	kW/kW	3.06	3.22	3.15	3.01	3.17	3.10	2.96	3.12	3.05	
SEASONAL PERFORMANCE <sup>3</sup>											
P <sub>PATED,C</sub>	kW	413.9	814.1	920.4	410.6	806.3	912.4	406.6	799.0	903.1	
SEER		5.34	5.62	5.73	5.33	5.61	5.73	5.32	5.62	5.73	
PERFORMANCE η <sub>S</sub>	%	210	222	226	210	222	226	210	222	226	
HEAT EXCHANGER IN COOLING <sup>4</sup>											
WATER FLOW	User Side	l/s	19.8	39.0	44.1	19.7	38.6	43.7	19.5	38.2	43.2
PRESSURE DROP <sup>5</sup>	User Side	kPa	54.1	50.9	40.7	53.3	50	40.1	52.5	49.3	39.4
ELECTRICAL DATA											
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>6</sup>	Total	A	269	533	554	269	533	554	269	533	554
EXCHANGERS											
MINIMUM WATER FLOW	Evaporator	l/s	6.1	14.5	18.1	6.1	14.5	18.1	6.1	14.5	18.1
MINIMUM WATER CONTENT	Plant	l	2000	2800	3200	2000	2800	3200	2000	2800	3200
FANS											
QUANTITY	No.	6	12	14	6	12	14	6	12	14	
AIRFLOW	m <sup>3</sup> /s	32.4	64.8	75.6	29.4	58.8	68.6	27.8	55.6	64.8	
REFRIGERANT CIRCUIT											
COMPRESSORS	No.	1	2	2	1	2	2	1	2	2	
CIRCUITS	No.	1	2	2	1	2	2	1	2	2	
REFRIGERANT		R513A									
REFRIGERANT CHARGE <sup>5</sup>	kg	89	170	199	89	170	199	89	170	199	
NOISE LEVELS											
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	64	65	70	61	62	68	57	58	64	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	96	98	103	93	95	101	89	91	97	
SIZE AND WEIGHT <sup>8</sup>											
WIDTH	mm	4150	7900	9150	4150	7900	9150	4150	7900	9150	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	
OPERATING WEIGHT	kg	4350	8150	8610	4350	8150	8610	4350	8150	8610	

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
5. Theoretical - refer to serial plate for actual charge volumes.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Sound power on the basis of measurement taken in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

# MECH-iF-G04

## R1234ze High Performance Air Cooled Chiller

(346 to 828kW)



Mitsubishi Electric's new **MECH-iF-G04** high performance chiller brings a new class of efficiency with its proprietary Variable Speed Drive (VSD) screw compressor cooling. Available with three configurations for noise performance (Standard, NR Kit and SL version), it features a wide operating envelope and a patented Reduced Exergy Depletion (RED) Cooler, further driving efficiencies and energy saving.

### Key Features & Benefits

- Best in class efficiency
- Mitsubishi Electric's proprietary single screw compressor
- 3 noise configurations available
- CU/AL coil treatments available
- Low GWP refrigerant (GWP<sub>100</sub> = 1)\*

\*IPCC AR5

**R1234ze**

MODEL	0351	0702	0802	0351	0702	0802	0351	0702	0802		
VERSION	-	-	-	-NR	-NR	-NR	-SL	-SL	-SL		
PERFORMANCE - COOLING ONLY											
GROSS VALUE <sup>1</sup>											
TOTAL COOLING CAPACITY	kW	346.0	701.9	828.1	342.6	696.2	819.5	339.2	690.0	811.0	
TOTAL POWER INPUT	kW	105.8	213.0	269.5	106.0	213.5	270.5	106.6	214.3	271.6	
EER	kW/kW	3.27	3.30	3.07	3.23	3.26	3.03	3.18	3.22	2.99	
EN14511 VALUES <sup>1,2</sup>											
TOTAL COOLING CAPACITY	kW	345.5	701.3	827.4	342.2	695.6	818.8	338.8	689.3	810.4	
EER	kW/kW	3.22	3.25	3.04	3.19	3.22	3.00	3.14	3.18	2.95	
SEASONAL PERFORMANCE <sup>3</sup>											
P <sub>PATED,C</sub>	kW	345.5	701.3	827.4	342.2	695.6	818.8	338.8	689.3	810.4	
SEER		5.68	5.83	5.85	5.68	5.83	5.85	5.67	5.83	5.84	
PERFORMANCE η <sub>S</sub>	%	224	230	231	224	230	231	224	230	231	
HEAT EXCHANGER IN COOLING <sup>4</sup>											
WATER FLOW	User Side	l/s	16.5	33.6	39.6	16.4	33.3	39.2	16.2	33.0	38.8
PRESSURE DROP <sup>2</sup>	User Side	kPa	48	54.1	48.4	47.2	53.4	47.6	46.5	52.6	46.7
ELECTRICAL DATA											
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>4</sup>	Total	A	251	503	509	251	503	509	251	503	509
EXCHANGERS											
MINIMUM WATER FLOW	Evaporator	l/s	5.7	12.3	14.6	5.7	12.3	14.6	5.7	12.3	14.6
MINIMUM WATER CONTENT	Plant	l	1700	2400	2800	1700	2400	2800	1700	2400	2800
FANS											
QUANTITY	No.	6	12	14	6	12	14	6	12	14	
AIRFLOW	m <sup>3</sup> /s	32.4	64.8	75.6	29.4	58.8	68.6	27.8	55.6	64.8	
REFRIGERANT CIRCUIT											
COMPRESSORS	No.	1	2	2	1	2	2	1	2	2	
CIRCUITS	No.	1	2	2	1	2	2	1	2	2	
REFRIGERANT		R1234ze									
REFRIGERANT CHARGE <sup>5</sup>	kg	74	150	177	74	150	177	74	150	177	
NOISE LEVELS											
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	68	70	72	66	68	70	59	61	63	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	100	103	105	98	101	103	91	94	96	
SIZE AND WEIGHT <sup>8</sup>											
WIDTH	mm	4150	7900	9150	4150	7900	9150	4150	7900	9150	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	
OPERATING WEIGHT	kg	4050	7650	8580	4050	7650	8580	4110	7730	8670	

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
5. Theoretical - refer to serial plate for actual charge volumes.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Sound power on the basis of measurement taken in compliance with ISO 9614.
8. Unit in standard configuration, without optional accessories.

■ Eurovent Certified Data

# EACV

## R32 Modular Air Cooled Chiller

(150 to 1,080kW)



## Notes:

1. Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is not included in cooling capacity and power input.

2. Under normal cooling conditions at outdoor temp 35°CDB/24°CWB (95°FDB/75.2°FWB) outlet water temp 7°C (44.6°F) inlet water temp 12°C (53.6°F). Pump input is included in cooling capacity and power input based on EN14511.

3. Amount of factory-charged refrigerant is 3 (kg) x 4. Please add the refrigerant at the field.

4. IPLV is calculated in accordance with AHRI 550-590.

5. This value is not certified by Eurovent.

\*Please don't use the steel material for the water piping.

\*Please always make water circulate, or pull the circulation water out completely when not in use.

\*Please do not use groundwater or well water in direct.

\*The water circuit must be closed circuit.

\*Due to continuous improvement, the above specifications may be subject to change without notice.

\*This model doesn't equip with a pump.

For dimensional drawings of this model please see page 2.9

The R32 e-Series **EACV** range allows for up to 6 individual units to be connected together to provide a system capacity from 150kW to 1,080kW. Using this modular approach reduces space requirements and simplifies lifting and installation.

### Key Features & Benefits

- Highly efficient inverter scroll compressors
- Modular to maximise space saving
- Y-shaped heat exchangers allow for a greater surface area, maximising efficiency, whilst also keeping the units much narrower than conventional chillers



MODEL	EACV-M1500YCL-N		EACV-M1800YCL-N	
POWER SOURCE			3-phase 4-wire 380-400-415v 50/60Hz	
COOLING CAPACITY <sup>1</sup>			150	
	Power Input	kW	44.73	57.02
	EER		3.35	3.16
	IPLV <sup>4</sup>		6.42	6.31
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
COOLING CAPACITY (EN14511) <sup>2</sup>			149.18	
	Power Input	kW	45.55	58.22
	EER		3.28	3.07
	Eurovent Efficiency Class		A	B
	SEER		5.52	5.36
	Performance (η <sub>s.c</sub> )	%	217.8	211.4
	SEPR (HT) <sup>5</sup>		7.11	6.36
	Water Flow Rate	m <sup>3</sup> /h	25.8	31.0
CURRENT INPUT	Cooling Current 380-400-415V <sup>1</sup>	A	76 - 72 - 69	96 - 91 - 88
	Maximum Current	A	120	120
WATER PRESSURE DROP <sup>1</sup>	Standard Piping	kPa	56	79
	Inside Header Piping	kPa	134	190
TEMP RANGE	Cooling	°C	Outlet water 4~30	
	Outdoor	°C	-15~52	-15~52
CIRCULATING WATER VOLUME RANGE			12.9~43.0	
SOUND PRESSURE LEVEL (Measured in anechoic room) at 1m <sup>1</sup>			dB (A) 65	
SOUND POWER LEVEL (Measured in anechoic room) <sup>1</sup>			dB (A) 83	
DIAMETER OF WATER PIPE (Standard piping)	Inlet	mm (in)	65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
	Outlet	mm (in)	65A (2 1/2B) housing type joint	65A (2 1/2B) housing type joint
DIAMETER OF WATER PIPE (Inside header piping)	Inlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
	Outlet	mm (in)	150A (6B) housing type joint	150A (6B) housing type joint
EXTERNAL FINISH			Polyester powder coating steel plate	Polyester powder coating steel plate
EXTERNAL DIMENSION			3400 x 1080 x 2350	3400 x 1080 x 2350
NET WEIGHT	Standard Piping	mm	1039 (2291)	1039 (2291)
	Inside Header Piping	kg (lbs)	1067 (2352)	1067 (2352)
DESIGN PRESSURE	R32	kg (lbs)	4.15	4.15
	Water	MPa	1.0	1.0
HEAT EXCHANGER	Water Side	MPa	Stainless steel plate and copper brazing	
	Air Side		Salt-resistant corrugated fin & aluminium micro channel	
COMPRESSOR	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting Method		Inverter	Inverter
	Quantity		4	4
	Motor Output	kW	11.5 x 4	11.5 x 4
FAN	Air Flow Rate	m <sup>3</sup> /min	270 x 4	270 x 4
		L/s	4500 x 4	4500 x 4
		cfm	9534 x 4	9534 x 4
	Type, Quantity		Propeller fan x 4	Propeller fan x 4
	Starting Method		Inverter	Inverter
	Motor Output	kW	0.92 x 4	0.92 x 4
	External Static Pressure	Pa	20	20
REFRIGERANT	Type x Charge		R32 x 4.7 (kg) x 4 <sup>3</sup>	R32 x 4.7 (kg) x 4 <sup>3</sup>
	Control		LEV	LEV

# NX2-G06

## R454B 2 Compressor

### Air Cooled Chiller

(40 to 208kW)



**CLIMAVENETA**

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The NX2-G06 units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. Available from 40kW to 208kW using lower GWP R454B refrigerant, the NX2-G06 is a two scroll compressor, single circuit solution. All the main hydraulic and mechanical components can be integrated within the unit, allowing for the ideal plug & play solution to be configured for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

#### Key Features & Benefits

- Two Scroll compressors
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant

**R454B**

MODEL	0042	0052	0062	0072	0082	0092	0102	0112	0122	0142	0162	0182	0202	0222	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
PERFORMANCE															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	40.53	48.50	54.16	60.98	68.18	79.82	93.31	103.8	116.5	129.6	152.0	174.2	186.9	208.7
TOTAL POWER INPUT <sup>1</sup>	kW	13.64	2.970	17.02	17.66	20.47	25.36	27.94	32.74	38.27	44.42	47.39	55.37	61.54	70.86
EER <sup>1</sup>	kW/kW	2.978	3.019	3.188	3.446	3.327	3.142	3.344	3.174	3.042	2.919	3.207	3.144	3.039	2.944
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>12</sup>	kW	40.40	48.50	54.00	60.80	68.00	79.60	93.10	103.5	116.2	129.3	151.7	173.9	186.6	208.3
EER <sup>12</sup>	kW/kW	2.920	2.970	3.120	3.380	3.260	3.090	3.290	3.110	2.990	2.870	3.150	3.100	3.000	2.900
ENERGY EFFICIENCY															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>RATED,C</sub> <sup>7</sup>	kW	40.4	48.5	54.0	60.8	68.0	79.6	93.1	104	116	129	152	174	187	208
SEER <sup>7,8</sup>		4.61	4.72	4.56	4.65	4.57	4.60	4.53	4.29	4.32	4.38	4.48	4.49	4.48	4.46
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	181	186	179	183	180	181	178	168	170	172	176	177	176	175
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	1.938	2.323	2.590	2.916	3.261	3.817	4.462	4.965	5.573	6.198	7.268	8.331	8.937	9.979
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	44.8	33.3	41.4	45.4	46.2	45.3	36.6	45.4	45.5	42.6	47.9	44.1	38.5	48.0
REFRIGERANT CIRCUIT															
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
REFRIGERANT CHARGE	kg	7.60	7.60	8.00	9.90	10.0	11.1	13.1	14.3	15.5	15.8	21.9	22.7	22.8	22.9
NOISE LEVEL															
SOUND PRESSURE <sup>3</sup>	dB(A)	49	50	49	51	52	52	52	52	52	53	54	55	55	56
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	81	82	81	83	84	84	84	84	84	85	86	87	87	88
SIZE AND WEIGHT															
WIDTH <sup>6</sup>	mm	1825	1825	1825	2395	2395	2395	2325	2825	2825	2825	3980	3980	3980	3980
DEPTH <sup>6</sup>	mm	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195
HEIGHT <sup>6</sup>	mm	1865	1865	1865	1865	1865	1865	1980	1980	1980	1980	1980	1980	1980	1980
OPERATING WEIGHT <sup>6</sup>	kg	500	510	550	630	630	640	770	770	850	920	1130	1170	1180	1220

# NX2-G06

## R454B 4 Compressor

### Air Cooled Chiller

(168 to 345kW)



**CLIMAVENETA**

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The NX2-G06 units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. Available from 168kW to 345kW using lower GWP R454B refrigerant, the NX2-G06 is a four scroll compressor, twin circuit solution. All the main hydraulic and mechanical components can be integrated within the unit, allowing for the ideal plug & play solution to be configured for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

#### Key Features & Benefits

- Twin circuit tandem scroll compressors
- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant

**R454B**

MODEL	0184P	0214P	0244P	0264P	0294P	0334P	0374P
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
<b>PERFORMANCE</b>							
COOLING ONLY (GROSS VALUE)							
COOLING CAPACITY <sup>1</sup>	kW	168.4	197.5	226.2	250.7	280.0	313.1
TOTAL POWER INPUT <sup>1</sup>	kW	49.44	58.24	68.66	77.32	81.59	93.64
EER <sup>1</sup>	kW/kW	3.409	3.393	3.293	3.243	3.431	3.345
COOLING ONLY (EN14511 VALUE)							
COOLING CAPACITY <sup>12</sup>	kW	168.1	197.2	225.8	250.4	279.7	312.8
EER <sup>12</sup>	kW/kW	3.350	3.340	3.240	3.200	3.380	3.300
<b>ENERGY EFFICIENCY</b>							
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)							
AMBIENT REFRIGERATION							
P <sub>PATED,C</sub> <sup>7</sup>	kW	168	197	226	250	280	313
SEER <sup>78</sup>		4.73	4.76	4.78	4.79	4.71	4.73
PERFORMANCE η <sub>S</sub> <sup>79</sup>	%	186	188	188	189	185	186
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
WATER FLOW <sup>1</sup>	l/s	8.052	9.444	10.81	11.99	13.39	14.97
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	42.7	44.3	46.7	46.6	42.8	39.8
REFRIGERANT CIRCUIT							
COMPRESSORS NR.	No.	4	4	4	4	4	4
CIRCUITS	No.	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	30.1	31.9	37.5	37.6	47.5	51.8
NOISE LEVEL							
SOUND PRESSURE <sup>3</sup>	dB(A)	54	54	55	55	56	58
SOUND POWER LEVEL IN COOLING <sup>45</sup>	dB(A)	86	86	87	87	88	90
SIZE AND WEIGHT							
WIDTH <sup>6</sup>	mm	3160	3160	3160	3160	4335	4335
DEPTH <sup>6</sup>	mm	2250	2250	2250	2250	2250	2250
HEIGHT <sup>6</sup>	mm	2290	2290	2290	2290	2290	2290
OPERATING WEIGHT <sup>6</sup>	kg	1620	1640	1850	1880	2230	2260

# NX2-G06

## R454B

### 4-8 Compressor

### Air Cooled Chiller

(379 to 867kW)

Standard Version (/K)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The **NX2-G06** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. All the main hydraulic and mechanical components can be integrated within the unit, allowing for the ideal plug & play solution to be configured for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

#### Key Features & Benefits

- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant

**R454B**

MODEL	0404	0424	0464	0515	0576	0585	0636	0676	0706	0768	0808	0848	0898	0928	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	379.1	398.9	437.0	488.0	538.9	546.7	597.9	636.3	656.5	720.5	759.5	798.1	835.5	867.1
TOTAL POWER INPUT <sup>1</sup>	kW	115.6	122.6	136.9	152.1	167.3	168.6	183.8	198.1	200.3	218.0	231.4	245.1	259.3	273.5
EER <sup>1</sup>	kW/kW	3.279	3.254	3.192	3.208	3.221	3.243	3.253	3.212	3.278	3.305	3.282	3.256	3.222	3.170
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>12</sup>	kW	378.6	398.5	436.5	487.5	538.3	546.2	597.3	635.7	655.8	719.8	758.8	797.4	834.8	866.3
EER <sup>12</sup>	kW/kW	3.220	3.210	3.140	3.160	3.170	3.200	3.210	3.170	3.230	3.260	3.230	3.220	3.180	3.130
<b>ENERGY EFFICIENCY</b>															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>NATED,C<sup>7</sup></sub>	kW	379	398	436	488	538	546	597	636	656	720	759	797	835	866
SEER <sup>7,8</sup>		4.67	4.68	4.65	4.70	4.70	4.76	4.75	4.73	4.77	4.75	4.74	4.75	4.75	4.74
PERFORMANCE η <sub>S<sup>7,9</sup></sub>	%	184	184	183	185	185	187	187	186	188	187	187	187	187	187
EXCHANGERS															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	18.13	19.08	20.90	23.34	25.77	26.14	28.59	30.43	31.39	34.45	36.32	38.17	39.96	41.46
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	61.8	48.6	58.3	55.1	67.1	42.5	50.9	49.2	52.4	56.9	63.3	47.2	51.7	55.7
REFRIGERANT CIRCUIT															
COMPRESSORS NR.	No.	4	4	4	5	6	5	6	6	6	8	8	8	8	8
CIRCUITS	No.	2	2	2	2	2	2	2	3	2	4	4	4	4	4
REFRIGERANT CHARGE	kg	46.6	51.5	51.7	59.6	64.4	72.0	74.8	75.1	85.6	88.5	95.1	104	106	106
NOISE LEVEL															
SOUND PRESSURE <sup>3</sup>	dB(A)	62	62	62	62	63	63	62	62	63	63	64	64	64	64
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	94	94	94		95	95	95	95	96	96	96	97	97	97
SIZE AND WEIGHT															
WIDTH <sup>6</sup>	mm	3905	3905	3905	5080	5080	5080	6255	6255	6255	7430	7430	7430	7430	7430
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
OPERATING WEIGHT <sup>6</sup>	kg	2590	2620	2660	3190	3420	3500	3940	3980	4100	4970	5010	5080	5120	5150

# NX2-G06

## R454B

### 4-8 Compressor Air Cooled Chiller

(380 to 872kW)

High Efficiency Version (/A)



**CLIMAVENETA**

#### Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The **NX2-G06** units are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications. The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant. All the main hydraulic and mechanical components can be integrated within the unit, allowing for the ideal plug & play solution to be configured for HVAC plants within applications including hotels, offices, leisure centres, hospitals and universities.

#### Key Features & Benefits

- ErP2021 compliant
- Low noise
- Energy efficient
- Lower GWP R454B refrigerant

**R454B**

MODEL	0404	0424	0464	0515	0576	0585	0636	0676	0706	0768	0808	0848	0898	0928	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>															
COOLING ONLY (GROSS VALUE)															
COOLING CAPACITY <sup>1</sup>	kW	380.1	400.0	439.8	490.2	540.8	548.6	599.7	639.0	658.6	721.1	762.2	801.1	839.7	872.3
TOTAL POWER INPUT <sup>1</sup>	kW	111.3	117.1	129.4	145.0	161.1	161.7	177.4	188.0	194.1	211.0	222.5	234.3	246.4	258.3
EER <sup>1</sup>	kW/kW	3.415	3.416	3.399	3.381	3.357	3.393	3.380	3.399	3.393	3.418	3.426	3.419	3.408	3.377
COOLING ONLY (EN14511 VALUE)															
COOLING CAPACITY <sup>12</sup>	kW	379.6	399.5	439.2	489.7	540.2	548.1	599.1	638.4	658.0	720.5	761.5	800.4	839.0	871.6
EER <sup>12</sup>	kW/kW	3.350	3.370	3.340	3.330	3.300	3.350	3.330	3.350	3.350	3.370	3.370	3.380	3.360	3.330
<b>ENERGY EFFICIENCY</b>															
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)															
AMBIENT REFRIGERATION															
P <sub>RATED,C</sub> <sup>17</sup>	kW	380	400	439	490	540	548	599	638	658	720	762	800	839	872
SEER <sup>78</sup>		4.74	4.77	4.73	4.78	4.72	4.82	4.82	4.86	4.83	4.81	4.81	4.83	4.84	4.86
PERFORMANCE η <sub>s</sub> <sup>79</sup>	%	187	188	186	188	186	190	190	191	190	189	189	190	190	191
<b>EXCHANGERS</b>															
HEAT EXCHANGER USER SIDE IN REFRIGERATION															
WATER FLOW <sup>1</sup>	l/s	18.18	19.13	21.03	23.44	25.86	26.24	28.68	30.56	31.50	34.49	36.45	38.31	40.16	41.72
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	62.1	48.8	59.0	55.6	67.6	42.8	51.2	49.6	52.7	57.0	63.7	47.6	52.2	56.4
<b>REFRIGERANT CIRCUIT</b>															
COMPRESSORS NR.	No.	4	4	4	5	6	5	6	6	6	8	8	8	8	8
CIRCUITS	No.	2	2	2	2	2	2	2	3	2	4	4	4	4	4
REFRIGERANT CHARGE	kg	56.1	59.9	62.7	76.5	77.9	80.8	88.8	94.1	98.8	107	129	129	129	129
<b>NOISE LEVEL</b>															
SOUND PRESSURE <sup>3</sup>	dB(A)	63	63	63	62	63	63	63	64	64	64	64	65	65	65
SOUND POWER LEVEL IN COOLING <sup>45</sup>	dB(A)	95	95	95	95	96	96	96	97	97	97	97	98	98	98
<b>SIZE AND WEIGHT</b>															
WIDTH <sup>6</sup>	mm	5080	5080	5080	6255	6255	6255	7430	7430	7430	9780	9780	9780	9780	9780
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
OPERATING WEIGHT <sup>6</sup>	kg	2960	2960	3000	3600	3830	3900	4290	4430	4450	5660	5720	5770	5810	5850

# i-FX2-G05

## R513A Air Cooled Chiller

(533 to 1,079kW)

Standard Version (-K)



**CLIMAVENETA**

- Notes:**
- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
  - Values in compliance with EN14511.
  - Parameter calculated according to [Regulation (EU) N. 2016/2281].
  - Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
  - Theoretical - refer to serial plate for actual charge volumes.
  - Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  - Sound power on the basis of measurement taken in compliance with ISO 9614.
  - Sound power level in cooling, outdoors.
  - Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation efficient design
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

**R513A**

MODEL	0532	0602	0622	0672	0732	0802	0892	0972	1032	1082		
<b>PERFORMANCE - COOLING ONLY</b>												
<b>GROSS VALUE<sup>1</sup></b>												
TOTAL COOLING CAPACITY	kW	533.2	597.3	623.6	674.3	725.5	800.5	889.2	966.7	1034	1079	
TOTAL POWER INPUT	kW	182.5	202.8	208.4	224.5	247.3	280.9	307.4	325.4	344.5	362.8	
EER	kW/kW	2.92	2.95	2.99	3.00	2.93	2.85	2.89	2.97	3.00	2.97	
<b>EN14511 VALUES<sup>1,2</sup></b>												
TOTAL COOLING CAPACITY	kW	532.7	596.7	623.0	673.7	724.8	799.9	888.5	966.0	1033	1078	
EER	kW/kW	2.89	2.91	2.96	2.97	2.90	2.82	2.86	2.94	2.97	2.93	
<b>SEASONAL PERFORMANCE<sup>3</sup></b>												
P <sub>RATED,C</sub>	kW	533	597	623	674	725	800	888	966	1033	1078	
SEER		5.08	5.00	5.06	4.89	4.85	4.87	4.99	5.00	4.90	4.97	
PERFORMANCE η <sub>S</sub>	%	200	197	199	193	191	192	197	197	193	196	
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>												
WATER FLOW	User Side	l/s	25.5	28.6	29.8	32.2	34.7	38.3	42.5	46.2	49.4	51.6
PRESSURE DROP <sup>5</sup>	User Side	kPa	43.3	54.4	45.8	53.5	56.3	46.3	57.1	42.5	48.6	64.5
<b>ELECTRICAL DATA</b>												
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>6</sup>	Total	A	360	398	407	436	481	559	624	626	639	701
<b>EXCHANGERS</b>												
MINIMUM WATER FLOW	Evaporator	l/s	13.1	13.1	14.4	14.4	16.7	20.0	20.0	24.7	24.7	22.5
MINIMUM WATER CONTENT	Plant	l	1900	2100	2200	2400	2500	2800	3100	3400	3600	3800
<b>FANS</b>												
QUANTITY	No.	6	7	7	8	8	9	10	11	12	12	
AIRFLOW	m <sup>3</sup> /s	30.9	36.1	36.1	41.2	41.2	46.4	51.5	56.7	61.8	61.8	
<b>REFRIGERANT CIRCUIT</b>												
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	2	
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	
REFRIGERANT		R513A										
REFRIGERANT CHARGE <sup>8</sup>	kg	83	92	94	101	112	132	143	155	166	167	
<b>NOISE LEVELS</b>												
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	68	69	69	69	70	69	70	71	71	71	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	100	101	101	101	102	102	103	104	104	104	
<b>SIZE AND WEIGHT<sup>8</sup></b>												
WIDTH	mm	4150	5400	5400	5400	5400	6650	6650	7900	7900	7900	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT	kg	4500	5000	5007	5106	5388	5863	5974	6464	6584	7031	

# i-FX2-G05

## R513A Air Cooled Chiller

(1,123 to 1,859kW)

Standard Version (-K)



**CLIMAVENETA**

- Notes:**
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
  2. Values in compliance with EN14511.
  3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
  4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
  5. Theoretical - refer to serial plate for actual charge volumes.
  6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
  8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation efficient design
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

**R513A**

MODEL	1122	1192	1242	1382	1452	1552	1633	1703	1863		
<b>PERFORMANCE - COOLING ONLY</b>											
<b>GROSS VALUE<sup>1</sup></b>											
TOTAL COOLING CAPACITY	kW	1123	1185	1243	1382	1450	1551	1628	1702	1859	
TOTAL POWER INPUT	kW	384.0	389.6	413.8	454.1	495.0	501.8	550.3	579.2	621.9	
EER	kW/kW	2.92	3.04	3.01	3.04	2.93	3.09	2.96	2.94	2.99	
<b>EN14511 VALUES<sup>1,2</sup></b>											
TOTAL COOLING CAPACITY	kW	1122	1184	1242	1382	1449	1550	1627	1701	1858	
EER	kW/kW	2.88	3.00	2.96	3.01	2.89	3.05	2.92	2.90	2.96	
<b>SEASONAL PERFORMANCE<sup>3</sup></b>											
P <sub>RATED,C</sub>	kW	1122	1184	1242	1382	1449	1550	1627	1701	1858	
SEER		5.01	5.04	5.05	5.12	5.03	5.16	4.99	5.04	5.13	
PERFORMANCE η <sub>S</sub>	%	197	199	199	202	198	203	197	198	202	
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>											
WATER FLOW	User Side	l/s	53.7	56.7	59.4	66.1	69.3	74.2	77.9	81.4	88.9
PRESSURE DROP <sup>5</sup>	User Side	kPa	69.9	67.6	69.9	61.3	67.5	58.5	69.4	75.9	52.6
<b>ELECTRICAL DATA</b>											
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>6</sup>	Total	A	785	825	857	932	984	1008	1094	1178	1270
<b>EXCHANGERS</b>											
MINIMUM WATER FLOW	Evaporator	l/s	22.5	23.6	24.2	28.3	28.3	37.2	38.9	38.9	41.7
MINIMUM WATER CONTENT	Plant	l	3900	4100	4400	4800	5100	5400	5700	6000	6500
<b>FANS</b>											
QUANTITY	No.	12	14	14	16	16	18	18	18	20	
AIRFLOW	m <sup>3</sup> /s	61.8	72.1	72.1	82.4	82.4	92.7	92.7	92.7	103	
<b>REFRIGERANT CIRCUIT</b>											
COMPRESSORS	No.	2	2	2	2	2	3	3	3	3	
CIRCUITS	No.	2	2	2	2	2	3	3	3	3	
REFRIGERANT		R513A									
REFRIGERANT CHARGE <sup>5</sup>	kg	167	187	207	243	243	263	263	268	288	
<b>NOISE LEVELS</b>											
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	72	72	73	73	73	73	73	73	74	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	105	105	106	106	106	106	106	106	107	
<b>SIZE AND WEIGHT<sup>8</sup></b>											
WIDTH	mm	7900	9150	9150	10400	10400	11650	11650	11650	12900	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT	kg	7409	8243	8249	9008	9008	10165	11301	11679	12284	

# i-FX2-G04

## R1234ze Air Cooled Chiller

(392 to 861kW)

High Efficiency Version (-E)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
5. Theoretical - refer to serial plate for actual charge volumes.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation of efficiency with exceptionally low GWP refrigerant ( $GWP_{100} = 1$ )\*
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

\*IPCC AR5

**R1234ze**

MODEL	0392	0432	0502	0552	0662	0742	0872
<b>PERFORMANCE - COOLING ONLY</b>							
<b>GROSS VALUE<sup>1</sup></b>							
TOTAL COOLING CAPACITY	kW	392.5	426.2	499.3	550.7	658.3	744.3
TOTAL POWER INPUT	kW	116.4	128.6	145.1	161.4	207.6	234.7
EER	kW/kW	3.37	3.31	3.44	3.41	3.17	3.20
<b>EN14511 VALUES<sup>1,2</sup></b>							
TOTAL COOLING CAPACITY	kW	392.0	425.7	498.8	550.2	657.7	743.7
EER	kW/kW	3.33	3.27	3.41	3.37	3.13	3.17
<b>SEASONAL PERFORMANCE<sup>3</sup></b>							
P <sub>RATED,C</sub>	kW	392	426	499	550	658	744
SEER		2.56	5.59	5.59	5.65	5.64	5.42
PERFORMANCE η <sub>S</sub>	%	219	221	220	223	223	214
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>							
WATER FLOW	User Side	l/s	18.8	20.4	23.9	26.3	31.5
PRESSURE DROP <sup>5</sup>	User Side	kPa	39.1	46.2	33.3	40.6	51.0
<b>ELECTRICAL DATA</b>							
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. <sup>6</sup>	Total	A	273	301	334	360	461
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW	Evaporator	l/s	9.2	9.2	13.9	13.9	14.4
MINIMUM WATER CONTENT	Plant	l	1400	1500	1700	1900	2300
<b>FANS</b>							
QUANTITY	No.	6	7	8	8	10	12
AIRFLOW	m <sup>3</sup> /s	30.9	36.05	41.2	41.2	51.5	61.8
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS	No.	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2
REFRIGERANT		R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze
REFRIGERANT CHARGE <sup>8</sup>	kg	72	82	92	94	125	149
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	68	69	69	70	69	71
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	100	101	101	102	102	104
<b>SIZE AND WEIGHT<sup>8</sup></b>							
WIDTH	mm	4150	5400	5400	5400	6650	7900
DEPTH	mm	2260	2260	2260	2260	2260	2260
HEIGHT	mm	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT	kg	4428	4942	5105	5105	5693	6579

# i-FX2-G04

## R1234ze Air Cooled Chiller

(929 to 1,532kW)

High Efficiency Version (-E)



**CLIMAVENETA**

- Notes:**
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
  2. Values in compliance with EN14511.
  3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
  4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
  5. Theoretical - refer to serial plate for actual charge volumes.
  6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
  8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation of efficiency with exceptionally low GWP refrigerant ( $GWP_{100} = 1$ )\*
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

\*IPCC AR5

**R1234ze**

MODEL	0932	1022	1072	1183	1323	1433	1533
<b>PERFORMANCE - COOLING ONLY</b>							
<b>GROSS VALUE<sup>1</sup></b>							
TOTAL COOLING CAPACITY	kW	929.7	1023	1072	1184	1327	1425
TOTAL POWER INPUT	kW	285.7	303.4	325.3	360.6	408.8	433.9
EER	kW/kW	3.25	3.37	3.30	3.28	3.25	3.28
<b>EN14511 VALUES<sup>1,2</sup></b>							
TOTAL COOLING CAPACITY	kW	929.1	1023	1072	1183	1327	1424
EER	kW/kW	3.22	3.32	3.25	3.25	3.21	3.24
<b>SEASONAL PERFORMANCE<sup>3</sup></b>							
P <sub>RATED,C</sub>	kW	929	1023	1072	1183	1327	1424
SEER		5.45	5.62	5.6	5.37	5.43	5.50
PERFORMANCE η <sub>S</sub>	%	215	222	221	212	214	217
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>							
WATER FLOW	User Side	l/s	44.5	48.9	51.3	56.6	63.5
PRESSURE DROP <sup>5</sup>	User Side	kPa	39.3	58.0	55.4	45.0	46.2
<b>ELECTRICAL DATA</b>							
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. <sup>6</sup>	Total	A	642	687	719	818	892
<b>EXCHANGERS</b>							
MINIMUM WATER FLOW	Evaporator	l/s	24.7	22.5	23.6	28.3	38.9
MINIMUM WATER CONTENT	Plant	l	3300	3600	3800	4100	4600
<b>FANS</b>							
QUANTITY	No.	14	16	16	18	18	20
AIRFLOW	m <sup>3</sup> /s	72.1	82.4	82.4	92.7	92.7	103
<b>REFRIGERANT CIRCUIT</b>							
COMPRESSORS	No.	2	2	2	3	3	3
CIRCUITS	No.	2	2	2	3	3	3
REFRIGERANT		R1234ze	R1234ze	R1234ze	R1234ze	R1234ze	R1234ze
REFRIGERANT CHARGE <sup>7</sup>	kg	168	182	187	261	276	290
<b>NOISE LEVELS</b>							
TOTAL SOUND PRESSURE <sup>8</sup>	dB(A)	73	73	73	73	74	74
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	106	106	106	106	107	107
<b>SIZE AND WEIGHT<sup>8</sup></b>							
WIDTH	mm	9150	10400	10400	11650	11650	12900
DEPTH	mm	2260	2260	2260	2260	2260	2260
HEIGHT	mm	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT	kg	8053	8634	8805	11067	11655	12243

# i-FX2-G04

## R1234ze Air Cooled Chiller

(408 to 797kW)

Low noise with EC Fans  
Version (-SL-K-EC)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
5. Theoretical - refer to serial plate for actual charge volumes.
6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation of efficiency with exceptionally low GWP refrigerant ( $GWP_{100} = 1$ )\*
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

\*IPCC AR5

**R1234ze**

MODEL	0422	0452	0512	0572	0602	0672	0712	0772	0862		
<b>PERFORMANCE - COOLING ONLY</b>											
<b>GROSS VALUE<sup>1</sup></b>											
TOTAL COOLING CAPACITY	kW	408.5	439.1	482.0	544.7	575.0	636.0	688.8	741.6	797.0	
TOTAL POWER INPUT	kW	128.6	144.9	159.7	169.4	183.2	219.0	225.7	249.7	262.0	
EER	kW/kW	3.18	3.03	3.02	3.22	3.14	2.90	3.05	2.97	3.04	
<b>EN14511 VALUES<sup>1,2</sup></b>											
TOTAL COOLING CAPACITY	kW	408.1	438.6	481.6	544.2	574.5	635.4	688.1	740.9	796.5	
EER	kW/kW	3.14	2.99	2.99	3.18	3.10	2.87	3.01	2.93	3.02	
<b>SEASONAL PERFORMANCE<sup>3</sup></b>											
P <sub>RATED,C</sub>	kW	408	439	482	544	574	635	688	741	796	
SEER		5.45	5.35	5.28	5.39	5.34	5.24	5.40	5.16	5.11	
PERFORMANCE η <sub>S</sub>	%	215	211	208	213	211	207	213	203	201	
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>											
WATER FLOW	User Side	l/s	19.5	21.0	23.1	26.1	27.5	30.4	32.9	35.5	38.1
PRESSURE DROP <sup>5</sup>	User Side	kPa	42.4	49.0	31.1	39.7	44.2	47.6	55.8	58.8	28.9
<b>ELECTRICAL DATA</b>											
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>6</sup>	Total	A	291	316	339	379	398	458	489	525	551
<b>EXCHANGERS</b>											
MINIMUM WATER FLOW	Evaporator	l/s	9.17	9.17	13.89	13.89	13.89	14.44	14.44	16.67	24.72
MINIMUM WATER CONTENT	Plant	l	1400	1500	1700	1900	2000	2200	2400	2600	2800
<b>FANS</b>											
QUANTITY	No.	6	6	6	8	8	8	10	10	10	
AIRFLOW	m <sup>3</sup> /s	27.78	27.78	27.78	37.04	37.04	37.04	46.30	46.30	46.30	
<b>REFRIGERANT CIRCUIT</b>											
COMPRESSORS	No.	2	2	2	2	2	2	2	2	2	
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	
REFRIGERANT		R1234ze									
REFRIGERANT CHARGE <sup>8</sup>	kg	72	76	78	92	94	96	125	130	136	
<b>NOISE LEVELS</b>											
TOTAL SOUND PRESSURE <sup>6</sup>	dB(A)	59	60	60	61	61	61	62	62	63	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	91	92	92	93	93	93	95	95	96	
<b>SIZE AND WEIGHT<sup>8</sup></b>											
WIDTH	mm	4150	4150	4150	5400	5400	5400	6650	6650	6650	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT	kg	4949	4961	5056	5686	5686	5718	6283	6643	7405	

# i-FX2-G04

## R1234ze Air Cooled Chiller

(926 to 1,619kW)

Low noise with EC Fans  
Version (-SL-K-EC)



**CLIMAVENETA**

- Notes:**
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
  2. Values in compliance with EN14511.
  3. Parameter calculated according to [Regulation (EU) N. 2016/2281].
  4. Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
  5. Theoretical - refer to serial plate for actual charge volumes.
  6. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  7. Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
  8. Unit in standard configuration, without optional accessories.

Eurovent Certified Data

The new generation of customisable screw compressor chillers has arrived with Climaveneta's range of i-FX2 air cooled chillers. Available with 3 efficiency levels, all of which can be combined with 4 different levels of noise suppression, and the ability to fit integrated hydronic pumps; the i-FX2 range has a multitude of combinations to match your project requirements.

### Key Features & Benefits

- Next generation of efficiency with exceptionally low GWP refrigerant ( $GWP_{100} = 1$ )\*
- Wide operating envelope for comfort and process applications
- Variety of low noise versions to match your project requirements
- Exceptionally compact design
- Wide variety of customisations available including factory fitted hydronic pumps

\*IPCC AR5

**R1234ze**

MODEL	0962	1062	1152	1253	1333	1463	1573	1683		
<b>PERFORMANCE - COOLING ONLY</b>										
<b>GROSS VALUE<sup>1</sup></b>										
TOTAL COOLING CAPACITY	kW	926.4	1016	1110	1186	1234	1412	1511	1619	
TOTAL POWER INPUT	kW	305.0	322.0	363.7	383.3	404.2	461.3	499.1	529.9	
EER	kW/kW	3.04	3.16	3.05	3.09	3.05	3.06	3.03	3.06	
<b>EN14511 VALUES<sup>1,2</sup></b>										
TOTAL COOLING CAPACITY	kW	925.7	1015	1109	1185	1233	1411	1510	1619	
EER	kW/kW	3.01	3.11	3.01	3.06	3.02	3.03	2.99	3.01	
<b>SEASONAL PERFORMANCE<sup>3</sup></b>										
P <sub>RATED,C</sub>	kW	926	1015	1109	1185	1233	1411	1510	1619	
SEER		5.13	5.25	5.23	5.16	5.17	5.18	5.23	5.26	
PERFORMANCE η <sub>S</sub>	%	202	207	206	203	204	204	206	207	
<b>HEAT EXCHANGER IN COOLING<sup>4</sup></b>										
WATER FLOW	User Side	l/s	44.3	48.6	53.1	56.7	59.0	67.5	72.3	77.4
PRESSURE DROP <sup>5</sup>	User Side	kPa	39.0	57.2	59.3	45.2	48.8	48.5	59.8	68.7
<b>ELECTRICAL DATA</b>										
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
F.L.A. <sup>6</sup>	Total	A	651	702	764	812	857	987	1045	1097
<b>EXCHANGERS</b>										
MINIMUM WATER FLOW	Evaporator	l/s	24.72	22.5	23.61	28.33	28.33	37.22	38.89	38.89
MINIMUM WATER CONTENT	Plant	l	3200	3600	3900	4200	4300	4900	5300	5700
<b>FANS</b>										
QUANTITY	No.	12	14	14	16	16	18	18	20	
AIRFLOW	m <sup>3</sup> /s	55.56	64.82	64.82	74.08	74.08	83.34	83.34	92.6	
<b>REFRIGERANT CIRCUIT</b>										
COMPRESSORS	No.	2	2	2	3	3	3	3	3	
CIRCUITS	No.	2	2	2	3	3	3	3	3	
REFRIGERANT		R1234ze								
REFRIGERANT CHARGE <sup>7</sup>	kg	158	178	183	227	232	256	276	300	
<b>NOISE LEVELS</b>										
TOTAL SOUND PRESSURE <sup>8</sup>	dB(A)	63	63	63	63	63	64	64	64	
TOTAL SOUND POWER LEVEL IN COOLING <sup>7</sup>	dB(A)	96	96	96	96	96	97	97	97	
<b>SIZE AND WEIGHT<sup>8</sup></b>										
WIDTH	mm	7900	9150	9150	10400	10400	11650	11650	12900	
DEPTH	mm	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT	mm	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT	kg	7935	8697	8869	11375	11377	12508	12598	13171	

# FX2-G05

## R513A Air Cooled Chiller

(322 to 996kW)

Standard Version (/K)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G05** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant

**R513A**

MODEL	0322	0352	0402	0472	0512	0572	0652	0702	0772	0852	0902	1002	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	322.1	350.2	411.9	464.4	516.7	573.4	645.8	707.6	779.8	862.9	937.3	996.0
TOTAL POWER INPUT <sup>1</sup>	kW	102.4	119.2	133.1	146.1	172.5	188.6	207.4	239.2	254.6	272.4	295.1	315.5
EER <sup>1</sup>	kW/kW	3.146	2.938	3.095	3.179	2.995	3.040	3.114	2.958	3.063	3.168	3.176	3.157
ESEER <sup>1</sup>	kW/kW	4.430	4.440	4.510	4.500	4.440	4.460	4.470	4.480	4.470	4.450	4.450	4.460
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>12</sup>	kW	321.8	349.8	411.5	463.9	516.2	572.9	645.2	707.0	779.1	862.3	936.6	995.2
EER <sup>12</sup>	kW/kW	3.120	2.910	3.060	3.140	2.970	3.010	3.080	2.930	3.020	3.130	3.140	3.120
ESEER <sup>12</sup>		4.300	4.300	4.350	4.310	4.290	4.280	4.300	4.320	4.270	4.290	4.280	4.270
<b>ENERGY EFFICIENCY</b>													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	322	350	412	464	516	573	645	707	779	862	937	995
SEER <sup>7,8</sup>		4.51	4.50	4.56	4.58	4.56	4.56	4.58	4.57	4.57	4.58	4.59	4.59
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	177	177	179	180	179	179	180	180	180	180	180	181
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	15.40	16.75	19.70	22.21	24.71	27.42	30.88	33.84	37.29	41.27	44.82	47.63
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	27.7	32.7	38.8	49.4	37.3	46.0	46.6	44.5	54.1	47.2	49.2	55.6
REFRIGERANT CIRCUIT													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	57.0	60.0	71.0	81.0	88.0	98.0	113	120	133	150	163	173
NOISE LEVEL													
SOUND PRESSURE <sup>3</sup>	dB(A)	67	67	67	68	68	68	68	70	69	69	70	70
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	99	99	99	100	100	100	100	102	102	102	103	103
SIZE AND WEIGHT													
WIDTH <sup>6</sup>	mm	2750	2750	4000	4000	4000	5250	5250	5250	6500	6500	7750	7750
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	3120	2950	3600	3730	4570	5060	5190	5550	6400	6980	7460	7620

# FX2-G05

## R513A Air Cooled Chiller

(1,056 to 1,839kW)

Standard Version (/K)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G05** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant

**R513A**

MODEL	1052	1102	1152	1222	1262	1322	1402	1503	1593	1663	1773	1883	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	1056	1098	1139	1232	1264	1332	1400	1506	1592	1664	1778	1839
TOTAL POWER INPUT <sup>1</sup>	kW	343.2	369.3	354.3	396.3	423.2	433.9	474.8	475.0	523.1	556.9	580.4	605.3
EER <sup>1</sup>	kW/kW	3.077	2.973	3.215	3.109	2.987	3.070	2.949	3.171	3.043	2.988	3.063	3.038
ESEER <sup>1</sup>	kW/kW	4.460	4.470	4.460	4.490	4.470	4.460	4.490	4.430	4.450	4.440	4.440	4.470
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>12</sup>	kW	1055	1097	1138	1231	1264	1331	1399	1505	1591	1663	1777	1838
EER <sup>12</sup>	kW/kW	3.040	2.940	3.170	3.070	2.960	3.030	2.910	3.130	3.010	2.960	3.030	3.000
ESEER <sup>12</sup>		4.290	4.300	4.280	4.290	4.300	4.280	4.300	4.270	4.270	4.290	4.280	4.290
<b>ENERGY EFFICIENCY</b>													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	1055	1097	1138	1231	1264	1331	1399	1505	1591	1663	1777	1838
SEER <sup>7,8</sup>		4.56	4.56	4.58	4.60	4.56	4.57	4.58	4.59	4.59	4.58	4.60	4.63
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	180	179	180	181	179	180	180	181	181	180	181	182
EXCHANGERS													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	50.51	52.49	54.45	58.92	60.46	63.71	66.96	72.03	76.12	79.55	85.04	87.92
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	48.3	52.1	56.1	61.6	48.8	54.2	59.9	52.5	58.6	45.1	51.6	59.1
REFRIGERANT CIRCUIT													
COMPRESSORS NR.	No.	2	2	2	2	2	2	3	3	3	3	3	
CIRCUITS	No.	2	2	2	2	2	2	3	3	3	3	3	
REFRIGERANT CHARGE	kg	179	104	195	210	214	232	238	263	271	281	303	318
NOISE LEVEL													
SOUND PRESSURE <sup>3</sup>	dB(A)	71	71	71	71	72	73	73	73	73	73	73	73
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	104	104	104	104	105	106	106	106	106	106	106	106
SIZE AND WEIGHT													
WIDTH <sup>6</sup>	mm	7750	7750	9000	9000	9150	10400	10400	11650	11650	11650	12900	12900
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	7870	7900	8430	8500	8860	9470	9610	12050	12110	12120	12710	12720

# FX2-G05

## R513A Air Cooled Chiller

(310 to 960kW)

Low Noise Version (/SL-K)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G05** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant

**R513A**

MODEL	0322	0352	0402	0472	0512	0572	0652	0702	0772	0852	0902	1002	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	310.2	358.4	410.2	450.1	511.7	557.4	621.9	713.0	770.4	828.6	901.6	959.9
TOTAL POWER INPUT <sup>1</sup>	kW	103.1	115.1	128.2	148.9	164.4	177.9	211.2	226.9	251.5	276.9	300.1	321.0
EER <sup>1</sup>	kW/kW	3.009	3.114	3.200	3.023	3.113	3.133	2.945	3.142	3.063	2.992	3.004	2.990
ESEER <sup>1</sup>	kW/kW	4.400	4.440	4.480	4.490	4.470	4.480	4.470	4.450	4.470	4.440	4.460	4.470
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>12</sup>	kW	309.8	358.0	409.8	449.7	511.2	556.9	621.3	712.4	769.7	828.0	901.0	959.1
EER <sup>12</sup>	kW/kW	2.980	3.080	3.160	2.990	3.080	3.100	2.910	3.110	3.020	2.960	2.970	2.960
ESEER <sup>12</sup>		4.270	4.280	4.320	4.310	4.320	4.310	4.300	4.290	4.280	4.280	4.300	4.300
<b>ENERGY EFFICIENCY</b>													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
<b>AMBIENT REFRIGERATION</b>													
P <sub>RATED,C</sub> <sup>7</sup>	kW	310	358	410	450	511	557	621	712	770	828	901	959
SEER <sup>7,8</sup>		4.46	4.50	4.56	4.55	4.57	4.55	4.55	4.56	4.58	4.56	4.58	4.58
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	175	177	179	179	180	179	179	180	180	180	180	180
<b>EXCHANGERS</b>													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	14.83	17.14	19.62	21.53	24.47	26.66	29.74	34.10	36.84	39.63	43.12	45.90
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	25.7	34.3	38.5	46.4	36.6	43.5	43.2	45.2	52.8	43.5	45.5	51.6
<b>REFRIGERANT CIRCUIT</b>													
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE	kg	57.0	66.0	76.0	81.0	93.0	103	113	131	140	150	163	173
<b>NOISE LEVEL</b>													
SOUND PRESSURE <sup>3</sup>	dB(A)	55	55	56	56	57	57	57	57	58	58	59	59
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	87	87	88	88	89	89	89	90	91	91	92	92
<b>SIZE AND WEIGHT</b>													
WIDTH <sup>6</sup>	mm	2750	4000	4000	4000	5250	5250	5250	6500	6500	6500	7750	7750
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	3380	3830	3960	4000	5270	5680	5720	6600	7090	7590	8100	8270

# FX2-G05

## R513A Air Cooled Chiller

(1,098 to 1,773kW)

Low Noise Version (/SL-K)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G05** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant

**R513A**

MODEL	1052	1102	1152	1222	1262	1322	1402	1503	1593	1663	1773	1883	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>													
COOLING ONLY (GROSS VALUE)													
COOLING CAPACITY <sup>1</sup>	kW	1037	1098	1131	1222	1257	1284	1386	1451	1573	1645	1714	1773
TOTAL POWER INPUT <sup>1</sup>	kW	341.7	359.9	347.4	388.0	415.0	441.0	467.8	483.3	519.5	550.6	593.8	620.9
EER <sup>1</sup>	kW/kW	3.035	3.051	3.256	3.149	3.029	2.912	2.963	3.002	3.028	2.988	2.886	2.856
ESEER <sup>1</sup>	kW/kW	4.450	4.480	4.480	4.480	4.450	4.470	4.480	4.450	4.470	4.440	4.440	4.450
COOLING ONLY (EN14511 VALUE)													
COOLING CAPACITY <sup>12</sup>	kW	1037	1097	1130	1222	1256	1283	1385	1451	1572	1644	1714	1772
EER <sup>12</sup>	kW/kW	3.000	3.020	3.210	3.110	3.000	2.880	2.930	2.970	2.990	2.960	2.860	2.820
ESEER <sup>12</sup>		4.290	4.300	4.290	4.290	4.290	4.310	4.290	4.290	4.290	4.300	4.280	4.280
<b>ENERGY EFFICIENCY</b>													
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)													
AMBIENT REFRIGERATION													
P <sub>RATED,C</sub> <sup>7</sup>	kW	1037	1097	1130	1222	1256	1283	1385	1451	1572	1644	1714	1772
SEER <sup>7,8</sup>		4.56	4.59	4.62	4.62	4.58	4.55	4.58	4.59	4.61	4.59	4.57	4.57
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	179	180	182	182	180	179	180	180	182	180	180	180
<b>EXCHANGERS</b>													
HEAT EXCHANGER USER SIDE IN REFRIGERATION													
WATER FLOW <sup>1</sup>	l/s	49.60	52.51	54.06	58.46	60.10	61.40	66.26	69.40	75.22	78.65	81.99	84.78
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	46.6	52.2	55.3	60.7	48.2	50.3	58.6	48.7	57.2	44.1	47.9	55.0
<b>REFRIGERANT CIRCUIT</b>													
COMPRESSORS NR.	No.	2	2	2	2	2	2	3	3	3	3	3	
CIRCUITS	No.	2	2	2	2	2	2	3	3	3	3	3	
REFRIGERANT CHARGE	kg	187	199	207	222	228	232	251	263	285	297	308	318
<b>NOISE LEVEL</b>													
SOUND PRESSURE <sup>3</sup>	dB(A)	60	60	61	61	61	61	61	61	61	61	61	62
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	93	93	94	94	94	94	94	94	94	94	94	95
<b>SIZE AND WEIGHT</b>													
WIDTH <sup>6</sup>	mm	9000	9000	10250	10250	10400	10400	11650	11650	12900	12900	12900	12900
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
OPERATING WEIGHT <sup>6</sup>	kg	8920	9060	9640	9710	10060	10150	10720	12980	13560	13560	13650	13670

# FX2-G05

## R513A Air Cooled Chiller

(340 to 1,372kW)

High Efficiency Version (/E)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G05** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with lower GWP R513A refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Lower GWP R513A refrigerant

**R513A**

MODEL	0352	0402	0452	0472	0572	0602	0652	0702	0772	0852	0902	1002	1052	1152	1222	1322	1402	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
<b>PERFORMANCE</b>																		
<b>COOLING ONLY (GROSS VALUE)</b>																		
COOLING CAPACITY <sup>1</sup>	kW	340.3	389.8	444.9	485.0	570.3	619.0	658.9	698.5	756.1	844.7	918.1	1001	1061	1133	1207	1311	1372
TOTAL POWER INPUT <sup>1</sup>	kW	98.73	113.1	128.5	142.9	163.3	178.3	189.4	200.5	222.8	246.7	267.5	289.5	310.9	331.5	352.4	390.1	409.2
EER <sup>1</sup>	kW/kW	3.448	3.447	3.462	3.394	3.492	3.472	3.479	3.484	3.394	3.424	3.432	3.458	3.413	3.418	3.425	3.361	3.353
ESEER <sup>1</sup>	kW/kW	4.610	4.630	4.520	4.620	4.610	4.610	4.620	4.640	4.620	4.610	4.630	4.680	4.630	4.650	4.650	4.580	4.610
<b>COOLING ONLY (EN14511 VALUE)</b>																		
COOLING CAPACITY <sup>12</sup>	kW	339.9	389.4	444.5	484.6	569.8	618.5	658.4	697.9	755.5	844.1	917.4	1000	1060	1132	1206	1310	1371
EER <sup>12</sup>	kW/kW	3.410	3.410	3.430	3.360	3.450	3.440	3.440	3.440	3.360	3.390	3.390	3.410	3.370	3.370	3.380	3.330	3.320
ESEER <sup>12</sup>		4.470	4.470	4.490	4.490	4.440	4.470	4.470	4.470	4.450	4.450	4.450	4.450	4.470	4.440	4.440	4.450	4.450
<b>ENERGY EFFICIENCY</b>																		
<b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b>																		
<b>AMBIENT REFRIGERATION</b>																		
P <sub>RATED,C</sub> <sup>7</sup>	kW	340	389	444	485	570	618	658	689	756	844	917	1000	1060	1132	1206	1310	1371
SEER <sup>7,8</sup>		4.63	4.64	4.69	4.66	4.72	4.64	4.66	4.73	4.71	4.71	4.74	4.79	4.72	4.74	4.74	4.66	4.69
PERFORMANCE η <sub>S</sub> <sup>7,9</sup>	%	182	182	185	183	186	183	183	186	185	185	187	188	186	187	187	183	185
<b>EXCHANGERS</b>																		
<b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>																		
WATER FLOW <sup>1</sup>	l/s	16.27	18.64	21.27	23.20	27.27	29.60	31.51	33.40	36.16	40.40	43.90	47.88	50.72	54.17	57.73	62.68	65.62
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	26.5	34.8	27.7	32.9	41.4	34.1	38.6	43.4	36.3	40.0	47.2	61.2	48.7	53.2	59.2	39.7	43.5
<b>REFRIGERANT CIRCUIT</b>																		
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
REFRIGERANT CHARGE	kg	65.0	76.0	86.0	94.0	109	117	126	134	143	160	173	188	200	213	227	244	258
<b>NOISE LEVEL</b>																		
SOUND PRESSURE <sup>3</sup>	dB(A)	66	67	67	67	67	67	68	68	68	68	69	69	70	70	70	71	
SOUND POWER LEVEL IN COOLING <sup>4,5</sup>	dB(A)	98	99	99	99	99	100	101	101	101	102	102	103	103	103	103	104	
<b>SIZE AND WEIGHT</b>																		
WIDTH <sup>6</sup>	mm	4000	5250	5250	5250	6500	6500	7750	7750	7750	9000	9000	10250	10250	11650	11650	11650	12900
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT <sup>6</sup>	kg	3660	4270	4390	4440	5660	5960	6420	6550	6640	7530	8060	8570	8920	9430	9550	10490	11150

# FX2-G04

## R1234ze

### Air Cooled Chiller

(255 to 1,561kW)

High Efficiency Version (/A)



**CLIMAVENETA**

**Notes:**

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements taken in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration, without optional accessories.
7. Parameter calculated according to [REGULATION (EU) N. 2016/2281].
8. Seasonal energy efficiency ratio.
9. Seasonal space cooling energy efficiency.

Eurovent Certified Data

The Climaveneta range of **FX2-G04** units are air cooled chillers with screw compressors, designed for delivering high efficiencies in comfort applications. Available with HFO1234ze refrigerant, the new range features 2 or 3 compressors in multi-circuit configuration.

### Key Features & Benefits

- Compact design
- Low noise
- Energy efficient
- Low GWP HFO1234ze refrigerant

**R1234ze**

MODEL	0252	0302	0322	0352	0402	0452	0512	0572	0652	0772	0902	0972	1052	1152	1243	1373	1503	1593	
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50		
<b>PERFORMANCE</b>																			
COOLING ONLY (GROSS VALUE)																			
COOLING CAPACITY <sup>1</sup>	kW	255.3	289.9	315.1	365.0	405.4	445.9	519.7	573.4	679.0	781.7	903.5	967.9	1058	1145	1239	1362	1488	1561
TOTAL POWER INPUT <sup>1</sup>	kW	75.98	87.26	94.43	106.7	121.7	135.2	156.8	172.2	204.8	235.6	276.0	287.2	319.7	343.6	373.1	415.8	446.3	473.4
EER <sup>1</sup>	kW/kW	3.359	3.321	3.338	3.421	3.331	3.298	3.314	3.330	3.315	3.318	3.274	3.370	3.309	3.332	3.321	3.276	3.334	3.297
ESEER <sup>1</sup>	kW/kW	4.530	4.500	4.560	4.480	4.500	4.590	4.530	4.570	4.530	4.550	4.530	4.540	4.590	4.630	4.550	4.570	4.590	4.600
COOLING ONLY (EN14511 VALUE)																			
COOLING CAPACITY <sup>12</sup>	kW	255.0	289.5	314.7	364.7	405.0	445.4	519.2	572.9	678.4	781.0	902.9	967.1	1057	1145	1238	1361	1487	1560
EER <sup>12</sup>	kW/kW	3.320	3.280	3.310	3.390	3.290	3.250	3.280	3.290	3.270	3.270	3.240	3.330	3.270	3.290	3.280	3.240	3.290	3.250
<b>ENERGY EFFICIENCY</b>																			
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)																			
AMBIENT REFRIGERATION																			
P <sub>NETECD</sub> <sup>7</sup>	kW	255	290	315	365	405	445	519	573	678	781	903	967	1057	1145	1238	1361	1487	1560
SEER <sup>78</sup>		4.55	4.52	4.61	4.54	4.56	4.61	4.56	4.61	4.60	4.63	4.61	4.64	4.65	4.69	4.63	4.58	4.67	4.69
PERFORMANCE η <sub>s</sub> <sup>79</sup>	%	179	178	181	178	179	181	179	182	181	182	181	183	183	185	182	180	184	185
EXCHANGERS																			
HEAT EXCHANGER USER SIDE IN REFRIGERATION																			
WATER FLOW <sup>1</sup>	l/s	12.21	13.86	15.07	17.46	19.39	21.32	24.85	27.42	32.47	37.38	43.21	46.28	50.57	54.77	59.24	65.14	71.14	74.65
PRESSURE DROP AT THE HEAT EXCHANGER	kPa	38.1	36.3	23.9	32.1	39.7	48.0	34.3	41.8	51.5	54.3	35.3	52.5	48.4	53.3	46.9	46.2	55.1	60.7
REFRIGERANT CIRCUIT																			
COMPRESSORS NR.	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3
REFRIGERANT CHARGE	kg	51.0	55.0	59.0	67.0	72.0	81.0	93.0	98.0	123	142	152	160	191	195	216	222	232	248
NOISE LEVEL																			
SOUND PRESSURE <sup>3</sup>	dB(A)	66	67	67	68	68	68	68	70	69	70	71	71	73	73	73	73	73	
SOUND POWER LEVEL IN COOLING <sup>45</sup>	dB(A)	98	99	99	100	100	100	100	102	102	103	104	104	106	106	106	106	106	
SIZE AND WEIGHT																			
WIDTH <sup>6</sup>	mm	4000	4000	4000	4000	4000	5250	5250	5250	6500	7750	7750	9000	10400	10400	11650	11650	12900	12900
DEPTH <sup>6</sup>	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	
HEIGHT <sup>6</sup>	mm	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	
OPERATING WEIGHT <sup>6</sup>	kg	3540	3560	3660	3810	4470	4990	5190	5250	6710	7650	7900	8340	9370	9440	11380	12070	12680	12930

# Commercial Heat Pumps & Chillers Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>e-Series</b> Fin Guard for EACV-M / EAHV-M	EC-130FG
<b>Ecodan CAHV</b> Main Pipework Thermistor	TW-TH16
Differential Pressure Switch for Water Systems	KS10-EP100S
Wired Remote Controller	PAR-W31MAA
Centralised Controller	AE-C400E
<b>Ecodan QAHV</b> Main Pipework Thermistor	TW-TH16
Centralised Controller	AE-C400E
Secondary Side Control Circuit Kit	Q-1SCK



# IT Cooling

Close Control Computer Room  
Air Conditioning Systems





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# Close Control Air Conditioning Systems

## Precise Temperature and Humidity Control

More and more businesses are opting to store their data on-site in enterprise data centres, and in the past standard wall mounted split systems may have been an option to cool this type of application.

However, complex IT environments are often characterised by variable cooling loads, which require a high cooling capacity at full load in order to allow the IT equipment to operate correctly when it is most needed.

### The perfect match between efficiency and reliability

The need for high sensible cooling and close control of both temperature and humidity in critical IT environments has therefore never been higher, and this is where our new range of specialist IT cooling systems makes it possible to keep temperature and humidity constant, even with very wide load variations, ensuring the correct room conditions all year round.

With our IT cooling systems, both efficiency and reliability are paramount throughout all the stages of research, design and manufacturing. By using this approach, along with over 50 years of manufacturing experience within the IT cooling sector, we are able to offer tailor made IT cooling solutions that have been designed to fulfil this requirement, reducing operational costs in the process through the use of highly efficient technology.



### Mitsubishi Electric Perimeter Cooling Units

Mitsubishi Electric's Close Control systems are specifically designed for rooms with a high sensible cooling load that require precise temperature and humidity control. Because of the need for close control 24 hours a day, 365 days a year, an inverter driven compressor has been incorporated into the outdoor units, maximising the energy efficiency of the system. Features include:

- DX or chilled water versions
- Precise temperature and humidity control
- High Sensible cooling
- Easily integrates into existing and new control networks
- Back-up and rotate functions
- Inverter driven capacity control
- New generation EC PUL (Polymeric Ultralight) high efficiency fans
- Free cooling
- Dual fluid circuits available for the highest reliability



### Designing the Optimum IT Cooling System

Two factors need to be taken into account when designing the perfect system for IT cooling: density and capacity. Mitsubishi Electric's wide range of products allows you to choose the correct balance of these factors, in order to meet your individual application requirements.

Mitsubishi Electric's range of dedicated IT cooling equipment includes DX systems specifically designed for IT applications, and for those who are familiar with the benefits and installation processes of our existing Mitsubishi Electric HVAC outdoor units. This opens up new opportunities for the application of DX systems in critical IT environments.



# MSY-TP

## R32 High SHF Wall Mounted System

### Inverter (Cooling Only)

The M Series **MSY-TP** R32 High SHF wall mounted system blends energy efficiency with a modern design. This cooling only unit has a high sensible cooling capacity, making it ideal for small computer rooms and areas that require a greater degree of sensible cooling. The MSY-TP also utilises lower GWP R32 refrigerant.

#### Key Features & Benefits

- Compact and stylish white design
- High sensible cooling ability
- Weekly timer provides greater control of scheduling
- Cooling down to -25°C outdoor air temperature



MSY-TP - INDOOR UNITS		MSY-TP35VF	MSY-TP50VF
CAPACITY (kW)	Cooling (nominal) Cooling (UK)	3.5 (1.5-4.0) 3.47 (1.48-3.96)	5.0 (1.5-5.7) 4.96 (1.48-5.65)
SHF (nominal)		0.98	0.82
EER (nominal)		4.61	3.45
SEER (BS EN14825)		9.00	8.00
E/P ENERGY EFFICIENCY CLASS	Cooling	A+++	A++
AIRFLOW (l/s)	Cooling - Lo-Mi-Hi-SHi	168-193-228-273	168-193-228-273
PIPE SIZE mm (in)	Gas Liquid	9.52 (3/8") 6.35 (1/4")	9.52 (3/8") 6.35 (1/4")
SOUND PRESSURE LEVEL (dBA)	Cooling - Lo-Mi-Hi-SHi	31-36-40-45	31-36-40-45
SOUND POWER LEVEL (dBA)		60	60
DIMENSIONS (mm)	Width x Depth x Height	923 x 250 x 305	923 x 250 x 305
WEIGHT (kg)		12.5	12.5
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
FUSE RATING (BS88) - HRC (A)		10	10
INTERCONNECTING CABLE No. CORES		4	4

MUY-TP - OUTDOOR UNITS		MUY-TP35VF	MUY-TP50VF
SOUND PRESSURE LEVEL (dBA)	Cooling	45	47
SOUND POWER LEVEL (dBA)	Cooling	58	61
WEIGHT (kg)		34	34
DIMENSIONS (mm)	Width x Depth x Height	800 x 285 x 550	800 x 285 x 550
ELECTRICAL SUPPLY		Fed by Indoor Unit	Fed by Indoor Unit
PHASE		Single	Single
SYSTEM POWER INPUT (kW)	Cooling (nominal) Cooling (UK)	0.76 0.64	1.45 1.12
STARTING CURRENT (A)		3.6	6.4
SYSTEM RUNNING CURRENT (A)	Cooling [MAX]	3.6 [9.2]	6.4 [9.2]
FUSE RATING (BS88) - HRC (A)		10	10
MAINS CABLE No. CORES		3	3
MAX PIPE LENGTH (m)		20	20
MAX HEIGHT DIFFERENCE (m)		12	12
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.85 / 0.57	0.85 / 0.57
MAX ADDITIONAL REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t) - R32 (GWP 675)		0.13 / 0.09	0.13 / 0.09

Notes: The SHF figures are based on nominal conditions. Requires an additional MAC-334IF-E interface and PAR-41MAA wired remote controller

# s-MEXT DX

## R32 Close Control System

### Key Features & Benefits

- High efficiency achieved through Mr Slim Power Inverter technology
- EC plug fans fitted as standard
- Pipe runs up to 100m
- Full function - Humidifier & Heater options
- Available in Upflow [over] and Downflow [under] variants



**Notes:**  
 The cooling capacity does not consider the supply fan motor thermal load.  
 1. Gross value based on return air of 27°C - 47%RH; Ambient Temperature 36°C; ESP=20Pa; Interconnecting pipework length 5m.  
 2. SHR = Sensible Cooling Capacity / Total Cooling Capacity.  
 3. EER = Energy Efficiency Ratio.  
 4. Rubber pipe - referred to internal diameter.  
 5. Minimum section.  
 6. External Static Pressure.  
 7. Corresponding to the nominal ESP=20Pa.  
 8. As per ISO 3744. Sound pressure level on air return at 1m.  
 9. All data refers to a single outdoor unit / circuit.  
 10. In one direction.  
 11. Additional refrigerant required for pipework separation greater than the standard.  
 12. Average sound pressure level, at 1m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.

Ideal for smaller IT Cooling environments, the **s-MEXT** system combines a high quality indoor CRAC with Mitsubishi Electric's Mr Slim Power Inverter condensing unit to create an efficient and precision Direct Expansion (DX) Split System for server rooms, UPS rooms and Mechanical and Technical rooms (MERs & TERs).



CRAC UNITS (Computer Room Air Conditioning)	s-MEXT-G00-DX-F1-006-S	s-MEXT-G00-DX-F1-009-S	s-MEXT-G00-DX-F1-009-S	s-MEXT-G00-DX-F1-013-S	s-MEXT-G00-DX-F1-013-S	s-MEXT-G00-DX-F2-022-S	s-MEXT-G00-DX-F3-028-S	s-MEXT-G00-DX-F3-038-D	s-MEXT-G00-DX-F3-044-D	
<b>PERFORMANCE</b>										
COOLING CAPACITY <sup>1</sup>	Total kW	6.8	10.1	10.1	11.9	11.9	22.6	28.0	39.0	42.5
	Sensible kW	6.2	8.9	8.9	10.2	10.2	19.3	26.2	33.6	35.3
SHR <sup>2</sup>		0.91	0.88	0.88	0.86	0.86	0.85	0.94	0.86	0.83
SYSTEM EER <sup>3</sup>	Nominal kW/kW	4.67	4.30	4.30	3.49	3.49	3.18	2.68	3.58	2.88
<b>REFRIGERANT</b>										
TYPE		R32								
NUMBER OF CIRCUITS	No.	1	1	1	1	1	1	2	2	
<b>CONNECTIONS</b>										
REFRIGERANT PIPE	Gas Ø Inch	5/8"	5/8"	5/8"	5/8"	1"	1"	1"	1"	
	Liquid Ø Inch	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	3/8"	1/2"	
CONDENSATE <sup>4</sup>	Ø mm	19	19	19	19	19	19	19	19	
POWER SUPPLY CABLE <sup>5</sup>	No. x mm <sup>2</sup>	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	5G1.5	5G1.5	5G1.5	
<b>ELECTRICAL DATA</b>										
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	400/3+N/50	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
STARTING CURRENT (SA)	A	2	2	2	2.8	2.8	3.3	3.8	3.8	3.8
MAX ABSORBED CURRENT (FLA)	A	27.8	27.8	27.8	27.6	27.6	35.9	28.8	28.8	28.8
<b>FANS (EC)</b>										
QUANTITY	No.	1	1	1	1	2	1	1	1	
AIRFLOW	m <sup>3</sup> /h	2000	2500	2500	2800	2800	5000	7600	8800	10000
NOMINAL ESP <sup>6</sup>	Pa	20	20	20	20	20	20	20	20	20
POWER INPUT <sup>7</sup>	kW	0.21	0.35	0.35	0.47	0.47	0.70	0.64	1.43	1.96
<b>ELECTRICAL HEATERS</b>										
STEPS	No.	2	2	2	2	3	3	3	3	
POWER INPUT	kW	2.6	2.6	2.6	2.6	3.9	9.0	9.0	9.0	
<b>HUMIDIFIER</b>										
CAPACITY	kg/h	3.0	3.0	3.0	3.0	3.0	8.0	8.0	8.0	
POWER INPUT	kW	2.3	2.3	2.3	2.3	2.3	6.0	6.0	6.0	
<b>SOUND<sup>8</sup></b>										
SOUND PRESSURE LEVEL	dB(A)	53	57	57	61	61	60	60	63	67
SOUND POWER LEVEL	dB(A)	69	73	73	77	77	76	76	79	83
<b>FILTERS</b>										
EFFICIENCY CLASS	ISO EN16890	COARSE	60%	60%	60%	60%	60%	60%	60%	60%
<b>SIZE AND WEIGHT</b>										
FRAME SIZE		F1	F1	F1	F1	F1	F2	F3	F3	
WIDTH (A)	mm	600	600	600	600	600	1000	1000	1000	
DEPTH (B)	mm	500	500	500	500	500	500	890	890	
HEIGHT (H)	mm	1980	1980	1980	1980	1980	1980	1980	1980	
NET WEIGHT	Upflow (O) kg	103	106	106	110	110	165	237	237	
	Downflow (U) kg	110	115	115	120	120	175	247	247	

OUTDOOR UNITS <sup>9</sup>	PUZ-ZM60VHA2	PUZ-ZM100VDA	PUZ-ZM100YDA	PUZ-ZM125VDA	PUZ-ZM125YDA	PUZ-ZM250YKA2	PUZ-ZM250YKA2	PUZ-ZM200YKA2	PUZ-ZM250YKA2
QUANTITY OF OUTDOOR UNITS									
INSTALLATION		1	1	1	1	1	1	1	2
PIPEWORK SEPARATION <sup>10</sup>	Standard	30	40	40	40	40	30	30	30
Max <sup>11</sup>									
<b>ELECTRICAL DATA</b>									
POWER SUPPLY	V/ph/Hz	230/1/50	230/1/50	400/3+N/50	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
POWER INPUT	Nominal kW	1.25	2	2	2.94	2.94	6.41	9.67	4.73
MAX OPERATING CURRENT	A	19.0	27.2	8.7	27.2	9.7	22.5	22.5	22.5
POWER SUPPLY CABLE	No. x mm <sup>2</sup>	3G4	3G4	5G1.5	3G4	5G1.5	5G6	5G6	5G6
<b>SOUND</b>									
SOUND PRESSURE LEVEL <sup>12</sup>		53	44	44	50	50	62	62	62
SOUND POWER LEVEL		67	63	63	70	70	77	77	77
<b>SIZE AND WEIGHT</b>									
WIDTH (A)	mm	950	1110	1110	1050	1050	1050	1050	1050
DEPTH (B)	mm	355	505	505	370	370	370	370	370
HEIGHT (H)	mm	943	870	870	1338	1338	1338	1338	1338
WEIGHT	kg	70	107	114	116	125	135	137	135

# x-MEXT DX

## R410A Close Control System



The **x-MEXT DX** is a highly efficient computer room air conditioner (CRAC), incorporating a wide range of options and configurations, and manufactured to the highest Mitsubishi Electric quality and reliability standards. The x-MEXT includes BLDC Mitsubishi Electric compressors, microchannel heat exchanger options, and an EC fan on the indoor unit with an impeller made of recycled plastic, that is specifically design for the x-MEXT range.

### Key Features & Benefits

- Perimeter unit with upflow (over) and downflow (under) configurations
- Full inverter technology with BLDC Mitsubishi Electric compressors and a proprietary fan design
- Excellent efficiency with load matching control
- Advanced in-house developed control software
- Intelligent LAN controls for up to 15 units
- Interface cards available with many common BEMS protocols
- Automatic transfer switches and fast restart options
- Optional low ambient temperature kit for extreme conditions
- Full function humidifier and heating options
- Optional dampers, floor stands and discharge plenums

# R410A

CRAC UNITS (Computer Room Air Conditioning)	x-MEXT-I-G02 -DX-U/O-029	x-MEXT-I-G02 -DX-U/O-040	x-MEXT-I-G02 -DX-U/O-051	x-MEXT-I-G02 -DX-U/O-052	x-MEXT-I-G02 -DX-U/O-067	x-MEXT-I-G02 -DX-U/O-076	x-MEXT-I-G02 -DX-U/O-078	x-MEXT-I-G02 -DX-U/O-090	x-MEXT-I-G02 -DX-U/O-108	x-MEXT-I-G02 -DX-U/O-140		
<b>PERFORMANCE - WITH CONDENSERS LISTED</b>												
COOLING CAPACITY <sup>1</sup> Total	kW	27.7	38.8	49.5	50.4	63.9	74.4	75.9	87.6	104.0	132.0	
SHR Nominal		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
EER <sup>2</sup> Nominal		3.45	3.32	2.93	3.55	3.15	3.14	3.63	3.38	3.12	2.61	
<b>FANS</b>												
AIRFLOW	m <sup>3</sup> /h	8,000	10,500	11,000	14,750	17,000	17,000	21,500	22,500	25,500	27,000	
FAN TYPE		Centrifugal EC	Centrifugal EC									
FANS	No.	1	1	1	2	2	2	2	2	3	3	
POWER INPUT	kW	0.80	1.61	1.85	2.16	3.20	3.22	3.21	3.66	5.15	6.24	
MAX EXTERNAL STATIC PRESSURE	Pa	364	299	243	237	173	169	300	245	141	84	
<b>REFRIGERANT</b>												
REFRIGERANT		R410A	R410A									
REFRIGERANT CIRCUITS	No.	1	1	1	1	1	1	2	2	2	2	
COMPRESSOR(S) TYPE	Operating Mode	i	i	i	i	1 + i	1 + i	2(i)	2(i)	2(1 + i)	2(1 + i)	
<b>FILTERS</b>												
FILTERS	No.	2	2	2	3	3	3	4	4	4	4	
EFFICIENCY CLASS <sup>3</sup>		Coarse	60%	60%	60%	60%	60%	60%	60%	60%	60%	
<b>SOUND LEVEL</b>												
PRESSURE LEVEL <sup>4</sup>	Downflow [under] / Upflow [over]	dB(A)	50 / 69	47 / 65	47 / 64	48 / 66	47 / 65	47 / 64	49 / 68	49 / 67	50 / 69	52 / 69
POWER LEVEL	Downflow [under] / Upflow [over]	dB(A)	67 / 86	64 / 82	64 / 81	65 / 83	64 / 82	64 / 81	67 / 86	67 / 85	68 / 87	70 / 87
<b>ELECTRICAL</b>												
POWER SUPPLY	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	
MAX RUNNING CURRENT	FLA	A	30.6	41.5	41.5	47	57.4	57.4	82	82	108	
<b>DIMENSIONS AND WEIGHT</b>												
FRAME SIZE	M	M	M	L	L	L	XL	XL	XL	XL	XL	
DIMENSIONS	Width	mm	1,142	1,142	1,142	1,600	1,600	2,550	2,550	2,550	2,550	
	Depth	mm	885	885	885	885	885	885	885	885	885	
	Height	mm	1,980	1,980	1,980	1,980	1,980	1,980	1,980	1,980	1,980	
NET WEIGHT	Upflow [over]	kg	363	372	375	459	502	503	799	806	915	916
	Downflow [under]	kg	372	380	383	477	520	521	839	846	955	957
<b>CONNECTIONS<sup>5</sup></b>												
REFRIGERANT PIPE	Gas	Ø mm	18	22	22	22	28	28	2 x 22	2 x 22	2 x 28	2 x 28
DIAMETER	Liquid	Ø mm	16	18	18	18	18	18	2 x 18	2 x 18	2 x 18	2 x 18
CONDENSATE DRAIN <sup>6</sup>		Ø mm	19	19	19	19	19	19	19	19	19	19
OUTDOOR REMOTE CONDENSER(S) <sup>7</sup>	MEGR-MC-E 034	MEGR-MC-E 049	MEGR-MC-E 067	MEGR-MC-E 067	MEGR-MC-E 082	MEGR-MC-E 110	2 x MEGR-MC-E 049	2 x MEGR-MC-E 055	2 x MEGR-MC-E 067	2 x MEGR-MC-E 082		
<b>FAN TYPE<sup>8</sup></b>												
FAN TYPE		Axial EC	Axial EC									
FANS	No.	1	2	2	2	3	4	2	2	2	3	
AIRFLOW	m <sup>3</sup> /h	9,550	15,555	19,000	19,000	25,000	36,600	15,555	18,300	19,000	25,000	
POWER SUPPLY	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	
MAX RUNNING CURRENT	FLA	A	1.92	3.84	3.84	3.84	5.76	7.68	3.84	3.84	5.76	
SOUND LEVEL <sup>4</sup>	Pressure	dB(A)	56	54	58	58	59	59	54	57	58	59
DIMENSIONS <sup>9</sup>	Width	mm	1,140	1,140	1,140	1,140	1,140	2,200	1,140	1,140	1,140	1,140
	Length	mm	1,360	2,040	2,600	2,600	2,600	2,280	2,040	2,040	2,600	2,600
	Height	mm	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168
NET WEIGHT	kg	50	82	96	96	114	169	82	82	96	114	
CONNECTION SIZE <sup>5</sup>	Gas	Ø mm	18	22	22	22	28	28	22	22	28	
REFRIGERANT PIPE DIAMETER	Liquid	Ø mm	16	18	18	18	22	22	18	18	22	

Notes:

- <sup>1</sup> Gross Total Values shown for Downflow [under] airflow configuration. Operating Conditions: Return Air Temperature: 30°C / Relative Humidity: 35% / Ambient: 35°C / External Static Pressure: 20Pa
- <sup>2</sup> EER for indoor unit only.
- <sup>3</sup> As per ISO EN 16890. Other filter options are available.
- <sup>4</sup> Average sound level, at 1m distance, unit in a free field on a reflective surface according to ISO3744. Non-binding value obtained from the sound power level.
- <sup>5</sup> Equipment connection only; consult x-MEXT / MEGR databooks for interconnecting pipework sizing.
- <sup>6</sup> Rubber pipe - refers to internal diameter.
- <sup>7</sup> All data is "per condenser". Typical condenser arrangement shown, other condenser sizing combinations are available.
- <sup>8</sup> Other type of fans are available.
- <sup>9</sup> Based on vertical airflow direction.
- These units contain <HFC R410A [GWP<sub>100</sub> 2088]> fluorinated greenhouse gas.



The **w-MEXT** chilled water range incorporates the latest EC Plug fans, advanced controls software and maximises the coil area to bring high efficiency and high SHR performance to smaller data centre and server room environments.

Group controls and smart control strategies are not reserved for larger environments: w-MEXT can operate with intelligent integrated LAN functions for active redundancy and also integrate with the Hydronic Plant Connect (HPC) group control system, bringing harmony between the CRAHs and Chillers.

Additional options for electric heating and humidification further extend control and operational functionality.

### Key Features & Benefits

- Compact footprint with Under, Over and Displacement airflows
- Adaptive set-point
- High efficiency EC plug fans
- LAN controls for up to 15 units
- Variety of valve options

CRAH UNITS (Computer Room Air Handler)		w-MEXT U/O 006 F1	w-MEXT U/O 009 F1	w-MEXT U/O 011 F1	w-MEXT U/O 013 F1	w-MEXT U/O 016 F2	w-MEXT U/O 022 F2	w-MEXT U/O 026 F2
<b>PERFORMANCE</b>								
COOLING CAPACITY <sup>*1</sup>	Total kW	4.6	7.9	9.7	12.5	15.4	20.4	25.6
SHR	Nominal	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EER <sup>*2</sup>	Nominal	65.3	37.6	30.2	27.8	38.5	30.0	26.9
<b>FANS</b>								
AIRFLOW	m <sup>3</sup> /h	1,500	2,200	2,500	2,700	4,300	5,000	5,400
FAN TYPE		Centrifugal EC						
FANS	No.	1	1	1	1	2	2	2
POWER INPUT	kW	0.07	0.21	0.32	0.45	0.40	0.68	0.95
MAX EXTERNAL STATIC PRESSURE	Pa	201	471	384	276	277	370	254
<b>WATER CIRCUIT</b>								
FLOW RATE	l/s	0.22	0.38	0.46	0.60	0.74	0.97	1.22
PRESSURE DROP <sup>*3</sup>	kPa	23.5	61.1	32.2	55.7	46.5	80.2	108
<b>FILTERS</b>								
FILTERS	No.	1	1	1	1	2	2	2
EFFICIENCY CLASS <sup>*4</sup>		Coarse	60%	60%	60%	60%	60%	60%
<b>SOUND LEVEL</b>								
PRESSURE LEVEL <sup>*5</sup>	dB(A)	43	56	58	60	53	60	62
POWER LEVEL <sup>*6</sup>	dB(A)	59	72	74	76	69	76	78
<b>ELECTRICAL</b>								
POWER SUPPLY	V/ph/Hz	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
MAX RUNNING CURRENT <sup>*6</sup>	FLA A	3.6	4.0	4.0	4.0	7.2	8.0	8.0
<b>ELECTRIC HEATER (optional)</b>								
STEPS	No.	2	2	2	2	3	3	3
CAPACITY	kW	2.6	2.6	2.6	2.6	3.9	3.9	3.9
MAX RUNNING CURRENT <sup>*7</sup>	FLA A	11.3	11.3	11.3	11.3	16.9	16.9	16.9
<b>HUMIDIFIER (optional)</b>								
QUANTITY	No.	1	1	1	1	1	1	1
CAPACITY	kg/h	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MAX RUNNING CURRENT <sup>*8</sup>	FLA A	14.1	14.1	14.1	14.1	14.1	14.1	14.1
<b>DIMENSIONS AND WEIGHT</b>								
FRAME SIZE		F1	F1	F1	F1	F2	F2	F2
DIMENSIONS	Width mm	600	600	600	600	1,000	1,000	1,000
	Depth mm	500	500	500	500	500	500	500
	Height mm	1,980	1,980	1,980	1,980	1,980	1,980	1,980
<b>NET WEIGHT</b>								
Uptow [over]	kg	103	109	116	120	163	173	181
Downflow [under]	kg	110	118	126	130	173	183	191
<b>CONNECTIONS</b>								
WATER <sup>*9</sup>	Inlet Ø inch	3/4"	3/4"	3/4"	1"	1 1/4"	1 1/4"	1 1/4"
	Outlet Ø inch	3/4"	3/4"	3/4"	1"	1 1/4"	1 1/4"	1 1/4"
CONDENSATE DRAIN <sup>*10</sup>	Ø mm	19	19	19	19	19	19	19

Notes:

\*1: Gross total values shown. Operating conditions: Return Air Temperature: 26°C /

Relative Humidity: 40% / Water Inlet: 10°C / Water ΔT: 5K / Glycol: 0% / External Static Pressure: 20Pa.

\*2: EER for indoor unit only.

\*3: For heat exchanger coil and 2-port valve only.

\*4: As per ISO EN 16890. Other filter options are available.

\*5: Average sound level, at 1m distance, unit in a free field on a reflective surface according to ISO 3744.

Values for downflow [under] and upflow [over] only.

\*6: Cooling only version. Humidifier / electrical heating options will change value. Refer to databook.

\*7: For electric heater only.

\*8: For humidifier only.

\*9: As per ISO 228/1-G.

\*10: Rubber pipe - refers to internal diameter.

# w-NEXT

## Chilled Water Close Control System



High precision air conditioners are ideal for applications where high sensible cooling and close control of temperature and humidity are required. The **w-NEXT** chilled water range incorporates the latest EC plug fan(s), advanced controls software and an increased coil area resulting in the highest efficiency.

### Key Features & Benefits

- High Efficiency - EC plug fans
- Small footprint
- Adaptive Set Point
- Active Redundancy
- Available in Upflow [over] and Downflow [under] variants

CRAH UNITS (Computer Room Air Handler)	w-NEXT S 045 E3P	w-NEXT S 053 E4	w-NEXT S 072 E5	w-NEXT S 081 E6
CAPACITY (kW) <sup>2</sup>	Total Sensible	41.0 41.0	48.1 48.1	66.1 66.1
SHR <sup>3</sup>	1.00	1.00	1.00	1.00
EER	18.6	22.4	22.8	21.2
EC SUPPLY FAN(S)	No.	1	1	2
AIRFLOW (m <sup>3</sup> /h)		10,800	13,100	16,350
EXTERNAL STATIC PRESSURE (Pa)		20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		297	194	532
POWER INPUT (kW) <sup>4</sup>		2.20	2.15	2.90
AIR FILTERS	No.	2	3	3
	Extended filtering surface (m <sup>2</sup> )	1.71	2.07	2.59
	Efficiency [ISO EN 16890] (COARSE)	60%	60%	60%
CHILLED WATER FLOW RATE (l/s)		1.96	2.30	3.16
WATERSIDE PRESSURE DROP (kPa)	Coil + 2-Port Valve	34.1	37.3	42.9
SOUND LEVEL dB(A) (ISO3774) <sup>5</sup>	Downflow - Power / Pressure	73 / 57	74 / 57	73 / 56
	Upflow - Power / Pressure	77 / 61	78 / 61	77 / 60
POWER SUPPLY (V/Ph/Hz)		400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50
MAX POWER ABSORBED (kW)		2.90	2.70	5.40
MAX RUNNING CURRENT (A)		4.4	4.2	8.4
DIMENSIONS (mm)	Width	1085	1305	1630
	Depth	930	930	930
	Height	1925	1980	1980
NET WEIGHT (kg)	Downflow	321	345	470
	Upflow	329	379	428
CONNECTIONS	Water Inlet / Outlet ISO 7/1 (Ø inch)	1 1/4"	1 1/2"	2"
	Condensate (Ømm) <sup>6</sup>	19	19	19

CRAH UNITS (Computer Room Air Handler)	w-NEXT S 100 E7	w-NEXT S 120 E8	w-NEXT S 138 E9	w-NEXT S 160 E10 <sup>1</sup>	w-NEXT S 215 E10 <sup>1</sup>
CAPACITY (kW) <sup>2</sup>	Total Sensible	91.6 91.6	111.0 111.0	126.0 126.0	147.0 147.0
SHR <sup>3</sup>	1.00	1.00	1.00	1.00	0.87
EER	23.0	17.8	19.6	22.8	31.7
EC SUPPLY FAN(S)	No.	2	3	3	3
AIRFLOW (m <sup>3</sup> /h)		24,200	28,300	33,100	37,150
EXTERNAL STATIC PRESSURE (Pa)		20	20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		247	237	309	207
POWER INPUT (kW) <sup>4</sup>		3.98	6.22	6.42	6.44
AIR FILTERS	No.	4	5	6	6
	Extended filtering surface (m <sup>2</sup> )	3.83	4.47	5.24	6.54
	Efficiency [ISO EN 16890] (COARSE)	60%	60%	60%	60%
CHILLED WATER FLOW RATE (l/s)		4.38	5.33	6.04	7.03
WATERSIDE PRESSURE DROP (kPa)	Coil + 2-Port Valve	31.7	48.6	47	66.7
SOUND LEVEL dB(A) (ISO3774) <sup>5</sup>	Downflow - Power / Pressure	76 / 59	79 / 61	80 / 62	79 / 61
	Upflow - Power / Pressure	80 / 63	83 / 65	81 / 63	N/A
POWER SUPPLY (V/Ph/Hz)		400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50
MAX POWER ABSORBED (kW)		5.40	8.10	8.70	8.10
MAX RUNNING CURRENT (A)		8.3	12.6	13.3	12.5
DIMENSIONS (mm)	Width	2175	2499	2899	3510
	Depth	930	930	930	930
	Height	1980	1980	1980	1980
NET WEIGHT (kg)	Downflow	589	660	753	900
	Upflow	535	598	679	N/A
CONNECTIONS	Water Inlet / Outlet ISO 7/1 (Ø inch)	2 1/2"	2 1/2"	3"	3"
	Condensate (Ømm) <sup>6</sup>	19	19	19	19

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD  
\*1 Downflow version only.

<sup>2</sup> Gross value based on return air at 24°C - 45%RH; Chiller water 7°C / 12°C.

<sup>3</sup> SHR = Sensible cooling capacity / Total cooling capacity.

<sup>4</sup> Fan(s) input power (ESP=20Pa).

<sup>5</sup> Average level at 1m from unit in free field conditions.

<sup>6</sup> Rubber pipe - refers to internal diameter.



Mitsubishi Electric's new and improved **MEWALL** brings performance and reliability at scale. It is ideal for hyperscale datacentres and large co-location customers, so that they can fully utilise their large building structures to deliver improved efficiencies and make every kW count.

By changing the airflow convention, the unit is designed for horizontal airflow at scale. This allows for taller heat exchangers, with elevated water temperatures, improving performance over conventional designs. It also allows for the separation of the white space from the technical corridor, simplifying security arrangements. Most importantly, this design eliminates the need for raised floors: simplifying building design, installation and reducing costs. Available in 2 sizes for 350kW to 400kW applications, it is available with a variety of options including an option to replace the side panels with filters to lower the airflow pressure drop and further improve on efficiency.

### Key Features & Benefits

- State of the art EC fans with high efficiency air intake grilles
- High quality, low pressure drop filters easily accessible from the front
- Improved performance with side filter version
- Eliminates the need for raised floors in your white space
- Highly efficient EC fan combined with efficient heat exchanger
- Operates at modern hyperscale conditions
- Easy to service - fully accessible from the front
- Advanced control and networking options
- Available with variety of options including a variety of hydronic control valves, harmonic filters, fast restarts, touchscreen display and more

MEWALL	0402		0462	
VERSION	-	-SF	-	-SF
<b>PERFORMANCE - Nominal</b>				
COOLING CAPACITY <sup>1</sup>	Total kW	340.6	338.9	382.9
SHR		1.00	1.00	1.00
EER <sup>2</sup>		36.9	40.7	36.5
AIRFLOW <sup>3</sup>	Volume m <sup>3</sup> /h	90,000	90,000	100,000
<b>PERFORMANCE - Max Condition</b>				
COOLING CAPACITY <sup>1</sup>	Total kW	459.5	465.9	491.1
SHR		1.00	1.00	1.00
EER <sup>2</sup>		17.1	18.2	19.5
AIRFLOW <sup>3</sup>	Volume m <sup>3</sup> /h	134,000	137,600	138,700
<b>FANS</b>				
AIRFLOW	Direction	Horizontal	Horizontal	Horizontal
FAN TYPE		EC	EC	EC
FANS	No.	8	8	8
<b>WATER CIRCUIT</b>				
FLOW RATE	l/s	6.94	6.94	6.94
<b>FILTERS</b>				
FILTERS	No.	12	12	12
EFFICIENCY CLASS <sup>4</sup>	ePM10	50%	50%	50%
<b>ELECTRICAL</b>				
POWER SUPPLY	V/ph/Hz	400 / 3+N / 50	400 / 3+N / 50	400 / 3+N / 50
<b>DIMENSIONS AND WEIGHT</b>				
DIMENSIONS	Width mm	3,600	3,600	3,600
	Depth mm	1,600	1,600	1,600
	Height mm	3,500	3,500	4,000
NET WEIGHT	kg	2,460	2,460	2,545
<b>CONNECTIONS</b>				
WATER <sup>5</sup>	Inlet / Outlet DN	50	50	50
	Inlet / Outlet Ø inches	2	2	2
CONDENSATE DRAIN <sup>6</sup>	Ø mm	22	22	22

Notes:

-SF represents the side filter option included.

<sup>1</sup> Gross Total Values shown. Operating Conditions: Return Air Temperature: 37°C / Relative Humidity: 25% / Water Inlet: 20°C / Water DeltaT: 10K / Glycol: 0%.

<sup>2</sup> EER for indoor unit only.

<sup>3</sup> Corresponding to nominal external static pressure (50Pa).

<sup>4</sup> As per ISO EN 16890.

<sup>5</sup> As per UNI EN 10255. The connections refer to the supply manifold for stacked modules. Grooved connection - the grooved flexible joint is not supplied.

<sup>6</sup> Rubber pipe - refers to internal diameter.

# m-MRAC / m-MROW

## R410A Multi Density Close Coupled Control System



**Notes:**

THE COOLING CAPACITY DOES NOT CONSIDER THE SUPPLY FAN MOTOR THERMAL LOAD.

\*1 All data refers to the Rating Configuration with 2x m-MROW-Z G02 F/S 025 @35°C

Outdoor Temperature and 35°C/27%rh Indoor Temperature.

\*2 SHR = Sensible cooling capacity / Total cooling capacity.

\*3 Corresponding to the nominal ESP=20Pa.

\*4 Sound pressure level on air return at 1m.

\*5 Rubber pipe - refers to internal diameter.

\*6 Minimum section. It's possible to connect indoor units with a sum of sizing from 25 to 75.

\*7 When outdoor unit is below indoor unit.

These units contain <HFC R410A [GWP<sub>100</sub> 2088]> fluorinated greenhouse gas.

Mitsubishi Electric's **Multi Density** systems combine the efficiency, quality and simplicity of VRF with high performance close coupled air conditioning units. Multi Density is ideal for applications where high sensible cooling and close control of temperature in high density applications is required. This system consists of multiple indoor 'coolside' close coupled air conditioners connected to a City Multi VRF outdoor unit. The result is a full inverter multi-split system, designed according to the best quality standards and dedicated to the most reliable IT environments. The range is particularly suitable for high density racks and blade server cooling in data centres, as it is able to cope with the high density of the thermal load, putting the air conditioning unit directly within the rows of racks to cool the localised heat sources (hot spots).

### Key Features & Benefits

- High Efficiency - full Mitsubishi Electric inverter technology
- Small footprint
- Pipe runs up to 165m
- Trusted VRF technology

**R410A**

CRAC UNITS (COMPUTER ROOM AIR CONDITIONING)		m-MRAC G02 009 / M-MROW G02 009	m-MRAC G02 015 / M-MROW G02 015	m-MRAC G02 025 / M-MROW G02 025
COOLING CAPACITY (kW) <sup>*</sup>	Total Sensible	10.6 9.6	16.6 15.7	28.6 27.4
SHR <sup>**</sup>		0.91	0.94	0.96
EC SUPPLY FAN (no.)		2	4	5
AIRFLOW (m <sup>3</sup> /h)		1,500	2,700	4,200
NOMINAL EXTERNAL STATIC PRESSURE (Pa)		20	20	20
MAX EXTERNAL STATIC PRESSURE (Pa)		60	60	60
POWER INPUT (kW) <sup>***</sup>		0.18	0.34	0.85
REFRIGERANT		R410A	R410A	R410A
REFRIGERANT CIRCUITS (n°)		1	1	1
AIR FILTERS	NO. Extended filtering surface (m <sup>2</sup> ) Efficiency [ISO EN 16890] (COARSE)	2 0.35 40%	2 0.35 40%	2 0.35 40%
SOUND LEVEL [ISO 3744] (dB(A)) <sup>****</sup>	Pressure Level Power Level	63.5 79	64.5 80	70.5 86
POWER SUPPLY (V / Ph / Hz)		230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
ABSORBED CURRENT (A) <sup>***</sup>		0.8	1.5	4
STARTING CURRENT (A)		2.9	5.8	7.3
DIMENSIONS (mm)	Width Depth (MROW / MRAC) Height	300 1000 / 1200 2,085	300 1000 / 1200 2,085	300 1000 / 1200 2,085
NET WEIGHT (kg)	In-Row Enclosure	175 185	190 200	193 203
CONNECTIONS	Refrigerant pipes diameter - Gas (Ø Inch) Refrigerant pipes diameter - Liquid (Ø Inch) Condensate (Ømm) <sup>**</sup> Power supply wiring cable (no. x mm <sup>2</sup> ) <sup>****</sup>	3/4" 1/2" 16 3G1.5	7/8" 5/8" 16 3G1.5	1" 3/4" 16 3G1.5

OUTDOOR UNITS		m-MOCU G02 050	2 X m-MOCU G02 050
RATED COOLING CAPACITY	kW	50	50 x 2
SYSTEM EER <sup>**</sup>	kW/kW	2.96	3.24
SOUND PRESSURE LEVEL (dB(A))	Cooling	65	68
WEIGHT (kg)		304	304 x 2
DIMENSIONS (mm)	Width x Depth x Height	1650 x 740 x 1750	1650 x 740 x 1750 [x2]
POWER SUPPLY (V / Hz)		380-415v, 50Hz	380-415v, 50Hz
PHASE		3	3
OUTDOOR POWER INPUT (kW)	Cooling (nominal)	15.2	13.7
STARTING CURRENT (A)		27.8	27.8 x 2
MAX RUNNING CURRENT (A)	Cooling	37.6	37.6 x 2
FUSE RATING (BS88) - HRC (A)		40	40 x 2
MAINS CABLE	No. Cores	5G6	5G6
MAX PIPE LENGTH (m)		165	165
MAX HEIGHT DIFFERENCE (m)		50 (40")	50 (40")
CHARGE REFRIGERANT (kg) / CO <sub>2</sub> EQUIVALENT (t)	R410A (GWP 2088)	11.8 / 24.6	11.8 / 24.6 x 2
GUARANTEED OPERATING RANGE (°C)	Max Temp Min Temp	45 -15	45 -15

# NR2-FC-G06-Z

## R454B Free-Cooling Chiller (359 to 895kW)



### Notes:

- \*1 Gross Value. Plant (side) cooling exchanger water (in/out) 30.00°C/20.00°C; Source (side) heat exchanger air (in) 35.0°C; Ethylene glycol 30%.
  - \*2 Gross Value. Plant (side) cooling exchanger water (in/out) 30.00°C/20.00°C; Ethylene glycol 30%.
  - \*3 Gross Values. Plant (side) cooling exchanger water (in/out) 16.00°C/10.00°C; Source (side) heat exchanger air (in) 35.0°C; Ethylene glycol 30%.
  - \*4 Gross Values. Plant (side) cooling exchanger water (in/out) 16.00°C/10.00°C; Ethylene glycol 30%.
  - \*5 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
  - \*6 Sound power on the basis of measurements taken in compliance with ISO 9614.
  - \*7 Unit in standard configuration, without optional accessories.
  - \*8 Seasonal energy efficiency of high temperature process cooling: REGULATION (EU) N. 2016/2281.
- General - Other models are available to suit noise or efficiency (K, SL-K, SL-A) including No Glycol (NG) hydraulic version. Models shown here are high efficiency "A" versions

The NR2-FC-G06-Z is our outdoor chiller with integrated free-cooling utilising hermetic rotary Scroll compressors with R454B refrigerant, axial-flow fans, shell and tubes exchanger and an electronic expansion valve.

The range is composed of units equipped with four, five and six compressors in multi-circuit configuration. Available in 14 sizes from 359kW to 895kW cooling capacity and operating on R454B low GWP refrigerant, makes the NR2-FC-G06-Z best in class. The NR2-FC-G06-Z is available as four different configurations for noise and efficiency performance (K, SL-K, A, SL-A), with a wide operating range from 5°C to +24°C evaporator leaving water temperatures (ELWT) and ambient temperatures from 48°C to -30°C. The NR2-FC-G06-Z can also be fitted with a range of options including Soft Start, energy meters, BEMS interface cards and on-board hydronic kits.

## Key Features & Benefits

- Best-in-class seasonal efficiency in a compact footprint
- Available in 'No Glycol' versions
- High efficiency scroll compressors providing a multi refrigeration circuit
- EC Fans available as an option for improved efficiency (standard on A version)
- Four different configurations for noise and efficiency performance available (K, SL-K, A, SL-A)
- Lower GWP refrigerant R454B
- Available options include; inbuilt hydronic pumps, energy meters, Refrigerant leak detection, dual power supply and many more
- Microchannel MCHX for condenser coil and Cu/Al for free cooling coil
- Fast Restart fitted as standard

**R454B**

NR2-FC-G06-Z / A	0384	0414	0434	0462	0494	0524	0554	0594	0624	0685	0746	0836	0866	0926	
<b>MECHANICAL COOLING (30°C / 20°C)<sup>1</sup></b>															
COOLING CAPACITY	kW	359.8	388.7	416.7	444.1	471.0	501.6	531.8	569.6	607.7	660.6	699.5	805.6	835.8	895.0
COMPRESSOR POWER INPUT	kW	76.53	79.48	82.67	86.03	89.52	96.89	104.5	108.7	113.1	122.3	137.2	153.4	160.9	176.3
TOTAL POWER INPUT	kW	86.70	91.40	96.30	101.3	106.5	113.9	121.5	127.4	133.5	146.1	161.0	180.6	188.1	203.5
EER	kW/kW	4.15	4.25	4.33	4.38	4.42	4.40	4.38	4.47	4.55	4.52	4.35	4.46	4.44	4.40
<b>TOTAL FREE-COOLING (30°C / 20°C)<sup>2</sup></b>															
TOTAL FREE-COOLING OCCURS AT	°C	10.7	11.3	11.8	12.0	12.3	12.0	11.6	11.7	11.9	12.3	11.9	11.9	11.7	11.1
COOLING CAPACITY	kW	359.8	388.7	416.7	444.1	471.0	501.6	531.8	569.6	607.7	660.6	699.5	805.6	835.8	895.0
TOTAL POWER INPUT	kW	10.20	11.90	13.60	15.30	17.00	17.00	17.00	18.70	20.40	23.80	23.80	27.20	27.20	27.20
EER	kW/kW	35.27	32.66	30.64	29.03	27.71	29.51	31.28	30.46	29.79	27.76	29.39	29.62	30.73	32.90
<b>MECHANICAL COOLING (16°C / 10°C)<sup>3</sup></b>															
COOLING CAPACITY	kW	279.4	301.2	322.3	343.0	363.3	387.2	410.7	439.3	468.1	508.8	540.4	621.3	644.9	691.2
COMPRESSOR POWER INPUT	kW	73.56	76.84	80.32	83.94	87.66	94.65	101.8	106.5	111.3	120.4	133.7	150.3	157.3	171.7
TOTAL POWER INPUT	kW	83.80	88.70	93.90	99.20	104.7	111.6	118.8	125.2	131.7	144.2	157.5	177.5	184.5	198.9
EER	kW/kW	3.33	3.39	3.43	3.45	3.47	3.47	3.45	3.50	3.55	3.52	3.43	3.50	3.49	3.47
<b>TOTAL FREE-COOLING (16°C / 10°C)<sup>4</sup></b>															
TOTAL FREE-COOLING OCCURS AT	°C	2.9	3.5	3.9	4.1	4.3	4.0	3.7	3.8	4.0	4.3	4.0	4.0	3.8	3.3
COOLING CAPACITY	kW	279.4	301.2	322.3	343.0	363.3	387.2	410.7	439.3	468.1	508.8	540.4	621.3	644.9	691.2
TOTAL POWER INPUT	kW	10.20	11.90	13.60	15.30	17.00	17.00	17.00	18.70	20.40	23.80	23.80	27.20	27.20	27.20
EER	kW/kW	27.39	25.31	23.70	22.42	21.37	22.78	24.16	23.49	22.95	21.38	22.71	22.84	23.71	25.41
<b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)<sup>5</sup></b>															
PRATED,C	kW	262.2	282.4	301.9	321.3	340.2	362.7	384.8	411.5	438.3	476.3	506.2	581.9	604.1	647.8
SEPR HT		7.20	7.24	7.18	7.16	7.10	7.12	7.24	7.26	7.31	7.33	7.39	7.48	7.40	7.59
<b>ELECTRICAL DATA</b>															
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/53	400/3/54	400/3/55
MAX F.L.A. <sup>7</sup>	Total A	201	217	233	249	265	280	295	312	329	365	395	445	459	488
<b>EXCHANGERS</b>															
MINIMUM WATER FLOW IN COOLING	Evaporator I/s	6.66	6.66	6.66	8.33	8.33	8.61	8.61	9.44	9.44	9.44	13.69	13.69	13.69	13.69
MINIMUM SYSTEM VOLUME	I	940	1020	1100	1180	1250	1320	1400	1500	1600	1750	1850	2120	2200	2350
<b>REFRIGERANT CIRCUIT</b>															
COMPRESSORS	No.	4	4	4	4	4	4	4	4	4	5	6	6	6	6
CIRCUITS	No.	2	2	2	2	2	2	2	2	2	2	2	3	2	2
THEORETICAL REFRIGERANT CHARGE	kg	36.0	40.5	46.8	58.5	60.3	60.3	69.3	72.9	75.6	77.4	80.1	80.1	80.1	80.1
<b>NOISE LEVELS</b>															
TOTAL SOUND PRESSURE <sup>5</sup>	dBA	63	63	64	63	64	64	64	64	65	65	65	66	66	66
TOTAL SOUND POWER LEVEL IN COOLING <sup>8</sup>	dBA	95	95	96	96	97	97	97	98	98	98	98	99	99	99
<b>SIZE AND WEIGHT<sup>7</sup></b>															
WIDTH (A)	mm	3905	5080	5080	6255	6255	6255	7430	7430	8605	8605	9780	9780	9780	
DEPTH (B)	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
HEIGHT (H)	mm	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
OPERATION WEIGHT	kg	3160	3580	3770	4600	4790	4820	4840	5220	5400	6140	6610	7170	7180	7210

# TR2-FC-G04-Z

## R1234ze Free-Cooling Chiller (1,216 to 1,819kW)

The **TR2-FC-G04-Z** is a high efficiency free-cooling chiller designed for hyperscale and colocation data centres. Available in both standard and No Glycol (-NG) versions, it features oil-free centrifugal compressors optimised for low GWP R1234ze refrigerant, operating in 3 modes: total free-cooling, hybrid free-cooling and mechanical cooling. The innovative new free-cooling control logic enhances the system's EER throughout the year, providing up to 20% annual energy savings compared to previous control logics.

### Key Features & Benefits

- Best-in-class Energy Efficiency Ratio (EER)
- Low GWP R1234ze refrigerant (IPCC AR5)
- Highly efficient components throughout: magnetic levitation centrifugal compressors, large diameter EC fans and advanced control and optimisation algorithms
- Designed for chilled water with higher temperatures up to 26°C and high ΔT of up to 20K, ideal for the modern hyperscale data centre
- V-block design improves maintenance and increases the cooling density with the patented Reduced Exergy Depletion (R.E.D) Cooler
- Wide set of new options: fan diffusers, discharge air plenum, fast restart with ultracap, and energy monitoring amongst many others



# R1234ze

FREE-COOLING CHILLER	1232	1653	1803	1232	1653	1803
VERSION	-	-	-	-NG	-NG	-NG
<b>PERFORMANCE</b>						
MECHANICAL COOLING - GROSS VALUE <sup>*1</sup>						
COOLING CAPACITY	kW	1216	1619	1771	1249	1662
TOTAL POWER INPUT	kW	252.1	338.4	381.9	253.0	339.6
EER	kW/kW	4.82	4.78	4.64	4.94	4.89
<b>FREE-COOLING @ 10°C AMBIENT - GROSS VALUE<sup>*2</sup></b>						
COOLING CAPACITY	kW	1178	1507	1654	1042	1341
FREE-COOLING KW / NOMINAL KW	%	97	93	93	83	81
<b>TOTAL FREE-COOLING (GROSS VALUE)<sup>*2</sup></b>						
TOTAL FREE-COOLING AMBIENT <sup>*3</sup>	°C	9.3	8.4	8.4	5.6	4.7
TOTAL POWER INPUT	kW	22.4	28.0	30.8	27.9	33.5
EER	kW/kW	54.29	57.82	57.50	44.77	49.61
<b>HEAT EXCHANGER IN COOLING<sup>*1</sup></b>						
GLYCOL	%	30	30	30	0	0
WATER FLOW	User Side	l/s	26.7	35.6	25.0	33.3
PRESSURE DROP	User Side	kPa	74.8	97.5	71.2	88.9
<b>ELECTRICAL DATA</b>						
POWER SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
F.L.A. <sup>*4</sup>	Total	A	537	787	537	787
<b>EXCHANGERS</b>						
MINIMUM WATER FLOW	Evaporator	l/s	16.7	20.8	16.7	20.8
MINIMUM WATER CONTENT	Plant	l	5000	5000	5000	5000
<b>FANS</b>						
QUANTITY	No.	16	20	22	16	20
AIRFLOW	m <sup>3</sup> /s	78.4	104.2	113.1	78.4	104.2
<b>REFRIGERANT CIRCUIT</b>						
COMPRESSORS	No.	2	3	3	2	3
CIRCUITS	No.	1	1	1	1	1
REFRIGERANT		R1234ze	R1234ze	R1234ze	R1234ze	R1234ze
REFRIGERANT CHARGE <sup>*5</sup>	kg	680	840	860	680	840
<b>SOUND LEVELS</b>						
TOTAL SOUND PRESSURE <sup>*6</sup>	dB(A)	68	69	70	68	69
TOTAL SOUND POWER LEVEL IN COOLING <sup>*7</sup>	dB(A)	101	102	103	101	102
<b>DIMENSIONS &amp; WEIGHT<sup>*8</sup></b>						
WIDTH	mm	9500	11700	12800	9500	11700
DEPTH	mm	2260	2260	2260	2260	2260
HEIGHT	mm	2500	2500	2500	2500	2500
OPERATION WEIGHT	kg	10700	12700	14000	11800	14100

Notes:

- \*1 Plant (side) cooling exchanger water (in/out) 32°C/20°C; Source (side) heat exchanger air (in) 35°C.
- \*2 Plant (side) cooling exchanger water (in/out) 32°C/20°C.
- \*3 Maximum ambient temperature where free-cooling capacity >= nominal cooling capacity, as stated above.
- \*4 Data valid for standard units without any additional options and only indicative. Safety values to be considered when cabling the unit for power supply and line-protection. Refer to Databook.
- \*5 Theoretical - refer to serial plate for actual charge volumes.
- \*6 Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- \*7 Sound power on the basis of measurement taken in compliance with ISO 9614. Sound power level in cooling, outdoors.
- \*8 Unit in standard configuration, without optional accessories.

# IT Cooling Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>MSY-TP / MUY-TP</b> Air outlet guide for MUY-TP35/50VF Standard wired remote controller Interface for M-NET, MA remote controller (PAR-41MAA), on/off input and run/fault output Interface for connection to Wi-Fi MELCloud service	MAC-881SG PAR-41MAA MAC-334IF-E MAC-587IF-E
<b>s-MEXT DX</b> s-MEXT-G00 F01 Support Frame H510 P043 s-MEXT-G00 F02 Support Frame H510 P043 s-MEXT-G00 F03 Support Frame H510 P043 s-MEXT-G00 F01 Plenum c/w 3 Grilles P013 s-MEXT-G00 F02 Plenum c/w 3 Grilles P013 s-MEXT-G00 F03 Plenum c/w 3 Grilles P013 s-MEXT-G00 Modbus serial card (RS485) s-MEXT-G00 BACnet TCP/IP card (RJ45)	
<b>x-MEXT DX</b> Modbus Serial card (RS485) BACNet TCP/IP Ethernet card (RJ45) Floor stand with rubber holders (350-500mm) Floor stand with rubber holders (500-750mm) Floor stand with rubber holders (750-1000mm) Electric heater Steam humidifier Air discharge plenum with 3 grilles Inlet damper with actuator Epoxy coated condenser coil(s)	
<b>w-MEXT / w-NEXT</b> Modbus Serial card (RS485) BACNet TCP/IP Ethernet card (RJ45) Floor stand with rubber holders (255-350mm) Floor stand with rubber holders (355-450mm) Floor stand with rubber holders (400-510mm) Electric heater Steam humidifier Air discharge plenum with 3 grilles Inlet damper with actuator	
<b>m-MRAC / m-MROW</b> Multi Density Tee & Adaptor	





# Refrigeration

Energy Efficient Refrigeration Units





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## Energy Efficient Refrigeration Units

# Energy Efficient Refrigeration Units

Refrigeration is a necessary part of our modern way of life and is essential to the way we store and display food for convenience purchase.

At the same time, given today's concerns about global warming and environmental protection, energy conservation policies are becoming increasingly stringent. It is becoming progressively more important for cold chain retailers to shift towards greener natural refrigerants and energy efficient equipment.

With our technical expertise, long experience and innovative product range, we are able to offer customers the ability to reduce their carbon emissions and assist them in achieving the UK governments Net Zero targets.



## Introducing the **ECOV Natural Refrigerant Condensing Units**

The Mitsubishi Electric ECOV Series is ideally suited for convenience stores, cold storage rooms and cold chain distribution centres, and delivers reliability and energy efficiency through its use of proven Mitsubishi Electric technology.

Utilising non-flammable CO<sub>2</sub> refrigerant with a low global-warming potential of 1, means that CO<sub>2</sub> emissions are significantly reduced when compared to conventional systems that use HFC refrigerants.

## Energy Efficient Refrigeration Units

# ECOV Series - Key Technologies

### A. Compressor

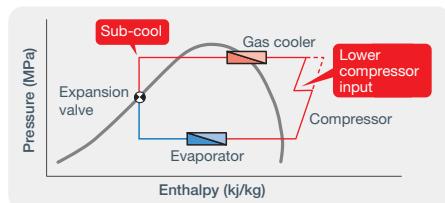
#### Inverter-driven

With the use of an inverter driven single stage scroll compressor for the ECOV-X37/55VA and an inverter driven 2 stage rotary compressor for the ECOV-X15VA, the energy efficiency of the system is higher than that of a fixed speed non-inverter system.

#### Optimised refrigerant circuit

The ECOV Series adopts an optimal compressor for each capacity. The ECOV-X15VA uses a two-stage compressor, while the ECOV-X37/55VA utilises a single-stage compressor with a middle pressure injection circuit.

These mechanisms enable the gas cooler to achieve greater sub-cooling with maximum efficiency.



### B. Heat Exchanger (Rear side)

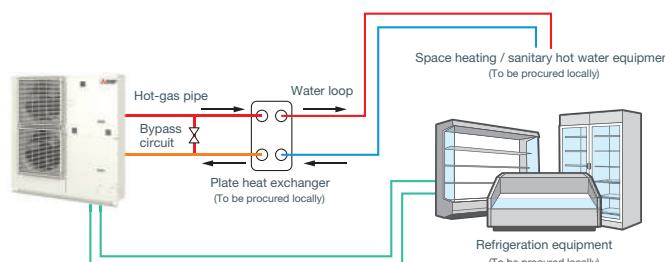
#### Flat aluminum tube

The use of a MFC\* aluminum flat tube heat exchanger and corrugated fins increases the contact area with air and refrigerant, resulting in greater heat-exchanging efficiency. Anti-corrosion coating against salt damage is applied to the heat exchanger as a standard feature.



### C. Heat Recovery Port

Heat recovered from the refrigeration equipment can be utilised to provide space heating and/or sanitary hot water elsewhere in the building.



### D. Fan

#### DC Inverter fan

DC-driven inverter fan(s) are equipped in each unit for precise control, to optimise system efficiency and minimise noise levels.



### E. Control Board

#### IGBT Module

Power modules manufactured by Mitsubishi Electric are used on the ECOVs inverter board.

This greatly reduces the power loss of the voltage boosting circuit and improves the units efficiency levels.

## Easy Servicing

### F. LED Display

During operation, a digital LED display shows the refrigerant's low pressure value, operation mode, and compressor frequency. In case of malfunction, an error code is displayed enabling quick diagnosis.

### G. Pressure Gauges

Gauges displaying the low and high pressure values.

### H. Liquid Receiver / Accumulator

A large liquid receiver and accumulator inside the unit provides the ability to easily control the refrigerant charge and ensure durability against liquid return, which leads to easy on-site service and stable operation.

# ECOV Series

## R744 Natural Refrigerant Condensing Unit


**Notes:**

\*1 Measurement conditions: Ambient temperature: 32°C, Evaporation temperature: -10°C, Compressor operating frequency: 70Hz for ECOV-X15VA / 61Hz for ECOV-X37VA / 95Hz for ECOV-X55VA, Fan control: Target condensation temperature = Ambient temperature: 5°C.

\*2 Measurement conditions: Ambient temperature: 32°C, Evaporation temperature: -30°C, Compressor operating frequency: 70Hz for ECOV-X15VA / 61Hz for ECOV-X37VA / 95Hz for ECOV-X55VA, Fan control: Target condensation temperature = Ambient temperature: 5°C.

\*3 If the liquid pipe length exceeds 30m, set the pipe diameter to 12.7mm (1/2").

\*4 Measurement conditions of sound pressure levels: Ambient temperature: 32°C, Evaporation temperature: -10°C, Measurement location: 1m or 10m from front of unit (refer to spec table row) / height 1m, Compressor operating frequency: 70Hz for ECOV-X15VA / 66Hz for ECOV-X37VA / 95Hz for ECOV-X55VA, Fan control: Target condensation temperature = Ambient temperature 5°C, Measurement conditions of sound pressure levels in brackets are altered as follows: Compressor operating frequency: 61Hz for ECOV-X37VA / 95Hz for ECOV-X55VA, Fan control: Target condensation temperature = Ambient temperature 10°C.

\*5 A pressure relief device, a sight glass and a dryer must be installed on the liquid pipe. Please procure these parts locally.

\*6 MODBUS® is a registered trademark of SCHNEIDER ELECTRIC USA, INC. in the United States.

\*7 Power condenser cannot be installed.

\*8 Use the included reducer to connect the liquid piping.

The **ECOV Series** refrigeration condensing units are inverter-driven and deliver reliability and energy efficient heat recovery through their use of proven Mitsubishi Electric technology.

Utilising the natural and stable refrigerant CO<sub>2</sub> (R744) with a GWP of 1, the environmentally clean solution enables compliance with local planning laws and F Gas Regulations. Designed with a compact footprint, these units can be easily installed in smaller plant areas and are capable of delivering chilling or freezing. With refrigeration duties ranging from 1.29kW to 16.7kW at an ambient temperature of 35°C, the ECOV Series is an ideal choice for small retail shops, convenience stores and cold storage rooms, including distribution centres.

### Key Features & Benefits

- Utilises natural CO<sub>2</sub> refrigerant to help meet key CSR targets
- Wide evaporating temperature range between -45°C and -5°C, meaning units can be used for chilling or freezing
- Modbus compatibility allows the units to easily communicate with various monitoring systems
- Heat recovery port enables rejected heat to be used for sanitary hot water demand in other areas of the building
- DC driven fans ensure the units deliver a low noise level, allowing installation in noise sensitive urban environments
- Anti-corrosion coating applied as standard to the heat exchanger, protecting against salt damage in harsher coastal environments
- Equipped with an inverter driven compressor, multi-flow gas cooler and DC inverter fan to improve energy saving performance
- Small footprint and horizontal air flow structure, facilitating installation in small spaces and urban environments
- The ECOV-X15VA features a pre-alarm function which enables an alarm to be activated when a risk of fault is detected, preventing malfunction and downtime of unit
- The ECOV-X15VA features three additional operation modes for easy maintenance and further energy savings

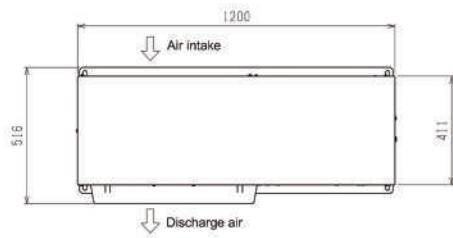
**R744**

MODEL	ECOV-X15VA		ECOV-X37VA		ECOV-X55VA
REFRIGERATING CAPACITY	ET = -10°C <sup>1</sup> ET = -30°C <sup>2</sup>	kW kW	4.0 2.27	10.0 5.07	16.0 7.95
SUCTION PRESSURE SATURATION TEMPERATURE RANGE	°C		-45~5	-35~5	-35~5
REFRIGERANT TYPE			R744	R744	R744
INSTALLATION CONDITIONS			Outdoor installation	Outdoor installation	Outdoor installation
OPERATING CONDITIONS	°C	Ambient temperature -25~43	Ambient temperature -25~43	Ambient temperature -25~43	Ambient temperature -25~43
POWER SOURCE		Single phase 220-240v, 50Hz	3-phase 4-wire 380-400-415v, 50Hz	3-phase 4-wire 380-400-415v, 50Hz	3-phase 4-wire 380-400-415v, 50Hz
ELECTRICAL CHARACTERISTICS	Power consumption <sup>3</sup> Operating current Power factor <sup>7</sup> Starting current	kW A % A	1.9 9.0-8.6-8.2 96.5 5.5-5.3-5.1	6.25 10.8-10.3-9.9 87.6 8.0	10.0 17.3-16.5-15.9 87.6 8.0
OPERATING FREQUENCY	Hz	37~70	35~66	35~66	35~95
COP (SEPR) (Seasonal Efficiency Performance Ratio)		2.1	1.6 (2.53)	1.6 (2.60)	1.6 (2.60)
COMPRESSOR	Model Displacement volume Crank case heater		C-CV163L0A (Rotary) -	HXK17FA-Y (Scroll) 4.1	HXK17FA-Y (Scroll) 5.9
GAS COOLER	Heat exchanger type Fan Air flow rate		All aluminum flat tube fin 74 x 1 φ550 x 1 77.4	Salt-resistant corrugated fin & aluminum micro channel 74 x 2 φ550 x 2 154.8	Salt-resistant corrugated fin & aluminum micro channel 74 x 2 φ550 x 2 154.8
LIQUID RECEIVER	Saturation pressure adjustment device Capacity		Electronic fan controller 2.3	Electronic fan controller 11	Electronic fan controller 11
CAPACITY CONTROL		Inverter type	Inverter type	Inverter type	Inverter type
STARTUP METHOD		Inverter startup	Inverter startup	Inverter startup	Inverter startup
HIGH-PRESSURE-CUT PREVENTION FUNCTION		Standard	Standard	Standard	Standard
PROTECTION DEVICE <sup>5</sup>	Pressure switch <high pressure/low pressure> Overcurrent protection Thermal switch (discharge pipe) Oil temperature detection protection		High pressure: Standard (Mechanical) Low pressure: Standard (Digital) Standard	High pressure: Standard (Mechanical) Low pressure: Standard (Digital) Standard (Mechanical)	High pressure: Standard (Mechanical) Low pressure: Standard (Digital) Standard (Mechanical)
BUILT-IN DEVICE <sup>6</sup>	Pressure gauge Suction accumulator Oil Separator		-	Standard <Discharge, Liquid> Standard	Standard <Discharge, Liquid> Standard
COMMUNICATION <sup>8</sup>		MODBUS®	MODBUS®	MODBUS®	MODBUS®
DIMENSIONS (Width x Depth x Height)	mm	1200 x 477(+39) x 1250	1455 x 506(+38) x 1600	1455 x 506(+38) x 1600	1455 x 506(+38) x 1600
WEIGHT	kg	115	290	290	290
PIPE SIZE	Suction pipe Liquid pipe	mm (in) mm (in)	9.52 (3/8") 6.35 (1/4") <sup>8</sup>	15.88 (5/8") 9.52 (3/8")	15.88 (5/8") 9.52 (3/8") <sup>3</sup>
MAX PIPE LENGTH		m	25	50	50
SOUND PRESSURE LEVEL @1m <sup>4</sup>	dB(A)	56	54.5 (51)	57 (54)	37
SOUND PRESSURE LEVEL @10m <sup>4</sup>	dB(A)	36	34.5		

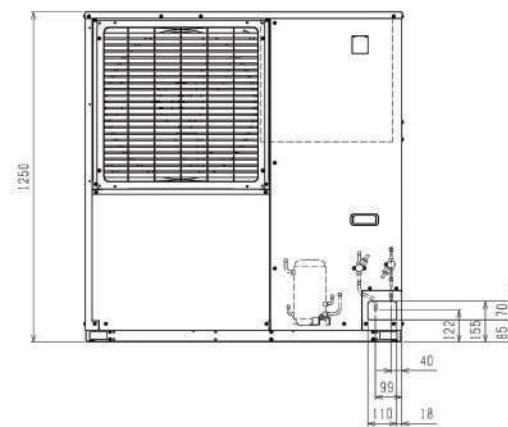
## Product Dimensions

ECOV-X15VA

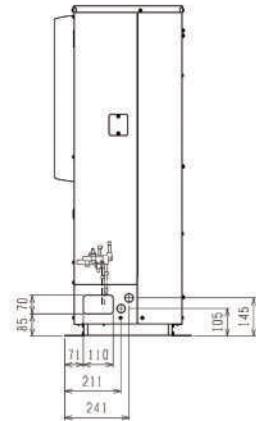
Upper View



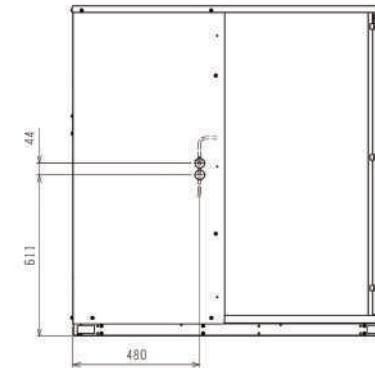
Front View



Side View



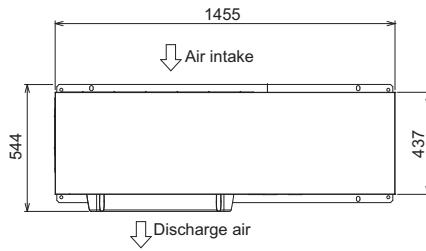
Rear View



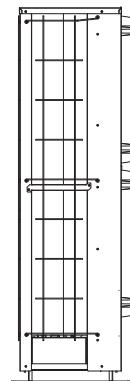
## Product Dimensions

ECOV-X37/55VA

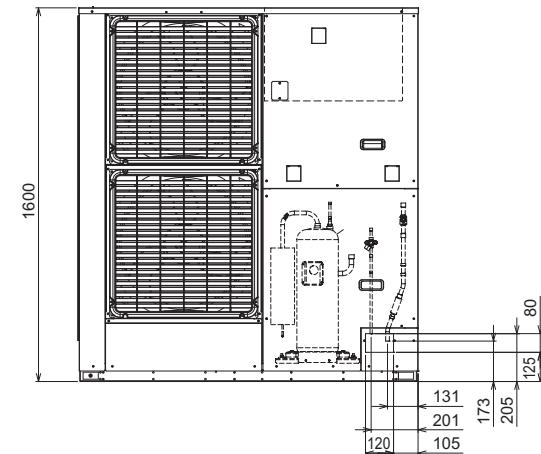
Upper View



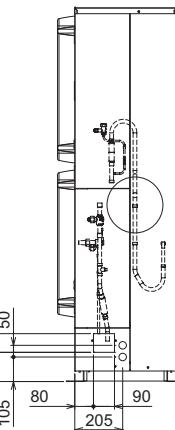
Left Side View



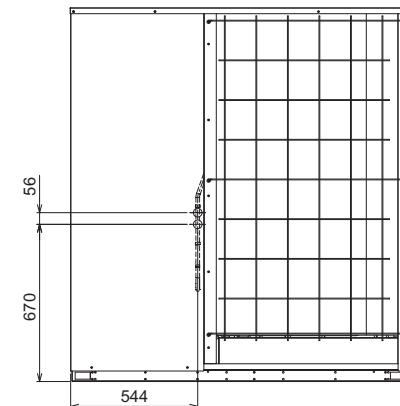
Front View



Right Side View



Rear View



# Refrigeration Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>ECOV Series</b> Air protection guide for ECOV-X15VA, ECOV-X37VA & ECOV-X55VA (1 required per ECOV-X15VA and 2 required per ECOV-X37/55VA)	AG-X37A



# Residential Heating

Ecodan Residential Renewable Heating Systems



**ecodan**<sup>®</sup>  
Renewable Heating Technology



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# Ecoden Heat Pumps - Renewable Heating Systems

There is now no doubt that the world is in a climate crisis and that we need to act immediately to avoid catastrophic climate change. The UK Government have reacted by being the first major economy to pass net zero (Greenhouse Gas) emission laws. Renewable technologies, such as heat pumps, have become an integral part of the solution to the problem of reducing carbon emissions generated through heating.

As a market leader in both commercial and domestic heat pumps, Mitsubishi Electric is a pioneer in the development of this renewable technology. Around the world, heat pumps have been utilised for decades and Mitsubishi Electric has refined this technology to produce Ecoden - one of the most advanced, efficient heating systems available on the market today.

The award winning Ecoden heat pumps are available from 5kW up to 640kW, making them suitable for virtually any property, from small flats to large detached houses, from an office block to a school. They are the renewable, low carbon alternative to traditional high carbon heating systems.

- Renewable heating solution capable of reducing emissions and achieving climate targets
- Highly efficient, proven and refined technology that can lower energy bills
- Range of easy to design, install and maintain systems suitable for a variety of property and application types

**Ecoden heat pumps are a renewable heating technology that efficiently and reliably generates sustainable space heating and hot water all year round, delivering a level of comfort that sets the technology apart from other forms of heating.**



**TV presenter, architect, lecturer and writer, George Clarke is a passionate advocate of design excellence and high levels of quality in the construction industry.**

**“**The way we design, build, heat, power and recycle our homes needs to change, and change quickly, and renewable heating is an important part of our future.

I'm therefore delighted to associate myself with Ecoden, the market-leading brand of heat pumps built here in the UK and which can help reduce energy bills and lower emissions for almost any home. **”**

**George Clarke**

Ecoden Brand Ambassador

## Range Overview



System Type	Litres	5kW	5kW	6kW	6kW	8.5kW	8.5kW	10kW	11.2kW	12kW	14kW	40kW	40kW	40kW
FTC7 Standalone	PAC-IF082B-E		●	●	●	●	●	●	●	●	●			
FTC7 Packaged Cylinder	EHPT20X-MEHEW	200	●	●	●	●	●	●	●	●	●			
FTC7 Pre-Plumbed Slimline Cylinder	EHPT15X-UKHLEWS	150	●	●	●	●	●	●						
	EHPT17X-UKHLEWS	170	●	●	●	●	●	●						
FTC7 Pre-Plumbed Standard Cylinder	EHPT15X-UKHEWS	150	●	●	●	●	●	●						
	EHPT17X-UKHEWS	170	●	●	●	●	●	●						
	EHPT21X-UKHEWS	210	●	●	●	●	●	●						
	EHPT21X-UKHEWL	210			●	●	●	●	●	●	●	●		
	EHPT25X-UKHEWL	250			●	●	●	●	●	●	●	●		
	EHPT30X-UKHEWL	300				●	●	●	●	●	●	●		
Approvals	Manufactured in the United Kingdom		●	●	●	●	●	●	●	●	●			
	Red Dot Award		●		●	●	●	●	●	●	●	●		
	Quiet Mark Certification					●			●		●			
	Microgeneration Certification Scheme		●	●	●	●	●	●	●	●	●	●		
	Keymark		●	●	●	●	●	●	●	●	●	●	●	
	Boiler Upgrade Scheme Product Eligibility List		●	●	●	●	●	●	●	●	●			

Notes: For further information on the Ecodan QAHV and CAHV models, please refer to the 'Commercial Heat Pumps & Chillers' section of this catalogue. Product Eligibility List from <https://www.ofgem.gov.uk/publications/boiler-upgrade-scheme-product-eligibility>.



## PUZ-WZ50-120VAA/YAA

### R290 Monobloc Air Source Heat Pumps



The new R290 Ecodan monobloc air source heat pumps are designed specifically to suit the demands of the UK market and include 5, 6, 8.5, 10 and 12kW sizes.

The innovative, stylish and compact single fan outdoor unit utilises advanced technologies to deliver improved efficiencies. Designed for a wide range of applications, the market leading low noise levels virtually eliminate the need for planning permission, maximises installation options and is a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features & Benefits

- A+++ heating efficiency
- Ultra quiet noise levels
- MELCloud enabled
- High water temperature of up to 75°C
- Fully electric source of heating and hot water
- Minimised energy consumption
- Flexible product placement
- Remote control, monitoring, maintenance and technical support
- Ideal for energy storage
- Zero carbon ready



**R290**

Manufactured in the UK

OUTDOOR UNIT	PUZ-WZ50VAA(-BS)	PUZ-WZ60VAA(-BS)	PUZ-WZ85VAA(-BS)	PUZ-WZ85YAA(-BS)	PUZ-WZ100VAA(-BS)	PUZ-WZ100YAA(-BS)	PUZ-WZ120VAA(-BS)	PUZ-WZ120YAA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating (Range A+++ to D) $\eta_{\text{sh}}$	A++ 138%	A++ 139%	A++ 143%	A++ 143%	A++ 141%	A++ 141%	A++ 142%
	SCOP (MCS)	3.38	3.43	3.51	3.51	3.48	3.48	3.51
HEAT PUMP SPACE HEATER - 35°C	ErP Rating (Range A+++ to D) $\eta_{\text{sh}}$	A+++ 182%	A+++ 179%	A+++ 183%	A+++ 183%	A+++ 189%	A+++ 189%	A+++ 192%
	SCOP (MCS)	4.42	4.39	4.47	4.47	4.62	4.62	4.71
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating (Range A+ to F) $\eta_{\text{sh}}$	A+	A+	A+	A+	A+	A+	A+
	SCOP (MCS)	143%	143%	137%	137%	129%	129%	129%
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW) Power Input (kW) COP	5.2 1.94 2.68	6.2 2.51 2.47	8.5 3.27 2.60	8.5 3.27 2.60	10.0 3.70 2.70	10.0 3.70 2.70	11.5 4.69 2.45
OPERATING AMBIENT TEMPERATURE (°C DB)	-25 ~ +46	-25 ~ +46	-25 ~ +46	-25 ~ +46	-25 ~ +46	-25 ~ +46	-25 ~ +46	-25 ~ +46
MAXIMUM WATER OUTLET TEMPERATURE (°C)	75	75	75	75	75	75	75	75
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA) Power Level (dBA) <sup>4</sup>	40 56	40 56	40 54	40 54	40 55	40 55	40 55
WATER DATA	Pipework Size (mm) Flow Rate (l/min)	22 14	22 17	28 27	28 27	28 34	28 34	28 34
DIMENSIONS (mm)	Width Depth Height	1050 480 1020	1050 480 1020	1050 480 1040	1050 480 1040	1050 480 1040	1050 480 1040	1050 480 1040
WEIGHT (kg)	89	89	103	117	120	131	120	131
ELECTRICAL DATA	Electrical Supply Phase Nominal Running Current [MAX] (A) <sup>5</sup> Fuse Rating - MCB Sizes (A) <sup>6</sup>	220-240v, 50Hz Single 13	220-240v, 50Hz Single 13	220-240v, 50Hz Single 21	380-415v, 50Hz 3	220-240v, 50Hz Single 12	380-415v, 50Hz 3	220-240v, 50Hz Single 35
	/ CO <sub>2</sub> EQUIVALENT (t)	0.60 / 0.000012	0.60 / 0.000012	0.60 / 0.000012	0.60 / 0.000012	0.82 / 0.0000164	0.82 / 0.0000164	0.82 / 0.0000164
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R290 (GWP 0.02)	0.60 / 0.000012	0.60 / 0.000012	0.60 / 0.000012	0.60 / 0.000012	0.82 / 0.0000164	0.82 / 0.0000164	0.82 / 0.0000164

<sup>1</sup> Combination with EHPT20X-MEHEW Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

<sup>7</sup> Quiet Mark certification is for PUZ-WZ85VAA/YAA(-BS), PUZ-WZ100VAA/YAA(-BS) and PUZ-WZ120VAA/YAA(-BS) models only.

$\eta_{\text{sh}}$  is the seasonal space heating energy efficiency (SSHEE)     $\eta_{\text{wh}}$  is the water heating energy efficiency

Certificate Number: 037-0033-20-01 / 037-0159-25 / 037-0161-25  
Product Type: Heat Pumps  
Product Reference: PUZ-WZ50/60/85/100/120VAA/YAA(-BS)

Certification Numbers:  
037-0135-23-1/2/3/4  
037-0159-25-1/2  
037-0161-24-1/2/3/4

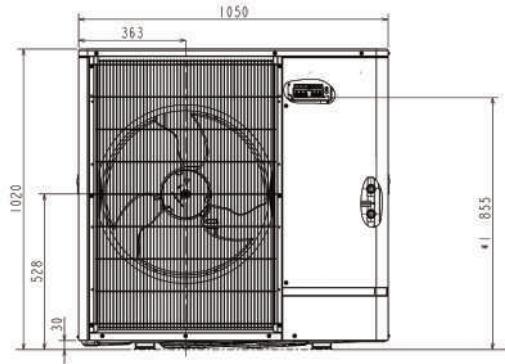


## Product Dimensions

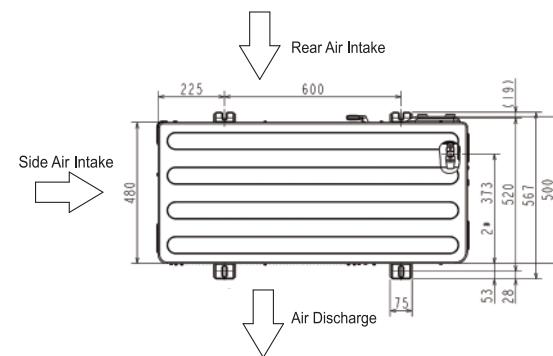
PUZ-WZ50-60VAA-(BS)

All measurements in mm

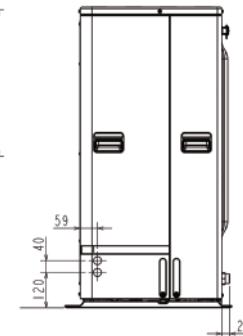
Front View



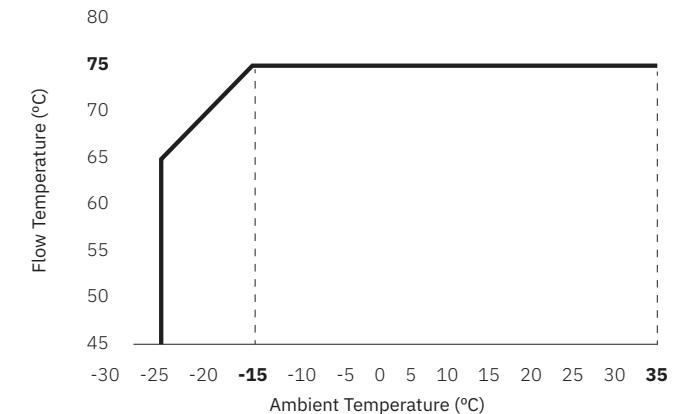
Upper View



Side View



## Flow Temperature

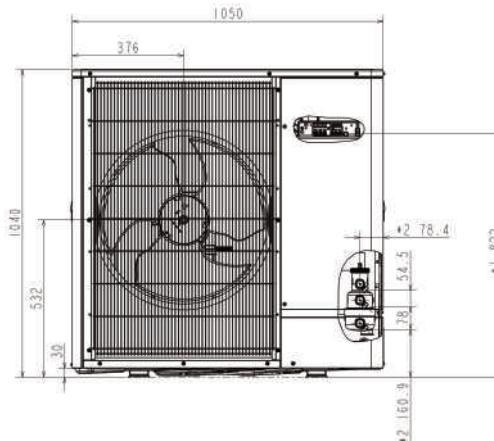


## Product Dimensions

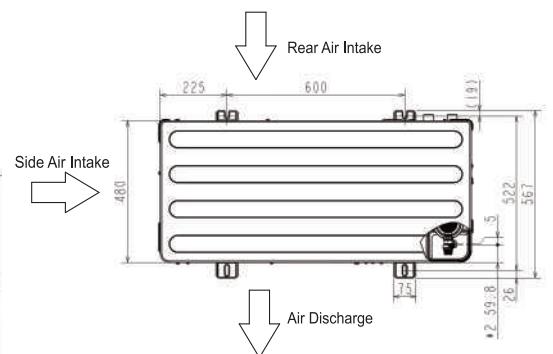
PUZ-WZ85-120VAA/YAA-(BS)

All measurements in mm

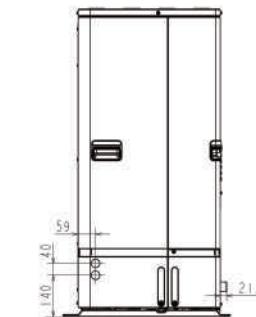
Front View



Upper View



Side View



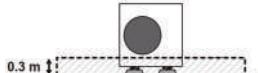
## Protected Zones

No building openings, entrances to the basement, grooves or entrance into the waste-water system.

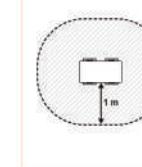
Must not extend to adjacent buildings or public traffic areas.

Ignition sources must not be present, either permanently or for a short period of time.

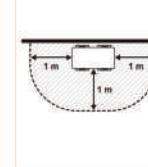
30 cm high from floor



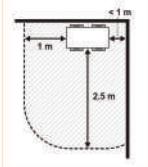
No wall



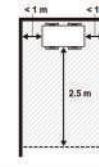
1x wall at the back



In one angle



In 2 angles





## PUZ-WM50VHA

### R32 Monobloc Air Source Heat Pump



CERTIFIED

Certificate Number: 037-0032-20  
Product Type: Heat Pumps  
Product Reference: PUZ-WM50VHA(-BS)

Certification Numbers:  
037-0032-20-01/02

Our range of Ecodan monobloc air source heat pumps includes a 5kW size.

With enhanced performance and efficiencies of the new chassis, combined with the ability to cascade up to six units of the same output, this Ecodan monobloc system can provide a capacity range from 5 through to 30kW. Designed to suit a wide number of applications, this model offers a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features & Benefits

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and quiet operation
- Operates with outside temperatures as low as -20°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



Manufactured in the UK

OUTDOOR UNIT		PUZ-WM50VHA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating (Range A+++ to D) $\eta_s$ SCOP	A++ 129% 3.24
HEAT PUMP SPACE HEATER - 35°C	ErP Rating (Range A+++ to D) $\eta_s$ SCOP	A+++ 183% 4.62
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating (Range A+ to F) $\eta_{wh}$	A+ 135%
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW) Power Input (kW) COP	5.0 1.67 3.00
OPERATING AMBIENT TEMPERATURE (°C DB)		-20 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA) Power Level (dBA) <sup>4</sup>	47 61
WATER DATA	Pipework Size (mm) Flow Rate (l/min) Water Pressure Drop (kPa)	22 14 12.0
DIMENSIONS (mm)	Width Depth Height	950 330+30 <sup>7</sup> 923 71
WEIGHT (kg)		
ELECTRICAL DATA	Electrical Supply Phase Nominal Running Current [MAX] (A) <sup>5</sup> Fuse Rating - MCB Sizes (A) <sup>6</sup>	220-240v, 50Hz Single 4.64 [13] 16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.0 / 1.35

<sup>1</sup> Combination with E-PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

<sup>7</sup> Grille.

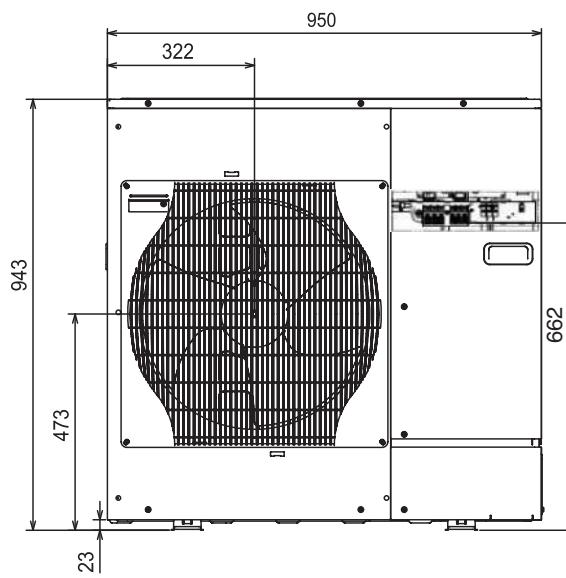
$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)     $\eta_{wh}$  is the water heating energy efficiency

## Product Dimensions

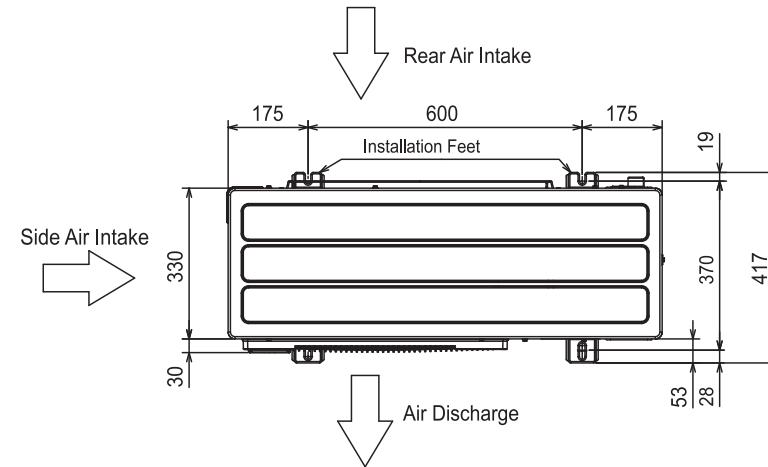
PUZ-WM50VHA-(BS)

All measurements in mm

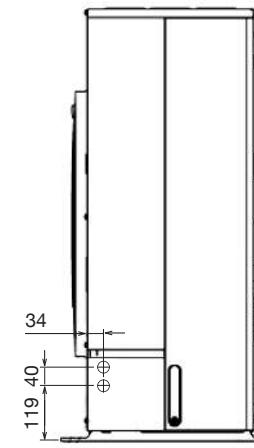
Front View



Upper View



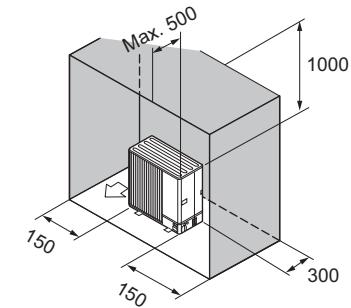
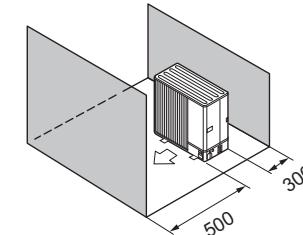
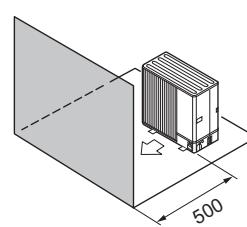
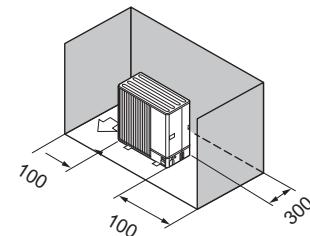
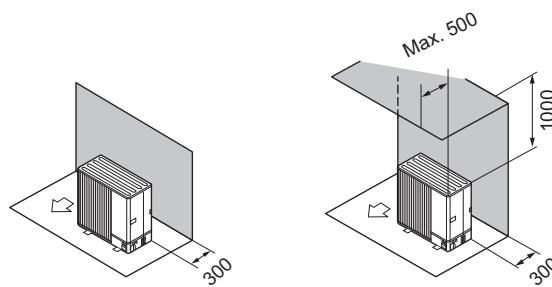
Side View



## Installation Location

PUZ-WM50VHA-(BS)

All measurements in mm



Please refer to Databook and Installation Manual for further details.



## PUZ-WM60-112VAA/YAA

### R32 Monobloc Air Source Heat Pumps



The multiple award winning range of AA chassis Ecodan monobloc air source heat pumps are designed specifically to suit the demands of the UK market and includes 6, 8.5 and 11.2kW sizes.

The innovative, stylish and compact single fan outdoor unit utilises advanced technologies to deliver improved efficiencies. Designed for a wide range of applications, the market leading low noise levels virtually eliminate the need for planning permission, maximises installation options and is a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features & Benefits

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and ultra quiet operation
- Operates with outside temperatures as low as -25°C
- Optimised low ambient defrost control and operation down to -7°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



Manufactured in the UK

OUTDOOR UNIT		PUZ-WM60VAA(-BS)	PUZ-WM85VAA(-BS)	PUZ-WM85YAA(-BS)	PUZ-WM112VAA(-BS)	PUZ-WM112YAA(-BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating (Range A+++ to D)	A++	A++	A++	A++	A++
	$\eta_s$	142%	139%	139%	134%	134%
	SCOP	3.57	3.48	3.46	3.34	3.31
HEAT PUMP SPACE HEATER - 35°C	ErP Rating (Range A+++ to D)	A+++	A+++	A+++	A+++	A+++
	$\eta_s$	190%	193%	193%	191%	191%
	SCOP	4.81	4.84	4.81	4.74	4.70
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating (Range A+ to F)	A+	A+	A+	A+	A+
	$\eta_{wh}$	145%	145%	145%	148%	148%
	Capacity (kW)	6.0	8.5	8.5	11.2	11.2
HEATING <sup>2</sup> (A-7/W35)	Power Input (kW)	1.88	3.27	3.27	3.73	3.73
	COP	3.20	2.60	2.60	3.00	3.00
	OPERATING AMBIENT TEMPERATURE (°C DB)	-20 ~ +35	-20 ~ +35	-25 ~ +35	-25 ~ +35	-25 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA)	45	45	45	45	45
	Power Level (dBA) <sup>4</sup>	58	58	58	60	60
WATER DATA	Pipework Size (mm)	22	28	28	28	28
	Flow Rate (l/min)	17	24	24	32	32
	Water Pressure Drop (kPa)	8.0	15.0	15.0	24.0	24.0
DIMENSIONS (mm)	Width	1050	1050	1050	1050	1050
	Depth	480	480	480	480	480
	Height	1020	1020	1020	1020	1020
WEIGHT (kg)		98	98	111	119	119
ELECTRICAL DATA	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	400v, 50Hz	220-240v, 50Hz	400v, 50Hz
	Phase	Single	Single	Three	Single	Three
	Nominal Running Current [MAX] (A) <sup>5</sup>	5.68 [13]	9.1 [22]	2.9 [11.5]	10.9 [28]	3.6 [13]
	Fuse Rating - MCB Sizes (A) <sup>6</sup>	16	25	16	32	16
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	2.2 / 1.49	2.2 / 1.49	2.2 / 1.49	3.0 / 2.03	3.0 / 2.03

<sup>1</sup> Combination with E'PT20X Cylinder

<sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102.

<sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60898-2 & BS EN60947-2.

$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)     $\eta_{wh}$  is the water heating energy efficiency



Certificate Number: 037-0033-20 / 037-0034-20

Product Type: Heat Pump

Product Reference: PUZ-WM60/85VAA(-BS) / PUZ-WM112VAA(-BS)

Certification Numbers:

037-0033-20-01/02/03/04/05/06

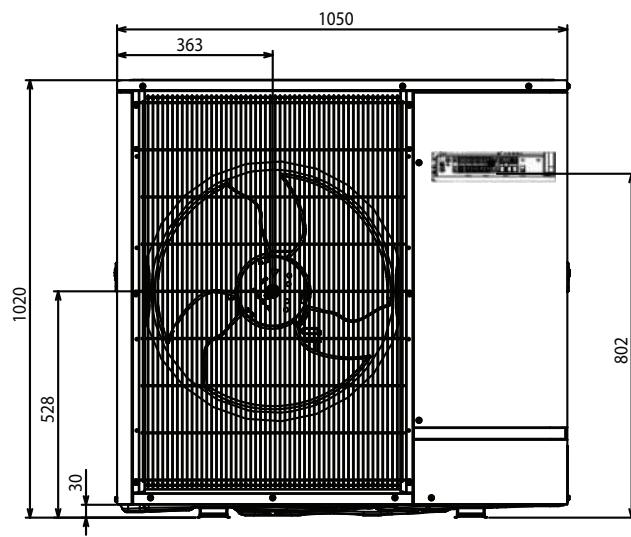
037-0034-20-01/02/03/04

## Product Dimensions

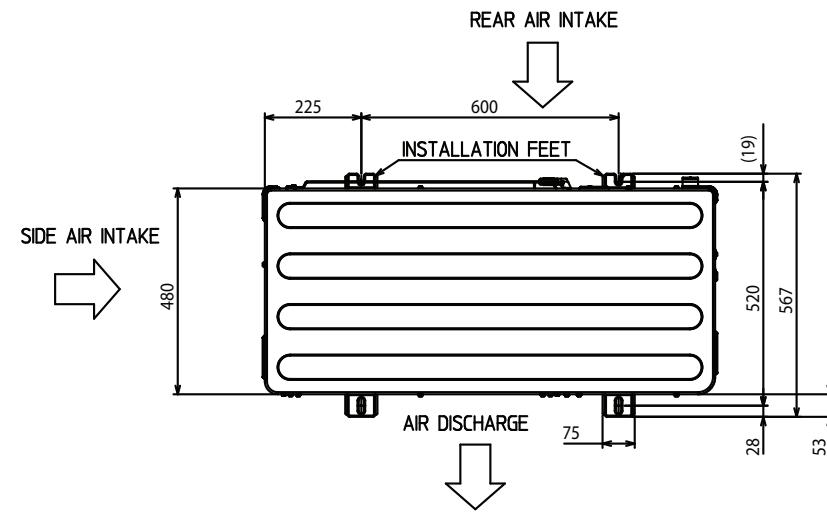
PUZ-WM60-112VAA/YAA(-BS)

All measurements in mm

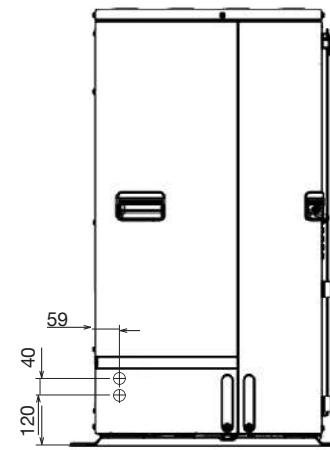
Front View



Upper View



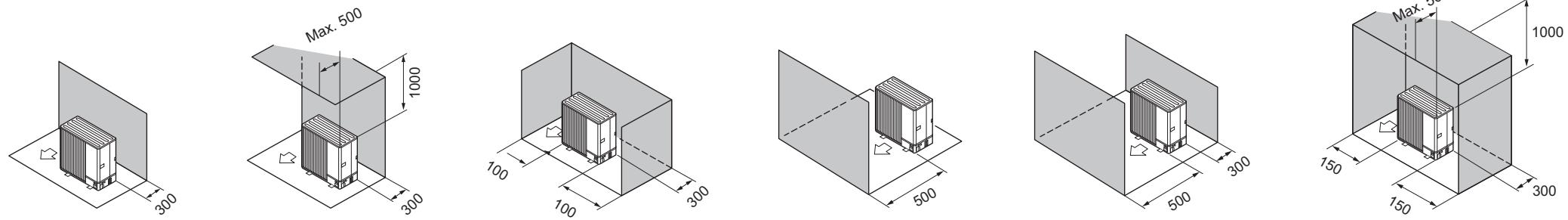
Side View



## Installation Location

PUZ-WM60-112VAA/YAA(-BS)

All measurements in mm

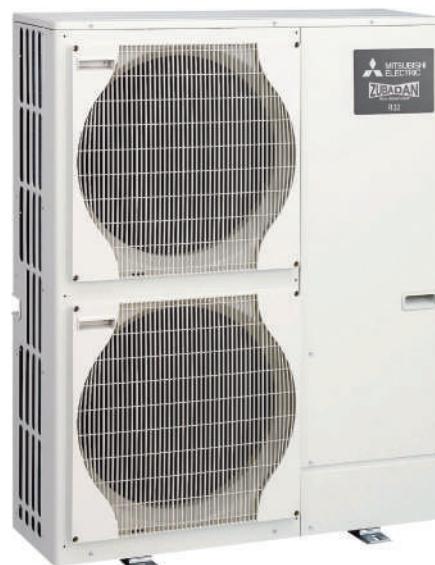


Please refer to Databook and Installation Manual for further details.



## PUZ-HWM140VHA/YHA

### R32 Monobloc Air Source Heat Pumps



**MCS**  
CERTIFIED

Certificate Number: 037-0035-20

Product Type: Heat Pumps

Product Reference: PUZ-HWM140VHA/YHA-(BS)

Certification Numbers:

037-0035-20-01/02/03/04

Our range of Zubadan chassis Ecodan monobloc air source heat pumps are suitable for properties with large space heating requirements and are available in single or three phase 14kW sizes.

With its advanced flash injection technology, this product provides a solution to low ambient capacity issues common to standard systems and is a viable solution for all types of domestic requirements that the UK housing market demands.

#### Key Features & Benefits

- Self-contained unit, only requiring water and electric connections
- No need for gas supply, flues or ventilation
- Low maintenance and quiet operation
- Operates with outside temperatures as low as -28°C
- Optimised low ambient defrost control and operation down to -15°C
- Hybrid function, for use with conventional boilers
- Energy monitoring as standard
- Multiple unit cascade function



OUTDOOR UNIT	PUZ-HWM140VHA-(BS)	PUZ-HWM140YHA-(BS)
HEAT PUMP SPACE HEATER - 55°C	ErP Rating (Range A+++ to D) $\eta_s$ SCOP	A++ 3.35 3.34
HEAT PUMP SPACE HEATER - 35°C	ErP Rating (Range A+++ to D) $\eta_s$ SCOP	A+++ 176 4.48
HEAT PUMP COMBINATION HEATER - Large Profile <sup>1</sup>	ErP Rating (Range A+ to F) $\eta_{wh}$	A+ 130
HEATING <sup>2</sup> (A-7/W35)	Capacity (kW) Power Input (kW) COP	14.0 5.72 2.45
OPERATING AMBIENT TEMPERATURE (°C DB)		-28 ~ +35
SOUND DATA <sup>3</sup>	Pressure Level at 1m (dBA) Power Level (dBA) <sup>4</sup>	53 67
WATER DATA	Pipework Size (mm) Flow Rate (l/min) Water Pressure Drop (kPa)	28 40 20
DIMENSIONS (mm)	Width Depth Height	1020 330+30 <sup>7</sup> 1350
WEIGHT (kg)		132
ELECTRICAL DATA	Electrical Supply Phase Nominal Running Current [MAX] (A) <sup>5</sup> Fuse Rating - MCB Sizes (A) <sup>6</sup>	220-240v, 50Hz Single xx [35] 40
REFRIGERANT CHARGE (kg) / CO <sub>2</sub> EQUIVALENT (t)	R32 (GWP 675)	3.3 / 2.23
		3.3 / 2.23

For information marked with a “\*” please consult the databook or speak to your local sales office.

<sup>1</sup> Combination with E'PT20X Cylinder <sup>2</sup> Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.

<sup>3</sup> Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.

<sup>4</sup> Sound power level tested to BS EN12102. <sup>5</sup> Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.

<sup>6</sup> MCB Sizes BS EN60998-2 & BS EN60947-2. <sup>7</sup> Grille.

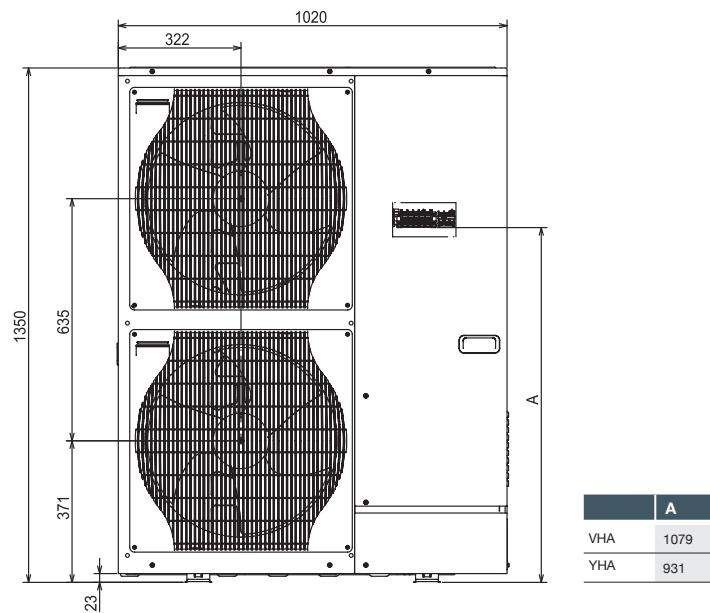
$\eta_s$  is the seasonal space heating energy efficiency (SSHEE)     $\eta_{wh}$  is the water heating energy efficiency

## Product Dimensions

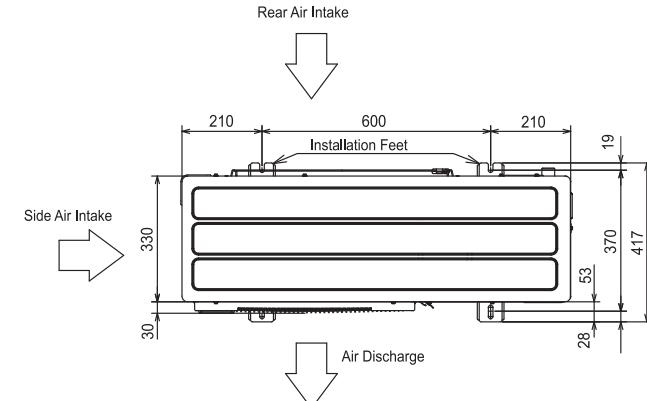
### PUZ-HWM140VHA/YHA(-BS)

All measurements in mm

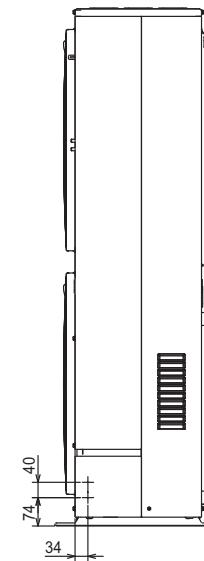
Front View



Upper View



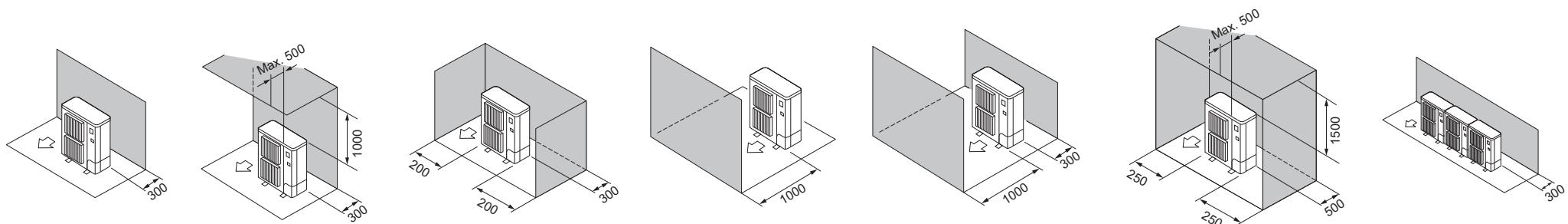
Side View



## Installation Location

### PUZ-HWM140VHA/YHA(-BS)

All measurements in mm



Please refer to Databook and Installation Manual for further details.



## EHPT20X-MEHEW

### FTC7 Packaged Cylinder for Ecodan Monobloc Units



#### The Packaged Cylinder provides a highly adaptable heating solution for all property types.

Designed to optimise performance within a compact white goods footprint, the plug and play packaged cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features & Benefits

- A+ hot water efficiency
- Stylish and modern aesthetics
- Packaged hot water, heating and controls
- Colour touch screen control
- MELCloud enabled
- Minimised energy consumption
- Flexible product placement
- Plug and play simple installation
- Intuitive user friendly operation
- Remote control, monitoring, maintenance and technical support

#### FTC7 Controller

Mitsubishi Electric's seventh generation controller (FTC7) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC7 also includes energy monitoring showing consumed and produced energy.



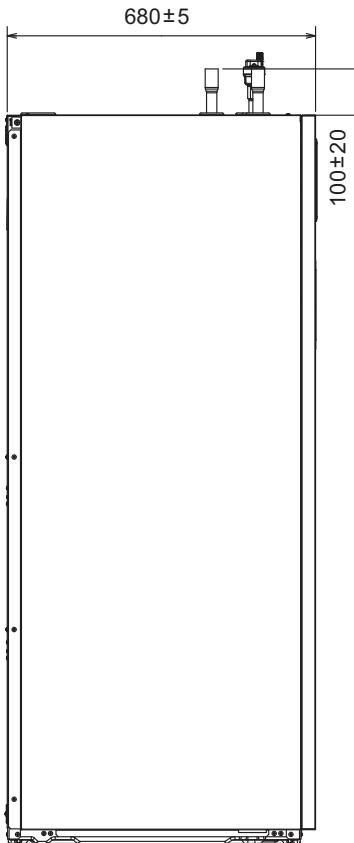
# R290 R32

CYLINDER		EHPT20X-MEHEW	
NOMINAL HOT WATER VOLUME (LITRES)		200	A+
HEAT PUMP COMBINATION HEATER - Large Profile (Average Climate)	ErP Rating (Range A+ to F)	0 ~ +35°C (RH<80%)	28
OPERATING AMBIENT TEMPERATURE (°C DB)			
SOUND PRESSURE LEVEL AT 1M (dBA)			
WATER DATA		Flow Rate (l/min) - with R32 Heat Pump 5 / 6 / 8.5 / 11.2 / 14kW - with R290 Heat Pump 5 / 6 / 8.5 / 10 / 12kW	14 / 17 / 24 / 32 / 40 14 / 17 / 27 / 34 / 34
WATER SAFETY DEVICES	Heating Water Circuit	Primary Circuit Pump Sanitary Hot Water Pump Connection Size (mm) Heating / DHW	Grundfos UPM3 15-75 130 Grundfos UPSO 15-60 130 G1 / G3/4
	DHW Cylinder	Control Thermistor (°C) Flow Sensor (minimum flow 5L/min)	80 Supplied
DIMENSIONS (mm)		Control Thermistor (°C) Temp and Pressure Relief Valve (°C) / (MPa (Bar))	75 90 / 0.7 (7)
		Width	595
		Depth	680
		Height	1600
WEIGHT EMPTY / FULL (kg)			81 / 287
ELECTRICAL DATA	Control Board - optionally powered by outdoor unit	Electrical Supply Phase Fuse Rating - MCB Sizes (A) <sup>1</sup>	220-240v, 50Hz Single 10
	Immersion Heater	Electrical Supply Phase Capacity (kW) Max Running Current (A) Fuse Rating - MCB Sizes (A) <sup>1</sup>	220-240v, 50Hz Single 3 13 16
MECHANICAL ZONES			DHW and 1 Heating Zone <sup>2</sup>
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER			PAR-WT60R-E and PAR-WR61R-E Receiver

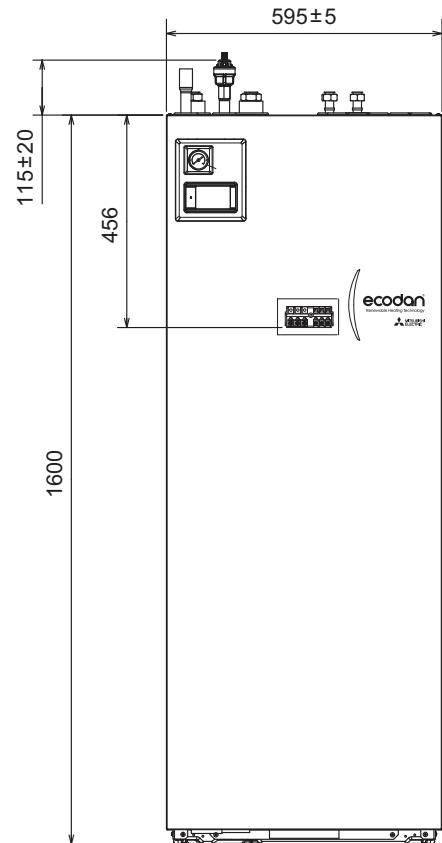
<sup>1</sup> MCB Sizes BS EN60898-2 & BS EN60947-2. \*<sup>2</sup> Optional 2 zone accessory pack available.

**Notes:** Notes: Cylinder includes: Flow Temperature Controller (FTC7) with Main Controller and Temperature Sensors, Pumps & Valves for Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap and 3kW Immersion Heater.

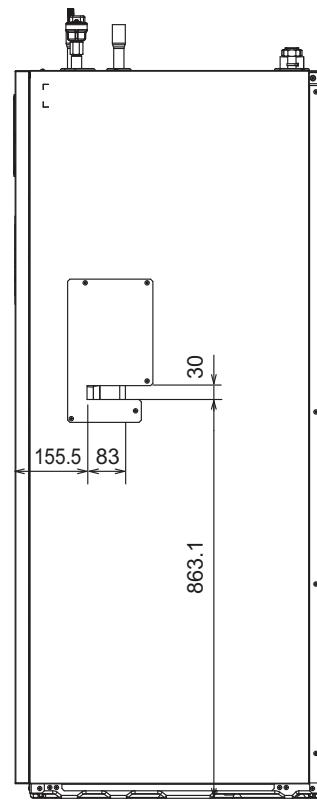
Left View



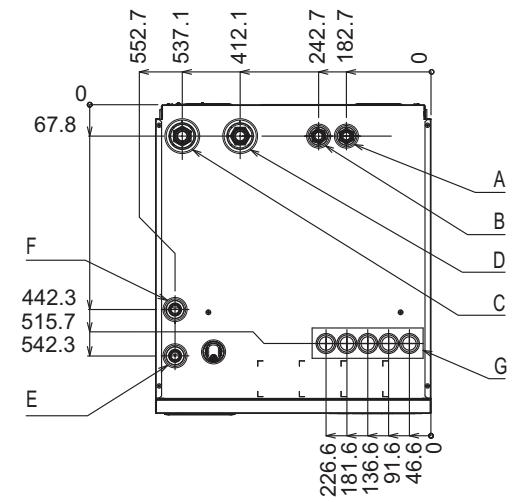
Front View



Right View



Upper View



Letter	Pipe Description	Connection size/type
A	DHW outlet connection	G3/4"/Compression
B	Cold water inlet connection	G3/4"/Compression
C	Space heating return connection	G1"/Compression
D	Space heating flow connection	G1"/Compression
E	Flow from heat pump connection	G1"/Compression
F	Return to heat pump connection	G1"/Compression
G	Electrical cable inlets	G1"/Compression



## EHPT15-17X-UKHLEWS

### FTC7 Pre-Plumbed Slimline Cylinders for Ecodan Monobloc Units



The Pre-Plumbed Slimline Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within a minimal footprint, the slimline cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features & Benefits

- Pre-Plumbed and Pre-Wired
- DHW Plate Heat Exchanger combined with scale trap
- Low Loss Header
- Colour touch screen control
- MELCloud enabled
- Plug and play simple installation
- Excellent hot water recovery times
- Automatic heat pump flow rate regulation
- Intuitive user friendly operation
- Remote control, monitoring, maintenance and technical support

#### FTC7 Controller

Mitsubishi Electric's seventh generation controller (FTC7) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC7 also includes energy monitoring showing consumed and produced energy.



Manufactured in the UK

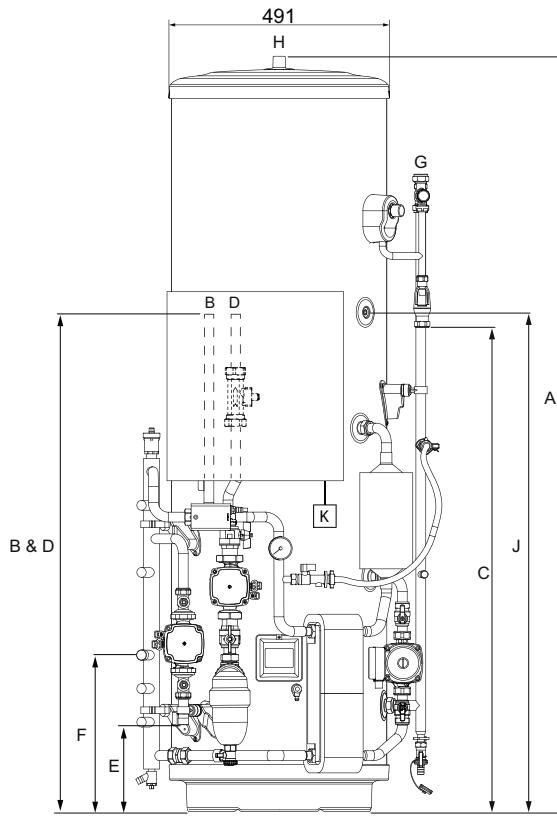
**R290** **R32**

CYLINDER		EHPT15X-UKHLEWS	EHPT17X-UKHLEWS
NOMINAL HOT WATER VOLUME (LITRES)		150	170
ErP Rating (Range A+ to F)		C	C
HEAT LOSS (kWh/24hrs)		1.40	1.59
HEAT LOSS (W)		58	66
WATER	Flow rate (l/min) - with R32 Heat Pump 5 / 6 / 8.5kW - with R290 Heat Pump 5 / 6 / 8.5kW	14 / 17 / 24 14 / 17 / 27	14 / 17 / 24 14 / 17 / 27
Primary Circuit Pump	Heating Circuit Pump Sanitary Hot Water Pump	Grundfos UPM3L 25-75 130AZA Grundfos UPM3 AUTO 25-70 130 Grundfos UPSO 15-60 CIL2	22 / 22
WATER SAFETY	Water Circuit DHW Cylinder	Control Thermistor (°C) DHW Expansion Vessel (Litres) Control Thermistor Over Temperature Cut-Out (°C) Temp and Pressure Relief Valve (°C) / (MPa / Bar) Expansion Relief Valve (Cold) (MPa / Bar)	80 12 75 80 ± 5 90 / 1.0 (10) 0.8 (8)
DIMENSIONS (mm)		Width Depth Height	676 654 1516
WEIGHT EMPTY / FULL (kg)		59 / 209	63 / 233
CYLINDER MATERIAL	Cylinder Insulation	Cylinder Material Insulation Type Insulation Thickness (mm) GWP of Insulation ODP of Insulation	Duplex stainless steel CFC / HCFC-free flame-retardant expanded Polyurethane 50 3.1 0
ELECTRICAL DATA	Control Board optionally powered by outdoor unit Immersion Heater	Electrical Supply Phase Fuse Rating - MCB Sizes (A) <sup>1</sup> Electrical Supply Phase Capacity (kW) Max Running Current (A) Fuse Rating - MCB Sizes (A) <sup>1</sup>	220-240v, 50Hz Single 16 220-240v, 50Hz Single 3 13 16
MECHANICAL ZONES			DHW and 1 Heating Zone <sup>2</sup>
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER			PAR-WT60R-E Controller and PAR-WR61R-E Receiver

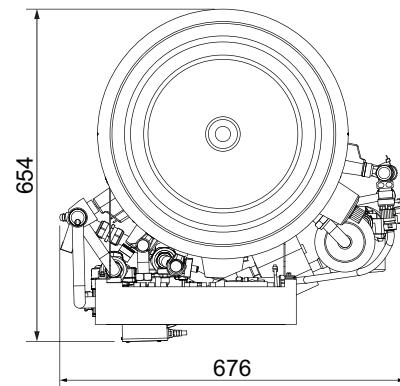
<sup>1</sup>1 MCB Sizes BS EN60898-2 & BS EN60947-2. <sup>2</sup>Optional 2 zone accessory pack available.

**Notes:** Cylinder includes: Flow Temperature Controller (FTC7) with Main Controller and Temperature Sensors, Heat Pump Filter, Pumps & Valves for Primary Circuit and Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater, Expansion Vessel, Diverter Valve and Low Loss Header.

Front View



Upper View



Letter	Pipe Description	Connection size/type
A	Overall height	
B	Heat pump flow connection	22mm O/D Copper
C	Tundish outlet connection	22mm Compression
D	Heat pump return connection	22mm O/D Copper
E	Heating zone 1 circuit flow connection	22mm O/D Copper
F	Heating zone 1 circuit return connection	22mm O/D Copper
G	Cold water inlet connection	22mm Compression
H	Hot water outlet connection	22mm Compression / 3/4" BSP M
J	THW5A sensor pocket	
K	Wi-Fi adaptor (included, installer to locate and mount)	

Capacity	150	170
A	1516	1690
B	1127	1127
C	909	1083
D	1127	1127
E	194	194
F	350	350
J	943	1117
K	Installer to locate and mount	



## EHPT15-30X-UKHEWS/L

### FTC7 Pre-Plumbed Standard Cylinders for Ecodan Monobloc Units



The Pre-Plumbed Standard Cylinder comes complete with integrated hydraulic components & advanced controls.

Designed to optimise performance and flexibility within an average footprint, the standard cylinder fully integrates with the Ecodan monobloc air source heat pump range. Advanced plate heat exchanger technology delivers superior heat up times and our rapid SD card commissioning, MELCloud Wi-Fi connectivity and energy monitoring functions are also included as standard.

#### Key Features & Benefits

- Pre-Plumbed and Pre-Wired
- DHW Plate Heat Exchanger combined with scale trap
- Low Loss Header
- Colour touch screen control
- MELCloud enabled
- Plug and play simple installation
- Excellent hot water recovery times
- Automatic heat pump flow rate regulation
- Intuitive user friendly operation
- Remote control, monitoring, maintenance and technical support

#### FTC7 Controller

Mitsubishi Electric's seventh generation controller (FTC7) includes intelligent room temperature control as standard. This together with advanced weather compensation ensures the system delivers efficient, comfortable heating regardless of the season. FTC7 also includes energy monitoring showing consumed and produced energy.



Manufactured in the UK

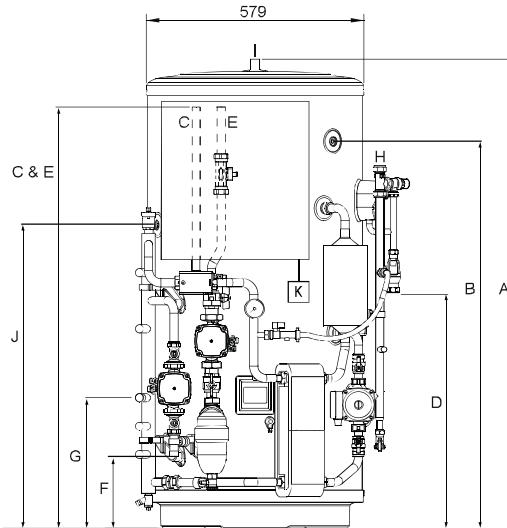
**R290** **R32**

CYLINDER	EHPT15X-UKHEWS	EHPT17X-UKHEWS	EHPT21X-UKHEWS	EHPT21X-UKHEWL	EHPT25X-UKHEWL	EHPT30X-UKHEWL
NOMINAL HOT WATER VOLUME (LITRES)	150	170	210	210	250	300
ErP Rating (Range A+ to F)	B	B	C	C	C	C
HEAT LOSS (kWh/24hrs)	1.15	1.23	1.53	1.53	1.80	2.09
HEAT LOSS (W)	48	51	64	65	75	86
WATER	Flow rate (l/min) - with R32 Heat Pump 5 / 6 / 8.5 / 11.2 / 14kW - with R290 Heat Pump 5 / 6 / 8.5 / 10 / 12kW	14 / 17 / 24 / - / - 14 / 17 / 27 / - / -	14 / 17 / 24 / - / - 14 / 17 / 27 / - / -	14 / 17 / 24 / - / - 14 / 17 / 27 / - / -	- / 17 / 24 / 32 / 40 - / 17 / 27 / 34 / 34	- / 17 / 24 / 32 / 40 - / 17 / 27 / 34 / 34
					Grundfos UPM4L 25-75 130A2A	- / 17 / 24 / 32 / 40 - / 17 / 27 / 34 / 34
	Primary Circuit Pump				Grundfos UPM3 AUTO 25-70 130	
	Heating Circuit Pump				Grundfos UPSO 15-60 CIL2	
	Sanitary Hot Water Pump					
WATER SAFETY	Connection Size (mm) Heating / DHW	22 / 22	22 / 22	22 / 22	28 / 22	28 / 22
	Charge Pressure (MPa (Bar))	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)	0.35 (3.5)
	Water Circuit Control Thermistor (°C)	80	80	80	80	80
	DHW Cylinder Control Thermistor	12	18	18	24	24
	Over Temperature Cut-Out (°C)	75	75	75	75	75
	Temp and Pressure Relief Valve (°C) / (MPa (Bar))	80 +/- 5	80 +/- 5	80 +/- 5	80 +/- 5	80 +/- 5
	Expansion Relief Valve (Cold) (MPa (Bar))	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)	90 / 1.0 (10)
DIMENSIONS (mm)	Width	730	730	730	748	748
	Depth	756	756	756	755	755
	Height	1131	1257	1509	1509	1761
WEIGHT EMPTY / FULL (kg)		55 / 205	58 / 228	64 / 274	68 / 278	74 / 324
CYLINDER MATERIAL	Cylinder Material				Duplex stainless steel	
	Insulation	Insulation Type			CFC / HCFC-free flame-retardant expanded Polyurethane	
		Insulation Thickness (mm)	60	60	60	60
		GWP of Insulation	3.1	3.1	3.1	3.1
		ODP of Insulation	0	0	0	0
ELECTRICAL DATA	Control Board <small>optionally powered by outdoor unit</small>	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
		Phase	Single	Single	Single	Single
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16	16	16
	Immersion Heater	Electrical Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
		Phase	Single	Single	Single	Single
		Capacity (kW)	3	3	3	3
		Max Running Current (A)	13	13	13	13
		Fuse Rating - MCB Sizes (A) <sup>1</sup>	16	16	16	16
MECHANICAL ZONES					DHW and 1 Heating Zone <sup>2</sup>	
OPTIONAL SIMPLIFIED WIRELESS ROOM THERMOSTAT AND WIRELESS RECEIVER					PAR-WT60R-E Controller and PAR-WR61R-E Receiver	

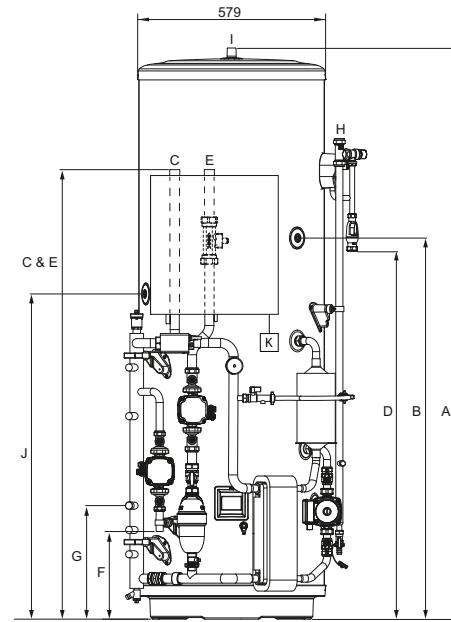
<sup>1</sup>1 MCB Sizes BS EN60898-2 & BS EN60947-2. <sup>2</sup>Optional 2 zone accessory pack available.

**Notes:** Cylinder includes: Flow Temperature Controller (FTC7) with Main Controller and Temperature Sensors, Heat Pump Filter, Pumps & Valves for Primary Circuit and Zone 1 and DHW use, Flow Sensor, Plate Heat Exchanger, Scale Trap, 3kW Immersion Heater, Expansion Vessel, Diverter Valve and Low Loss Header.

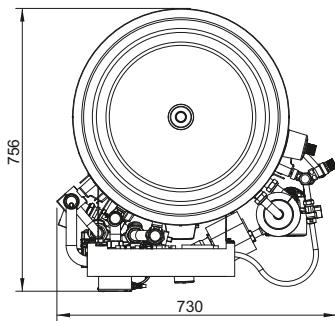
Front View



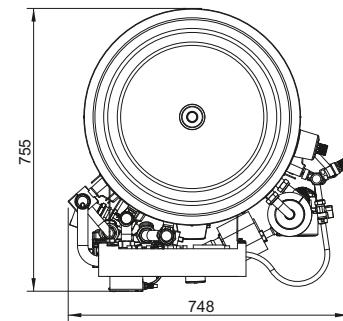
Front View



Upper View



Upper View



Letter	Pipe Description	Connection size/type
A	Overall height	
B	Secondary return tapping (Not fitted to 150L and 170L)	
C	Heat pump flow connection - 150/170/210(S)	22mm O/D Copper
	Heat pump flow connection - 210(L)/250/300	28mm O/D Copper
D	Tundish outlet connection	22mm Compression
E	Heat pump return connection - 150/170/210(S)	22mm O/D Copper
	Heat pump return connection - 210(L)/250/300	28mm O/D Copper
F	Heating zone 1 circuit flow connection	22mm O/D Copper
G	Heating zone 1 circuit return connection	22mm O/D Copper
H	Cold water inlet connection	22mm Compression
I	Hot water outlet connection	22mm Compression / 3/4" BSP M
J	THW5A sensor pocket	
K	Wi-Fi adaptor (included, installer to locate and mount)	

Capacity	150	170	210 (S)	210 (L)	250	300
A	1131	1257	1509	1509	1761	2075
B	Not Fitted	Not Fitted	1050	1050	1175	1385
C	1122	1122	1122	1370	1370	1370
D	505	630	880	880	1136	1450
E	1122	1122	1122	1370	1370	1370
F	194	194	194	270	270	270
G	350	350	350	350	350	350
J	675	815	925	925	1005	1193
K	Installer to locate and mount					



## FTC7 / FTC2BR Flow Temperature Controllers

For use with Ecodan  
Monobloc Units and  
Third Party BEMS



The FTC7 Flow Temperature Controller is designed specifically by Mitsubishi Electric to integrate with the Ecodan PUZ monobloc air source heat pump range and a third party cylinder.

The FTC2BR has been developed to allow the Ecodan PUZ-(H)WM range to interface with third party or BEMS (Building Energy Management System) controls. A combination of volt free and voltage inputs allow the Ecodan PUZ-(H)WM monobloc range to be used in applications where only simple on/off and temperature control is required.

### Functions that can be controlled and monitored by third party controls:

#### Controlled

- On/Off heating mode
- On/Off heating ECO mode
- On/Off hot water mode
- On/Off holiday mode
- On/Off legionella mode
- Change water flow temperature

#### Monitored

- Unit running
- Error
- Defrost

The ability to interface with third party controls opens up a huge number of application opportunities. Many processes simply require a heat source that provides hot water, without polished end user controls. The FTC2BR controller allows the Ecodan PUZ to be used in these applications. FTC2BR inputs and outputs can be used in conjunction with local BEMS.

**R290** **R32**

FLOW TEMPERATURE CONTROLLERS	FTC7 (PAC-IF082B-E)	FTC2BR (PAC-IF033B-E)
COMPATIBILITY	PUZ-WZ50VAA(-BS) PUZ-WZ60VAA(-BS) PUZ-WZ85VAA/YAA(-BS) PUZ-WZ100VAA/YAA(-BS) PUZ-WZ120VAA/YAA(-BS) PUZ-WM50VHA(-BS) PUZ-WM60VAA(-BS) PUZ-WM85VAA/YAA(-BS) PUZ-WM112VAA/YAA(-BS) PUZ-HWM140VHA/YHA(-BS)	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
BUILT-IN FEATURES	Initial Setting Wizard Commissioning Aide Smart Grid Ready PV Connection Energy Monitoring Dual Set-Point DHW Flow Rate Control Logic Quiet Mode Cascade <sup>1</sup> Hybrid	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
MELCloud ENABLED <sup>2</sup>		✓
BEMS INTERFACE		
DIMENSIONS (MM)	Width Depth Height	393 86.7 422
WEIGHT (kg)		4.2
OPERATING AMBIENT TEMPERATURE (°C) / HUMIDITY		0~ +35°C (RH<80%)
ELECTRICAL DATA	Electrical Supply Phase	Via Outdoor Unit or Independent Source (230v) Single
		Via Outdoor Unit or Independent Source (230v) Single

<sup>1</sup> Requires additional optional part PAC-IF082B-E. Please contact your regional sales office technical team. <sup>2</sup> Requires Wi-Fi interface MAC-587IF-EH.



## Energy Monitoring Packs

All Ecodan Flow Temperature Control systems come with free energy monitoring as standard. System users are able to measure both consumed electrical energy and produced heat energy to the nearest kWh.

In addition to the basic system functionality features, i.e. hot water and heating status, the system's energy performance can also now be viewed. Historic energy consumption, heat production and run cost reports are available via the main controller, SD card or MELCloud.



PACK	5kW	5kW	6kW	6kW	8.5kW	8.5kW	10kW	11.2kW	12kW	14kW	DESCRIPTION	ELECTRIC METER	HEAT METER	DATA STORAGE
EMP1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Energy input & output estimation included as standard			
EMP2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Electrical energy measurement consumption pack	2 x ACC-EM-EML-1PH2 System Electricity Meter		
EMPH-M-1PH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Electrical energy consumption and heat generation pack for hybrid systems	2 x ACC-EM-EML-1PH2 System Electricity Meter	1 x ACC-HM-749-G25 Glycol Mono Hybrid System	ACC-RES-DSV-1Y One Year



## MELCloud Wi-Fi Connectivity



Featuring the award-winning



### MELConsole

Once connected, you can also enjoy the benefits of **MELConsole** which provides **remote maintenance & technical support** reducing the need of a visit from an engineer.

To find out more, scan the QR Code or call the Ecodan Helpdesk:  
**0161 866 6064**



24/7 Technical Support

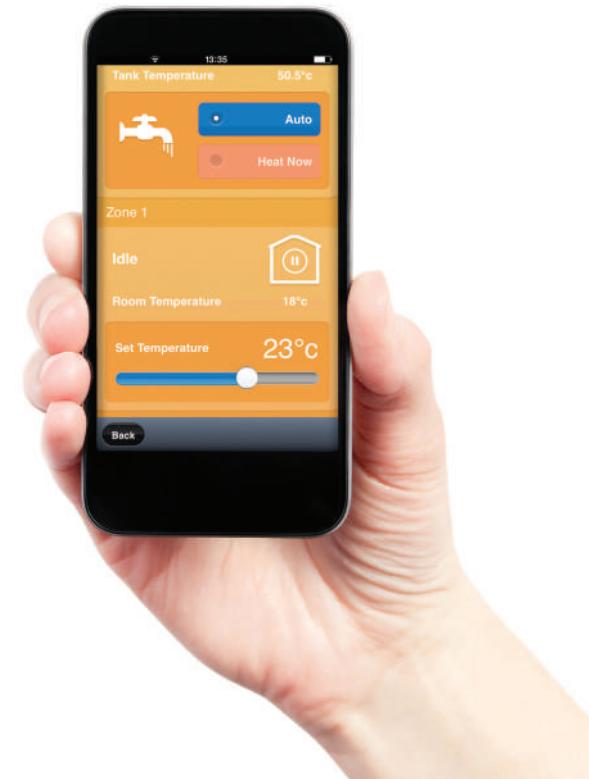


MELCloud is a cloud based solution for controlling your Mitsubishi Electric Ecodan heating system either locally or remotely by PC, Mac, Tablet or Smartphone via the internet.

The set up and remote operation of your Ecodan heating system via MELCloud is simple and straight forward. All you need is a wireless connection where the Ecodan is located and an internet connection on your mobile or fixed device. To set up the system, the router and the Ecodan Wi-Fi interface need pairing and this is done simply and quickly via the WPS button found on all mainstream routers, or using access point pairing via a mobile phone.

### Key Features & Benefits

- Access to remote maintenance and technical support
- View and control your heating and hot water from anywhere in the world
- Reports on energy use, temperature history and more
- Live weather feed at location of Ecodan
- Share / restrict access and control of the Ecodan system
- Compatible with Amazon Alexa or Google Assistant-enabled devices





For a demonstration of Mitsubishi Electric's MELCloud, scan the QR Code or visit our website [melcloud.com](http://melcloud.com)



Available for PC, Mac, Tablet or Smartphone

## Supported Ecodan Models

All Ecodan FTC7 systems have energy monitoring functionality as standard and the ability to connect to MELCloud. A MAC-587IF-EH Wi-Fi Interface is required to use MELCloud.

Wi-Fi Interface	MAC-587IF-EH
DESCRIPTION	Wi-Fi Interface
CONNECT TO	Indoor Unit
MAX NUMBER OF UNITS	1
COMPATIBILITY	Ecodan FTC7
POWER SUPPLY	From indoor unit
DIMENSIONS (WxDxH) mm	73.5 x 18.5 x 41.5
CONTROL	<input checked="" type="checkbox"/> On/Off <input checked="" type="checkbox"/> Mode <input checked="" type="checkbox"/> Heating Setpoint <input checked="" type="checkbox"/> Hot Water Boost <input checked="" type="checkbox"/> 2-Zone Control <input checked="" type="checkbox"/> Holiday Mode <input checked="" type="checkbox"/> Timer <input checked="" type="checkbox"/> Frost Protection
MONITOR	<input checked="" type="checkbox"/> On/Off <input checked="" type="checkbox"/> Mode <input checked="" type="checkbox"/> Heating Setpoint <input checked="" type="checkbox"/> Tank Temperature <input checked="" type="checkbox"/> Tank Target Temperature <input checked="" type="checkbox"/> Outside Temperature <input checked="" type="checkbox"/> Fault Codes <input checked="" type="checkbox"/> Consumed Electrical Energy <input checked="" type="checkbox"/> Produced Heat Energy

## Supported Hardware / Software

### Tablets (Apps or Web Client)

Apple iPad / iPad mini  
Samsung Galaxy Tab / Note  
Google Nexus  
Dell Latitude 10  
Microsoft Surface  
BlackBerry PlayBook

### Smartphones (Apps or Web Client)

Apple iPhone  
Samsung Galaxy S  
Google Nexus  
Nokia Lumia  
BlackBerry Z10

### Operating Systems

Android™  
Apple iOS / OS  
Microsoft Windows  
BlackBerry

### Internet Browsers (Web Client only)

Microsoft Internet Explorer  
Google Chrome  
Apple Safari  
Mozilla Firefox  
Opera

#### Please Note:

This is not definitive list of all compatible devices, other similar devices which use supported Operating Systems or Internet Browsers should also work either via dedicated Apps or via Web Browser / Web Client options. Please note that user experience may vary slightly depending on hardware and software combination. Google, Android, Google Play, Google Chrome and other marks are trademarks of Google LLC.

# i-LIFE2 Slim

## Fan Assisted Radiator

The i-Life2 Slim Fan Assisted Radiator is designed to work seamlessly with existing heating or renewable technologies.

### Key Features & Benefits

- **Stylish** - At only 13cm deep, the sleek and elegant satin-white, wall mounted cabinet is designed to blend seamlessly into any setting
- **Flexible** - Packed with advanced controls and functions, the i-Life2 Slim will work with traditional heating or renewable systems such as heat pumps
- **Easy to Use** - Airflow is managed by deflectors at the top of the unit, which open and close automatically, ensuring fast and even heat distribution



i-Life2 Slim units are managed by a variable speed fan motor that continuously modulates the fan speed

MODEL	I-LIFE2 SLIM DLMV 080 ATS2	I-LIFE2 SLIM DLMV 170 ATS2
CAPACITY (W) <sup>2 * 6 * 8</sup>	500 / 780 / 880	1060 / 1660 / 2130
ELECTRICAL DATA	Electrical Supply	230v, 50Hz
	Phase	Single
WATER DATA	Fan Power Input (W) - (Lo-Mi-Hi) <sup>1 * 8</sup>	0.7 / 4.6 / 10.7
	Water Flow Rate (l/min) - (Lo-Mi-Hi) <sup>12</sup>	1.2 / 2.4 / 2.4
AIR DATA	Water Pressure Drop (kPa) - (Lo-Mi-Hi) <sup>12</sup>	3 / 6 / 8
	Air Flow Rate (m3/h) - (Lo-Mi-Hi) <sup>1</sup>	51 / 93 / 125
SOUND DATA	Sound Pressure (dB(A)) - (Lo-Mi-Hi) <sup>13</sup>	24 / 35 / 41
	Sound Power (dB(A)) - (Lo-Mi-Hi) <sup>14 * 7 * 8</sup>	33 / 44 / 50
DIMENSIONS (mm) <sup>5</sup>	Width	737
	Depth	131
	Height	579
WEIGHT (kg) <sup>5</sup>	17	20

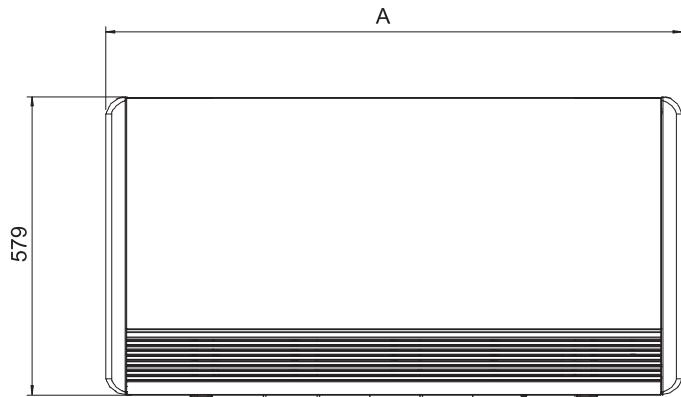
1. Room temperature 27°C d.b./19°C w.b.; Chilled water (in/out) 7/12°C.
2. Room temperature 20°C d.b.; Hot water (in/out) 45/40 °C.
3. Sound pressure level in free field on a reflective surface, 1m from fan front and 1m from the ground. Non-binding value obtained from sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 374 and Eurovent 8/2.
5. Unit in standard configuration/execution, without optional accessories.
6. Values in compliance with EN14511-3:2013.
7. Values in compliance with [REGULATION (UE) N.2016/2281].
8. Certified data in EUROVENT.

## Product Dimensions

### i-LIFE2 SLIM DLMV 080 ATS2 & i-LIFE2 SLIM DLMV 170 ATS2

All measurements in mm

Front View



Side View



Upper View

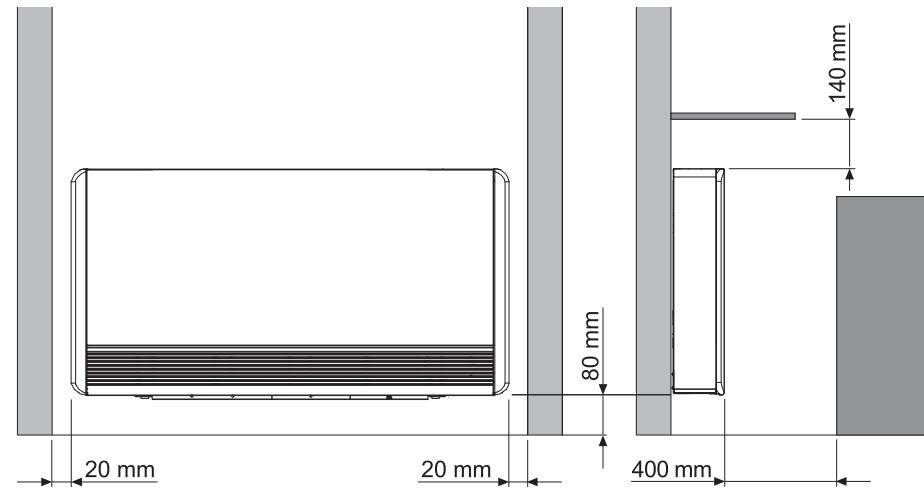


Dimensions	080	170
A	720	920

## Installation Location

### i-LIFE2 SLIM DLMV 080 ATS2 & i-LIFE2 SLIM DLMV 170 ATS2

All measurements in mm





## Accessories / Optional Extras



**PAR-WT60R-E**  
FTC Wireless Controller Transmitter

DESCRIPTION	MODEL REF.
<b>PUZ</b>	
FTC Wireless Controller Transmitter	PAR-WT60R-E
FTC Wireless Controller Receiver 2m Cable	PAR-WR61R-E
Modbus CN105 Interface	ACC-BEMS-A1MR5
Isolator 20A IP65	ACC-ISO-020
Isolator 32A IP65	ACC-ISO-032
Isolator 40A IP65	ACC-ISO-040
FTC High Temperature Sensor 5m Cable	PAC-TH012HT-E
FTC High Temperature Sensor 30m Cable	PAC-TH012HTL-E
FTC Flow and Return Temperature Sensors 5m Cable	PAC-TH011-E
FTC Cylinder DHW Temp Sensor 5m Cable	PAC-TH011TK2-E
FTC Cylinder DHW Temp Sensor 30m Cable	PAC-TH011TKL2-E
FTC Service Diagnostic Tool	PAC-SK52ST
Ecodan Anti-Vibration Fix-It-Foot 600mm Kit	ACC-AVM-001
Ecodan Reinforced Lightweight Slab +Anti-Vibration Fix-It-Foot Kit	ACC-AVS-001
Compatible Drain Socket Kit	PAC-SH71DS-E
10L Anti Freeze	ACC-AFZ-010A
20L Anti Freeze	ACC-AFZ-020A
Insulated Through Wall Sleeve Kit (85mm)	ACC-FCP-TW1
External Pipework Trunking Length (1m x 140mm Black x2)	ACC-TRU-LE1
External Pipework Trunking Length (2m x 140mm Black x1)	ACC-TRU-LE2
External Pipework Trunking Length Connector (140mm Black)	ACC-TRU-JO1
External Pipework Trunking Wall Cover (140mm Black)	ACC-TRU-CO1
External Pipework Trunking Elbow (140mm Black)	ACC-TRU-EL1
External Pipework Trunking External Corner (140mm Black)	ACC-TRU-EC1
External Pipework Trunking Internal Corner (140mm Black)	ACC-TRU-IC1
Pack for 2 Zone Systems with Equal Temperatures	ACC-2ZP-K01
Pack for 2 Zone Systems with Different Temperatures	ACC-2ZP-K02
Insulated Flexible Connection Pipes (22mm x 500mm) Standard Pair	ACC-FCP-S22
Insulated Flexible Connection Pipes (28mm x 500mm) Standard Pair	ACC-FCP-S28
Insulated Flexible Connection Pipes (28mm x 300mm) Elbow Pair	ACC-FCP-E28
MELCloud Wi-Fi Interface	MAC-587IF-EH



# Ventilation

Fresh Air Ventilation Range





# Contents

<b>LGH-RVX3-E</b> Commercial Lossnay	<b>6.6</b>
<b>LGH-RVXT3-E</b> Commercial Lossnay	<b>6.8</b>
<b>LGH-RVS-E</b> Commercial Lossnay	<b>6.10</b>
<b>GUF-RD4</b> Lossnay Outdoor Air Processing Unit	<b>6.12</b>
<b>VL-CZPVU-L/R-E</b> Residential Lossnay	<b>6.14</b>
<b>CP-500CM-L/R</b> Cooling Module	<b>6.16</b>
<b>s-AIRME-G07 HR-P C</b> Air Handling Unit	<b>6.18</b>
<b>Accessories / Optional Extras</b>	<b>6.20</b>

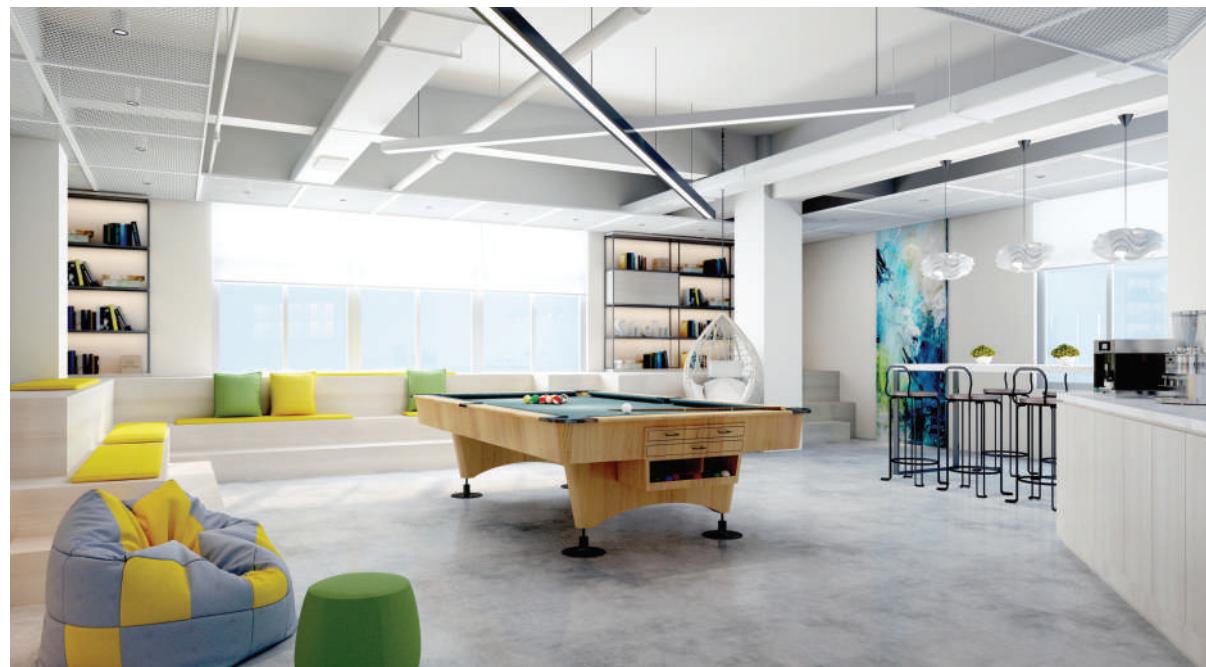
## Fresh Air Ventilation Range

# Why Do We Need Fresh Air Ventilation?

The build-up of health damaging pollutants, mould and rot are all attributed to poor indoor air quality and the lack of effective ventilation.

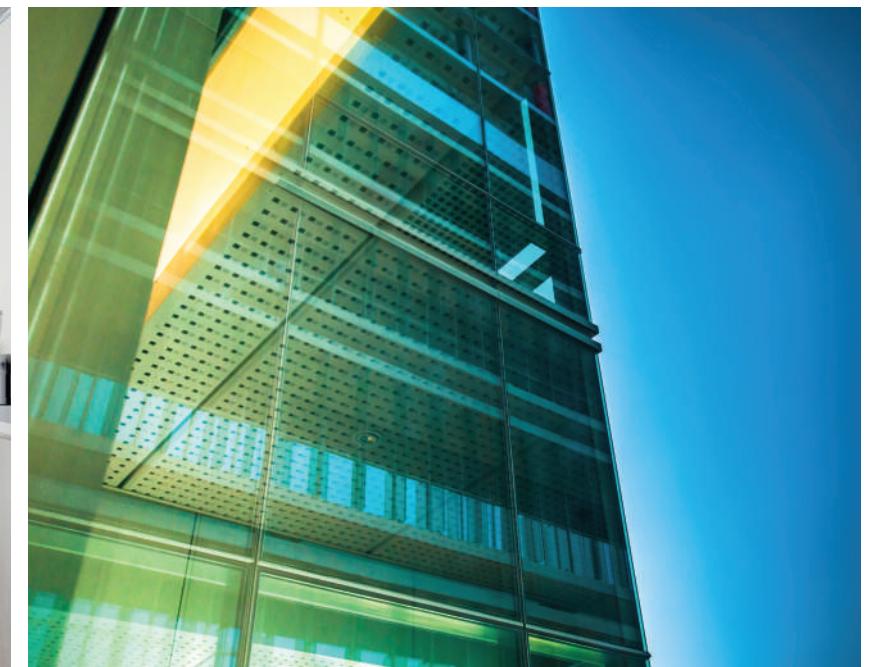
With highly airtight buildings on the rise, alongside increasingly strict legislation on air quality, the need is growing for an effective solution such as mechanical ventilation, which is also energy efficient. Mitsubishi Electric systems are perfectly placed to address this need and are the ideal solution to provide fresh air.

Our range includes single and multi-room Mechanical Ventilation with Heat Recovery (MVHR) units and medium to large scale ventilation solutions including Air Handling Units (AHUs). All systems have been designed to provide the best ventilation solution for the chosen application, by delivering the required amount of fresh air, whilst extracting the right amount of stale air, in the most energy efficient way possible.



### Fresh air benefits include:

- A healthy and better maintained building
- Improved air quality for occupants
- Improved comfort via the recovery of heat to incoming fresh air



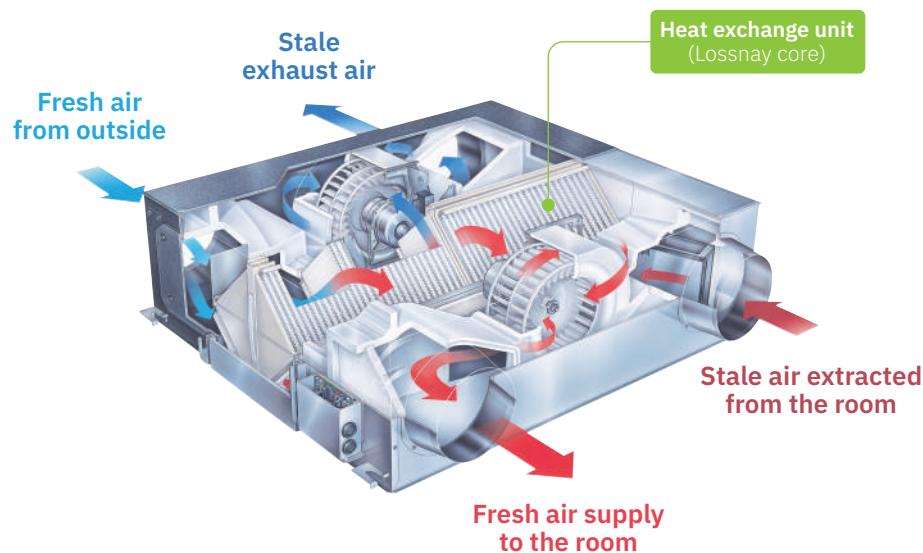
# Excellent Air Quality and Heat Exchange Efficiency

### How Lossnay Works

Our Lossnay systems have perfected the recovery of energy that would have otherwise been wasted. They do this by either warming or cooling incoming air, a feature which makes Mitsubishi Electric MVHR units extremely energy efficient.

Heat Recovery is made possible via the unique Lossnay ultra-thin paper core technology, which is constructed in a corrugated form and layered in alternative directions.

**This design allows a cross airflow to maximise heat recovery without the supply and exhaust air mixing, ensuring only fresh air is introduced to the building.**



### How Air Handling Units work

Packaged Air Handling Units (AHUs) are designed to provide a tempered fresh air supply into commercial buildings. They work in conjunction with the building's air conditioning system to provide occupants with a fresh and comfortable environment.

The Mitsubishi Electric AIRME Compact Air Handling Units incorporate a frameless structure to achieve a line-up of units that are as compact as possible, maximising air tightness and improving thermal properties.

**The s-AIRME-G07 HR-P range of AHU's utilises a combination of Mr Slim R32 Power Inverter heat pump technology, energy efficient plate heat exchanger heat recovery technology, and an integrated control system.**



# LGH-RVX3-E

## Commercial Lossnay



Compatible with Mitsubishi Electric  
plug-and-play CO<sub>2</sub> sensor  
(powered by the Lossnay unit)

**Notes:** Running current, power consumption, recovery efficiency, and sound levels are based on the above default airflow rates at 25%, 50%, 75%, and 100%. Specific duty point data is available upon request. Supply and exhaust fan speeds can be individually commissioned between 25% and 100% in 5% increments. Sound Pressure Level measured at 1.5m under the centre of the bottom panel. Air flow rates, external static pressure and specific fan powers tested to BS EN13053: 2019. Energy recovery efficiencies tested to BS EN308: 2022.

\*1: EN 779 G4 equivalent according to 'REHVA Filter Class Conversion between EN 779 and EN ISO 16890-1'.

The new Lossnay **LGH-RVX3-E** Mechanical Ventilation Heat Recovery (MVHR) systems are designed to supply clean, fresh air into any commercial building, whilst simultaneously extracting stale air, ensuring good indoor air quality for occupant wellbeing. These units are also able to recover valuable heat energy from inside the building, maximising energy efficiency and reducing running costs.

### Key Features & Benefits

- Mitsubishi Electric pioneered heat exchanger enables maximised latent heat exchange, resulting in cost and carbon savings
- Four commissionable fan speeds, settable between 25-100%, with independent supply and return fan control offering low running costs and easier compliance to Part L
- Optional Mitsubishi Electric energy saving CO<sub>2</sub> sensor allows automatic incremental fan control for a healthy indoor environment
- Full airflow in bypass mode, promoting good indoor air quality during free cooling
- Dual-Barrier coating on the fan prevents dust and grease accumulation, ensuring long-term efficient operation
- Lightweight structure ideal for easy ceiling installation
- Vertical installation available for flexibility of application
- Easy control interlock with Mr Slim and City Multi air conditioning systems, including M-NET connection for centralised control

MODEL	LGH-15RVX3-E	LGH-25RVX3-E	LGH-35RVX3-E	LGH-50RVX3-E	LGH-65RVX3-E	LGH-80RVX3-E	LGH-100RVX3-E	LGH-160RVX3-E	LGH-200RVX3-E	
25% (Default speed 1)	Air Volume m <sup>3</sup> /h	38	63	88	125	163	200	250	400	500
	l/s	10	17	24	35	45	56	69	111	139
	External Static Pressure Pa	8	8	10	10	10	11	12	11	11
	Temperature Exchange Efficiency Heating %	81.5	88.0	82.0	75.0	82.0	80.0	83.5	80.0	83.5
	Cooling %	78.0	85.0	79.0	73.0	80.0	78.0	82.5	78.0	82.5
	Enthalpy Exchange Efficiency Heating %	80.5	84.0	80.0	73.0	80.0	73.5	75.5	73.5	76.0
	Cooling %	73.0	75.0	74.5	68.0	74.0	70.5	73.5	70.5	71.0
	Specific Fan Power W/l/s	0.96	0.63	0.62	0.43	0.44	0.41	0.39	0.41	0.41
	Input Power W	10	11	15	15	20	23	27	45	57
	Sound Pressure Level dB(A)	17.0	17.0	17.0	17.0	17.5	18.0	18.5	18.0	18.0
50% (Default speed 2)	Air Volume m <sup>3</sup> /h	75	125	175	250	325	400	500	800	1000
	l/s	21	35	49	69	90	111	139	222	278
	External Static Pressure Pa	30	30	40	38	38	43	48	43	43
	Temperature Exchange Efficiency Heating %	78.0	81.0	79.0	73.5	78.5	78.0	79.5	78.0	79.5
	Cooling %	73.5	79.0	74.0	71.0	74.5	75.5	77.0	75.5	76.0
	Enthalpy Exchange Efficiency Heating %	76.5	75.5	77.5	72.0	76.5	70.5	68.5	70.5	67.5
	Cooling %	66.0	68.0	68.5	63.0	66.5	65.0	66.0	65.0	65.0
	Specific Fan Power W/l/s	0.72	0.60	0.60	0.49	0.56	0.58	0.60	0.58	0.59
	Input Power W	15	21	29	34	51	64	83	128	163
	Sound Pressure Level dB(A)	18.0	19.5	19.0	21.0	24.0	25.0	27.0	26.0	27.5
75% (Default speed 3)	Air Volume m <sup>3</sup> /h	113	188	263	375	488	600	750	1200	1500
	l/s	31	52	73	104	135	167	208	333	417
	External Static Pressure Pa	68	68	90	85	85	96	107	96	96
	Temperature Exchange Efficiency Heating %	75.5	78.5	77.0	71.5	75.0	76.5	77.0	76.5	77.5
	Cooling %	70.5	76.5	71.0	67.0	70.0	70.0	72.0	70.0	71.5
	Enthalpy Exchange Efficiency Heating %	73.5	72.0	74.5	69.5	72.0	65.0	63.0	65.0	64.0
	Cooling %	62.0	63.5	64.5	58.0	60.0	58.5	61.0	58.5	60.0
	Specific Fan Power W/l/s	0.96	0.81	0.84	0.78	0.89	0.96	1.01	0.97	1.00
	Input Power W	30	42	61	81	120	160	210	324	416
	Sound Pressure Level dB(A)	22.0	25.0	24.5	27.0	31.5	33.5	35.0	35.0	36.0
100% (Default speed 4)	Air Volume m <sup>3</sup> /h	150	250	350	500	650	800	1000	1600	2000
	l/s	42	69	97	139	181	222	278	444	556
	External Static Pressure Pa	120	120	160	150	150	170	190	170	170
	Temperature Exchange Efficiency Heating %	73.5	75.5	75.0	70.5	72.5	75.0	75.5	75.0	76.5
	Cooling %	65.5	70.5	66.5	63.5	65.0	65.0	67.5	65.0	66.5
	Enthalpy Exchange Efficiency Heating %	70.5	69.0	72.0	68.5	69.5	62.0	60.5	62.0	60.5
	Cooling %	58.0	59.0	60.0	53.5	55.5	54.5	55.5	54.5	57.0
	Specific Fan Power W/l/s	1.32	1.08	1.23	1.33	1.36	1.54	1.58	1.55	1.54
	Input Power W	55	75	120	185	245	343	438	687	855
	Sound Pressure Level dB(A)	27.0	30.5	30.5	35.0	37.5	39.0	40.0	41.0	41.5
DUCT SIZE										mm 100 150 150 200 200 250 (SA, RA)250 (OA, EA)270 x 700 (SA, RA)250 (OA, EA)270 x 700
WEIGHT										kg 20 22 30 33 41 47 53 53 96 108
DIMENSIONS										Width x Depth x Height mm 780 x 610 x 289 780 x 735 x 289 888 x 874 x 331 888 x 1016 x 331 908 x 954 x 404 1144 x 1004 x 404 1144 x 1231 x 404 1144 x 1004 x 808 1144 x 1231 x 808
ELECTRICAL POWER SUPPLY										220-240V, 50Hz
MAXIMUM CURRENT										A 0.57 0.88 1.37 1.86 2.37 3.23 3.77 4.74 5.40
FUSE RATING (BS88) - HRC (A)										A 6 6 6 6 6 6 6 10 10
HEAT EXCHANGER										Paper with specially treated Cellulose Membrane
STANDARD FILTER										ISO 16890 Coarse 60% <sup>1</sup>

## Accessories

### Controls

**PZ-62DR-EB**

Lossnay remote controller for LGH-RVX3-E

**PZ-4GS-E**

External signal relay for LGH-RVX3-E

### Filters

**PZ-15RF3-E**

Standard replacement filter (Coarse 60%) for LGH-15RVX3-E

**PZ-25RF3-E**

Standard replacement filter (Coarse 60%) for LGH-25RVX3-E

**PZ-35RF3-E**

Standard replacement filter (Coarse 60%) for LGH-35RVX3-E

**PZ-50RF3-E**

Standard replacement filter (Coarse 60%) for LGH-50RVX3-E

**PZ-65RF3-E**

Standard replacement filter (Coarse 60%) for LGH-65RVX3-E

**PZ-80RF3-E**

Standard replacement filter (Coarse 60%) for  
LGH-80RVX3-E / LGH-160RVX3-E (2 sets required)

**PZ-100RF3-E**

Standard replacement filter (Coarse 60%) for  
LGH-100RVX3-E / LGH-200RVX3-E (2 sets required)

**PZ-15RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-15RVX3-E

**PZ-25RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-25RVX3-E

**PZ-35RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-35RVX3-E

**PZ-50RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-50RVX3-E

**PZ-65RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-65RVX3-E

**PZ-80RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-80RVX3-E / LGH-160RVX3-E (2 sets required)

**PZ-100RFP3-E**

ePM<sub>1</sub> 75% grade filter for LGH-100RVX3-E / LGH-200RVX3-E (2 sets required)

### CO<sub>2</sub> Sensors

**PZ-70CSW-E**

Wall mounted plug and play CO<sub>2</sub> sensor with traffic light signals for LGH-RVX3-E

**PZ-70CSD-E**

Duct mounted plug and play CO<sub>2</sub> sensor for LGH-RVX3-E

### Vertical Mounting Brackets

**PZ-1VS-E**

Vertical mounting bracket for LGH-15-50RVX3-E

**PZ-2VS-E**

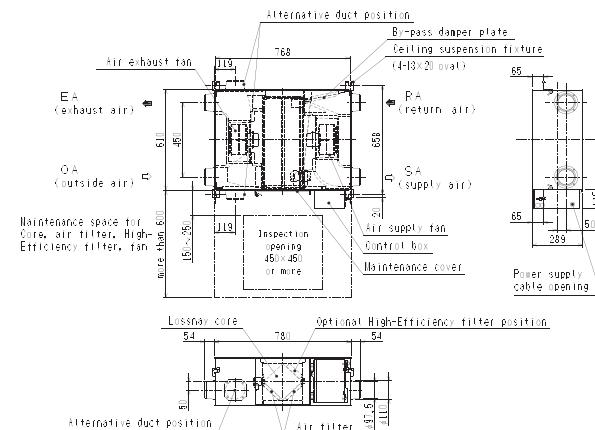
Vertical mounting bracket for LGH-65-100RVX3-E

### Weather Proof Housings

Weather proof housings are also available

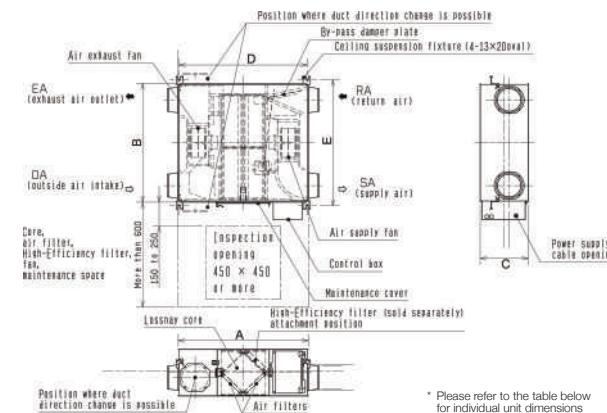
## Product Dimensions

LGH-15RVX3-E



## Product Dimensions

LGH-25-100RVX3-E

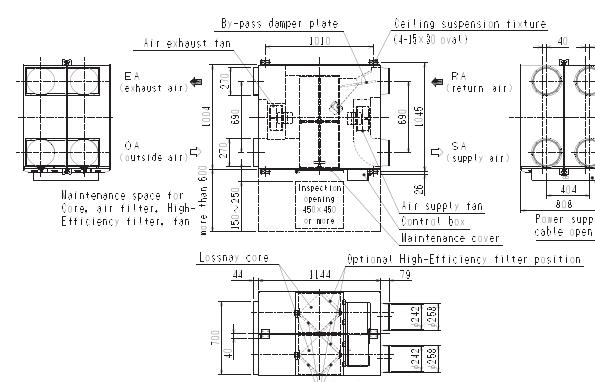


\* Please refer to the table below for individual unit dimensions

MODEL REFERENCE	DIMENSIONS			CEILING SUSPENSION FIXTURE PITCH		NOMINAL DUCT DIAMETER
	A	B	C	D	E	
LGH-25RVX3-E	780	735	289	768	782	150
LGH-35RVX3-E	888	874	331	875	921	150
LGH-50RVX3-E	888	1016	331	875	1063	200
LGH-65RVX3-E	908	954	404	895	1001	200
LGH-80RVX3-E	1144	1004	404	1131	1051	250
LGH-100RVX3-E	1144	1231	404	1131	1278	250

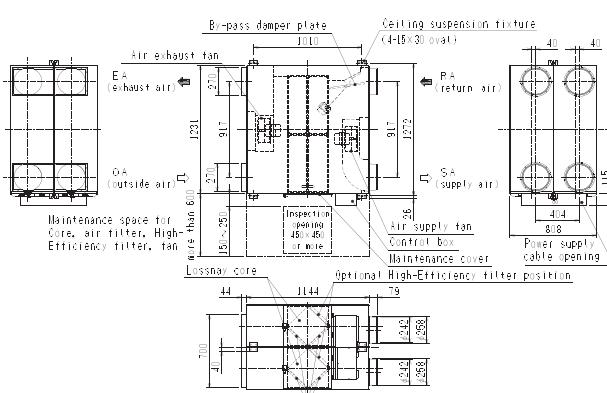
## Product Dimensions

LGH-160RVX3-E



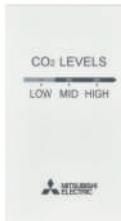
## Product Dimensions

LGH-200RVX3-E



# LGH-RVXT3-E

## Commercial Lossnay



Compatible with Mitsubishi Electric  
plug-and-play CO<sub>2</sub> sensor  
(powered by the Lossnay unit)

Lossnay **LGH-RVXT3-E** Mechanical Ventilation Heat Recovery (MVHR) systems are designed to supply clean, fresh air into any commercial building, whilst simultaneously extracting stale air, ensuring good indoor air quality for occupant wellbeing. Offering a significantly reduced height, whilst maintaining a large airflow, these units are designed for installation in ceiling voids within commercial properties.

### Key Features & Benefits

- Mitsubishi Electric pioneered heat exchanger enables maximised latent heat exchange, resulting in cost and carbon savings
- Low unit height (500mm) and lightweight structure, ideal for ceiling installation
- Four commissionable fan speeds, settable between 25-100%, with independent supply and return fan control offering low running costs and easier compliance to Part L
- Optional Mitsubishi Electric energy saving CO<sub>2</sub> sensors allow automatic incremental fan control for a healthy indoor environment; sensors powered by Lossnay unit
- Easy control interlock with Mr Slim and City Multi air conditioning systems, including M-NET connection for centralised control
- Dual-Barrier coating on the fan prevents dust and grease accumulation, ensuring long-term efficient operation

MODEL		LGH-160RVXT3-E	LGH-200RVXT3-E	LGH-250RVXT3-E
25% (DEFAULT SPEED 1)	Air Volume	m <sup>3</sup> /h l/s	400 111	500 139
	External Static Pressure	Pa	12	12
	Temperature Exchange Efficiency	Heating % Cooling %	88.0 83.0	86.0 82.0
	Enthalpy Exchange Efficiency	Heating % Cooling %	85.5 78.0	84.5 75.0
	Specific Fan Power	W/(l/s)	0.41	0.40
	Input Power	W	46	56
	Sound Pressure Level	dB(A)	19.5	21.0
				23.0
				174
				12
50% (DEFAULT SPEED 2)	Air Volume	m <sup>3</sup> /h l/s	800 222	1000 278
	External Static Pressure	Pa	48	48
	Temperature Exchange Efficiency	Heating % Cooling %	85.5 79.0	83.0 78.0
	Enthalpy Exchange Efficiency	Heating % Cooling %	83.0 73.0	81.5 67.5
	Specific Fan Power	W/(l/s)	0.65	0.69
	Input Power	W	144	192
	Sound Pressure Level	dB(A)	26.0	28.0
				31.5
				1250
				347
75% (DEFAULT SPEED 3)	Air Volume	m <sup>3</sup> /h l/s	1200 333	1500 417
	External Static Pressure	Pa	107	107
	Temperature Exchange Efficiency	Heating % Cooling %	83.0 75.0	81.0 73.0
	Enthalpy Exchange Efficiency	Heating % Cooling %	81.0 65.5	79.5 61.0
	Specific Fan Power	W/(l/s)	1.10	1.20
	Input Power	W	368	498
	Sound Pressure Level	dB(A)	33.0	35.0
				38.0
				1875
				521
100% (DEFAULT SPEED 4)	Air Volume	m <sup>3</sup> /h l/s	1600 444	2000 556
	External Static Pressure	Pa	190	190
	Temperature Exchange Efficiency	Heating % Cooling %	82.0 70.0	80.0 67.5
	Enthalpy Exchange Efficiency	Heating % Cooling %	80.0 61.5	78.5 56.5
	Specific Fan Power	W/(l/s)	1.59	1.88
	Input Power	W	708	1044
	Sound Pressure Level	dB(A)	38.0	40.0
				44.0
			Outlets (SA/EA): 250 x 650 / Inlets (RA/OA): 465 x 220	
			2100 x 1600 x 500	
DUCT SIZE	mm		3-phase, 380-415V, 50Hz <sup>2</sup>	
WEIGHT	kg	172		172
DIMENSIONS	Width x Depth x Height	mm		
ELECTRICAL POWER SUPPLY				
MAXIMUM CURRENT	A	3.0	3.9	5.0
HEAT EXCHANGER			Paper with Specialty Treated Cellulose Membrane	
STANDARD FILTER			ISO 16890 Coarse 60% <sup>1</sup>	

Notes: Running current, power consumption, recovery efficiency, and sound levels are based on the above default airflow rates at 25%, 50%, 75%, and 100%. Specific duty point data is available upon request. Supply and exhaust fan speeds can be individually commissioned between 25% and 100% in 5% increments. Sound Pressure Level measured at 1.5m under the centre of the bottom panel. Air flow rates, external static pressure and specific fan powers tested to BS EN13053: 2019. Energy recovery efficiencies tested to BS EN308: 2022.

<sup>1</sup>: EN 779 G4 equivalent according to 'REHVA Filter Class Conversion between EN 779 and EN ISO 16890-1'.

<sup>2</sup>: 3 phase 4 wire power must be connected. The unit only uses loads L2 and L3, meaning L1 does not draw load.

## Accessories

### Remote Controllers

#### PZ-62DR-EB

Lossnay remote controller for LGH-RVXT3-E

#### PZ-4GS-E

External signal relay for LGH-RVXT3-E

### Filters

#### PZ-250TRF-E

Standard replacement filter (Coarse 60%) for LGH-RVXT3-E

#### PZ-250TPF-E

ISO 16890 ePM<sub>1</sub> 75%, ePM<sub>2.5</sub> 80%, ePM<sub>10</sub> 95% filter for LGH-RVXT3-E

### CO<sub>2</sub> Sensors

#### PZ-70CSW-E

Wall mounted plug and play CO<sub>2</sub> sensor with traffic light signals for LGH-RVXT3-E

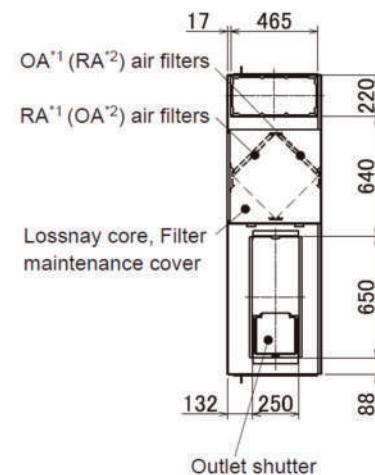
#### PZ-70CSD-E

Duct mounted plug and play CO<sub>2</sub> sensor for LGH-RVVT3-E

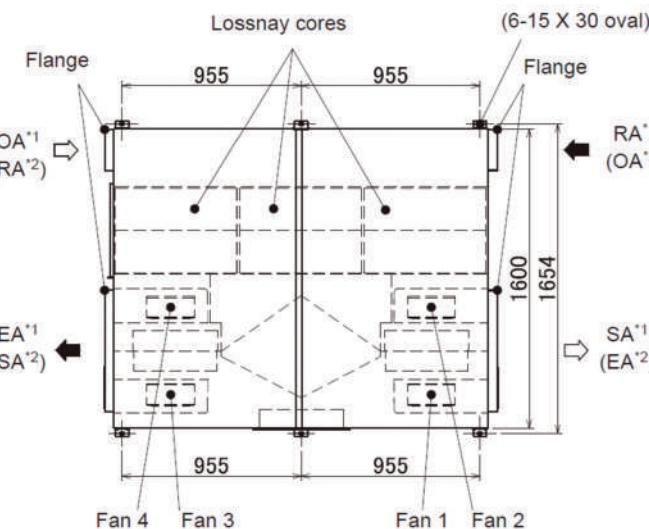
## Product Dimensions

### LGH-160/200/250RVXT3-E

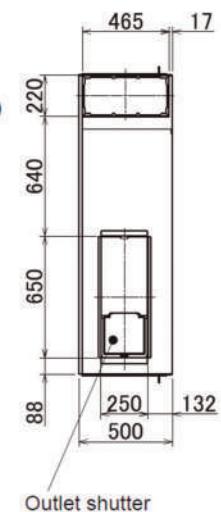
Left Side View



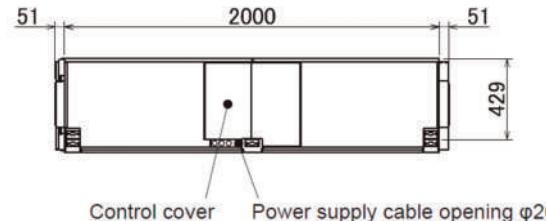
Upper View



Right Side View



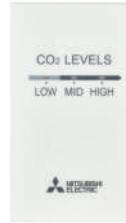
Front View



Weight : 172 kg

# LGH-RVS-E

## Commercial Lossnay



Compatible with Mitsubishi Electric  
plug-and-play CO<sub>2</sub> sensor  
(powered by the Lossnay unit)

The **LGH-RVS-E** is designed to simultaneously extract stale air from a commercial building and supply fresh filtered air. Whilst doing this the Lossnay units also recover valuable heat energy for maximum efficiency.

### Key Features & Benefits

- Fresh air ventilation with energy efficient heat recovery
- Plastic heat exchanger - perfect for higher humidity environments
- Optional Mitsubishi Electric energy saving CO<sub>2</sub> sensors allow automatic incremental fan control for a healthy indoor environment; sensors powered by Lossnay unit
- Four commissionable fan speeds, settable between 25-100%, with independent supply and return fan control offering low running costs and easier compliance to Part L
- Easy control interlock with Mr Slim and City Multi air conditioning systems, including M-NET connection for centralised control
- Integrated bypass damper for free cooling
- In-built condensate drainage traps

MODEL	LGH-50RVS-E	LGH-80RVS-E	LGH-100RVS-E	
25%				
Air Volume	l/s m <sup>3</sup> /hr	35 125	56 200	69 250
External Static Pressure	Pa	9	11	12
Temperature Exchange Efficiency	%	93	90	90
Specific Fan Power	W/(l/s)	0.72	0.58	0.5
Input Power	W	25	32	35
Sound Pressure Level	dB(a)	18	18	18
50%				
Air Volume	l/s m <sup>3</sup> /hr	69 250	111 400	139 500
External Static Pressure	Pa	38	43	48
Temperature Exchange Efficiency	%	91	86	86
Specific Fan Power	W/(l/s)	0.86	0.77	0.72
Input Power	W	60	85	100
Sound Pressure Level	dB(a)	22	25	24
75%				
Air Volume	l/s m <sup>3</sup> /hr	104 375	167 600	208 750
External Static Pressure	Pa	84	96	107
Temperature Exchange Efficiency	%	89	84	84
Specific Fan Power	W/(l/s)	1.06	1.05	1.08
Input Power	W	110	175	225
Sound Pressure Level	dB(a)	27	30	32
100%				
Air Volume	l/s m <sup>3</sup> /hr	139 500	222 800	278 1000
External Static Pressure	Pa	150	170	190
Temperature Exchange Efficiency	%	87	82	82
Specific Fan Power	W/(l/s)	1.37	1.46	1.6
Input Power	W	190	325	445
Sound Pressure Level	dB(a)	33	36	37
DUCT SIZE	mm	200	250	250
WEIGHT	(with full condensate drain) kg	55 (67)	63 (77)	73 (89)
DIMENSIONS	Width x Depth x Height mm	974 x 946 x 465	1185 x 997 x 465	1185 x 1224 x 465
ELECTRICAL POWER SUPPLY		220-240V, 50Hz	220-240V, 50Hz	220-240V, 50Hz
MAXIMUM RUNNING CURRENT	A	2.2	3.7	4.2
FUSE RATING (BS88) - HRC (A)	A	6	6	6
HEAT EXCHANGER		Plastic Counter Flow		
CONDENSATE CONNECTION	mm	32	32	32
STANDARD FILTER		Coarse 35% / G3		
OPTIONAL FILTER(S)		ePM <sub>1</sub> 65%, ePM <sub>2.5</sub> 75%, ePM <sub>10</sub> 90% / F8 ePM <sub>10</sub> 80% / M6		

Notes: Airflow rate, static pressure, power input, running current, and heat exchange efficiency tested to ISO 16494 (winter condition), 230v 50Hz. A-Weighted Sound Pressure Level measured at 1.5m under the centre of the unit in an anechoic chamber.

## Accessories

### Controls

#### PZ-62DR-EB

Lossnay remote controller for LGH-RVS-E

#### PZ-4GS-E

External signal relay for LGH-RVS-E

### Filters

#### PZ-S50RF-E

Replacement Coarse 35% / G3 filter for LGH-50RVS-E

#### PZ-S80RF-E

Replacement Coarse 35% / G3 filter for LGH-80RVS-E

#### PZ-S100RF-E

Replacement Coarse 35% / G3 filter for LGH-100RVS-E

#### PZ-S50RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-50RVS-E

#### PZ-S80RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-80RVS-E

#### PZ-S100RFM-E

ePM<sub>10</sub> 80% / M6 filter for LGH-100RVS-E

#### PZ-S50RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-50RVS-E

#### PZ-S80RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-80RVS-E

#### PZ-S100RFH-E

ePM<sub>1</sub> 65% / F8 filter for LGH-100RVS-E

### CO<sub>2</sub> Sensors

#### PZ-70CSW-E

Wall mounted plug and play CO<sub>2</sub> sensor with traffic light signals for LGH-RVS-E

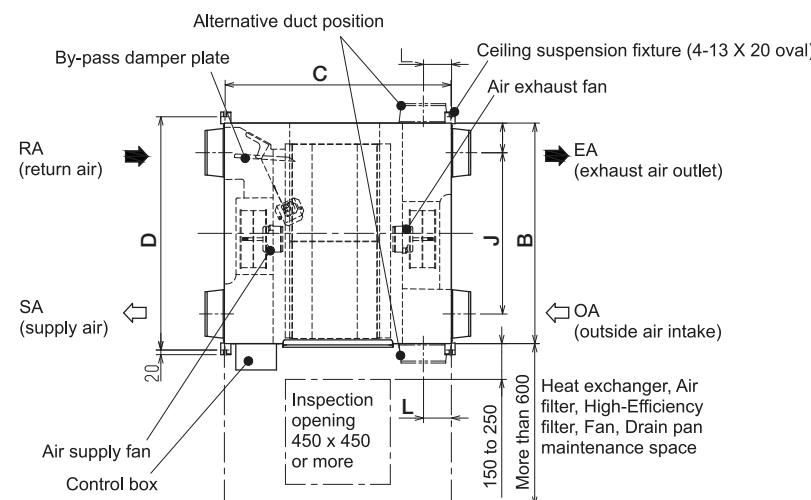
#### PZ-70CSD-E

Duct mounted plug and play CO<sub>2</sub> sensor for LGH-RVS-E

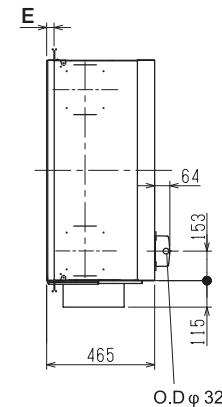
## Product Dimensions

### LGH-50/80/100RVS-E

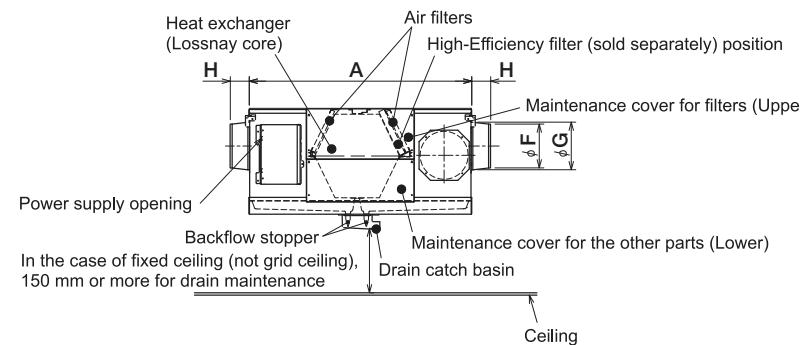
#### Upper View



#### Side View



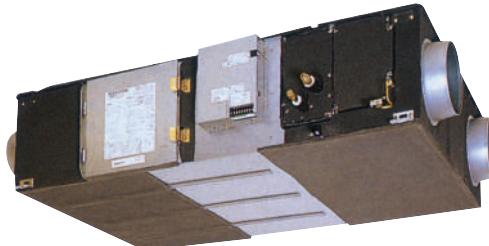
#### Front View



	A	B	C	D	E	F	G	H	J	L
LGH-50RVS-E	974	946	969	1001	32	192	208	83	692	120
LGH-80RVS-E	1185	997	1179	1051	55	242	258	82	683	161
LGH-100RVS-E	1185	1224	1179	1279	55	242	258	82	910	161

# GUF-RD4

## Lossnay Outdoor Air Processing Unit



The **GUF-RD4** fresh air processing units combine a Lossnay Mechanical Ventilation with Heat Recovery (MVHR) unit with a DX coil connectable to a VRF system, to heat and cool the supply air delivered to the space. The combination of these technologies provides effective tempering of fresh air entering commercial spaces, taking the load off other cooling/heating services, and eliminating any chance of draughts.

### Key Features & Benefits

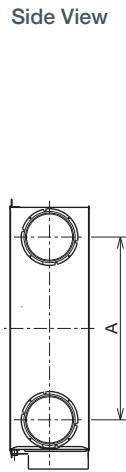
- Smart combination of a Lossnay & City Multi indoor unit, integrated into one model
- Single unit saves on space and installation costs
- Uses heat recovery technology for maximum energy efficiency
- Heating / cooling with no recirculation of extracted air in the space
- Benefits from free cooling when ambient conditions allow

**R410A**

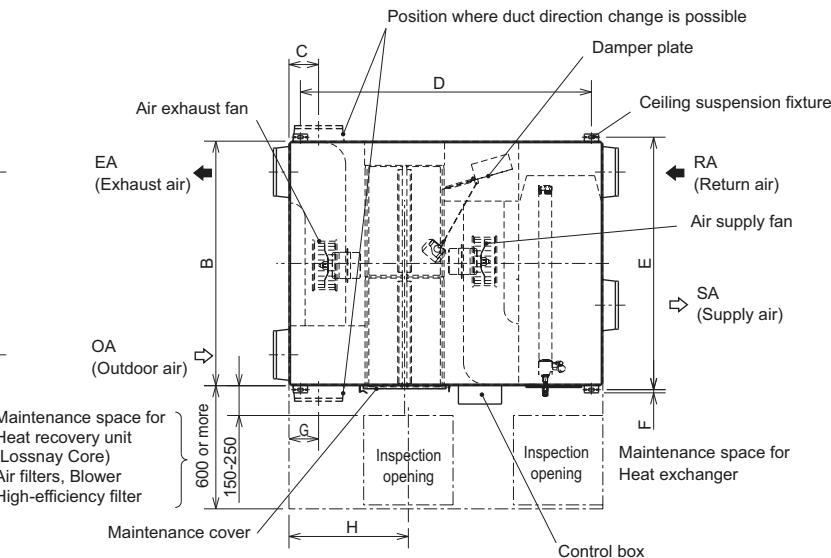
MODEL	GUF-50RD4	GUF-100RD4	
CAPACITY (kW)	Heating (nominal) Cooling (nominal) UK Heating (High Performance) UK Heating (COP Priority) UK Total Cooling	6.21 (2.04) 5.57 (1.94) 6.42 (2.25) 5.93 (2.08) 5.03 (1.58)	12.56 (4.26) 11.44 (4.12) 13.00 (4.70) 12.01 (4.34) 10.27 (3.32)
POWER INPUT (kW)	Lo-Hi	0.150 / 0.265	0.370 / 0.505
AIRFLOW (m³/h)	Lo-Hi	400-500	800-1000
EXTERNAL STATIC PRESSURE (Pa)	Lo-Hi	90 - 140	90 - 140
TEMPERATURE EXCHANGE EFFICIENCY (%)	Lo-Hi	80 - 77.5	81.5 - 79.5
SOUND PRESSURE LEVEL (dBA)	Lo-Hi	29.5 - 34.5	34 - 39
WEIGHT (kg)		54	92
DIMENSIONS (mm)	Width Depth Height	1016 1288 317	1231 1580 398
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz
PHASE		Single	Single
RUNNING CURRENT (A)	Lo-Hi	0.70-1.15	1.73-2.20
FUSE RATING (BS88) - HRC (A)		6	6
MAINS CABLE No. Cores		3	3

Notes: The figures in ( ) indicate the heat recovery at Lossnay core. Total value is capacity of Lossnay core and refrigerant coil. The current and input are based on the above air volume. The sound pressure at the air outlets (45° angle 1.5m ahead) is about 6dBA greater than the indicated value (high speed). Specifications may be subject to change without notice.

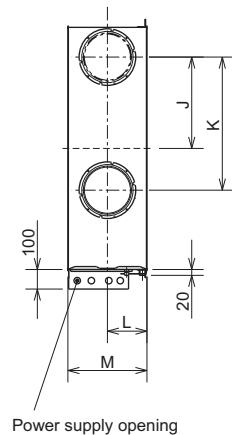
Side View



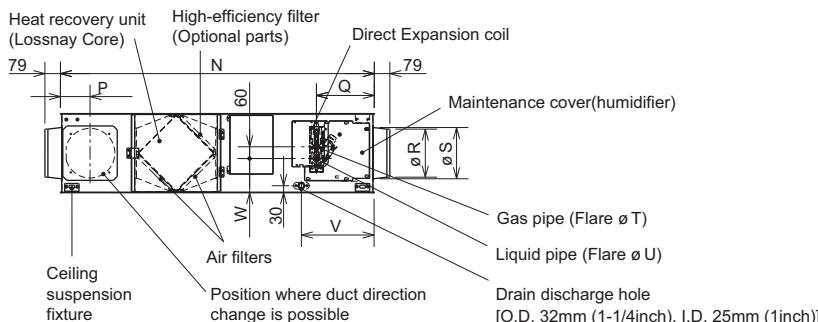
Upper View



Side View



Front View



Model	A	B	C	D	E	F	G	H	J	K	L
GUF-50RD4	745	1,016	124	1,185	1,048	22	124	450	372.5	435	158.5
GUF-100RD4	920	1,231	149	1,465	1,271	16	149	600	460	670	199
Model	M	N	P	Q	R	S	T	U	V	W	Y
GUF-50RD4	317	1,288	124	266	192	208	12.7	6.35	347	99	135
GUF-100RD4	398	1,580	149	280	242	258	15.88	9.52	361	110	169

# VL-CZPVU-L/R-E

## Residential Lossnay



The VL-CZPVU-L/R-E residential Lossnay range of Mechanical Ventilation with Heat Recovery (MVHR) units create an environment of constant clean and healthy air at home. These systems are designed to continuously extract from bathrooms, kitchens, toilets and utility rooms where air can become polluted, whilst supplying a balanced flow of fresh air from outside to spaces such as bedrooms and living rooms. The Lossnay unit minimises the energy lost by recovering the heat from the extracted air, transferring this to the supplied fresh air.

### Key Features & Benefits

- Ultra quiet noise levels
- Optional filters placed within the MVHR unit for particulate matter and NOx
- Full summer bypass function with auto mode and settable temperature parameters
- Digital controller included for ease of commissioning and use
- Boost signal via live switch or volt free contact, with settable delay and overrun timers
- Optional cloud control for connection to MELCloud and smart devices
- Suitable for use in individual houses or in multi-residential apartment applications

MODEL	VL-250CZPVU-L/R-E	VL-350CZPVU-L/R-E	VL-500CZPVU-L/R-E			
DIMENSIONS (mm)	Width x Depth x Height 595 x 386 x 565	658 x 462 x 623	725 x 586 x 632			
WEIGHT (kg)	26	32	39			
ELECTRICAL POWER SUPPLY	220-240V 50Hz	220-240V 50Hz	220-240V 50Hz			
MAX RUNNING CURRENT (A)	1.0	1.32	2.3			
SUMMER BYPASS	Full Bypass	Full Bypass	Full Bypass			
SPIGOT DIAMETER (mm)	125	150	160 / 180			
STANDARD FILTER (ISO 16890:2016/EN779:2012)	Outside Air Coarse 55% / G3 Return Air Coarse 55% / G3	Coarse 55% / G3 Coarse 55% / G3	Coarse 55% / G3 Coarse 55% / G3			
OPTIONAL FILTER(S)	Supply Air NOx 90% Outside Air ePM2.5 50%	NOx 90% ePM2.5 50%	NOx 90% ePM2.5 50%			
SAP 2012 PCDB DATA	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)	SFP W/(l/s)	HEAT EXCHANGE EFFICIENCY (%)
K + 1 (21 l/s)	0.62	90	0.86	90	0.80	91
K + 2 (29 l/s)	0.67	89	0.80	90	0.72	90
K + 3 (37 l/s)	0.79	88	0.84	89	0.74	90
K + 4 (45 l/s)	1.00	87	0.96	89	0.82	89
K + 5 (53 l/s)	1.19	87	1.08	88	0.91	88
K + 6 (61 l/s)	-	-	1.28	87	1.09	88
K + 7 (69 l/s)	-	-	-	-	1.24	88

## Accessories

### Remote Controllers

#### P-RCC-E

Remote controller cover and 1m cable with noise filter for VL-CZPVU-E (extendable to 200m)

### Filters

#### P-250F-E

Replacement Coarse 55% / G3 filter for VL-250CZPVU-E

#### P-350F-E

Replacement Coarse 55% / G3 filter for VL-350CZPVU-E

#### P-500F-E

Replacement Coarse 55% / G3 filter for VL-500CZPVU-E

#### P-250PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-250CZPVU-E

#### P-350PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-350CZPVU-E

#### P-500PF-E

ePM<sub>2.5</sub> 50% / M6 filter for VL-500CZPVU-E

#### P-250NF-E

NOx 90% supply air filter for VL-250CZPVU-E

#### P-350NF-E

NOx 90% supply air filter for VL-350CZPVU-E

#### P-500NF-E

NOx 90% supply air filter for VL-500CZPVU-E

### Noise Attenuators

#### P-250SB-E

Acoustic top box for VL-250CZPVU-E

#### P-350SB-E

Acoustic top box for VL-350CZPVU-E

#### P-500SB-E

Acoustic top box for VL-500CZPVU-E

### Sensors

#### P-09CSW-E

Wall mounted CO<sub>2</sub> sensor for VL-CZPVU-E

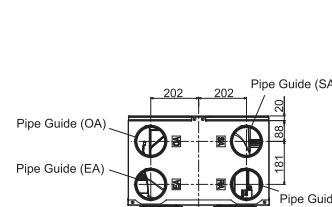
#### P-09HSD-E

Duct mounted plug and play humidity sensor for VL-CZPVU-E

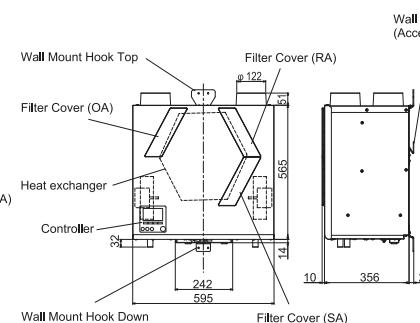
## Product Dimensions

### VL-250CZPVU-L/R-E

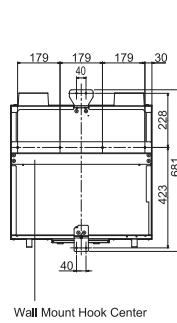
#### Upper View



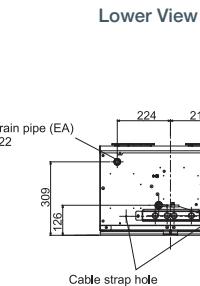
#### Front View



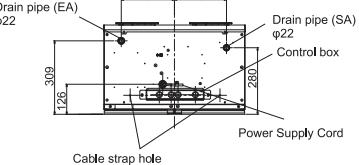
#### Right Side View



#### Rear View



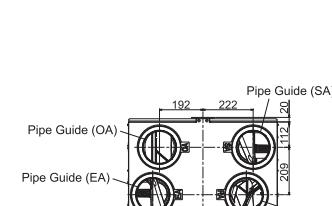
#### Lower View



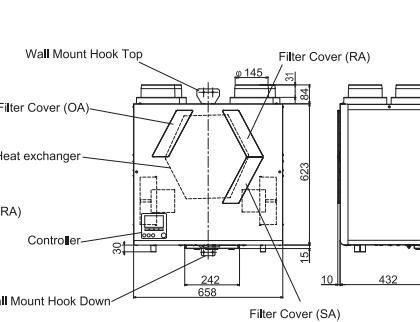
## Product Dimensions

### VL-350CZPVU-L/R-E

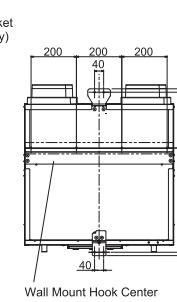
#### Upper View



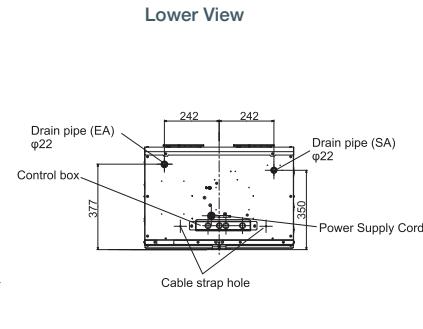
#### Front View



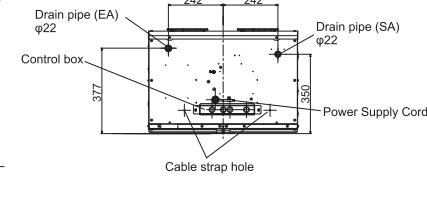
#### Right Side View



#### Rear View



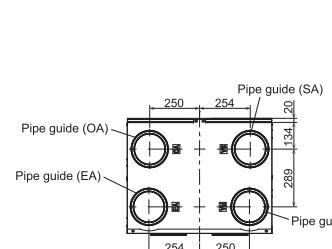
#### Lower View



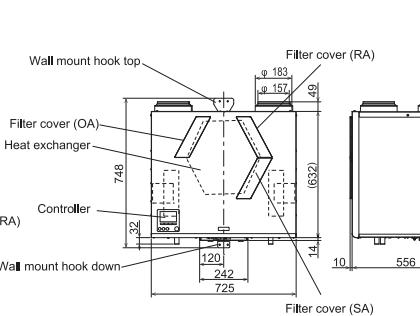
## Product Dimensions

### VL-500CZPVU-L/R-E

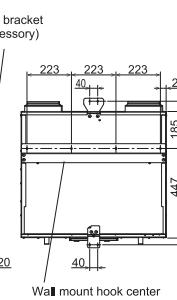
#### Upper View



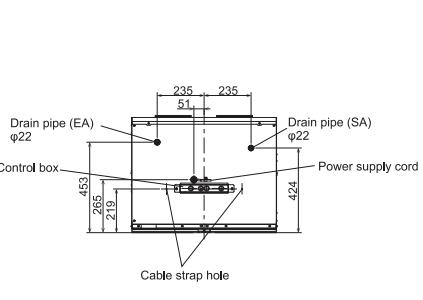
#### Front View



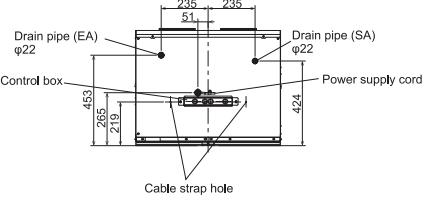
#### Right Side View



#### Rear View



#### Lower View



Notes: The above dimensional drawings are for a left sided unit. For the right sided unit dimensional drawings, please see the databook.

# CP-500CM-L/R

## Cooling Module



Enhance your home's protection against overheating with the **CP-500CM-L/R** cooling module - perfectly paired with the VL-500CZPVU-L/R-E residential Lossnay MVHR. This innovative system delivers tempered fresh air to help prevent overheating, supporting compliance with Part O building regulations.

Featuring a self-contained direct expansion system, advanced inverter technology, and lower GWP R32 refrigerant, it provides efficient cooling while meeting sustainability targets.

Designed with Part O compliance at its core, it offers flexible activation temperatures, customisable capacity steps, and overshoot temperature controls, giving you total confidence in maintaining compliant indoor conditions.

### Key Features & Benefits

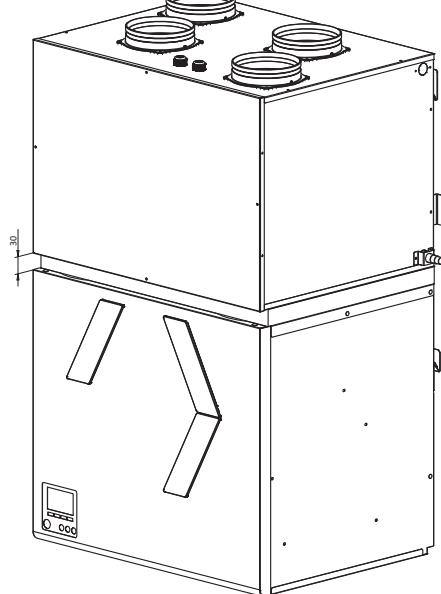
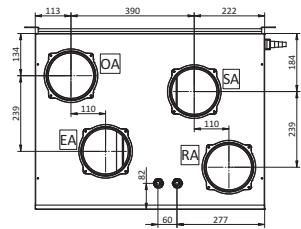
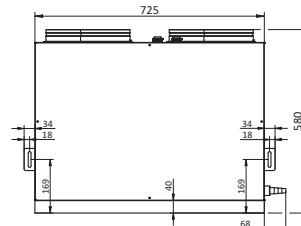
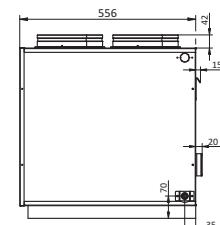
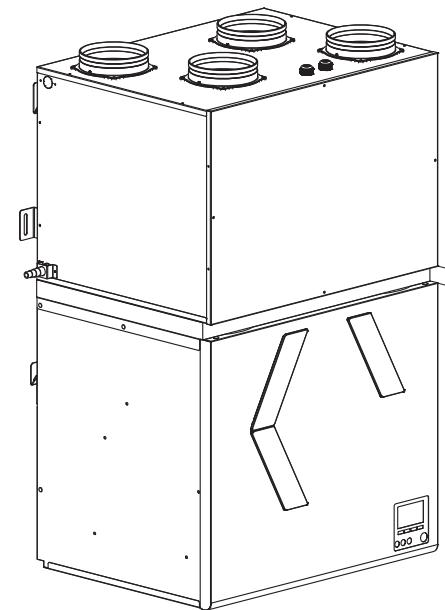
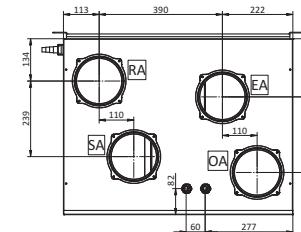
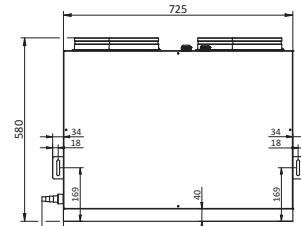
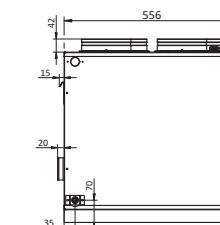
- Multi-zone activation - connect up to four room temperature sensors to detect cooling requirements from different areas
- Low system height - efficient use of space, maximising a home's floor area by allowing other services to be placed underneath the system
- Quiet performance - enjoy a restful night's sleep even in the hottest summer's without the distraction of excess noise
- Eco-friendly & efficient - the inverter-controlled compressor uses lower GWP R32 refrigerant, delivering powerful cooling while reducing environmental impact
- Hassle-free installation - designed for simplicity, ensuring a smooth and efficient setup process
- Flexible airflow - operational airflow as low as 50l/s allows precise capacity selection for each home's unique needs
- Behind-the-scenes control - ensures adherence to Part O regulations, while preventing unnecessary end-user adjustments

**R32**

MODEL	CP-500CM-L/R
OPERATION AIR FLOW (l/s)	50 - 140
DIMENSIONS (mm) (Width x Depth x Height)	Module 725 x 556 x 497 System 725 x 586 x 1169
WEIGHT (kg)	Module 38 System 77
REFRIGERANT	R32
REFRIGERANT CHARGE (kg)	0.55
COMPRESSOR MANAGEMENT	Inverter
SOUND POWER LEVEL (dB(A))	52.4
DUCT SPIGOT SIZE (mm)	160
ELECTRICAL SUPPLY	220-240V, 50Hz
MAX RUNNING CURRENT (A)	7.6
FUSE RATING (BS88) - HRC (A)	10

MODEL	PROCON OVERHEAT THERMOSTAT (OHT)
DESCRIPTION	Manages activation and operation of cooling function. Reads internal temperature against set activation point, and manages interlock signals and system status
CONNECT TO	VL-500CZPVU-L/R-E CP-500CM-L/R
ELECTRICAL SUPPLY	Powered via Lossnay MVHR CN105
DIMENSIONS (mm)	Width x Depth x Height 190 x 42 x 180
WEIGHT (kg)	1.1
CONTROL	Temperature Input Up to 4x 10K3A1 <sup>1</sup> Heating Interlock VFC Manual Activation VFC Block VFC

Notes: <sup>1</sup> 1 x 10K3A1 temperature sensor supplied with Procon OHT.  
VFC: Volt Free Contact

**LOSSNAY + COOLING MODULE****LEFT CONFIGURATION****Top View****Front View****Side View****LOSSNAY + COOLING MODULE****RIGHT CONFIGURATION****Top View****Front View****Side View**

# s-AIRME-G07 HR-P C

## Air Handling Unit



The Mitsubishi Electric AIRME Compact Air Handling Units (AHU's) incorporate a frameless structure to achieve a line-up of units that are as compact as possible, maximising air tightness and improving thermal properties.

The **s-AIRME-G07 HR-P** range of AHU's utilises a combination of Mr Slim R32 Power Inverter heat pump technology, energy efficient plate heat exchanger heat recovery technology, and an integrated control system. This integration of technologies results in highly advanced, efficient systems that are easy to install and commission, making them ideal for offices, shopping centres, theatres and other large, open spaces.

### Key Features & Benefits

- Mr Slim R32 Power Inverter heat pump technology enables energy efficient tempering of fresh air
- Plate heat exchanger for effective heat recovery
- Self-supporting, one-piece construction for maximum air tightness and minimal thermal bridging
- Constant volume EC plug fans for greater efficiency and cost savings
- Easy air flow commissioning with selectable target air volume control
- Fully integrated controls and single point power supply, regardless of accessories, for ease of installation
- Wide range of optional accessories, making these units a perfect solution for a variety of applications

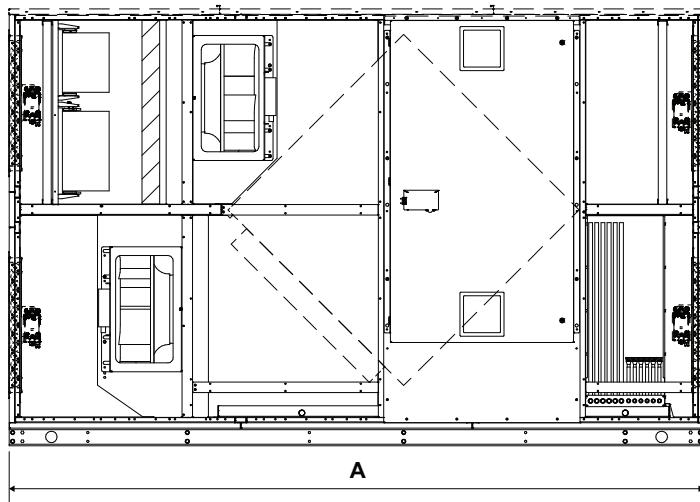


MODEL	s-AIRME-G07 HR-P C 3000	s-AIRME-G07 HR-P C 5000	s-AIRME-G07 HR-P C 7500	s-AIRME-G07 HR-P C 10000	s-AIRME-G07 HR-P C 12500	s-AIRME-G07 HR-P C 15000
RATED AIR VOLUME (m³/s)	0.83	1.38	2.08	2.77	3.47	4.16
AIR VOLUME RANGE (m³/s)	0.56 - 0.83	0.91-1.38	1.19 - 2.08	1.73 - 2.77	2.19 - 3.47	2.35 - 4.16
EXTERNAL STATIC PRESSURE (Pa)	Standard fans 500 Up-rated fans -	300 500 -	500 500 -	300 / 500 <sup>1</sup> 500 500	300 500 -	300 500 -
COOLING CAPACITY (kW)	DX Coil Capacity 19.5 Heat Recovery Capacity 8.89 Total Capacity 28.39	31.5 14.8 46.3	43.5 22.7 66.2	63.4 30 93.4	77.9 37.3 115.2	87.5 44.5 132
HEATING CAPACITY (kW)	DX Coil Capacity 16.7 Heat Recovery Capacity 20.6 Total Capacity 37.3	27.2 34.3 61.5	36.6 53.1 89.7	53.5 70.1 123.6	66.8 87.2 154	73.2 110 183.2
HEAT RECOVERY EFFICIENCY (%)	Cooling 73.8 Heating 72.7	73.5 72.7	75.3 74.6	74.6 74	74.3 73.6	73.9 73.9
SPECIFIC FAN POWER (SFPint) (W/l/s)	0.775	0.936	0.812	0.736	0.81	0.691
SOUND POWER LEVEL (dB(A))	Fresh/Outdoor 82 Supply 82 Return 80 Exhaust 80 Breakout 64	89 89 88 88 74	85 85 84 84 67	85 85 85 85 67	86 86 86 86 71	88 88 87 87 70
UNIT DIMENSIONS (WxDxH) (mm)	2950 x 1385 x 1675	2950 x 1785 x 1675	3200 x 1885 x 2200	3650 x 2185 x 2280	3775 x 2385 x 2480	3946 x 2585 x 2480
BASE WEIGHT (kg)	750	950	1250	1600	1750	2100
STANDARD FILTRATION	Fresh air 1st stage Fresh air 2nd stage Return air			ISO Coarse 50% / G4 ISO ePM1 50% / F7 Bag Filter ISO Coarse 50% / G4		
CONSTRUCTION	Panels Insulation		60mm sandwich panels with thermal break, galvanised steel sheets with a pre-painted external finish 45 kg/m <sup>3</sup> density polyurethane foam			
EN1886 ACHIEVED CLASSES (Deflection/Leakage/Thermal transmittance/Thermal bridging/Filter bypass leakage)				D1 (M) / L1(M) / T2 / TB2 / F9(M)		
ELECTRICAL POWER REQUIREMENTS				400VAC / 3ph+Positive Earth / 50Hz		
REQUIRED OUTDOOR UNITS	Power Inverter (R32)	1 x PUZ-ZM200 1 x PUZ-ZM125 1 x PUZ-ZM200		1 x PUZ-ZM200 1 x PUZ-ZM250 1 x PUZ-ZM250	2 x PUZ-ZM200 1 x PUZ-ZM250	4 x PUZ-ZM200 2 x PUZ-ZM250
OUTDOOR UNIT PIPE RUN (m)	30	30	30	30	30	30

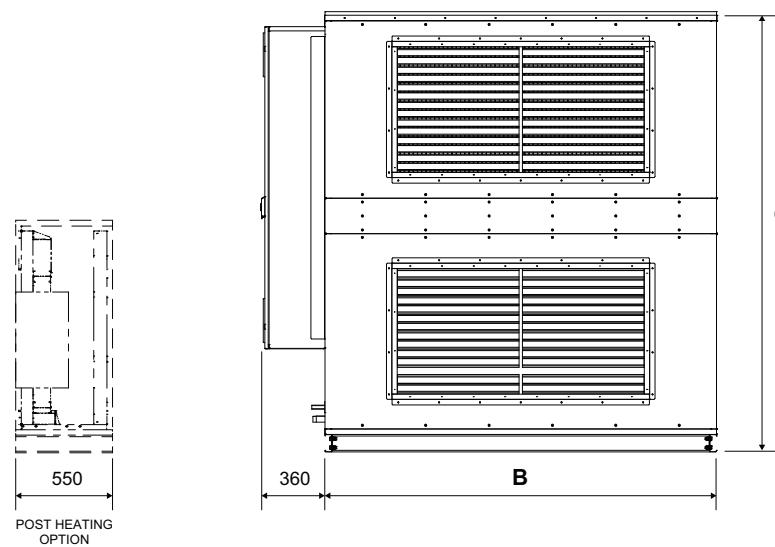
Note: Please refer to Mr Slim section for outdoor unit specification data. The specification data is based on the rated conditions below, at the rated air flows. \*1 300Pa for the supply fan, 500Pa for the return fan.

RATED CONDITIONS	SUMMER		WINTER	
INDOOR	23°C DB	50% RH	21°C DB	50% RH
OUTDOOR	35°C DB	50% RH	-5°C DB	85% RH

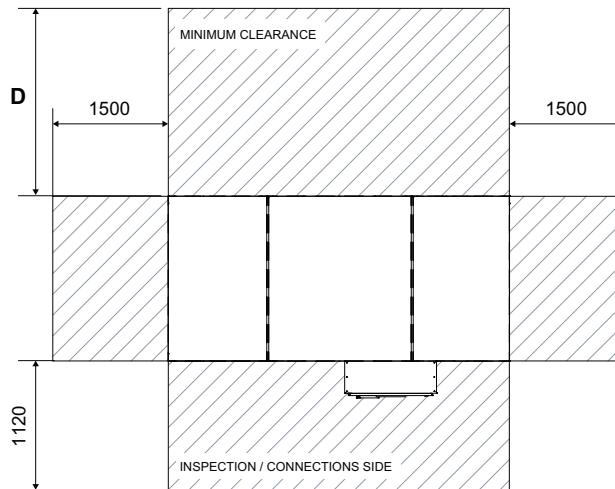
Front View



Side View



Upper View



Model	A (mm)	B (mm)	C (mm)	D (mm)
3000	2950	1025	1675	1225
5000	2950	1425	1675	1625
7500	3200	1525	2200	1725
10000	3650	1825	2280	2025
12500	3755	2025	2480	2225
15000	3946	2225	2480	2425

Note: Base unit. Options may change dimensions and/or weight.

# Ventilation Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>Remote Controllers</b> Lossnay Remote Controller for LGH-RVX3-E, LGH-RVXT3-E and LGH-RVS-E	PZ-62DR-EB
<b>LGH-RVX3-E</b>	
Standard replacement filter (Coarse 60%) for LGH-15RVX3-E	PZ-15RF3-E
Standard replacement filter (Coarse 60%) for LGH-25RVX3-E	PZ-25RF3-E
Standard replacement filter (Coarse 60%) for LGH-35RVX3-E	PZ-35RF3-E
Standard replacement filter (Coarse 60%) for LGH-50RVX3-E	PZ-50RF3-E
Standard replacement filter (Coarse 60%) for LGH-65RVX3-E	PZ-65RF3-E
Standard replacement filter (Coarse 60%) for LGH-80RVX3-E / LGH-160RVX3-E (2 sets required)	PZ-80RF3-E
Standard replacement filter (Coarse 60%) for LGH-100RVX3-E / LGH-200RVX3-E (2 sets required)	PZ-100RF3-E
ePM <sub>1</sub> 75% grade filter for LGH-15RVX3-E	PZ-15RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-25RVX3-E	PZ-25RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-35RVX3-E	PZ-35RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-50RVX3-E	PZ-50RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-65RVX3-E	PZ-65RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-80RVX3-E / LGH-160RVX3-E (2 sets required)	PZ-80RFP3-E
ePM <sub>1</sub> 75% grade filter for LGH-100RVX3-E / LGH-200RVX3-E (2 sets required)	PZ-100RFP3-E
Wall mounted plug and play CO <sub>2</sub> sensor with traffic light signals for LGH-RVX3-E	PZ-70CSW-E
Duct mounted plug and play CO <sub>2</sub> sensor for LGH-RVX3-E	PZ-70CSD-E
Vertical mounting bracket for LGH-15-50RVX3-E	PZ-1VS-E
Vertical mounting bracket for LGH-65-100RVX3-E	PZ-2VS-E
External signal relay for LGH-RVX3-E	PZ-4GS-E
<b>LGH-RVXT3-E</b>	
Standard replacement filter (coarse 60%) for LGH-RVXT3-E	PZ-250TRF-E
ISO 16890 ePM <sub>1</sub> 75%, ePM <sub>2.5</sub> 80%, ePM <sub>10</sub> 95% filter for LGH-RVXT3-E	PZ-250TPF-E
Wall mounted plug and play CO <sub>2</sub> sensor with traffic light signals for LGH-RVXT3-E	PZ-70CSW-E
Duct mounted plug and play CO <sub>2</sub> sensor for LGH-RVXT3-E	PZ-70CSD-E
External signal relay for LGH-RVXT3-E	PZ-4GS-E
<b>LGH-RVS-E</b>	
Replacement Coarse 35% / G3 filter for LGH-50RVS-E	PZ-S50RF-E
Replacement Coarse 35% / G3 filter for LGH-80RVS-E	PZ-S80RF-E
Replacement Coarse 35% / G3 filter for LGH-100RVS-E	PZ-S100RF-E
ePM <sub>10</sub> 80% / M6 filter for LGH-50RVS-E	PZ-S50RFM-E
ePM <sub>10</sub> 80% / M6 filter for LGH-80RVS-E	PZ-S80RFM-E
ePM <sub>10</sub> 80% / M6 filter for LGH-100RVS-E	PZ-S100RFM-E
ePM <sub>1</sub> 65% / F8 filter for LGH-50RVS-E	PZ-S50RFH-E
ePM <sub>1</sub> 65% / F8 filter for LGH-80RVS-E	PZ-S80RFH-E
ePM <sub>1</sub> 65% / F8 filter for LGH-100RVS-E	PZ-S100RFH-E
Wall mounted plug and play CO <sub>2</sub> sensor with traffic light signals for LGH-RVS-E	PZ-70CSW-E
Duct mounted plug and play CO <sub>2</sub> sensor for LGH-RVS-E	PZ-70CSD-E
External signal relay for LGH-RVS-E	PZ-4GS-E

# Ventilation Accessories / Optional Extras

DESCRIPTION	MODEL REF.
<b>VL-CZPVU-E</b>	
Replacement Coarse 55% / G3 filter for VL-250CZPVU-E	P-250F-E
Replacement Coarse 55% / G3 filter for VL-350CZPVU-E	P-350F-E
Replacement Coarse 55% / G3 filter for VL-500CZPVU-E	P-500F-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-250CZPVU-E	P-250PF-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-350CZPVU-E	P-350PF-E
ePM <sub>2.5</sub> 50% / M6 filter for VL-500CZPVU-E	P-500PF-E
NOx 90% supply air filter for VL-250CZPVU-E	P-250NF-E
NOx 90% supply air filter for VL-350CZPVU-E	P-350NF-E
NOx 90% supply air filter for VL-500CZPVU-E	P-500NF-E
Acoustic top box for VL-250CZPVU-E	P-250SB-E
Acoustic top box for VL-350CZPVU-E	P-350SB-E
Acoustic top box for VL-500CZPVU-E	P-500SB-E
Remote controller cover and 1m cable with noise filter for VL-CZPVU-E (extendable to 200m)	P-RCC-E
Wall mounted CO <sub>2</sub> sensor for VL-CZPVU-E	P-09CSW-E
Duct mounted plug and play humidity sensor for VL-CZPVU-E	P-09HSD-E
<b>Weather Proof Housings</b>	
Lossnay weather proof housings are also available for LGH-RVX3-E	
<b>s-AIRME-G07 HR-P C</b>	
<b>Fans &amp; Airflow</b>	
High static pressure supply fan (500 Pa)	B503
High static pressure exhaust fan (500 Pa)	B513
Night Purge	B931
<b>Dampers</b>	
Fresh Air	B551
Supply Air	B561
Return Air	B571
Exhaust Air	B581
<b>Pre/Post Heating</b>	
Pre-heating electric coil	B531
Post-heating electrical coil*1	1333
Pre-heating water coil	B532
Post-heating water coil*1	1331
<b>Filters</b>	
Bag Filters F9 ePM1 85%	2521A
Activated charcoal filters	2529
<b>Connectivity and Integration</b>	
Modbus connection for BEMS	4181
Bacnet TCP-IP connection for BEMS	4185
Fan operation output signal	3591
Remote keyboard - wiring up to 200m	C9261063
Remote keyboard - wiring up to 500m	C9261064
<b>Structural</b>	
Weather canopy for outdoor installation	B541
Weather protection grille on fresh air intake	B621
Left handed configuration	2963

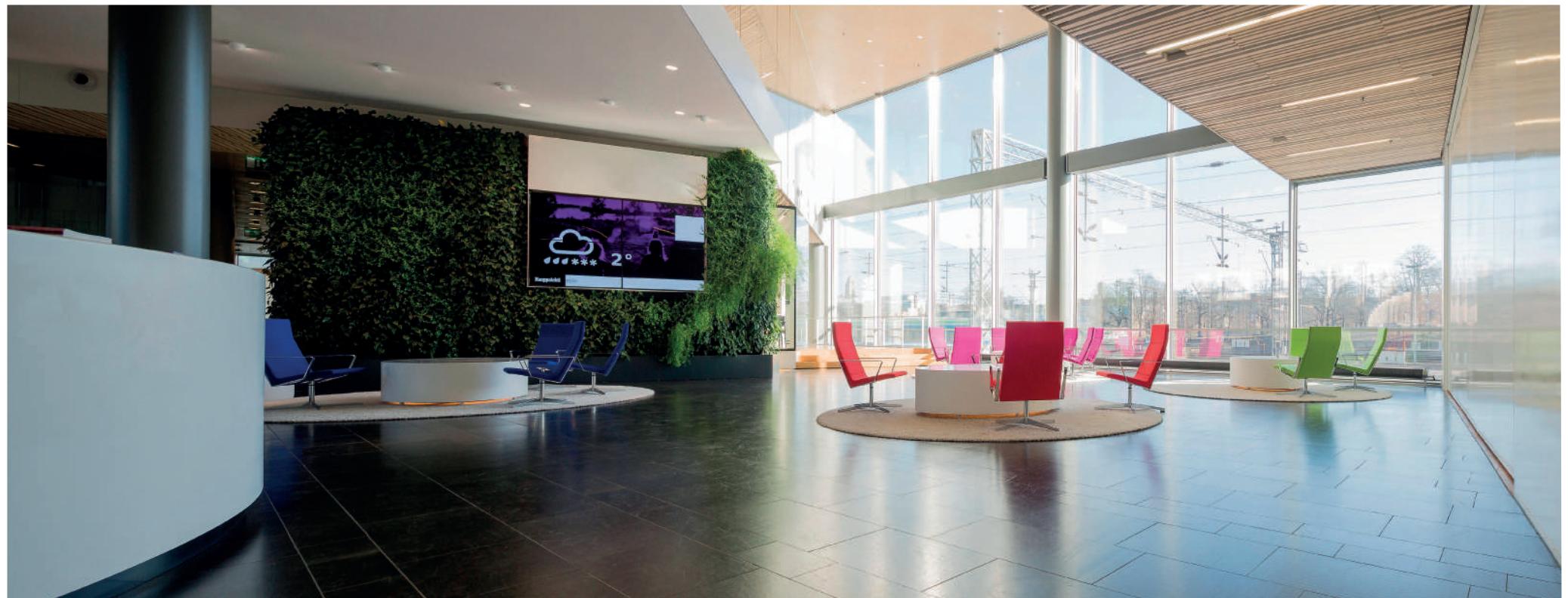
Note: \*1 Post heating elements increase unit length size.





# Controls

Control Solutions





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<b>Which Controls Product for Which Application?</b>	<b>7.7</b>
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## Control Solutions

# The Importance of Controls

### Time to take control

Operating an air conditioning, ventilation or heating system without effective controls can be costly in more ways than one. Not only are you likely to face higher monthly energy bills, it will also lead to an increase in carbon emissions - something that will become ever more important as businesses strive to keep up with tougher environmental legislation.

The right controls take building performance to the next level. With them, building systems become more responsive, easier to automate, monitor and maintain, and less costly to operate in the long-term.

The right controls can deliver a cost-effective solution that helps manage, monitor and report on the performance of all building services systems.

In order to achieve the UK's national objective of net-zero carbon emissions by 2050, commercial buildings will have to become much more energy efficient, and building controls will have a significant part in ensuring that happens.

Control technology is now widely available for buildings of all sizes, so it is possible to access the benefits whatever the scale or scope of your project.



### Mitsubishi Electric technology

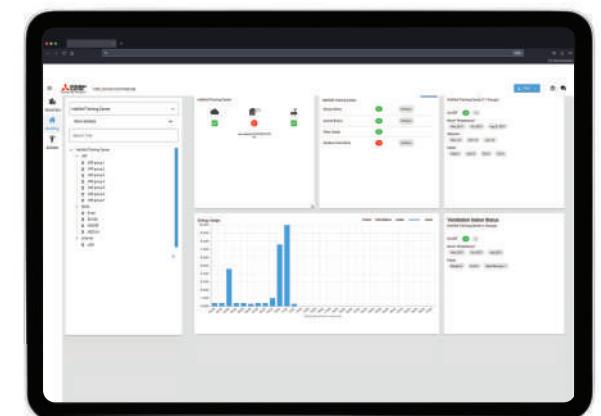
Mitsubishi Electric has been dedicated to producing energy efficient technology for over ninety years. Controls are an essential part of that. Mitsubishi Electric has long heritage in factory automation where the company leads the field in providing controls that enhance productivity, efficiency and energy use.

We have taken this extensive knowledge and experience and transferred it to the heart of our building services equipment.

We were also one of the first manufacturers to provide an open gateway to our products to make integration easier for our customers. This enables direct connection of equipment into many common building energy management system (BEMS) platforms.

Mitsubishi Electric now offer the MELCloud platform to help you control, monitor and service your HVAC equipment. This includes performance and energy monitoring, as well as remote management of one or multiple systems, in order to save energy, cost and downtime.

**From a simple hand-held controller to a centralised BEMS, Mitsubishi Electric puts its customers in control.**



### The European Standard EN 15232

#### “Energy Performance of Buildings - Impact of Building Automation, Controls and Building Management”

was compiled in conjunction with the Europe-wide implementation of the directive for energy efficiency in buildings (Energy Performance of Buildings Directive EPBD) 2002/91/EG.

The Standard is incorporated into UK law and describes methods for evaluating the influence of building automation and technical building management on the energy consumption of buildings.

Four efficiency classes A to D have been introduced to this purpose. After a building has been equipped with building automation and control systems, it will be assigned one of these classes. The potential savings for thermal and electrical energy can be calculated for each class based on the building type and building purpose. The values of the energy class C are used as the reference for comparing the efficiency.

The diagram on the right, shows the differences in energy consumption for three building types in the energy efficiency classes A, B and D relative to the basis values in rating C. For example, by using class A, 30 % of the thermal energy can be saved in offices.

**BS EN 15232: Function list and assignment to energy performance classes**

	Heating / Cooling Control	Ventilation / Air Conditioning Control	Lighting	Sun Protection
<b>A</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Individual room control with communication between controllers</li> <li><input type="checkbox"/> Indoor temperature control of distribution network water temperature</li> <li><input type="checkbox"/> Total interlock between heating and cooling control</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Demand or presence dependent air flow control at room level</li> <li><input type="checkbox"/> Variable set point with load dependant compensation of supply temperature control</li> <li><input type="checkbox"/> Room or exhaust or supply air humidity control</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Automatic daylight control</li> <li><input type="checkbox"/> Automatic occupancy detection manual on / auto off</li> <li><input type="checkbox"/> Automatic occupancy detection manual on / dimmed</li> <li><input type="checkbox"/> Automatic occupancy detection auto on / auto off</li> <li><input type="checkbox"/> Automatic occupancy detection auto on / dimmed</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Combined light / blind / HVAC control</li> </ul>
<b>B</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Individual room control with communication between controllers</li> <li><input type="checkbox"/> Indoor temperature control of distribution network water temperature</li> <li><input type="checkbox"/> Partial interlock between heating and cooling control (dependent on HVAC system)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Time dependent air flow control at room level</li> <li><input type="checkbox"/> Variable set point with outdoor temperature compensation of supply temperature control</li> <li><input type="checkbox"/> Room or exhaust or supply air humidity control</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Manual daylight control</li> <li><input type="checkbox"/> Automatic occupancy detection manual on / auto off</li> <li><input type="checkbox"/> Automatic occupancy detection manual on / dimmed</li> <li><input type="checkbox"/> Automatic occupancy detection auto on / auto off</li> <li><input type="checkbox"/> Automatic occupancy detection auto on / dimmed</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Motorised operation with automatic blind control</li> </ul>
<b>C</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Individual room control with communication between controllers</li> <li><input type="checkbox"/> Indoor temperature control of distribution network water temperature</li> <li><input type="checkbox"/> Partial interlock between heating and cooling control (dependent on HVAC system)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Time dependent air flow control at room level</li> <li><input type="checkbox"/> Constant set point of supply temperature control</li> <li><input type="checkbox"/> Supply air humidity limitation</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Manual daylight control</li> <li><input type="checkbox"/> Manual on / off switch + additional sweeping extinction signal</li> <li><input type="checkbox"/> Manual on / off switch</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Motorised operation with manual blind control</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> No automatic control</li> <li><input type="checkbox"/> No control of distribution network water temperature</li> <li><input type="checkbox"/> No interlock between heating and cooling control</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> No air flow control at room level</li> <li><input type="checkbox"/> No supply temperature control</li> <li><input type="checkbox"/> No air humidity control</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Manual daylight control</li> <li><input type="checkbox"/> Manual on/off switch + additional sweeping extinction signal</li> <li><input type="checkbox"/> Manual on/off switch</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Manual operation for blinds</li> </ul>

Section from table 1 of the BSEN 15232:2007 [D]

**Building Automation and Control (BAC) efficiency classes to EN 15232**

	Efficiency factor for thermal energy			Efficiency factor for electrical energy		
	Office	School	Hotel	Office	School	Hotel
<b>A</b> High energy performance building automation and control system (BACS) and technical building management (TBM)	0.70	0.80	0.68	0.87	0.86	0.90
<b>B</b> Advanced BACS and TBM	0.80	0.88	0.85	0.93	0.93	0.95
<b>C</b> Standard BACS	1	1	1	1	1	1
<b>D</b> Non energy efficient BACS	1.51	1.20	1.31	1.10	1.07	1.07

## Control Solutions

### The Importance of Controls

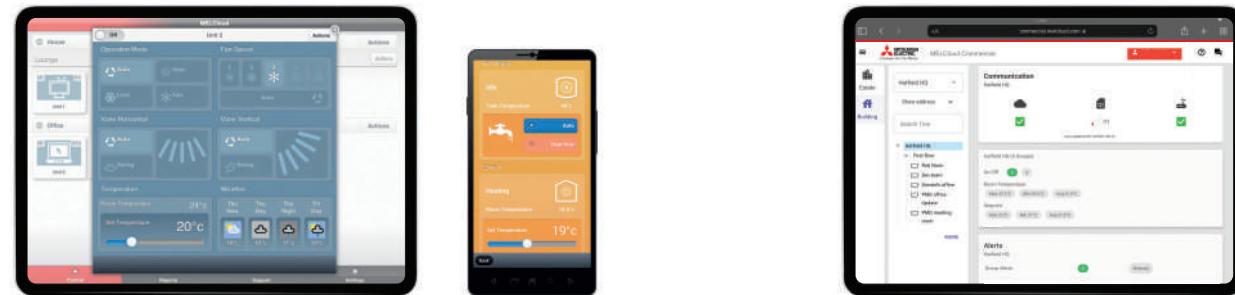
#### The Internet of Things

The Internet of Things (or IoT) describes the revolution already under way, with a growing number of internet-enabled devices that can network and communicate with each other and with other web-enabled devices.

Mitsubishi Electric is at the forefront of this revolution and all our products are now connectable to the internet using the following solutions<sup>1</sup>.



Features	MELCloud	MELCloud Commercial
----------	----------	---------------------



Connect to	Wi-Fi	Ethernet or Cellular
Compatibility	Air Conditioning, Ventilation and Heating	Air Conditioning and Ventilation
Third party control	x	✓ (with option PAC-YG60/63MCA/66DCA)
SIM card provided	x	✓ (eSIM)
Smartphone application	✓	✓
Tablet application	✓	✓
Web portal	✓	✓

<sup>1</sup>VL-100 is not connectable to the Internet

# Which Controls Product for Which Application?

Good controls will benefit any application. With a wide portfolio of control products, it is important to select the right control solution for each application.



APPLICATION	SIZE	TYPICAL PRODUCT INSTALLED	CONTROL SOLUTIONS	CASE STUDY
OFFICE	SMALL	City Multi VRF Systems Mr Slim Split-Systems Mr Slim IT Room Applications	PAR-41MAA AE-C400E or AT-50B PAC-YG66DCA or PAC-YG60MCA MELCloud Commercial MELCOBEMS SIP+	Wholesaler PACAIR uses a Mitsubishi Electric Centralised Controller to provide complete control of the office air conditioning. The 10.4" touch screen controller and easy to use interface gives PACAIR the ability to set up a weekly time schedule, as well as offering a host of energy saving features.
	LARGE	City Multi VRF Systems City Multi Air Curtains City Multi PWFY Heat Pumps	PAR-41MAA AE-C400E or AT-50B MELCloud Commercial MELCOBEMS SIP+	Mitsubishi Electric's Hatfield headquarters has been updated to new AE-C400E / EW-C50E controls to monitor and control all of the air conditioning equipment across 3 floors and 2 wings. This enables the system to operate as efficiently as possible, incorporating easy to use controls and allows for fully programmable scheduling that accommodates flexible working patterns.
HOTEL	SMALL	City Multi VRF Systems	PAR-CT01MAA-S/PB AE-C400E MELCloud Commercial MELCOBEMS SIP+	The luxury 4-star Kingsmills Hotel provides a chic and contemporary venue for discerning Highlands travellers and focuses on relaxation, revitalisation and calm. The centralised controller delivers the efficiency and flexibility that both the hotel and its guests need, with air conditioning integrated with the room key card system combined with simple to use room controllers.
	LARGE	City Multi VRF Systems	PAR-CT01MAA-S/PB AE-C400E MELCOTEL2™ MELCloud Commercial MELCOBEMS SIP+	The Premier Inn Hotel, Leicester uses the MELCOTEL2™ control interface to efficiently and effectively control air conditioning that provides heating and cooling to 135 bedrooms, the bar, restaurant and back offices. A variety of control strategies were implemented and monitored and analysed, resulting in a 30% decrease in average monthly system running costs and CO <sub>2</sub> emissions.
RETAIL	SMALL	Mr Slim Split-System Mr Slim Air Curtains	MELCORETAIL MINI MELCloud Commercial MELCOBEMS SIP+	Costa Coffee was one of the first to make use of the MELCORETAIL MINI to capitalise on its energy saving feature whilst ensuring that customers and staff were comfortable in the overall coffee shop environment. Across a year of monitoring the MELCORETAIL MINI helped achieve a 20% reduction in energy use, giving it a payback period of less than 2 months.
	LARGE	City Multi VRF Systems City Multi Air Curtains	MELCloud Commercial MELCOBEMS SIP+	A pilot site for a major high street retail chain has demonstrated how connecting MELCloud Commercial to air conditioning can highlight ways of reducing energy or identify unnecessary use. Significant savings throughout the store were made by employing MELCloud Commercial, providing a consistent return on investment on a monthly basis.
LEISURE	SMALL	Mr Slim Split-System Mr Slim Air Curtains	MELCOBEMS MINI (A1M+) MELCloud Commercial MELCOBEMS SIP+	The Castle golf course at St Andrews need a heating and cooling system that was as controllable and efficient as possible. The M2M interface controls and monitors the air conditioning to make sure it maximises energy saving, whilst allowing for continuous fine-tuning according to the golf clubs needs.
	LARGE	Mr Slim Split-System Mr Slim Air Curtains City Multi VRF Systems City Multi Air Curtains	MELCOBEMS MELCloud Commercial MELCOBEMS SIP+	Fitness First uses monitoring BEMS to communicate with the air conditioning using Modbus, across its UK network. Dedicated Modbus Interfaces offer complete monitoring and control of the system and highlights the flexibility and potential for reducing running costs that our control systems have when working in conjunction with third party BEMS.
RESIDENTIAL	SMALL	Ecodan	MELCloud	A WW2 veteran has shown the way to a sustainable future with the installation of a hybrid Ecodan air source heat pump to work alongside his existing gas boiler. The hybrid system is designed specifically to work in conjunction with conventional boilers and the MELCloud Wi-Fi system also allows the heat pump to be monitored and controlled remotely.
	LARGE	Ecodan	MELCloud AE-C400E	The renewable heating system for St Mungo's in Lewisham needs to cope with different heating loads and deal effectively with regular changes in tenancy and occupied hours. It also had to offer tenants the ability to alter the temperature of their individual flats, whilst allowing the charity full central control of the system.

# Which Controls Product for Which Function?

With a wide portfolio of control products, many functions are available.  
It is important to select the right control solution for each function.

FUNCTION	SYSTEM SIZE					NOTES
	OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	
Remote On/Off or fire alarm	PAC-SA89TA	KTR-53A	MELCORETAIL MINI	AT-50B and PAC-YT51HAA	AE-C400E and PAC-YG10HA	On/Off remote controller button lock except KTR-53A
Monitor run and faults	PAC-SA88HA	MELCORETAIL MINI	AT-50B and PAC-YT51HAA	AE-C400E / EW-C50E and PAC-YG10HA	-	Relays or power supply may be required
Window interlocking	PAC-SA89TA	KTR-53A	-	-	-	Controller will be centrally controlled when window opened
Setpoint limit	PAR-41MAA	PAR-U02MEDA	AT-50B	AE-C400E / EW-C50E	AE-C400E	Available in Heat, Cool and Auto modes
Weekly timer	PAR-41MAA PAR-U02MEDA	AT-50B	AE-C400E / EW-C50E	AE-C400E	-	Setpoint, On/Off can be reset
Night set back	KTR-53A	PAR-41MAA PAR-U02MEDA	AE-C400E / EW-C50E / AT-50B	AE-C400E	-	KTR-53A requires thermostat, time switch, 12/24v AC/DC power supply
Energy monitoring	AE-C400E / EW-C50E Total Energy Measurement	AE-C400E / EW-C50E PAC-YG60MCA Total Energy Management	AE-C400E and EW-C50E Energy Apportioning	AE-C400E / EW-C50E PAC-YG60MCA Energy Apportioning	-	Different options for each choice. Meters required
Load shedding	EW-C50E and PAC-YG60MCA	AE-C400E and PAC-YG60MCA	-	-	-	Energy meters required
Trend logging	EW-C50E and PAC-YG60MCA	AE-C400E	-	-	-	CSV data available on a spreadsheet

Notes: The PAC-SA89TA is also known as a 3 wire adaptor and the PAC-SA88HA is also known as a 5 wire adaptor. Disclaimer: These options are for guidance only.

# Which Controls Product for Which Function?

With a wide portfolio of control products, many functions are available.  
It is important to select the right control solution for each function.

FUNCTION	SYSTEM SIZE			NOTES
	OPTION 1	OPTION 2	OPTION 3	
Night mode	PAC-SA89TA	EW-C50E	AE-C400E	PAC-SA89TA requires a third party timer
Ambient tracking	AE-C400E and PAC-YG63MCA	MELCOBEMS MINI (A1M+)	AE-C400E	Option 1 is only available in cooling mode
Key card interlock for hotel	AE-C400E and PAC-SA89TA	AE-C400E / EW-C50E, MELCOTEL <sup>TM</sup> and PAC-SA89TA	-	Volt free contact for key card normally open
Window sensor interlock for hotel	AE-C400E and PAC-SA89TA	AE-C400E / EW-C50E, MELCOTEL <sup>TM</sup> and PAC-SA89TA	-	Volt free contact for window sensor normally closed
2 setpoints (1 for cool and 1 for heat)	-	MELCOMMS MINI	AE-C400E	For instance, 19°C heat and 23°C cool. Fan only in between
Duty / Standby	PAR-41MAA	MELCOMMS MINI MELCOBEMS MINI (A1M+)	-	Backup, rotate, join in and high temperature function
A/C faults via Modbus and BACnet	MELCOBEMS MINI (A1M+)	-	-	SIM card not supplied
Optimised start	AE-C400E	-	-	-
Mini BEMS	MELCOBEMS MINI (A1M+)	AE-C400E	-	-
Occupancy sensor	PAR-U02MEDA	-	-	-

Notes: The PAC-SA89TA is also known as a 3 wire adaptor and the PAC-SA88HA is also known as a 5 wire adaptor. Disclaimer: These options are for guidance only.

# Centralised Controllers

A wide range of centralised controllers are available to monitor and control our equipment efficiently. Some of our centralised controllers can also be used to monitor and control third party equipment.

## Key Features & Benefits

**AT-50B**



- 5" basic touch screen
- Centralised controller
- Monitor and control up to 50 indoor units
- Monitor and control general equipment

**AE-C400E**



- 12.1" capacitive touch screen, including high sensitivity, multi-touch support, better durability and improved clarity
- Centralised controller
- Monitor and control up to 50 indoor units (or up to 400 with EW-C50E)
- Designed for cloud connectivity - MELCloud ready
- USB C port
- Browser based
- 4G Ready - SIM or Antenna
- 3rd party energy meter inputs
- BMS connection ready - fixed IP address
- WEB-USER Pin code pre-installed

**EW-C50E**



- Extends capability of AE-C400E
- Web based controller
- Monitor and control up to 50 indoor units
- Monitor and control general equipment
- Energy monitoring, load shedding
- Onboard web browser
- Optional direct BACnet connection
- USB C port

**MITSU10001-ROUTER-CPT**



- QuSpot antenna with router
- Integrated solution with multi band antennas in one enclosure
- Perfect for sites where LAN connection is not available
- 4G LTE
- IP 67
- Mounting brackets included
- Versatile use (mobile and fixed installations)

**PAC-SC51KUA**



- M-NET power supply

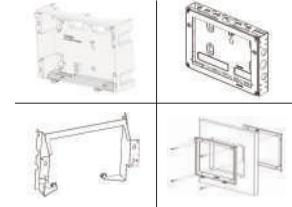
**PAC-SF46EPA**



- M-NET transmission booster

# Centralised Controllers

## Technical Specification

CENTRALISED CONTROLLERS	AT-50B	AE-C400E	KS10-RFFI	AE-C400E ACCESSORIES
				
Description	5" Touch Screen Controller	12.1 Capacitive Touch Screen Controller	AE-C400E Interface	
Connect to	M-NET Network	M-NET Network	AE-C400E and EW-C50E	
Max Number of Units	50	50 and 4 Pulse Meters	-	
Compatibility	M Series, Mr Slim, City Multi and Lossnay	M Series, Mr Slim, City Multi, Lossnay, e-Series, MEHITS Chillers <sup>1</sup> and Ecodan QAHV/CAHV/CRHV <sup>2</sup>	-	
Power Supply	Via PAC-SC51KUA	220-240v, 50Hz	220-240v, 50Hz	
Dimensions (mm) (WxDxH)	180 x 30 x 120	306 x 71.8 x 211	130 x 30 x 80	
Control	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	- - - - - - -
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign Fault Codes Room Temperature	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ - - - - - - -
Weekly Schedule		✓	✓	-
Annual Schedule	x		✓	-
Night Set Back	✓		✓	-
Web Pages	x		✓	-
Optimised Start	x		✓	-
Automatic Setpoint Adjustment	x		✓	-
Load Shedding	x		✓	-
Occupied / Unoccupied Settings Reset	x		x	-
Remote Monitoring with M2M	x		✓	-
Simple Energy Monitoring	x		✓	-
Advanced Energy Monitoring	x		✓	-

### PIN CODES:

- CENTRAL CONTROL ENERGY APPORTION CHARGE PIN
- CENTRAL CONTROL BACNET PIN

Notes: \*1 MEHITS adaptor required. \*2 End of 2025.

### PAC-YK92TB-J

#### Wall Mounting Attachment

Used to attach the AE-C400E on to the surface of a wall. Ideal accessory where a recess in the wall isn't available.

Dimensions (mm): 304 x 94 x 209

### PAC-YK94UTB-J

#### Electrical Box - In-wall Enclosure

Use to help protect and contain the AE-C400E within the wall.

Dimensions (mm): 346 x 60 x 230

### PAC-YK96TK-J

#### Mounting Kit for Control Panel

For use when the AE-C400E is required to be installed inside a control panel enclosure with DIN Rail.

Dimensions (mm): 299 x 73 x 203

### PAC-YK91RF-J

#### Replacement Wall Mounting Attachment

Replacement kit for mounting an AE-C400E to the wall.

Dimensions (mm): 293 x 20 x 203

# Centralised Controllers

## Technical Specification

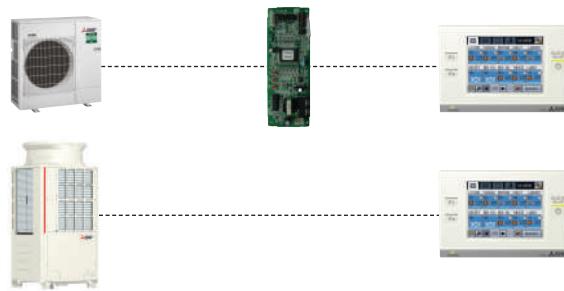
CENTRALISED CONTROLLERS	EW-C50E	MITSU10001-ROUTER-CPT	PAC-SC51KUA	PAC-SF46EPA
				
Description	Web Interface and AE-C400E expansion controller	QuSpot antenna with router	M-Net Power Supply	M-Net Transmission Booster
Connect to	M-Net Network	-	M-Net Network	M-Net Network
Max Number of Units	50 and 4 Pulse Meters	-	50	-
Compatibility	M Series, Mr Slim, City Multi, Lossnay, e-Series, MEHTIS Chillers <sup>1</sup> and Ecodan QAHV/CAHV/CRHV <sup>2</sup>	AE-C400E, EW-C50E, MCC-50E	AT-50B, EW-C50E and AE-C400E	M Series, Mr Slim and City Multi
Power Supply	220-240v, 50Hz	-	220-240v, 50Hz	220-240v, 50Hz
Dimensions (mm) (WxDxH)	185 x 60.3 x 278	160 x 160 x 243 160 x 189 x 347 (with brackets/accessories)	271 x 72 x 169	360 x 59 x 340
Control	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign	✓ ✓ ✓ ✓ ✓ ✓ ✓	-	-
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign Fault Codes Room Temperature	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	-	-
Weekly Schedule	✓	-	-	-
Annual Schedule	✓	-	-	-
Night Set Back	✓	-	-	-
Web Pages	✓	-	-	-
Optimised Start	✓	-	-	-
Automatic Setpoint Adjustment	✓	-	-	-
Load Shedding	✓	-	-	-
Occupied / Unoccupied Settings Reset	x	-	-	-
Remote Monitoring with M2M	✓	-	-	-
Simple Energy Monitoring	✓	-	-	-
Advanced Energy Monitoring	✓	-	-	-

### PIN CODES:

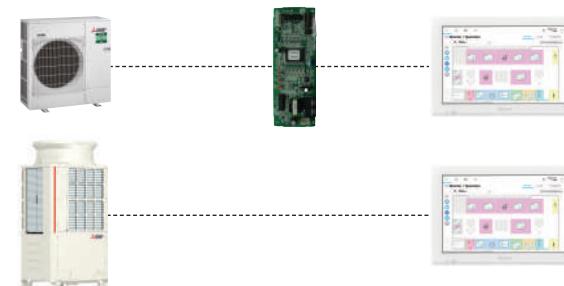
- CENTRAL CONTROL ENERGY APPORTION CHARGE PIN
- CENTRAL CONTROL BACNET PIN

Notes: \*1 MEHTIS adaptor required. \*2 End of 2025.

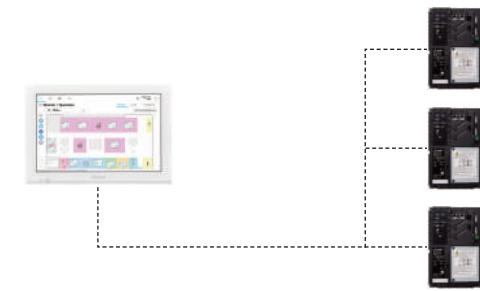
**System Diagram** AT-50B



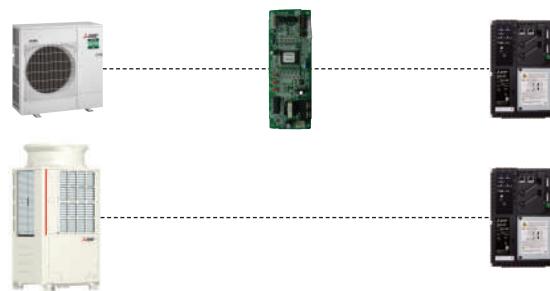
**System Diagram** AE-C400E



**System Diagram** EW-C50E



**System Diagram** EW-C50E



**System Diagram** MITSU10001-Router-CPT



**System Diagram** PAC-SC51KUA

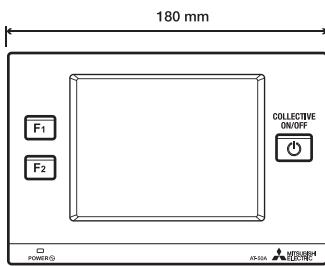


**System Diagram** PAC-SF46EPA

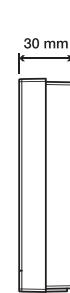


**Product Dimensions****AT-50B**

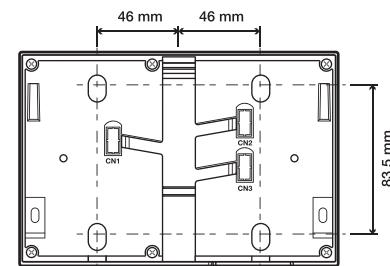
Front View



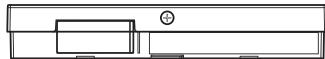
Side View



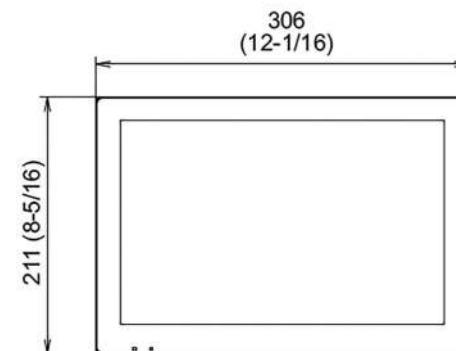
Back View



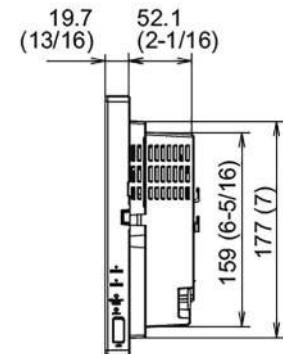
Top View

**Product Dimensions****AE-C400E**

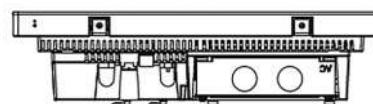
Front View



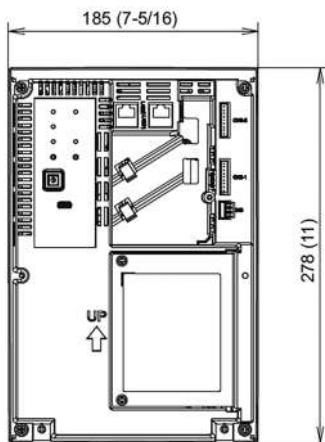
Side View



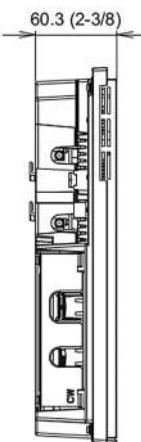
Top View

**Product Dimensions****EW-C50E**

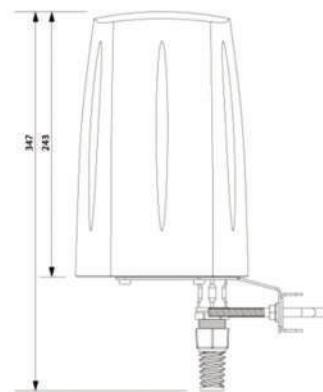
Front View



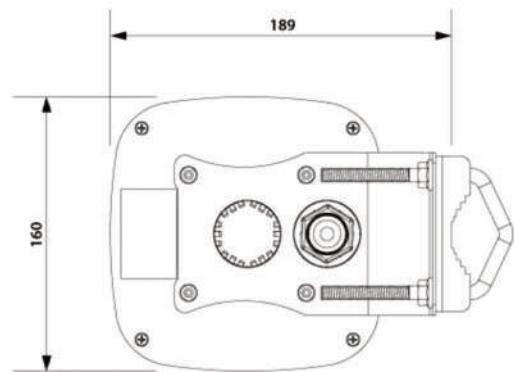
Side View

**Product Dimensions****MITSU10001-Router-CPT**

Side View

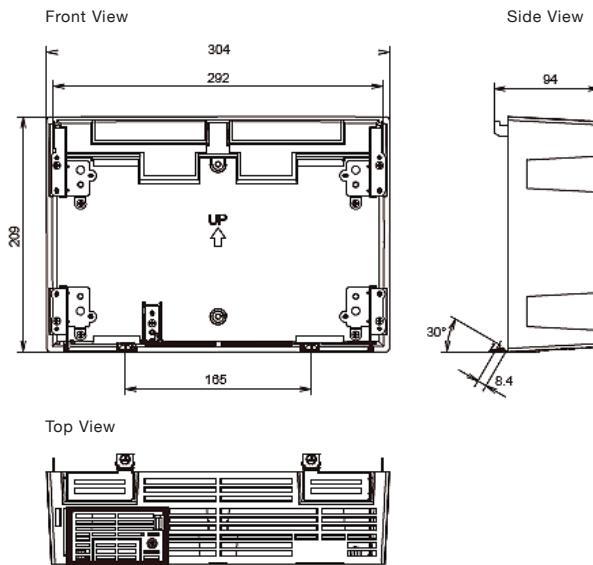


Lower View



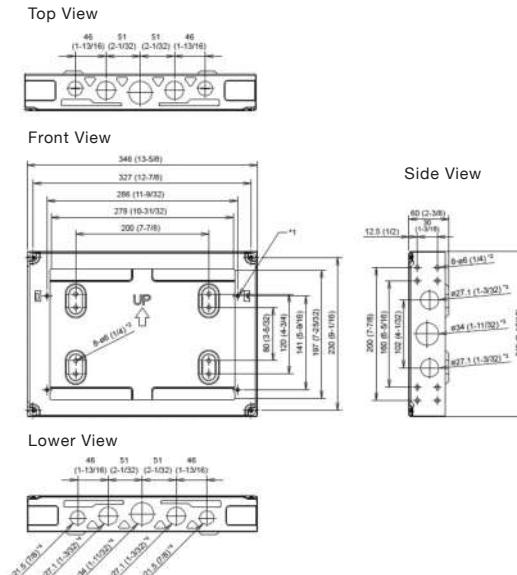
## Product Dimensions

PAC-YK92TB-J



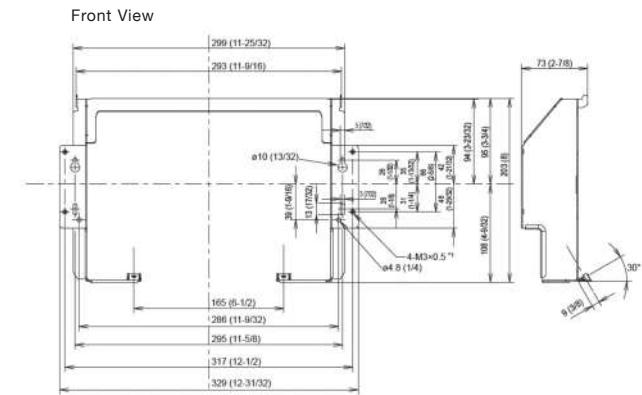
## Product Dimensions

PAC-YK94UTB-J



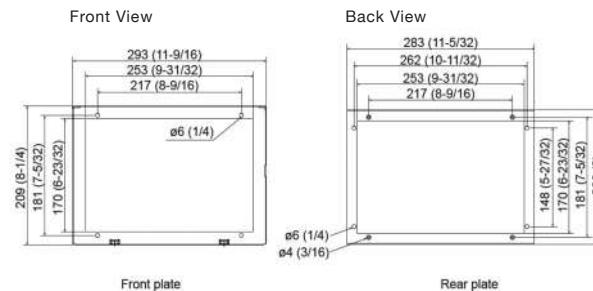
## Product Dimensions

PAC-YK96TK-J



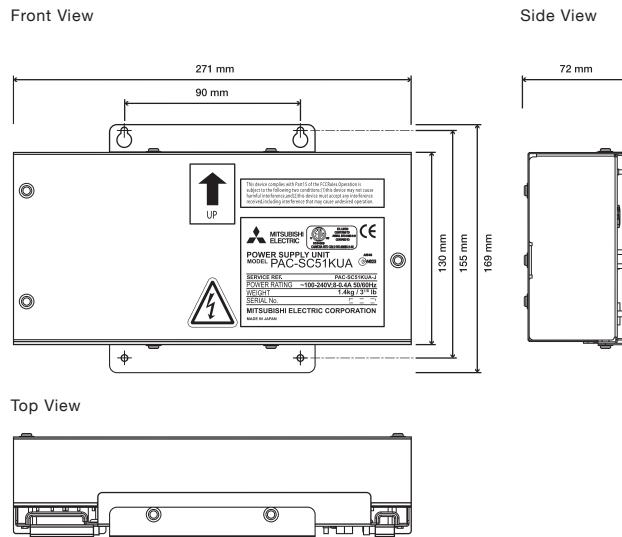
## Product Dimensions

PAC-YK91RF-J



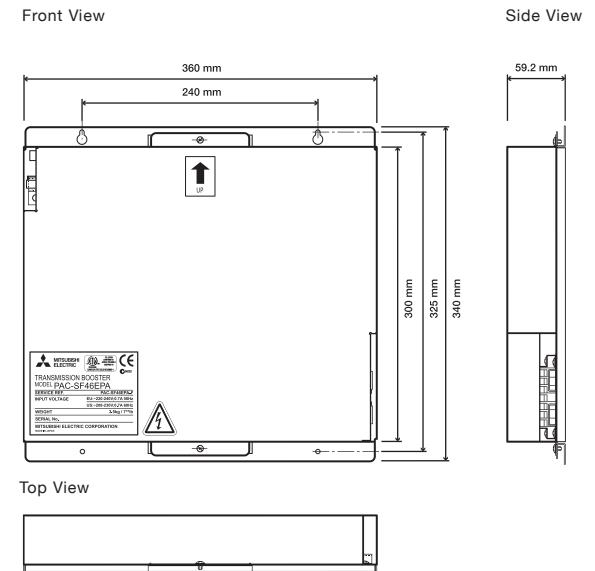
## Product Dimensions

PAC-SC51KUA



## Product Dimensions

PAC-SF46EPA



# Remote Controllers

From a simplified controller perfect for hotel applications to a full backlight touch screen controller, we have the right remote controller to choose from.

## Key Features & Benefits

### PAR-CT01MAA-SB / PAR-CT01MAA-PB



- Simple to use
- Touch screen
- 180 colour screen
- 180 colour font display
- Backlight
- Fully configurable via smartphone App
- Customisable display
- Ability to display customer logos

### PAR-U02MEDA



- Touch screen M-Net Controller
- Night set back, scheduling, setpoint limitation
- Built in occupancy/brightness sensor
- Backlight
- 0.5°C Set Point adjustment
- Dual Set Point

### PAR-FL / FA32MA



- Infrared solution
- Controller and receiver
- Controller able to control more than one receiver

### PZ-62DR-EB



- Dedicated Lossnay controller
- Night set back, scheduling
- Flexible night purge
- Backlight

### PAR-W31MAA / PAR-W21MAA



- Dedicated remote controller (see technical specification on page 7.18)
- Button lock
- Contact number under fault condition
- Fault codes

### PAR-WT60R-E / PAR-WR61R-E



- Ecoden wireless controller
- New sleek flat panel design
- Backlight
- Ecoden receiver

### PAR-41MAA



- Displays model name and serial number on Mr Slim
- Night set back, scheduling, setpoint limitation
- 0.5°C Set Point adjustment
- Dual Set Point
- Run/Standby for Mr Slim
- Contact number under fault condition
- Backlight (White / Black options)
- Daylight saving function

### PAR-SL101A-E



- Wireless controller
- Weekly timer
- 3D Total Airflow for PLA-ZM/M
- 14°C cooling
- Individual vane setting for PLA-ZM/M/SM
- Dual Set Point
- Backlight

### PAC-IF082B-E



- Ecoden controller
- Touch Screen

# Remote Controllers

## Technical Specification

REMOTE CONTROLLERS	PAR-CT01MAA-SB	PAR-CT01MAA-PB	PAR-U02MEDA	PAR-41MAA	PAR-FL32MA	PAR-FA32MA	PZ-62DR-EB
Description	Simplified Touch Screen Wired Remote Controller	Simplified Touch Screen Wired Remote Controller (Premium Finish)	Touch Screen Remote Controller	Standard Wired Remote Controller	Infrared Remote Controller	Infrared Receiver	Lossnay Wired Remote Controller
Connect to	Indoor	Indoor	M-NET Network	Indoor	-	Indoor	Indoor
Max Number of Units	16	16	16	16	-	16	15
Compatibility	Mr Slim, City Multi and M Series via MAC-497IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E	City Multi (M Series and Mr Slim via A2M adaptor) <sup>*1</sup>	Mr Slim, City Multi and M Series via MAC-497IF-E or MAC-334IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E	Mr Slim, City Multi and M Series via MAC-497IF-E	Lossnay LGH-RVX3(T)-E LGH-RVS-E
Dimensions (mm) (WxDxH)	65 x 14.1 x 120	65 x 14.1 x 120	140 x 25 x 120	120 x 14.5 x 120	57 x 18 x 157	70 x 18 x 120	120 x 19 x 120
Control	On/Off	✓	✓	✓	✓	✓	✓
	Mode	✓	✓	✓	✓	✓	✓
	Setpoint	✓	✓	✓ (0.5°C)	✓ (0.5°C)	✓	-
	Fan Speed	✓	✓	✓	✓	✓	✓
	Air Direction	✓	✓	✓	✓	✓	-
	Permit/Prohibit	✓	✓	✓	✓	-	✓
	Filter Sign	✓	✓	✓	✓	-	✓
Monitor	On/Off	✓	✓	✓	✓	✓	✓
	Mode	✓	✓	✓	✓	✓	✓
	Setpoint	✓	✓	✓ (0.5°C)	✓ (0.5°C)	✓	x
	Fan Speed	✓	✓	✓	✓	✓	✓
	Air Direction	✓	✓	✓	✓	✓	-
	Permit/Prohibit	✓	✓	✓	✓	✓	✓
	Filter Sign	✓	✓	✓	✓	x	✓
	Fault Codes	✓	✓	✓	✓	x	LED
	Room Temperature	✓	✓	✓ (0.5°C)	✓ (0.5°C)	x	-
Backlight	✓	✓	✓	✓	✓	x	✓
Setpoint Limitation	✓	✓	✓	✓	✓	-	-
Independent Vane Control	x	x	x	✓	x	-	-
Contact Number under Fault Condition	x	x	x	✓	x	-	x
Scheduling	✓	✓	Weekly	Weekly	x	-	Weekly
Night Set Back	x	x	✓	✓	x	-	-
Button Lock	✓	✓	✓	✓	x	-	✓
Easy Maintenance with Mr Slim	x	x	x	✓	x	-	-
Run / Standby with Mr Slim	x	x	x	✓	x	-	-
Silent Mode with Mr Slim	x	x	x	✓	x	-	-
Energy Saving with Mr Slim	x	x	x	✓	x	-	-
Occupancy Sensor (PIR)	x	x	✓	x	x	-	-
3D Total Airflow with Mr Slim	x	x	x	✓	x	-	-
Model Name and Serial Number Display with Mr Slim	x	x	x	✓	x	-	-
Energy Consumption Monitoring with Mr Slim	x	x	x	✓	x	-	-
2+1 Backup Rotation with Mr Slim	x	x	x	✓	x	-	-
Smart Defrost with Mr Slim	x	x	x	✓	x	-	-
14°C Cooling with Mr Slim	x	x	x	✓	x	-	-

Notes: Permit/Prohibit is via Centralised Controllers. ✓ = Yes, x = No, - = Not applicable. \*1 M-NET Power Supply Required via PAC-SC51KUA for M Series & Mr Slim

# Remote Controllers

## Technical Specification

REMOTE CONTROLLERS	PAR-SL101A-E	PAR-W31MAA	PAR-W21MAA	PAR-WT60R-E	PAR-WR61R-E	PAC-IF082B-E
						
Description	Wireless Remote Controller	Standard Wired Remote Controller	Standard Wired Remote Controller	Wireless Remote Controller Transmitter	Wireless Remote Controller Receiver	Flow Temperature Controller FTC7
Connect to	-	e-Series and Ecodan QAHV	PWFY, Mr Slim Air Curtains and Ecodan CAHV / CRHV	Ecodan PUZ	Ecodan PUZ	Ecodan PUZ
Max Number of Units	-	6 (depends on unit connected)	16	8	1	1
Compatibility	Mr Slim PLA-ZM/M/SM PKA-M	e-Series and Ecodan CAHV/QAHV	PWFY and Ecodan CRHV	Ecodan PUZ	Ecodan PUZ	Ecodan PUZ
Dimensions (mm) (WxDxH)	66 x 22 x 188	120 x 19 x 120	130 x 19 x 120	100 x 23 x 100	100 x 30 x 80	120 x 14.1 x 65
Control	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign	✓ ✓ ✓ ✓ ✓ x x	✓ ✓ ✓ x x - x	✓ ✓ ✓ x x - x	x - - - - - x	- - - x - - ✓
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Filter Sign Fault Codes Room Temperature	✓ ✓ ✓ ✓ ✓ ✓ x x x	✓ ✓ ✓ x x x x ✓ x	✓ ✓ ✓ x x x x ✓ x	- - - - - - - - ✓	✓ ✓ ✓ x - - - - ✓
Backlight	✓	✓	x	✓	-	x
Setpoint Limitation	x	x	✓	✓	-	x
Independent Vane Control	✓	x	x	x	-	x
Contact Number under Fault Condition	x	✓	✓	x	-	x
Scheduling	Weekly	Weekly	Weekly	Weekly	-	Weekly
Night Set Back	x	x	x	✓	-	✓
Button Lock	x	x	✓	x	-	✓
Easy Maintenance with Mr Slim	x	x	x	-	-	-
Run / Standby with Mr Slim	x	x	x	-	-	-
Silent Mode with Mr Slim	x	x	x	-	-	-
Energy Saving with Mr Slim	x	x	x	-	-	-
Occupancy Sensor (PIR)	x	x	x	-	-	-
3D Total Airflow with Mr Slim	✓	x	x	-	-	-
14°C Cooling with Mr Slim	✓	x	x	-	-	-

Notes: Prohibit is via Centralised Controllers. ✓ = Yes, x = No, - = Not applicable.

**System Diagram** PAR-CT01MAA-SB / PAR-CT01MAA-PB



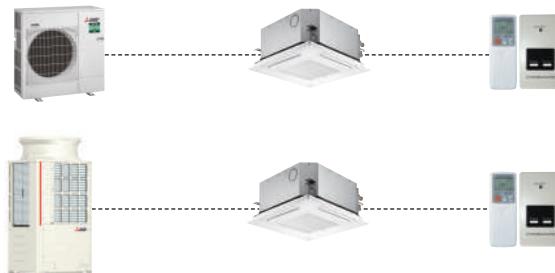
**System Diagram** PAR-U02MEDA



**System Diagram** PAR-41MAA



**System Diagram** PAR-FL / FA32MA



**System Diagram** PZ-62DR-EB



**System Diagram** PAR-SL101A-E



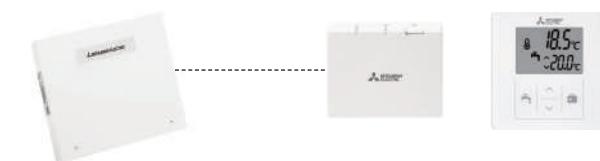
**System Diagram** PAR-W31MAA



**System Diagram** PAR-W21MAA



**System Diagram** PAR-WT60R-E / PAR-WR61R-E

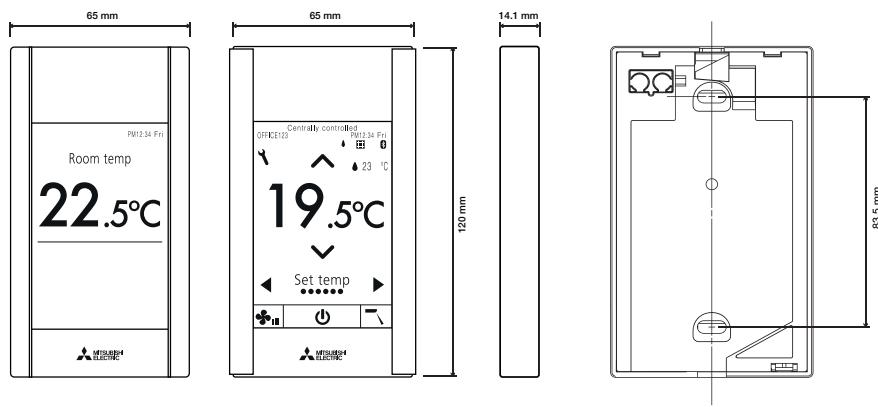


**System Diagram** PAC-IF082B-E



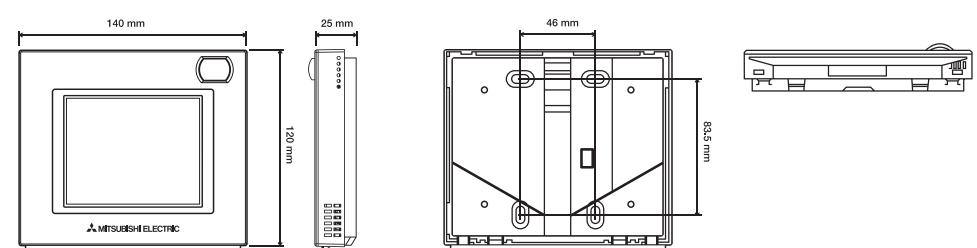
### Product Dimensions PAR-CT01MAA-SB / PAR-CT01MAA-PB

Front View      Side View      Back View



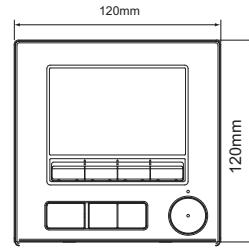
### Product Dimensions PAR-U02MEDA

Front View      Side View      Back View      Top View

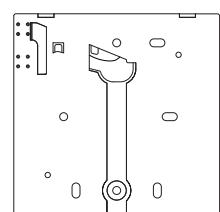


### Product Dimensions PAR-41MAA

Front View      Side View

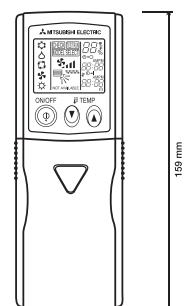


Back View



### Product Dimensions PAR-FL32MA

Front View      Side View

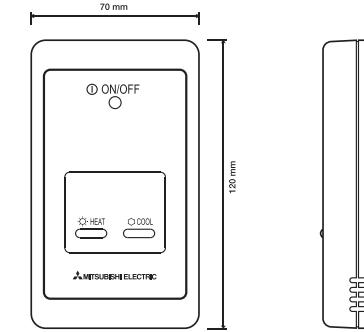


Back View

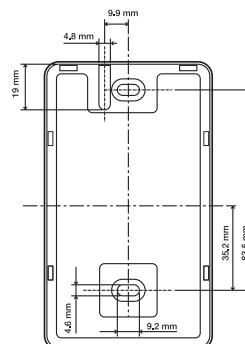


### Product Dimensions PAR-FA32MA

Front View      Side View



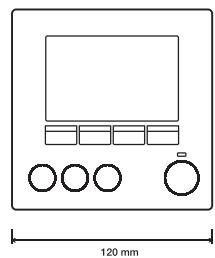
Back View



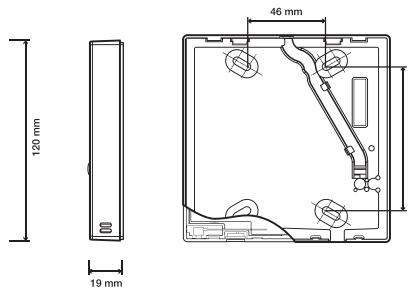
### Product Dimensions

PZ-62DR-EB / PAR-W31MAA

Front View



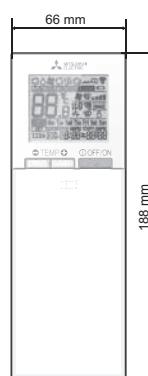
Side View Back View



### Product Dimensions

PAR-SL101A-E

Front View



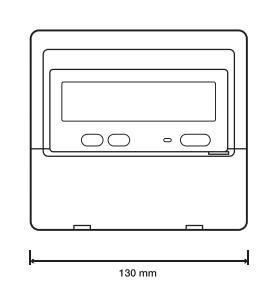
Side View



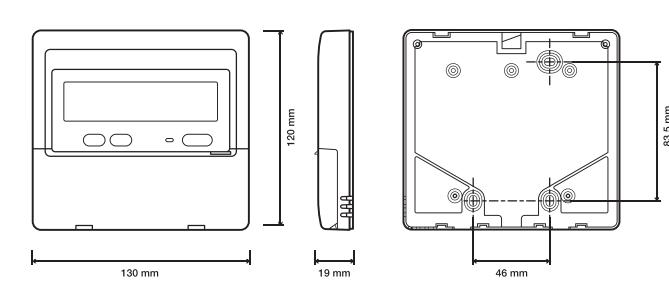
### Product Dimensions

PAR-W21MAA

Front View



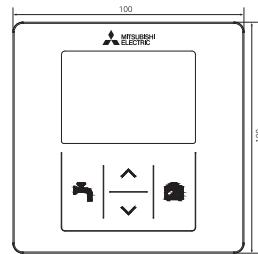
Side View Back View



### Product Dimensions

PAR-WT60R-E

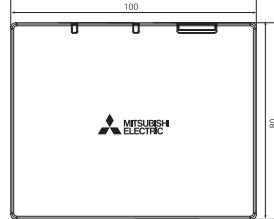
Front View



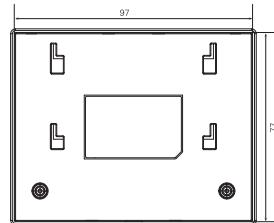
### Product Dimensions

PAR-WR61R-E

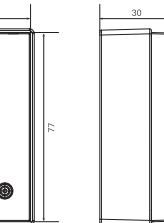
Front View



Back View



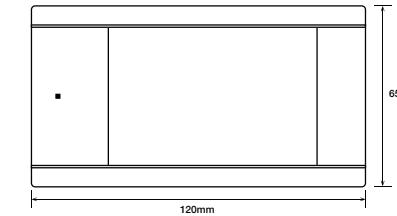
Side View



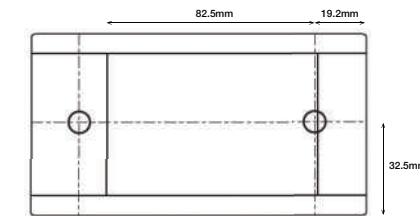
### Product Dimensions

PAC-IF082B-E

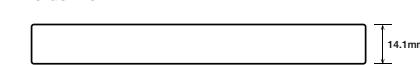
Front View



Back View



Side View



# Solution Interfaces

Our dedicated solution interfaces now include new sector specific products such as our new **MELCloud Commercial** offering.

## Key Features & Benefits

### MELCLOUD COMMERCIAL



- Advanced remote control of indoor units across one or multiple sites
- Smart monitoring of outdoor unit performance for one or multiple buildings
- Energy monitoring via in-built CT Clamps or Modbus Energy Meters, for improved energy consumption & cost savings
- Real-time system data of indoor and outdoor units facilitates performance analysis, service, and ongoing maintenance
- Choice of subscription packages to meet customer requirements

### MCC-50E



- Compatible with M Series, Mr Slim, City Multi and Lossnay ranges
- Cloud system connection device - MELCloud Commercial IoT platform
- 4G or LAN connection
- Remote access to control, monitor and provide service & maintenance for up to 50 indoor units

### MELCLOUD-CL-HA1-A1



- IoT Interface - MELCloud Home and MELCloud Commercial\*
- LAN or Cellular options. Cellular and MELCloud Home option includes data plan\*\* via eSIM
- Remotely control indoor and outdoor units
- Remote service and maintenance\*
- Update interface software OTA (over the air)
- Wall mountable - bracket supplied

### MELCOMMS MINI



- Monitor and control up to 8 indoor units
- Run / Standby panel
- Includes 2 x MELCOBEMS MINI (A1M+) Interfaces

### MELCOTEL2



- Monitor and control up to 200 indoor units
- Dedicated hotel interface
- Key card and non key card integration
- Automatic Setpoint adjustment
- Occupied / Unoccupied Settings Reset

### ENERGY METERS



- Backlit LCD display
- Single-phase energy analyser
- DIN-rail mount

# Solution Interfaces

## Technical Specification

SOLUTION INTERFACES	MELCLOUD COMMERCIAL	MCC-50E	MELCLOUD-CL-HA1-A1	MELCOMMS MINI	MELCOTEL2
					
Description	IoT Platform and Application	MELCloud IoT Gateway	MELCloud Interface Cellular/LAN	Run Standby Panel	AE-C400E Hotel Interface and display
Connect to	Web based (MCC-50E Required)	M-NET Network	CN105 (1.5m cable provided)	MELCOBEMS MINI (A1M+)	AE-C400E and EW-C50E
Max Number of Units	50	50 Indoor / 50 Outdoor / 4 Energy Meters	1 per Indoor Unit	8	200
Compatibility	M Series, Mr Slim, City Multi and Lossnay	M Series, Mr Slim, and City Multi	M Series, Mr Slim, City Multi, Lossnay, Ecoden, Air purifier, MELCloud Home, MELCloud Commercial	M Series and Mr Slim	City Multi
Power Supply	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz (Power is taken from the indoor unit)	220-240v, 50Hz	220-240v, 50Hz
Dimensions (mm) (WxDxH)	-	172 x 100 x 209	165 x 218 x 55	253 x 90 x 180	350 x 80 x 400
Ethernet Capabilities	✓	1x Ethernet Port	1x Ethernet Port	x	x
SIM Card Provided	✓	Sold separately	On board eSIM	x	x
Inputs	✓ Digital (via PAC-YG66)	USB / RJ45 / RS485	RJ45	x	x
Outputs	✓ Digital (via PAC-YG66)	Data output via MELCloud Commercial platform	Data output via MELCloud Home and Commercial** platforms	✓ 1 Digital (Fault)	x
Network	-	IoT (MELCloud Commercial) / LAN / 4G	LAN or Cellular (LTE-M, 2G)	-	-
Control	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Schedule Filter Sign Frost Protection Holiday Mode	DI DI DI DI DI DI DI DI DI DI	DI DI DI DI DI DI DI DI DI DI	✓ ✓ ✓ x x x -	✓ ✓ ✓ x x x -
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Permit/Prohibit Cloud Communication Filter Sign Fault Code Alerts Room Temperature Daily kWh Energy Monthly kWh Energy Comfort Data Building Status	DO DO DO DO DO DO DO DO DO DO DO DO DO	DO DO DO DO DO DO DO DO DO DO DO DO	✓ ✓ ✓ x x -	✓ ✓ ✓ x x -
Flexible Schedule Options	✓	Via MELCloud Commercial Platform	Via MELCloud Home / Commercial** Platform	x	x
Night Setback	-	-	✓	x	✓
Web Pages	✓	MELCloud Commercial Platform	MELCloud Home / MELCloud Commercial** Platform	x	x
Optimised Start	✓	-	✓ <sup>*2</sup>	x	x
Automatic Setpoint Adjustment	-	-	✓ <sup>*2</sup>	x	✓
Load Shedding	-	-	-	x	x
Occupied / Unoccupied Settings Reset	-	-	-	x	✓
Advanced Energy Monitoring <sup>*1</sup>	✓	Via MELCloud Commercial Platform	-	x	x

Key:

DI = Digital Input.

DO = Digital Output.

AI = Analogue Input.

AO = Analogue Output.

Notes:

<sup>\*1</sup> Advanced Energy Monitoring: Energy status shows kWh consumed, including comparisons of individual buildings. With the addition of the PAC-YG\*\*\*CA interfaces, third party equipment can also be monitored.

<sup>\*2</sup> MELCloud Commercial compatibility expected end 2025.

# Solution Interfaces

## Technical Specification

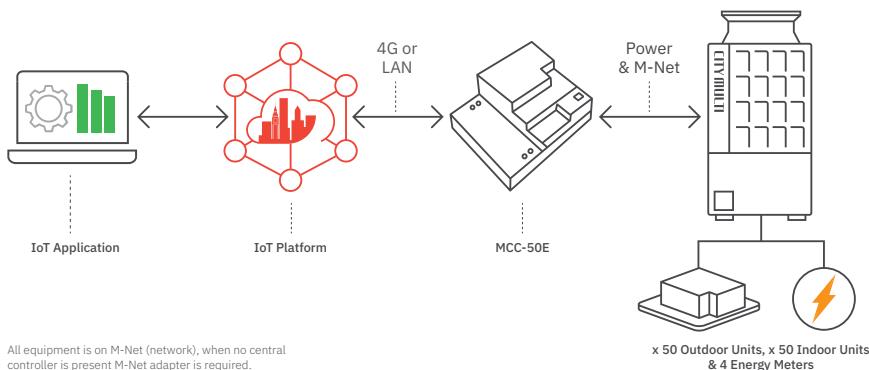
ENERGY METERS	EM112 SINGLE-PHASE PULSE ENERGY METER EM112DINAV01XO1X	EM112 SINGLE-PHASE MODBUS ENERGY METER EM112DINAV01XS1X	EM340 THREE-PHASE PULSE ENERGY METER EM340DINAV23XO1X	EM340 THREE-PHASE MODBUS ENERGY METER EM340DINAV23XS1X
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Description	Single-phase LCD Energy Meter 230 V L-N, 5 (100) A, Pulse output	Single-phase LCD Energy Meter 230 V L-N, 5 (100) A, RS485 Modbus RTU	Three-phase LCD Energy Meter, 120 to 230 V L-N, 208 to 400 V L-L, 5 (65) A, Pulse output	Three-phase LCD Energy Meter, 120 to 230 V L-N, 208 to 400 V L-L, 5 (65) A, RS485 Modbus RTU
Compatibility	<ul style="list-style-type: none"> <li>■ PAC-YG60MCA</li> <li>■ AE-C400E</li> <li>■ EW-C50E</li> <li>■ MCC-50E</li> </ul>	<ul style="list-style-type: none"> <li>■ AE-C400E</li> <li>■ EW-C50E</li> <li>■ MCC-50E</li> </ul>	<ul style="list-style-type: none"> <li>■ PAC-YG60MCA</li> <li>■ AE-C400E</li> <li>■ EW-C50E</li> <li>■ MCC-50E</li> </ul>	<ul style="list-style-type: none"> <li>■ AE-C400E</li> <li>■ EW-C50E</li> <li>■ MCC-50E</li> </ul>
Features	<ul style="list-style-type: none"> <li>■ Backlit LCD Display</li> <li>■ Single-phase energy analyser</li> <li>■ DIN-rail mount</li> <li>■ Connect up to 4 directly to PAC-YG60MCA</li> </ul>	<ul style="list-style-type: none"> <li>■ Backlit LCD Display</li> <li>■ Single-phase energy analyser</li> <li>■ DIN-rail mount</li> <li>■ Connect up to 4 directly to AE-C400E, EW-C50E or MCC-50E</li> </ul>	<ul style="list-style-type: none"> <li>■ Backlit LCD Display</li> <li>■ Three-phase energy analyser</li> <li>■ DIN-rail mount</li> <li>■ Connect up to 4 directly to PAC-YG60MCA</li> </ul>	<ul style="list-style-type: none"> <li>■ Backlit LCD Display</li> <li>■ Three-phase energy analyser</li> <li>■ DIN-rail mount</li> <li>■ Connect up to 4 directly to AE-C400E, EW-C50E or MCC-50E</li> </ul>
Dimensions (mm) (WxDxH)	35 x 63 x 90	35 x 63 x 90	54 x 63 x 91	54 x 63 x 91

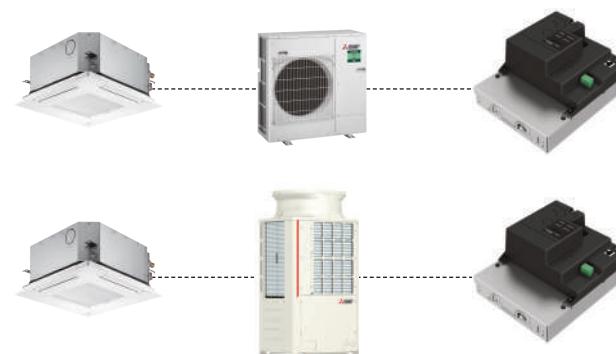
## System Diagram

## MELCLOUD COMMERCIAL



## System Diagram

## MCC-50E



## System Diagram

## MELCLOUD-CL-HA1-A1



## System Diagram

## MELCOMMS MINI

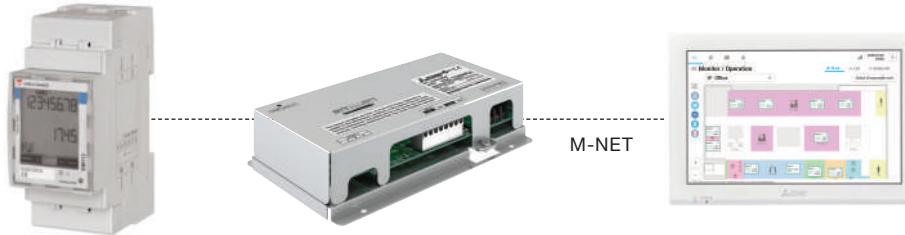


## System Diagram

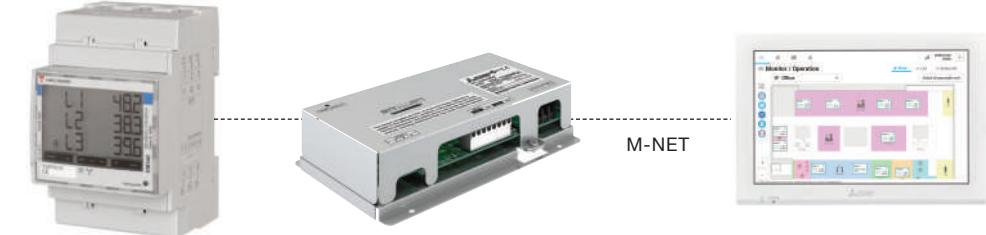
## MELCOTEL2



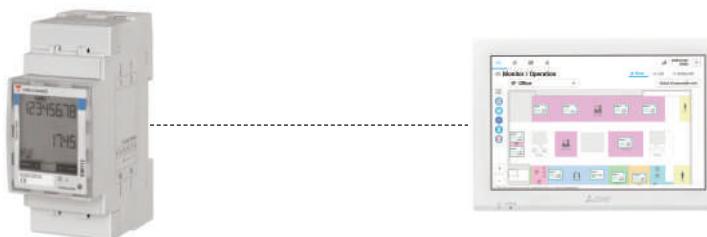
**System Diagram** EM112 Single-phase PULSE Energy Meter EM112DINAV01XO1X



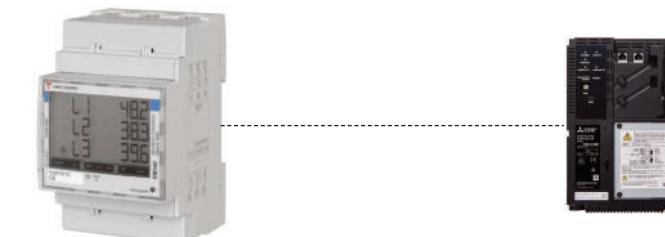
**System Diagram** EM340 Three-phase PULSE Energy Meter EM340DINAV23XO1X



**System Diagram** EM112 Single-phase MODBUS Energy Meter EM112DINAV01XS1X



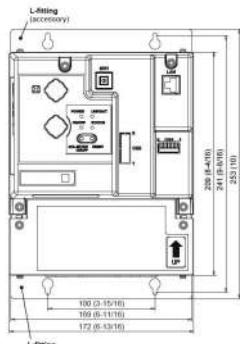
**System Diagram** EM340 Three-phase MODBUS Energy Meter EM340DINAV23XS1X



## Product Dimensions

### MCC-50E

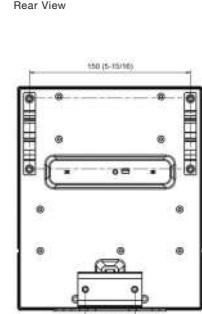
Front View



Side View



Rear View



Side View



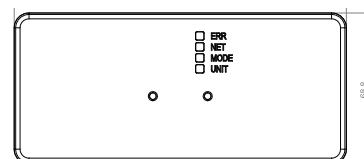
\*When using DIN rail

\*When using L-fittings

## Product Dimensions

### MELCLOUD-CL-HA1-A1

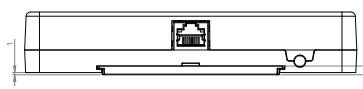
Front View



Side View



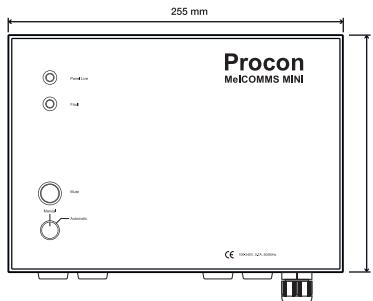
Lower View



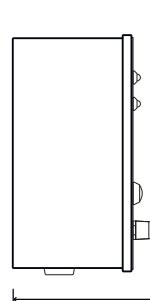
## Product Dimensions

### MELCOMMS MINI

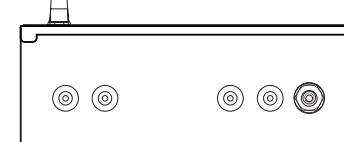
Front View



Side View



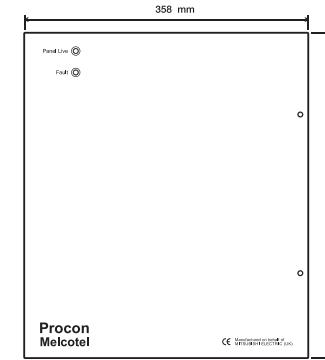
Top View



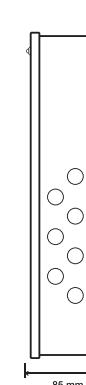
## Product Dimensions

### MELCOTEL2

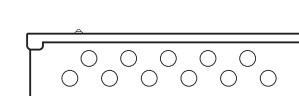
Front View



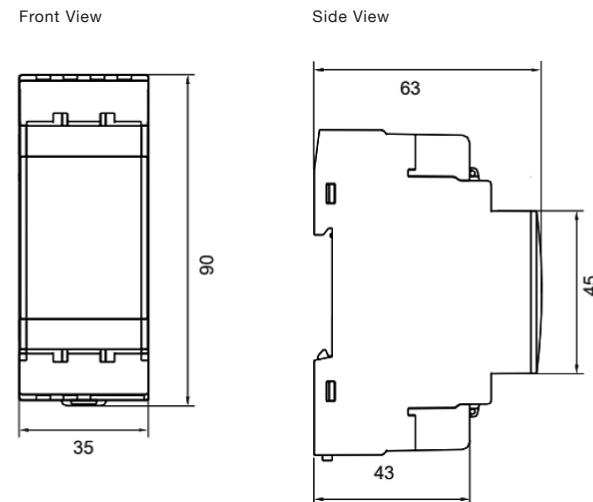
Side View



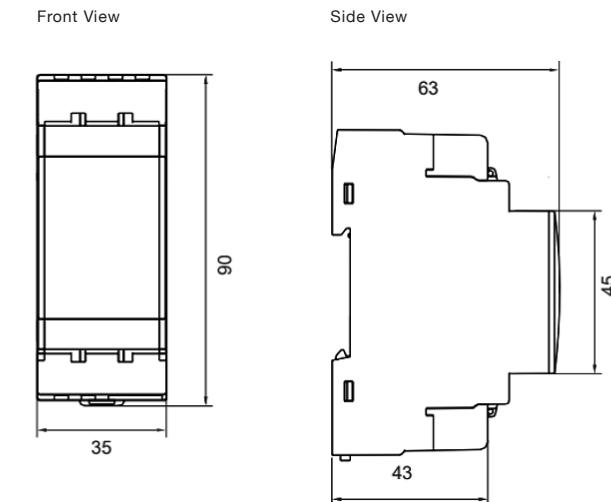
Top View



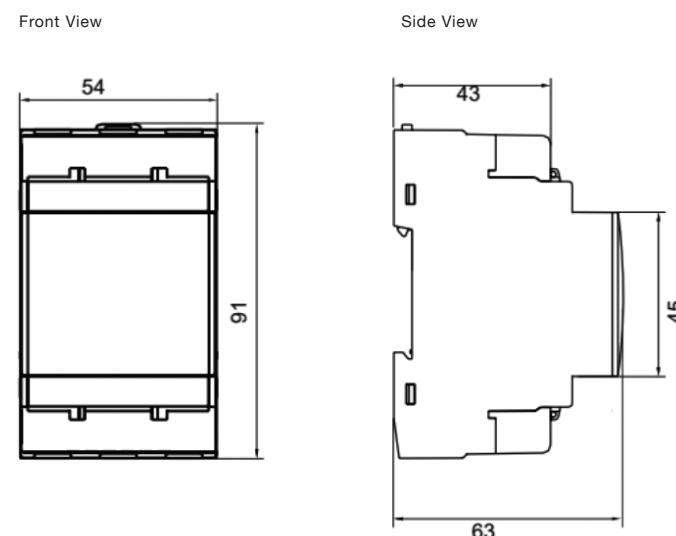
**Product Dimensions** EM112 Single-phase PULSE Energy Meter EM112DINAV01XO1X



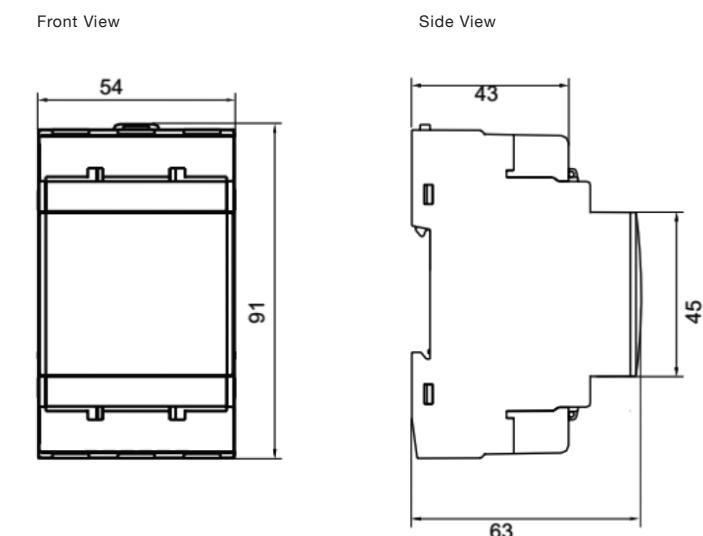
**Product Dimensions** EM112 Single-phase MODBUS Energy Meter EM112DINAV01XS1X



**Product Dimensions** EM340 Three-phase PULSE Energy Meter EM340DINAV23XO1X



**Product Dimensions** EM340 Three-phase MODBUS Energy Meter EM340DINAV23XS1X



# Simple Interfaces

A wide range of interfaces are available to allow third party equipment to monitor and control our units. Some interfaces are also available to monitor and control third party equipment from our centralised controllers.

## Key Features & Benefits

PAC-SA89TA



- Also known as 3 wire adaptor
- Remote on/off
- Fire alarm input
- Night mode
- Demand control

PAC-SA88HA



- Heating and cooling signal
- Run and fault signal

PAC-YT51HAA



- Remote on/off
- Fire alarm input
- Common run and fault signal

PAC-YG10HA



- Remote on/off
- Fire alarm input
- Common run and fault signal

PAC-SK15MA-E



- Adaptor to connect Mr Slim PUZ-ZM35/50 units to M-NET

PAC-SJ95MA-E



- Adaptor to connect Mr Slim units to M-NET

PAC-SL16MA-E



- Adaptor to connect Mr Slim PUZ-ZM100-140 units to M-NET

# Simple Interfaces

## Technical Specification

SIMPLE INTERFACES	PAC-SA89TA	PAC-SA89TA	PAC-SA88HA	PAC-SA88HA	PAC-SA88HA	PAC-YT51HAA	PAC-YG10HA	PAC-SK15MA-E	PAC-SJ95MA-E	PAC-SL16MA-E
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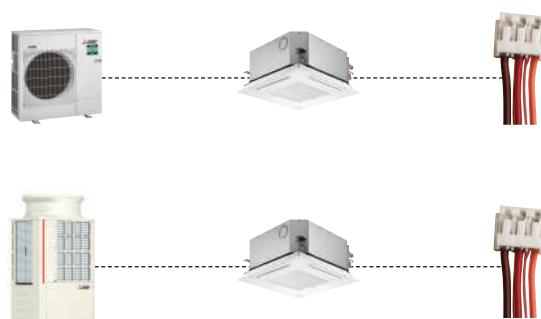


Description	On/Off Adaptor (3 wire adaptor)	Night Mode and Demand Control (3 wire adaptor)	Run and Fault Adaptor (5 wire adaptor)	Heat and Cool Adaptor (5 wire adaptor)	Run and Fault Adaptor (5 wire adaptor)	On/Off Run and Fault Adaptor	On/Off Run and Fault Adaptor (9 wire adaptor)	M-NET Converter	M-NET Converter	M-NET Converter
Connect to	Indoor	Outdoor	Indoor	Indoor	Outdoor	AT-50B	AE-C400E and EW-C50E	Outdoor	Outdoor	Outdoor
Max Number of Units	1	1	1	1	1	1	1	1	1	1
Compatibility	Mr Slim and City Multi	Mr Slim and City Multi	Mr Slim and City Multi	City Multi	City Multi	AT-50B	AE-C400E and EW-C50E	Mr Slim PUZ-ZM35/50 Outdoor	Mr Slim Outdoor <sup>1</sup>	Mr Slim PUZ-ZM100-140 Outdoor
Dimensions (mm) (WxDxH)	-	-	-	-	-	-	-	120 x 44 x 321	140 x 15 x 50	140 x 15 x 50
Control	On/Off	✓	✓	x	x	✓	✓	-	-	-
	Mode	x	x	x	x	x	x	-	-	-
	Setpoint	x	x	x	x	x	x	-	-	-
	Fan Speed	x	x	x	x	x	x	-	-	-
	Air Direction	x	x	x	x	x	x	-	-	-
	Permit/Prohibit	x	x	x	x	x	x	-	-	-
	Filter Sign	x	x	x	x	x	x	-	-	-
Monitor	On/Off	x	x	✓	x	✓	✓	-	-	-
	Mode	x	x	x	✓	x	x	-	-	-
	Setpoint	x	x	x	x	x	x	-	-	-
	Fan Speed	x	x	x	x	x	x	-	-	-
	Air Direction	x	x	x	x	x	x	-	-	-
	Permit/Prohibit	x	x	x	x	x	x	-	-	-
	Filter Sign	x	x	x	x	x	x	-	-	-
	Fault Codes	x	x	✓	✓	✓	✓	-	-	-
	Room Temperature	x	x	x	x	x	x	-	-	-
	Fire Alarm	✓	✓	x	x	✓	✓	-	-	-
	On/Off but Centrally Controlled	VFC	x	x	x	VFC	Via 24VDC	-	-	-
Run and Fault Output	On/Off but NOT Centrally Controlled	x	x	x	x	x	x	-	-	-
	Heat and Cool Output	x	x	x	12VDC	x	x	-	-	-
	Night Mode and Demand Control	x	VFC	x	x	x	x	-	-	-
	Connect Mr Slim to M-NET	-	-	-	-	-	-	✓	✓	✓

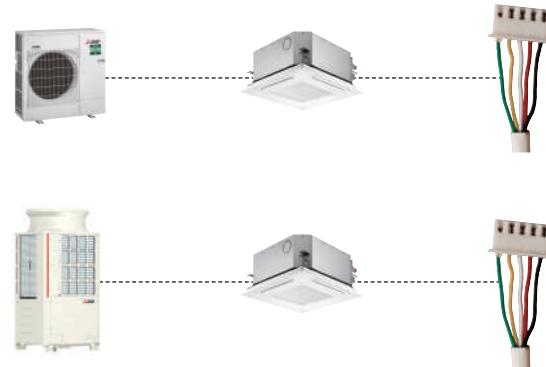
Notes: VFC: Volt free contact. \*1 PAC-SJ95MA-E M-NET adaptor for PUZ-ZM60/71, PUZ-ZM200/250, PUZ-M100-250, PUZ-SM100-140.

✓ = Yes, x = No, - = Not applicable.

**System Diagram** PAC-SA89TA



**System Diagram** PAC-SA88HA



**System Diagram** PAC-YT51HAA



**System Diagram** PAC-YG10HA



**System Diagram** PAC-SK15MA-E



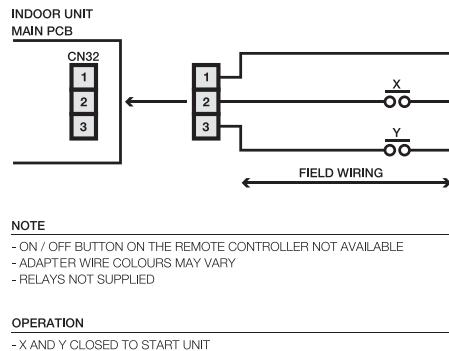
**System Diagram** PAC-SJ95MA-E



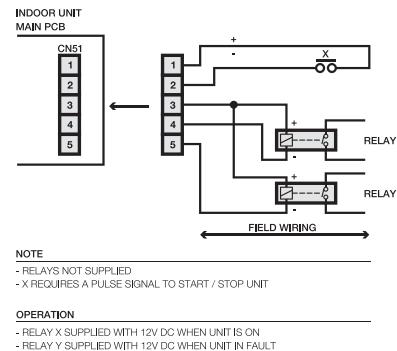
**System Diagram** PAC-SL16MA-E



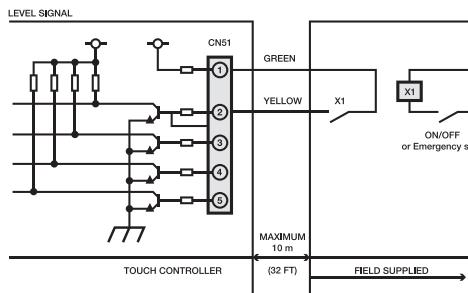
## Wiring Diagram PAC-SA89TA



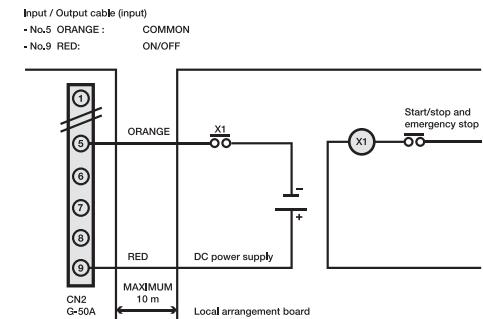
## Wiring Diagram PAC-SA88HA



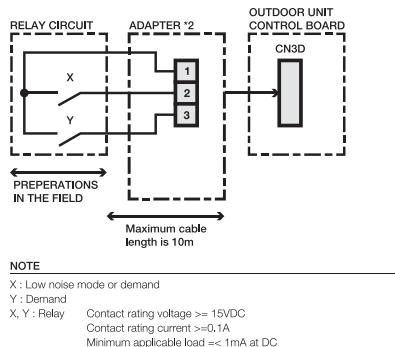
## Wiring Diagram PAC-YT51HAA



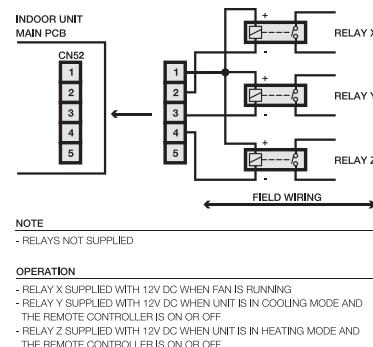
## Wiring Diagram PAC-YG10HA



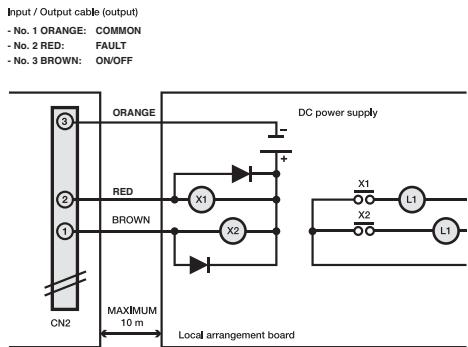
## Wiring Diagram PAC-SA89TA



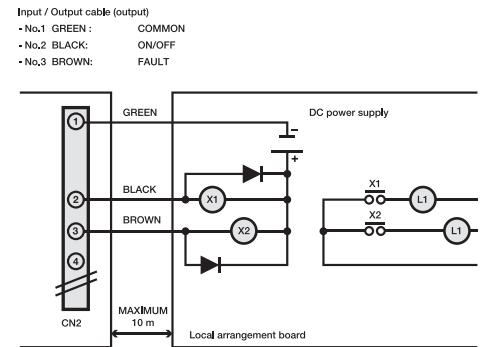
## Wiring Diagram PAC-SA88HA



## Wiring Diagram PAC-YT51HAA

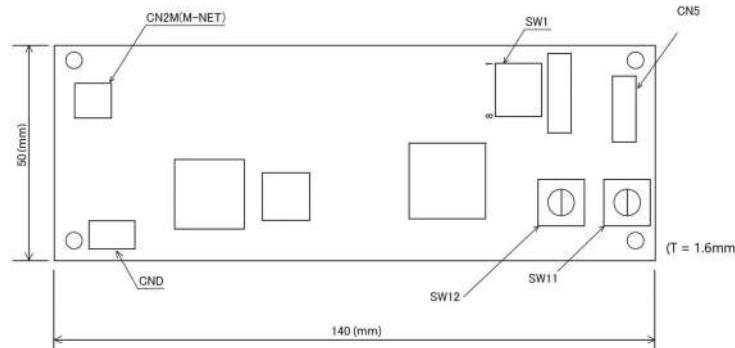


## Wiring Diagram PAC-YG10HA



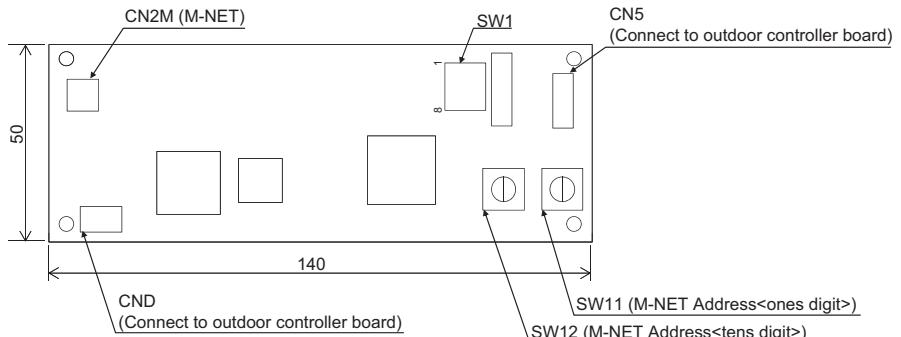
## Product Dimensions

### PAC-SK15MA-E



## Product Dimensions

### PAC-SJ95MA-E / PAC-SL16MA-E



Notes: Dimensional drawing of board, for cover dimensions please see page 7.30

# Advanced Interfaces

A wide range of interfaces are available to allow third party equipment to monitor and control our units. Some interfaces are also available to monitor and control third party equipment from our centralised controllers.

## Key Features & Benefits

**KTR-53A**



- Remote on/off
- Run and fault volt free outputs

**MELCORETAIL MINI**



- On/off, fire alarm and lock input
- Setpoint and fan speed input
- Run, fault, heat and cool output
- 2 energy saving features

**PAC-YG60MCA**



- Monitor up to 4 energy meters

**PAC-YG63MCA**



- Monitor up to 2 temperature sensors

**PAC-YG66DCA**



- Monitor and control up to 2 pieces of general equipment

**MAC-497IF-E**



- Adaptor to connect remote controller to M Series
- Adaptor to connect M Series to M-NET

**MAC-334IF-E**



- Adaptor to connect remote controller to M Series
- Adaptor to connect M Series to M-NET
- 3rd party heating interlock

**MAC-587IF-E**



- Wi-Fi Interface for MELCloud solution
- ATA, Lossnay and ATW support
- WPS and Wi-Fi pin pairing
- WPS Push mode
- Setting via PAR-41MAA / PAR-SL101A-E

# Advanced Interfaces

## Technical Specification

ADVANCED INTERFACES	KTR-53A	MELCORETAIL MINI	PAC-YG60MCA	PAC-YG63MCA	PAC-YG66DCA
					
Description	On/Off and Run/Fault Adaptor	Retail Control and Input / Output Interface	Pulse Meter Interface	Temperature and Humidity Interface	Third Party Control and Interface
Connect to	Indoor	Indoor	M-NET Network	M-NET Network	M-NET Network
Max Number of Units	1	1	4 Pulse Meters	1 PT100, 1 Humidity Sensor	2 General Equipment
Compatibility	Mr Slim and City Multi	M Series and Mr Slim	AE-C400E and EW-C50E	AE-C400E and EW-C50E	AE-C400E and EW-C50E
Power Supply	12/24VAC/DC	-	24VDC	24VDC	24VDC
Dimensions (mm) (WxDxH)	130 x 30 x 80	173 x 19 x 51	200 x 45 x 120	200 x 45 x 120	200 x 45 x 120
Control	On/Off ✓ Mode - Setpoint - Fan Speed - Air Direction - Permit/Prohibit - Filter Sign -	VFC 0 to 10VDC 0 to 10VDC 0 to 10VDC	- - - - - - -	- - - - - - -	- - - - - - -
Monitor	On/Off ✓ Mode - Setpoint - Fan Speed - Air Direction - Permit/Prohibit - Filter Sign - Fault Codes ✓ Room Temperature -	VFC VFC - - - - - VFC -	- - - - - - - -	- - - - - - - -	✓ - - - - - - ✓ -
On/Off but Centrally Controlled	Option Lock/Unlock	VFC	x	-	-
On/Off but NOT Centrally Controlled	12/24VAC/DC	VFC	x	-	-
Run Output	x	VFC	x	-	-
Fault Output	x	VFC	x	-	-
Energy Saving	x	VFC	x	-	-
Heat / Cool / Thermo Output	x	VFC	x	-	-
Pulse Weight	x	x	0.1, 1.0 and 10	-	-

Notes: VFC: Volt free contact. ✓ = Yes, x = No, - = Not applicable.

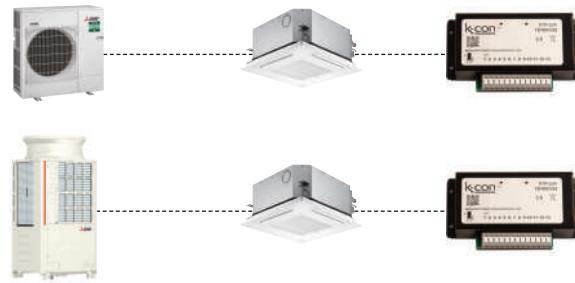
# Advanced Interfaces

## Technical Specification

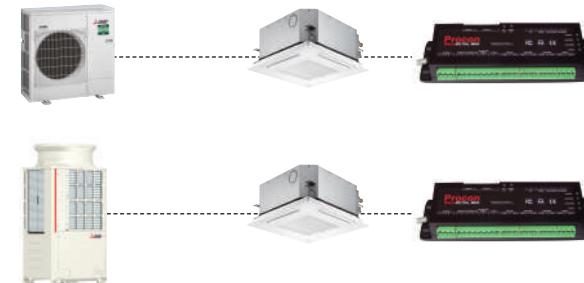
ADVANCED INTERFACES	MAC-497IF-E	MAC-334IF-E	MAC-587IF-E
			
Description	Interface for MA Remote Controller	Interface for M-NET, MA Remote Controller, On/Off Input, Run/Fault Output and 3rd Party Heating Interlock (M Series)	MELCloud Wi-Fi Interface
Connect to	Indoor	Indoor	Indoor
Max Number of Units	1	1	1
Compatibility	M Series and Mr Slim (SUZ)	M Series and Mr Slim (SUZ)	M Series, Mr Slim, City Multi and Lossnay
Power Supply	-	-	-
Dimensions (mm) (WxDxH)	128 x 30 x 76	160 x 55 x 70	41.5 x 18.5 x 73.5
Control	On/Off Mode Setpoint Fan Speed Air Direction	x x x x x	✓ x x x x
Monitor	On/Off Mode Setpoint Fan Speed Air Direction Filter Sign Fault Codes Room Temperature	x x x x x x x	✓ x x x x x x
	On/Off but Centrally Controlled On/Off but NOT Centrally Controlled Heat / Cool / Thermo Output Set-Up of Room Temperature Detector Position	x x x ✓	- - - -

Notes: VFC: Volt free contact. ✓ = Yes, x = No, - = Not applicable. \*For further technical specification on the MAC-587IF-E for Ecodan please refer to the Residential Heating Section of the Product Catalogue.

System Diagram KTR-53A



System Diagram MELCORETAIL MINI



System Diagram PAC-YG60MCA



System Diagram PAC-YG63MCA



System Diagram PAC-YG66DCA



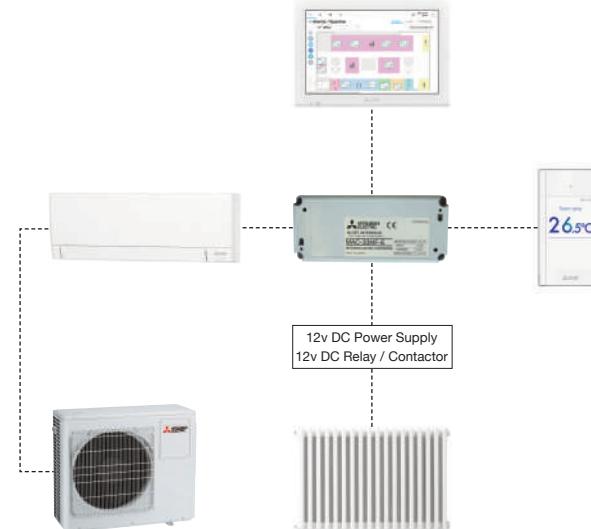
System Diagram MAC-497IF-E



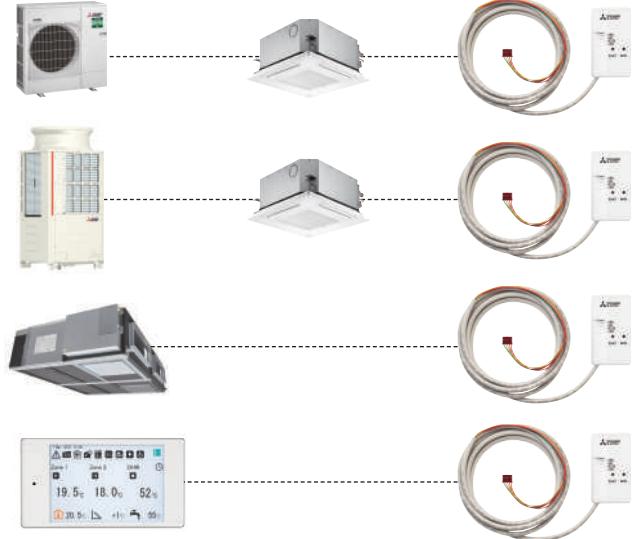
System Diagram MAC-334IF-E



System Diagram MAC-334IF-E Heating Interlock

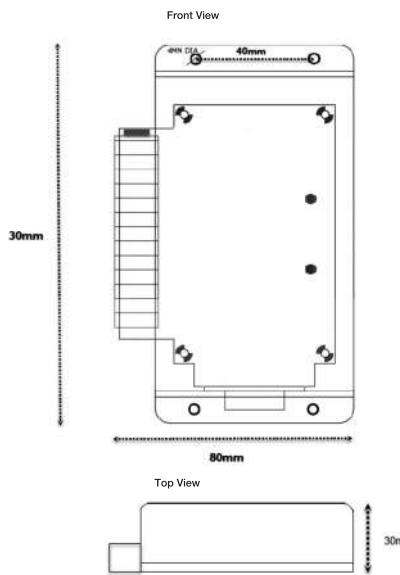


System Diagram MAC-587IF-E



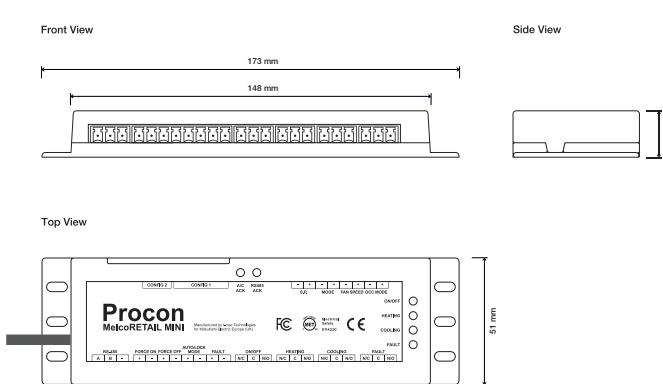
## Product Dimensions

KTR-53A



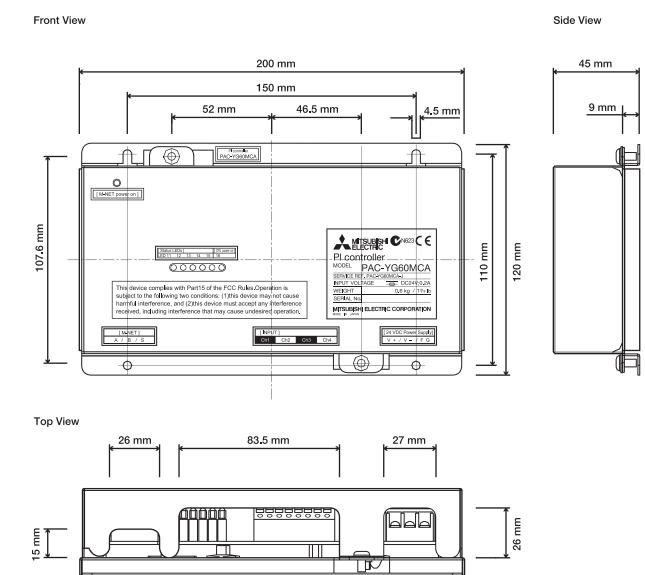
## Product Dimensions

MELCORETAIL MINI



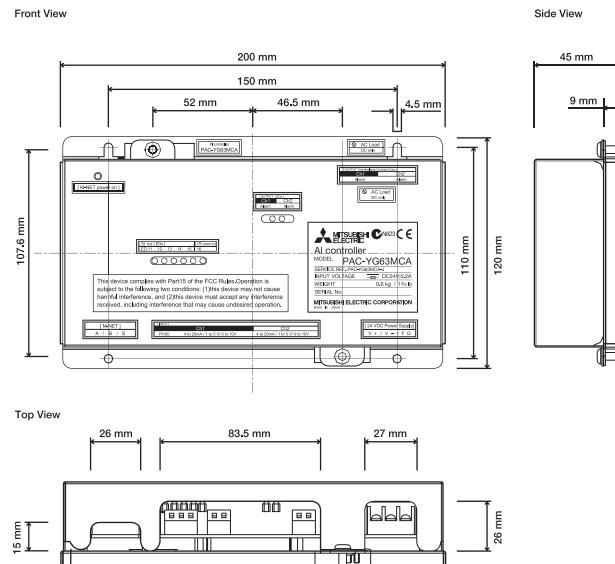
## Product Dimensions

PAC-YG60MCA



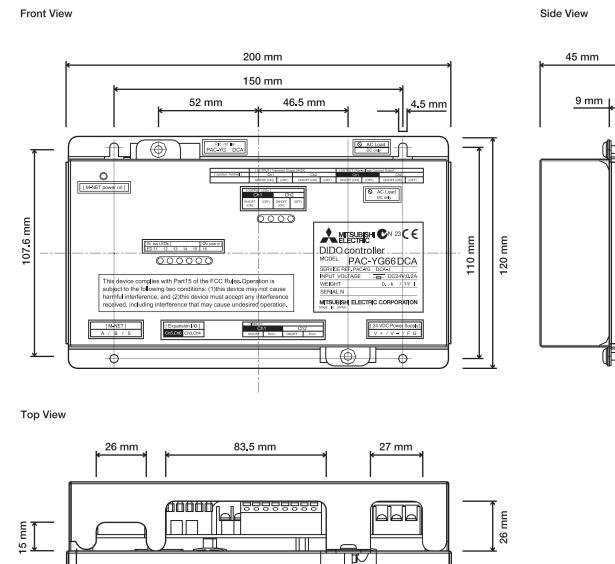
## Product Dimensions

PAC-YG63MCA



## Product Dimensions

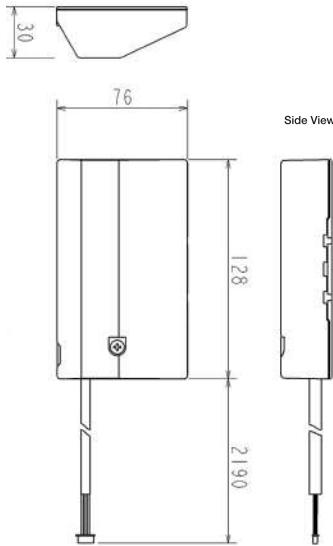
PAC-YG66DCA



## Product Dimensions

MAC-497IF-E

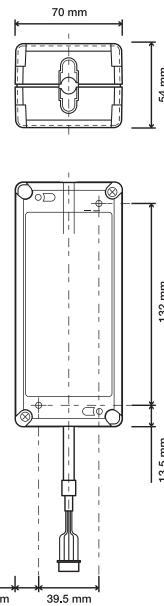
Top View



## Product Dimensions

MAC-334IF-E

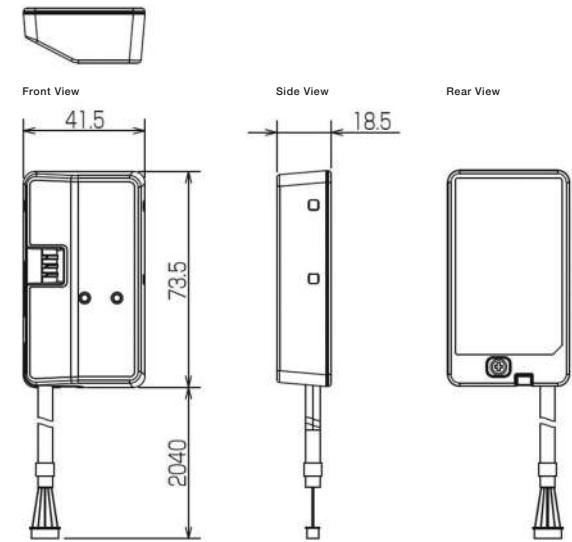
Top View



## Product Dimensions

MAC-587IF-E

Top View



# BEMS Interfaces

Building Energy Management Systems (BEMS) will allow a building to run efficiently. A wide range of interfaces are available to connect our systems simply to a BEMS.

## Key Features & Benefits

### MELCOBEMS MINI (A1M+)



- BACnet / Modbus IP
- Configuration via onboard webpage (local network)
- Firmware update over Ethernet (local network)
- Individually monitor and control indoor and outdoor unit (1 x A1M+ per unit)
- DIN rail mount option

### MELCOBEMS MINI (KNX A1M+)



- KNX & BACnet / Modbus IP
- Configuration via onboard webpage (local network)
- Firmware update over Ethernet (local network)
- Individually monitor and control indoor and outdoor unit (1 x A1M+ per unit)
- DIN rail mount option

### MELCOBEMS / MELCOBEMS2



- Monitor and control up to 50 indoor units
- Modbus and BACnet interface
- Energy monitoring

### MELCOBEMS SIP+



- Control and Monitor up to 50 indoor units (up to 200 with EW-C50E)
- Multiprotocol, allowing data to be disseminated to one or many BMS, EMS & IoT systems
- Energy Monitoring

### IQ4 XNC



- Monitor and control up to 50 indoor units
- Trend interface

### MELCOJACE-8000



- Monitor and control up to 50 / 100 / 200 indoor units
- Tridium Niagara 4 compatible
- Built in HTML5 web page for plug & play
- On-board library Modbus & BACnet MSTP for Procon MELCOBEMS MINI (A1M+)
- No additional interface required, direct plug & play to centralised controllers
- On-board Wi-Fi application to allow commissioning by PC, tablet or smartphone
- BACnet
- Modbus

# BEMS Interfaces

## Technical Specification

BEMS INTERFACES		MELCOBEMS MINI (A1M+) / (KNX A1M+)		MELCOMBEMS / MELCOBEMS2		MELCOBEMS SIP+	
							
Description	Air to Air Splits Modbus/BACnet/KNX Interface. Air (Water) to Water & Lossnay Modbus/BACnet/KNX Interface	AE-C400E, EW-C50E Modbus BACnet Interface	Multiprotocol Gateway				
Connect to	Indoor, Outdoor or Ecodan PCB	AE-C400E and EW-C50E <sup>2</sup>	AE-C400E and EW-C50E <sup>2</sup>				
Max Number of Units	1	50	200				
Compatibility	M Series, Mr Slim, City Multi, Ecodan FTC7/6/5/4, e-Series, Ecodan QAHV/CAHV/CRHV and Lossnay (LGH models)	M Series, Mr Slim and City Multi	M Series, Mr Slim, City Multi, e-Series, Lossnay and Ecodan				
Power Supply	-	24VDC	24VDC				
Dimensions (mm) (WxDxH)	95 x 22.7 x 78.6	102 x 32 x 180	108 x 60 x 90				
Network	Modbus / BACnet IP / RS485 <sup>1</sup> / KNX	Modbus / BACnet RS485 and TCP/IP	Bacnet IP / Modbus Sub TCP/IP and Serial / MQTT and REST (IoT protocols)				
BEMS Compatibility	Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, RDM	Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, Andover Controls, York BMS, Siemens, Priva Building Intelligence, Delta Controls, RDM	Trend, Cylon, Satchwell, Crestron, Invensys, Interactive Homes, North BT, Andover, Siemens, WEMS, Andover Controls, York BMS, Siemens, Priva Building Intelligence, Delta Controls, RDM				
Control	On/Off	DI	AI	DI	DI		
	Mode	AI	AI	AI	AI		
	Setpoint	AI	AI	AI	AI		
	Fan Speed	AI	-	AI	AI		
	Air Direction	AI	-	AI	AI		
	Permit/Prohibit	x	AI	DI	DI		
	Filter Sign	DI	-	DI	DI		
Monitor	On/Off	DO	DO	DO	DO	DO	
	Mode	AO	AO	AO	AO	AO	
	Setpoint	AO	AO	AO	AO	AO	
	Fan Speed	AO	-	AO	AO	AO	
	Air Direction	AO	-	AO	AO	AO	
	Permit/Prohibit	x	AO	DO	DO	DO	
	Filter Sign	DO	-	DO	DO	DO	
	Fault Codes	AO	AO	AO	AO	AO	
	Room Temperature	AO	AO	AO	AO	AO	
	Daily kW Energy	-	AO	With EW-C50E	With EW-C50E	With EW-C50E	
	Monthly kW Energy	-	AO	With EW-C50E	With EW-C50E	With EW-C50E	

Key: DI = Digital Input. DO = Digital Output. AI = Analogue Input. AO = Analog Output.

Notes: \*1 Function only available on M Series, Mr Slim and City Multi. \*2 ETA end 2025.

The MELCOBEMS can monitor indoor daily and monthly kWh when used in conjunction with AE-C400E, EW-C50E, PAC-YG60MCA on third party energy meters.

## Technical Specification

BEMS INTERFACES		IQ4 XNC	MELCOJACE-8000
			
Description		AE-C400E and EW-C50E Trend Interface <sup>1</sup>	AE-C400E and EW-C50E Tridium Niagara Interface <sup>2</sup>
Connect to		AE-C400E and EW-C50E <sup>4</sup>	AE-C400E and EW-C50E <sup>4</sup>
Max Number of Units		50	50 / 100 / 200
Compatibility		M Series, Mr Slim, City Multi and Lossnay	M Series, Mr Slim, City Multi and Lossnay
Power Supply		220-240v, 50Hz	24v, AC/DC
Dimensions (mm) (WxDxH)		263 x 46 x 150	171 x 61 x 110
Network		Trend	Niagara
BEMS Compatibility		Trend	Any Niagara compatible BEMS
Control	On/Off	DI	✓
	Mode	AI	✓
	Setpoint	AI	✓
	Fan Speed	AI	✓
	Air Direction	AI	✓
	Permit/Prohibit	DI	✓
	Schedule	-	-
	Filter Sign	DI	✓
Monitor	On/Off	DO	✓
	Mode	AO	✓
	Setpoint	AO	✓
	Fan Speed	AO	✓
	Air Direction	AO	✓
	Permit/Prohibit	DO	✓
	Cloud Communication	-	✓
	Filter Sign	DO	✓
	Fault Codes	AO	✓
	Room Temperature	AO	✓
	Daily kWh Energy	-	✓ <sup>3</sup>
	Monthly kWh Energy	-	✓ <sup>3</sup>
	Comfort Data	-	-

Key: DI = Digital Input. DO = Digital Output. AI = Analogue Input. AO = Analogue Output.

Notes: The PAC-YG\*\*\*CA are not compatible with MELCOBEMS and IQ4 XNC.

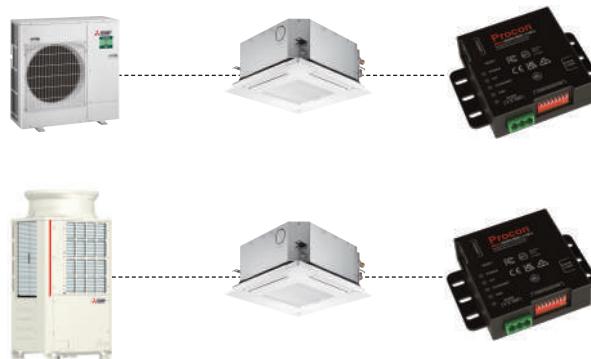
<sup>1</sup>\* Synapsys Solutions Ltd, 1 Woodlands Court, Albert Drive, Burgess Hill, West Sussex, RH15 9TN, Telephone 0845 680 0303

<sup>2</sup>\* The MELCOJACE-8000 range is only available from Forest Rock Systems Ltd, Charnwood Building, Holywell Park, Ashby Road, Loughborough, LE11 3AQ. Telephone: 0845 5197958

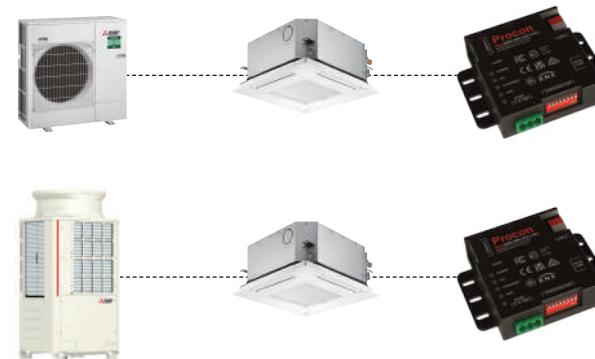
<sup>3</sup>\* The MELCOJACE-8000 can monitor indoor daily and monthly kWh when used in conjunction with AE-C400E, EW-C50E, PAC-YG60MCA on third party energy meters.

<sup>4</sup>\* ETA end 2024.

**System Diagram MELCOBEMS MINI (A1M+)**



**System Diagram MELCOBEMS MINI (KNX A1M+)**



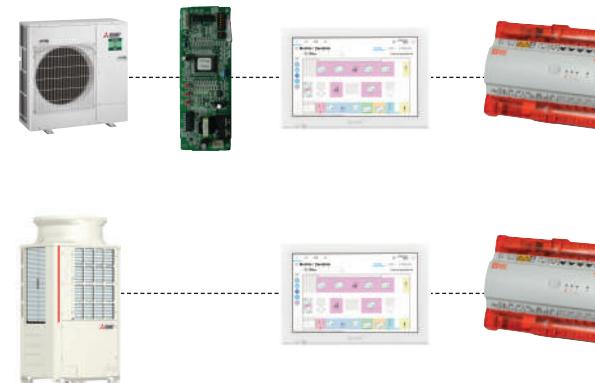
**System Diagram MELCOBEMS / MELCOBEMS2**



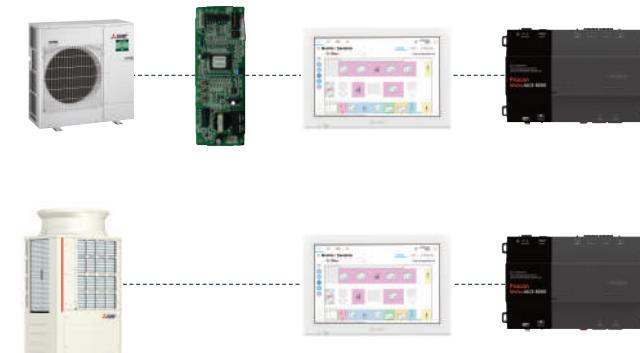
**System Diagram MELCOBEMS SIP+**



**System Diagram IQ4 XNC**

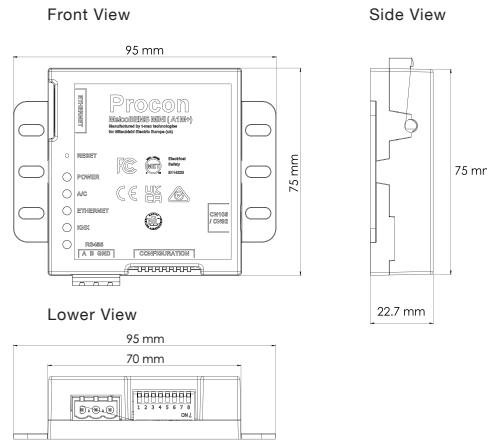


**System Diagram MELCOJACE-8000**



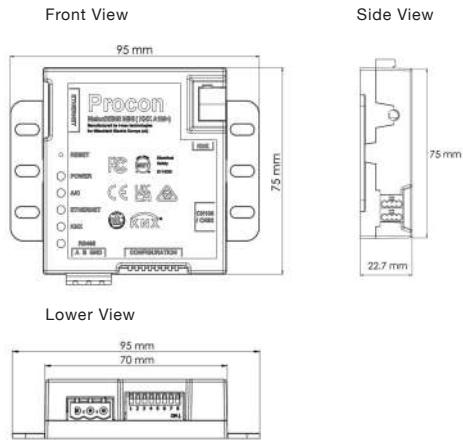
### Product Dimensions

#### MELCOBEMS MINI (A1M+)



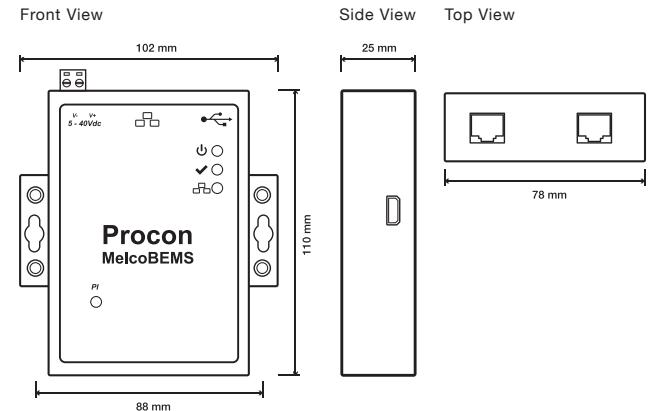
### Product Dimensions

#### MELCOBEMS MINI (KNX A1M+)



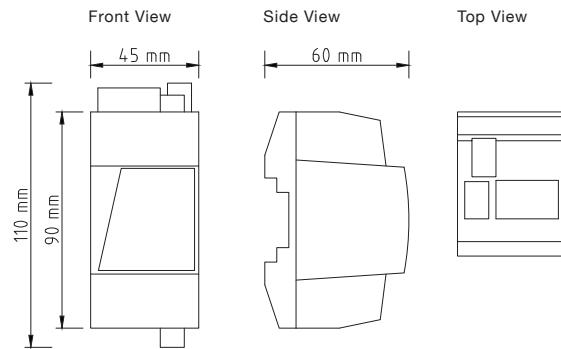
### Product Dimensions

#### MELCOBEMS



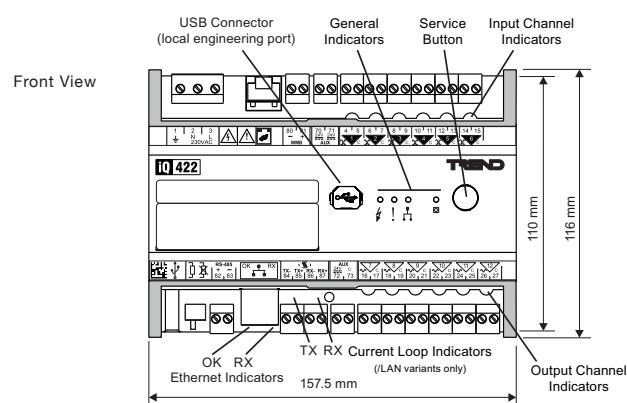
### Product Dimensions

#### MELCOBEMS2

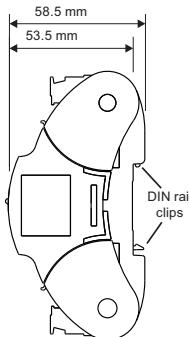


### Product Dimensions

#### IQ4 XNC

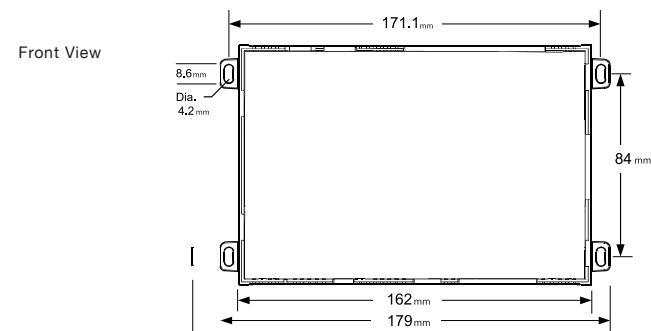


#### Side View

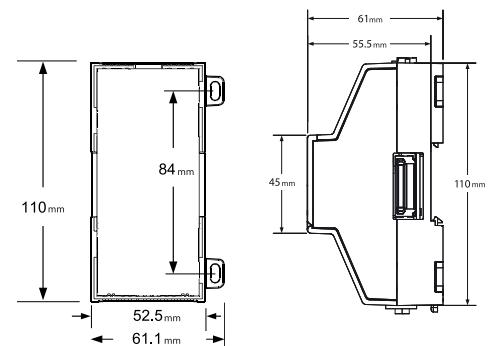


### Product Dimensions

#### MELCOJACE-8000



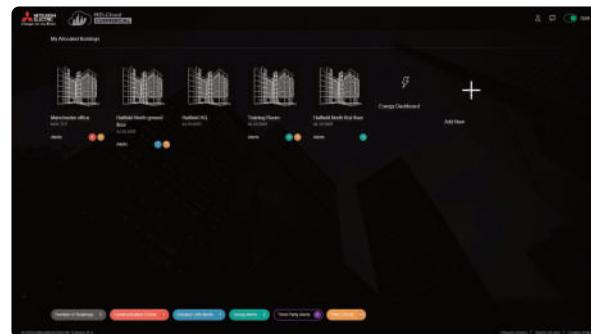
#### Side View



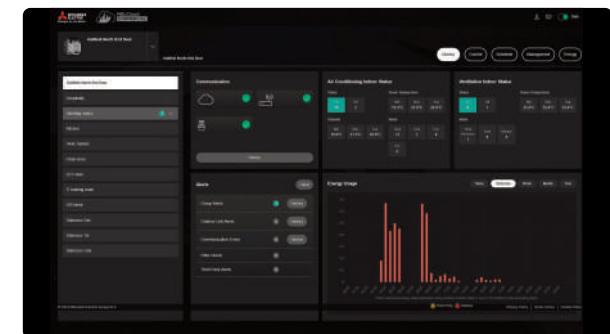
# MELCloud Commercial

## Monitor & Control App Screen Examples

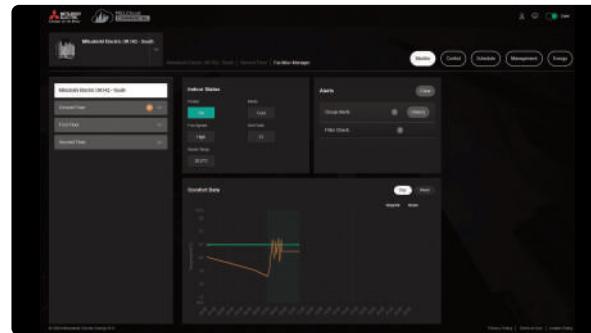
Estate View



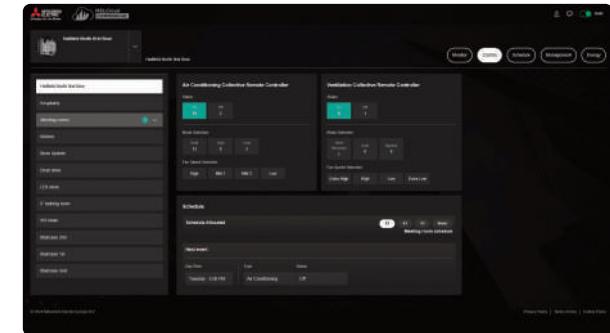
Building Level Monitoring &amp; Energy Consumption



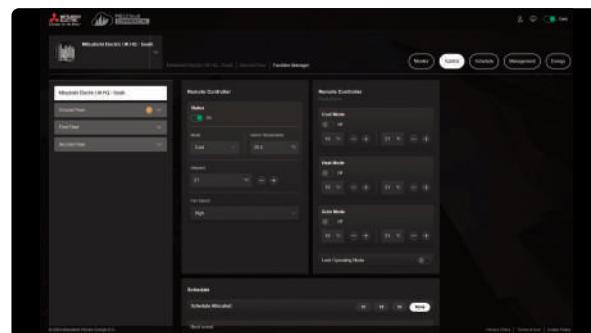
Room (Group) Level Monitoring



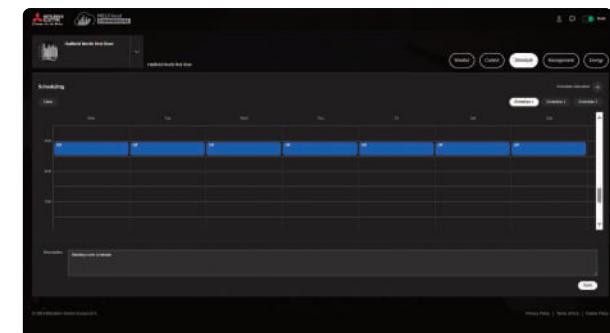
Building Level Control



Room (Group) Level Monitoring



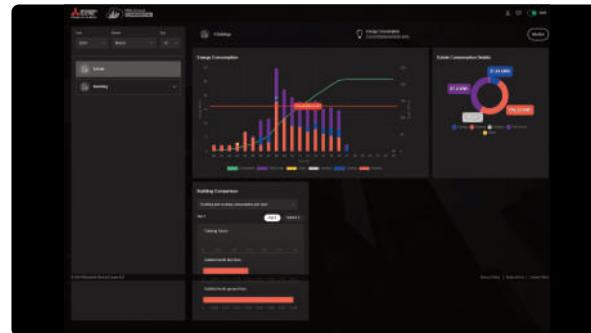
Building Level Scheduling



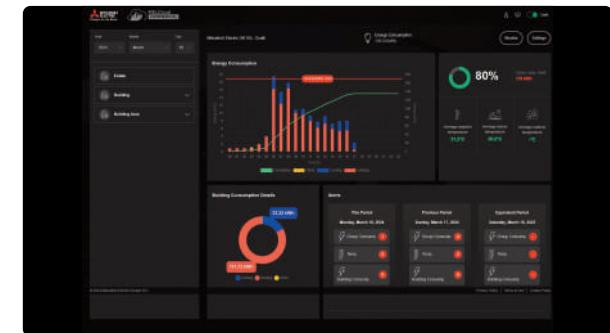
# MELCloud Commercial

## Advanced Energy Monitoring App Screen Examples

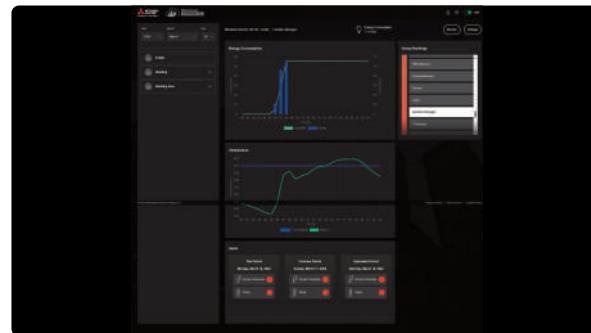
Estate Level Energy Monitoring



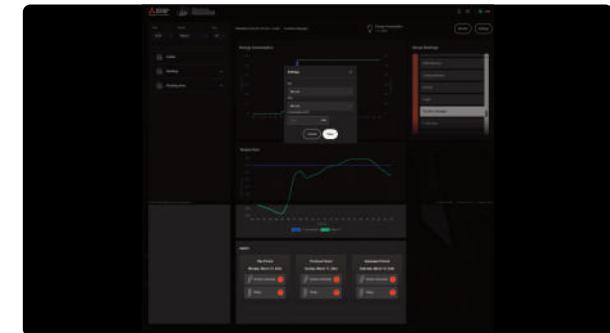
Building Level Energy Monitoring



Room (Group) Level Energy Monitoring



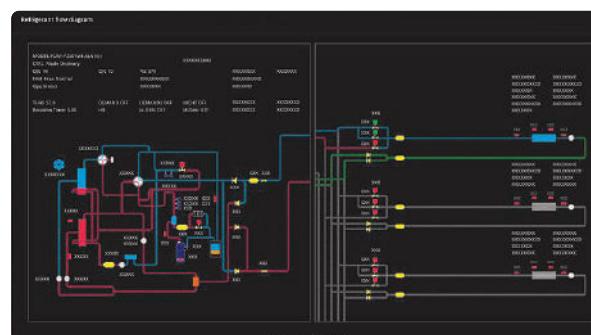
Room (Group) Level Temperature and Energy Limit Setting



# MELCloud Commercial

## Service & Maintenance App Screen Examples

Service & Maintenance - System Diagram



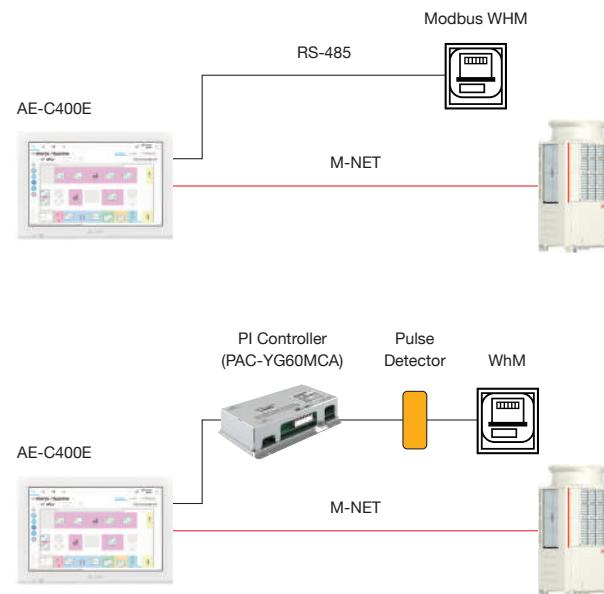
# How to Quote

## Energy Management

The AE-C400E and EW-C50E centralised controllers come with the Energy Management PIN as standard.

- 4x Modbus Energy Meters can be connected directly to the centralised controller
- 4x Pulse Energy Meters can be connected to the centralised controller via PAC-YG60MCA PI Controller

## Modbus or Pulse Meter Connection



## How to quote an AE-C400E System Controller with Energy Monitoring

### How to Quote Energy Apportioning

Note: Must use Pulse Energy Meters for Energy Apportioning



START

QUOTE FOR 1-8 AE-C400E OR EW-C50E

QUOTE FOR 1-8 ENERGY APPORTIONING PIN CODES  
Only invoice for 1 PIN code

QUOTE FOR PAC-YG60MCA PI CONTROLLER(S)

LAN CONNECT AE-C400E & EW-C50E

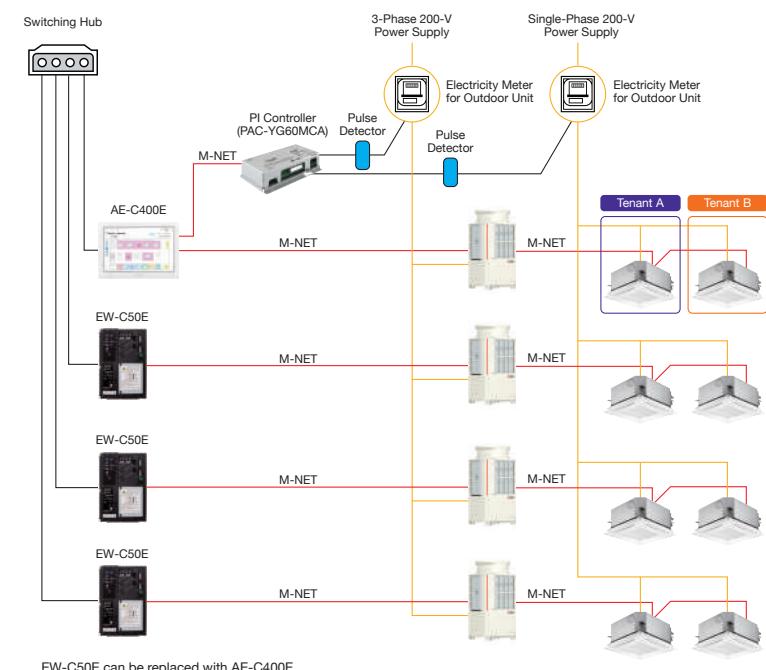
CONNECT PAC-YG60MCA PI CONTROLLER(S) AND PULSE ENERGY METERS

QUOTE 3 DAYS FIELD SERVICE COMMISSIONING

END

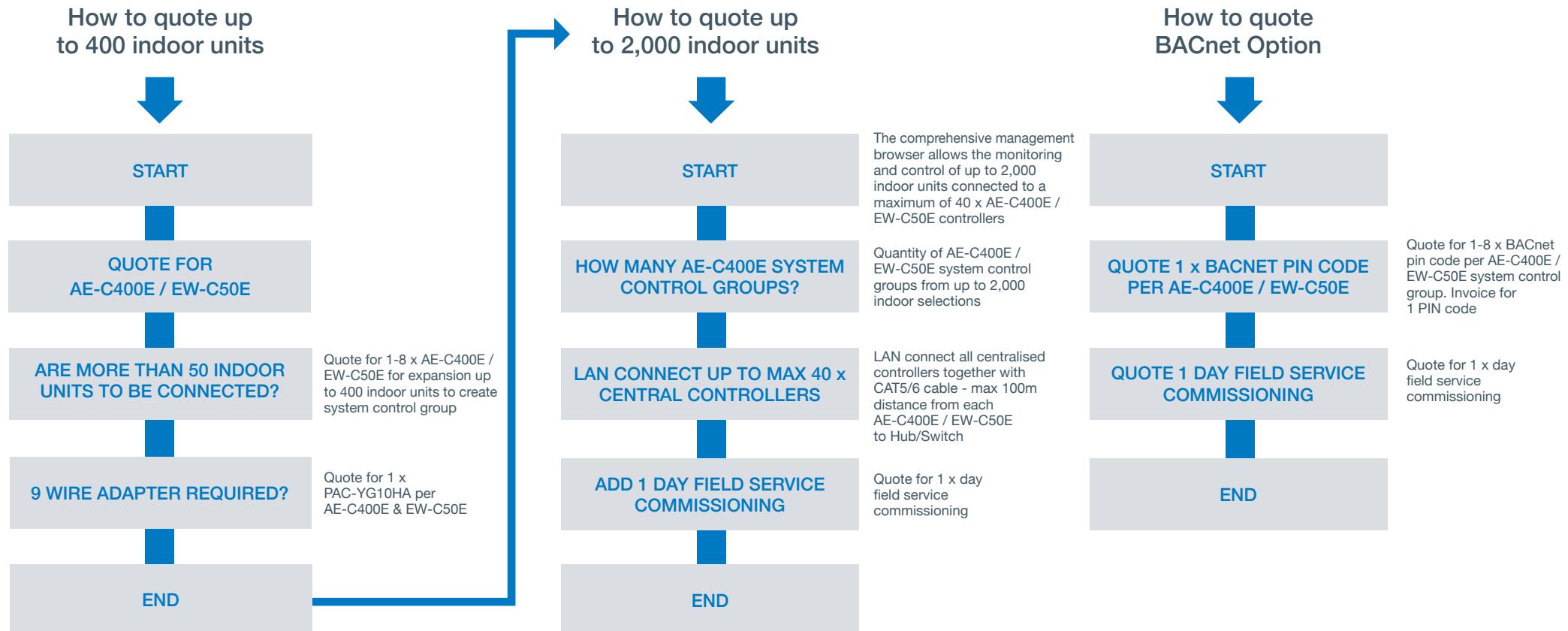
### Example of Energy Apportioning System

Recommend 1 x Pulse Energy Meter per outdoor unit to improve granularity of data.



EW-C50E can be replaced with AE-C400E

# How to Quote







# Services

Support at every step of the way





# Support at every step of the way

At Mitsubishi Electric, we have not only developed an innovative range of cooling, heating, ventilation and control solutions, we have also examined how we support the market throughout the complete lifecycle of our products - from cradle to grave.

Whether in pre-sales design and specification, installation, or service and maintenance support, right through to our recycling programme, we can offer solutions that deliver the quality and excellence you would expect to make a world of difference.

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## Services and Support

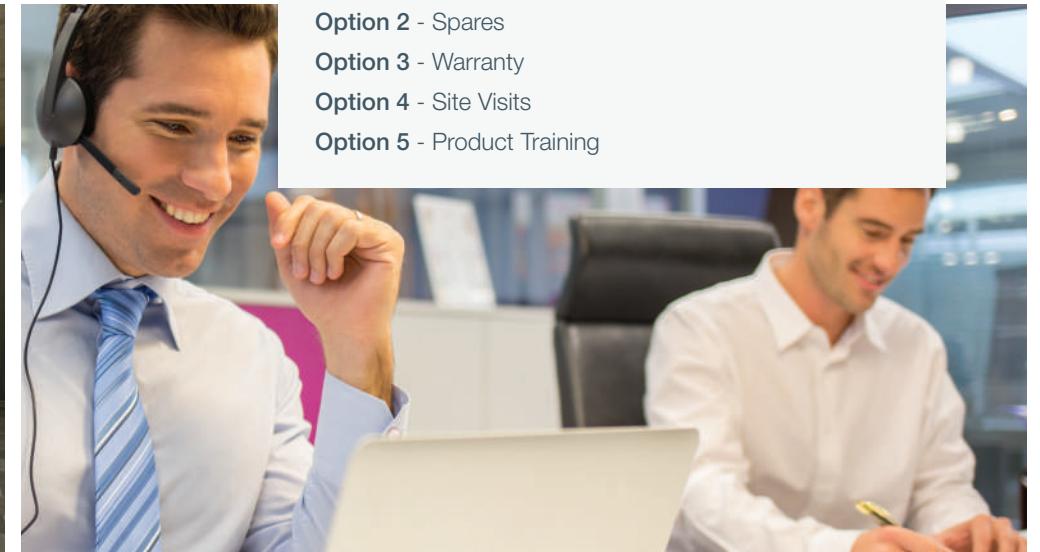
# MELServe Technical Services

## Advanced, reliable technical support at every step of the way

Meeting today's energy challenges for our commercial premises demands more integrated thinking from everyone involved in the design, supply, installation, commissioning and maintenance of essential building services - whether it is for an individual property or a national estate.

Ever increasing energy bills, the need to reduce carbon emissions and a raft of challenging legislation are driving the demand for increased energy efficiency and control in the cooling, heating, ventilation and associated technologies that we use.

As a manufacturer, we realise that product development alone is not enough. To keep our products working at their optimum, we have developed the MELServe approach to ensure our customers are able to maximise the energy efficiency of their building's services right from the start.



MELServe offers a range of support that includes:

- Site Services
- 24/7/365 Technical Help Desk
- Spare Parts, Warranty & Returns
- CPD Accredited Technical Product Training

**Whatever the challenge, we're here to help you meet it.**

### MELServe Customer Services & Support

**Telephone: 0161 866 6089**

**Option 2 followed by:**

- Option 1 - Technical Support
- Option 2 - Spares
- Option 3 - Warranty
- Option 4 - Site Visits
- Option 5 - Product Training

## Commissioning

Our assisted commissioning service is aimed at both new and existing customers; the objective is to demonstrate how to commission our systems effectively, so that customers can carry out these tasks unassisted in the future.

Our commissioning service is available across our full product range including: **Air Conditioning, Controls, Hybrid VRF, e-Series Chillers and Commercial Heating products.**

### During the commissioning process, our engineers will carry out the following tasks:

- Comprehensive inspection of the installed system to ensure the system meets Mitsubishi Electric specification
- Check the system addressing and advise on any incorrect settings
- For systems other than controls we will operate in both cooling and heating modes where applicable and record temperatures, pressures and water flow rates for the system
- Supervise the completion of commissioning logbooks



Type of Commissioning	Detail	Control System	Commissioning Days	Charge Pin Codes	BACnet Pin Code
Air Conditioning	Max 2 City Multi systems per day	<b>1 x AE-C400E + 1-4 EW-C50E</b>	1 day	1 - 5	1 - 5
Controls	1 x AE-C400E and up to 4 x EW-C50E per day	<b>2 x AE-C400E + 1-4 EW-C50E</b>	2 days	1 - 10	1 - 10
Hybrid VRF	½ day pre installation visit ½ day mid installation visit 2 day commissioning visit	<b>3 x AE-C400E + 1-4 EW-C50E</b>	3 days	1 - 15	1 - 15
e-Series	Max 2 chillers per day	<b>4 x AE-C400E + 1-4 EW-C50E</b>	4 days	1 - 20	1 - 20
Commercial Heating	Ecodan CAHV - Max 2 units per day* Ecodan QAHV - 2 day commissioning visit (includes 1/2 day mid-install visit)*	<b>5 x AE-C400E + 1-4 EW-C50E</b>	5 days	1 - 25	1 - 25

Whilst our engineer will supervise the successful completion of all tasks and address any questions or skill gaps that present themselves, it is the responsibility of the installing contractor under supervision to carry out all of the listed tasks. Whilst our engineer will supervise the successful completion of the commissioning logbooks, it is the responsibility of the customer to complete and submit the commissioning logbooks to Mitsubishi Electric unless specified.

\*Transit bolts must be removed before we arrive on site. If transit bolts are not removed additional time and cost may be incurred.

For BACnet and/or Energy commissioning, the above times are guidance only and may differ based on quantity of units/systems.

## Services and Support

**MEL>SERVE**  
By Mitsubishi Electric

### Fault Finding

Our Fault Finding service is carried out on new and existing installations to identify problems and offer resolutions to ensure the system is returned to a fully operational condition in the shortest possible timeframe.

Our Fault Finding service is available across our entire product range. During the Fault Finding process, our engineers will carry out assessments of the following to determine a resolution:

- System design, application and specification
- Standard of installation
- Operational performance of equipment
- Current and historic fault codes

Product	Detail
Air Conditioning	One day per reported fault
Controls	One day per reported fault
Hybrid VRF	One day per reported fault
e-Series Chillers	One day per reported fault
Commercial Heating	One day per reported fault

**Note:** Whilst our engineers will carry out a thorough assessment of the system and provide recommendations to rectify any issues, they do not carry spare parts and cannot provide a same day resolution in the event of part failure. If equipment failure due to manufacturing is discovered, no cost will be raised and the visit will be carried out F.O.C. It is the responsibility of the customer to provide access to all of the affected equipment on site. Whilst our engineer will identify any installation and setup issues that are affecting performance, it is the responsibility of the contractor to rectify any problems.



### Health Checks

Our Health Check service is carried out on existing installations to ensure that the system is operating within our design parameters. The service is available to both new and existing customers and the objective is to establish a fully operational system.

Our Health Check service is available for the following product ranges: Air Conditioning including Hybrid VRF, e-Series Chillers and Commercial Heating products. During the Health Check process, our engineers will carry out the following tasks:

- Comprehensive visual inspection of the installed system to ensure the system meets Mitsubishi Electric specification
- Check the system addressing and advise on any incorrect settings
- Full operation in both cooling and heating modes where applicable
- Record operating data including temperatures, pressures and water flow rates of outdoor units, BC Boxes and indoor units to determine the correct operation

Product	Detail
Air Conditioning	Up to 3 systems per day
Hybrid VRF	Up to 2 systems per day
e-Series Chillers	Up to 4 systems per day
Commercial Heating	Up to 3 systems per day

**Note:** Whilst our engineer will ensure the successful completion of all tasks and address any questions or skill gaps that present themselves, it is the responsibility of the contractor to provide access to all equipment. Whilst our engineer will identify any installation and setup issues that are affecting performance, it is the responsibility of the contractor to rectify any problems.



## Services and Support

**MEL>SERVE**  
By Mitsubishi Electric

### City Multi Stripdown

For installations where the City Multi outdoor unit(s) cannot be moved to the final location, Mitsubishi Electric offer a City Multi strip down service. Other products are available on request, please contact us for further information should you have a specific strip down requirement.

Product Range	Model Reference
 	<b>PURY-EM/EP YNW-A1/2</b> <b>PURY-M/P YNW-A1/2</b> Small Module <b>PUHY-M/P YNW-A1/2</b>
 	<b>PURY-EM/EP YNW-A1/2</b> <b>PURY-M/P YNW-A1/2</b> Large Module <b>PUHY-P YNW-A2</b>
 	<b>PURY-EM/EP YNW-A1/2</b> <b>PURY-M/P YNW-A1/2</b> Extra Large Module <b>PUHY-P YNW-A2</b>

# Chiller Service and Maintenance for Central Plant and IT Cooling

We are now able to bring Mitsubishi Electric quality to your service and maintenance contract, using the very latest technology for in-field reporting and diagnostics. Our highly trained and qualified chiller service and maintenance engineers are based nationwide, operating from our network of service offices. Our engineers are experienced in the servicing, maintenance and repair of chiller systems across the industry.

### What we do:

- Comprehensive service and maintenance plans
- National coverage (four dedicated service centres)
- Fast response times
- Reactive-response and call-out service
- Spare parts
- F-Gas and REFCOM Elite accredited engineers
- 24/7 365 emergency call out service
- Service and maintenance for all manufacturers' applied products
- Commissioning / Start-up
- System checks
- Fault finding
- Extended warranties
- Strip-downs (model / application specific)



### For further information and Service & Maintenance enquiries:

**Telephone:** 01707 278650

Option 1 - Scotland

Option 2 - London & South

Option 3 - Manchester & North

Option 4 - Midlands & Wales

Option 5 - Applied Spares

#### Regional Office Emails:

[melserv.south@meuk.mee.com](mailto:melserv.south@meuk.mee.com)

[melserv.north@meuk.mee.com](mailto:melserv.north@meuk.mee.com)

[melserv.midlands@meuk.mee.com](mailto:melserv.midlands@meuk.mee.com)

[melserv.scotland@meuk.mee.com](mailto:melserv.scotland@meuk.mee.com)

**Existing Customer Email:** [melserv.renewals@meuk.mee.com](mailto:melserv.renewals@meuk.mee.com)

**New Customer Email:** [melserv@meuk.mee.com](mailto:melserv@meuk.mee.com)

**Spare Parts Enquiries (CV/RC IT products) Email:**

[melserv.appliedspares@meuk.mee.com](mailto:melserv.appliedspares@meuk.mee.com)

## Services and Support

### Product Training

Mitsubishi Electric provide specific, in-depth training at our state-of-the-art training centres across the UK, or via our award-winning online training, covering all aspects of installation, from design through to maintenance.

Providing product training for all levels of expertise, our courses are taught by experienced engineers, with a wealth of knowledge and are all CPD accredited. In addition to the CPD courses, we can also now offer LCL Level 3 Regulated Quality Framework (RQF) qualifications for heat pumps.



**For bookings please telephone  
0161 866 6089 (Option 2, Option 5)**

Product Range	Course	Reference
City Multi (VRF)	Design and Application	CMDA
City Multi (Hybrid VRF)	Hybrid VRF Design, Application, Installation and Commissioning	HVRF
City Multi	Installation and Commissioning	CMPT1
City Multi	Service and Fault Finding	CMPT2
City Multi	Monitor Tool	MT
M Series and Mr Slim	Installation, Service and Fault Finding	MPISF
M Series and Mr Slim	M&P Hands On	HO M&P
Ecodan	Design and Application Part 1	ED&A
Ecodan	Installation and Commissioning Part 2	EI&C
Ecodan	Service and Fault Finding Part 3	ES&FF
Ecodan	Hands-on	EHO
Ecodan	Commercial Heating (CAHV)	CH
Lossnay	Design, Application, Installation and Commissioning	LOSSNAY
LCL Award L3 (RQF)	Low Temperature Heating and Hot Water Systems in Dwellings	LCL LTHWS
LCL Award L3 (RQF)	Installation and Maintenance of Air Source Heat Pump Systems (non-refrigerant circuits)	LCL ASHPS



### Design and Consulting Services

As part of the Mitsubishi Electric commitment to supporting robust application of our leading technologies, a team of consultant sales professionals work nationally with mechanical building services specifiers and consultants to achieve early engagement in project design.

Clients are able to apply cooling, heating, ventilation and controls confidently within their individual projects, with the emphasis on a solution-based philosophy to support 'as-designed' performance and efficiencies.

This approach helps projects realise 'as-specified' performance and efficiency levels - all designed to achieve the most efficient and cost-effective outcome for the building operator, whilst reducing the overall environmental impact.

As initial designs move from the drawing board through planning, procurement, installation and commissioning, to on-going operation and use, we work closely with our customers to balance capital expenditure, system efficiencies, installation costs, control strategies and running costs.



### Working in the real world

At Mitsubishi Electric, we understand the real-world pressures of delivering commercial projects for your clients. Our dedicated team can support M&E contractors and help you tackle the challenges associated with a range of projects, including change of building layout (design evolution) without compromising the original design or performance criteria.

We also understand the link between effective design and achieving the best outcomes for building owners, operators, and users. The goal of our team is therefore to ensure robust design and implementation; every step of the way, from concept to commissioning.

Getting the right balance between capital cost, system efficiencies, installation costs and operating costs are key areas where we can support you. Each Business Development Manager has extensive product knowledge and application experience and is here to help with everything, including guidance on new and changing legislation.



## Services and Support

# PARTNER

Programme

## Mitsubishi Electric Partner Programme

The Mitsubishi Electric Partner Programme is inclusive and open to all qualifying air conditioning and heating installation companies, large or small.

Using the world-renowned Mitsubishi Electric brand, we will train, support and promote all qualifying companies as part of our aim to drive the industry forwards. Mitsubishi Electric recognises the importance of forging lasting relationships with professional companies who install our equipment. Our Partner Programme enables us to do just that.

Established in 2005 and designed to raise industry standards, our industry leading Partner Programme assures end users of a consistently high level of installation and after sales service that supports our systems. To be eligible to join our scheme in the first instance, prospective installation Partners must comply with the necessary building regulations and meet specific industry, programme and CSR standards.

All Partners are reviewed on a regular basis to ensure they continue to meet the required standards that makes them eligible to be part of the Mitsubishi Electric Partner Programme.

Register now at: [les.mitsubishielectric.co.uk/installers/partner-programme](http://les.mitsubishielectric.co.uk/installers/partner-programme)

For any questions email: [Partner@meuk.mee.com](mailto:Partner@meuk.mee.com)

The screenshot shows the official website for the Mitsubishi Electric Partner Programme. At the top, there's a navigation bar with links like 'Home', 'Hub', 'About', 'Contact', 'Help & Support', 'Log in / Register', 'HOMEWORKERS', 'INSTALLERS', 'SUPPLIERS', 'INTEGRATORS', and 'PRODUCTS'. Below the header, there's a main banner for the 'Partner Programme' featuring a green Mitsubishi Electric air conditioning unit. A sub-banner below it says 'Partner Programme' and includes the text: 'Mitsubishi Electric recognises the importance of forging lasting relationships with professional companies who install our equipment. Our Partner Programme enables us to do just that.' There are 'Apply Now' and 'Find a Partner' buttons. Further down, there's a section titled 'Am I Eligible?' with a detailed description of the programme's purpose and requirements, followed by a list of criteria for eligible companies. At the bottom, there's a section titled 'Different Partnership Levels' with three categories: 'ACCREDITED INSTALLER', 'BUSINESS SOLUTIONS PARTNER', and 'DIAMOND QUALITY PARTNER', each with a small icon.





## Partner Programme Benefits

### ■ Dedicated Partner Programme Team

Our dedicated Partner Programme Team are on hand to give Partners the support they need.

### ■ Mitsubishi Electric Customer Portal

We have developed our Customer Portal to help our Partners grow their business by enhancing their online presence on channels such as social media and via their own website. Product images, social media copy, easy to follow strategy guides and marketing training videos are just a few examples of free content that can be accessed.

Take a look today and see how you can use this to grow your business:

[les.mitsubishielectric.co.uk/Security/login](https://les.mitsubishielectric.co.uk/Security/login)

### ■ Co-Marketing / Relationship Development Fund (RDF)

We will work with Partners to promote our relationship and generate awareness of the unique business benefits of the Partner Programme to end-users. We operate a Partner Programme Relationship Development Fund (RDF) allocated in relation to their commercial activities with Mitsubishi Electric.

### ■ Digital Marketing Packages

We're able to offer an exclusive and flexible digital marketing package for our Partners, using their RDF to increase their brand awareness.

### ■ Online Workwear and Promotional Goods Portal

Partners can take advantage of their RDF to enhance their company image with dual branded work wear and promotional items. We offer items such as: RAB and The North Face jackets, beanies, polo shirts, Stanley cups, pens, notepads and so much more.

### ■ Product and Industry Training

Our Partners receive a free allocation of training courses and additional courses can be funded from their Relationship Development Fund.

### ■ Extended Warranty

Partners can offer their customers up to 10 year warranty on selected products. Subject to T&Cs.

### ■ Committed Carbon Reduction Partner (CCRP)

Partners have access to a new accreditation reflecting a commitment towards sustainable practices. The CCRP accreditation will provide a competitive advantage for our Partners, showcasing a proven dedication to reducing the operational carbon footprint through an annually calculated reduction plan, helping them on the road to Net Zero.



### ■ Carbon Footprint Calculation

Partners are invited to use their RDF to conduct a Carbon Footprint Calculation of their business, a crucial step on the road to net zero. We've made this a simple process via our Partner portal, with the calculation work conducted using an approved supplier.

### ■ 24hr Technical Support

To assist our Partners in the maintenance of our equipment, we have a dedicated technical support team who will endeavour to speedily diagnose faults and offer solutions to the problems our Partners may encounter.

### ■ Find An Installer

Mitsubishi Electric works to promote our Partners through our 'Find an installer' web page, highlighting specific Partners to contact, depending on the type of project a consumer has.

### ■ Business Support Tools

We have made it easier to do business with Mitsubishi Electric through the introduction of new technologies and our business tools available to Partners.

### ■ Factory Visits & Events

Our Partners and their clients will have the opportunity to witness first-hand the manufacture of air conditioning and Ecodan units at our manufacturing facility in Scotland. We organise regular factory visits to our manufacturing facility in Scotland, along with other events designed to develop our Partners expertise and support them in growing their business.

## Services and Support

### Mitsubishi Electric Deliveries

At Mitsubishi Electric, we realise that our customers' businesses can depend on getting the right equipment on site at the right time.

That's why we have developed a comprehensive and flexible delivery programme with one of the longest delivery windows in the industry. With the ability to offer timed, weekend and Public Holiday deliveries, coupled with free 'Text Ahead' and 'Ring Ahead' functions, we aim to keep our customers informed every step of the way.

#### Delivery Notes

- Cut off for next day deliveries is 1.00pm on the working day prior to delivery, or 2.30pm for orders placed via e-shop
- Standard weekday delivery is between 8.00am and 5.30pm for pallet deliveries, and 7.00am and 7.00pm for parcel deliveries
- AM / PM / Timed / Weekend / Public Holiday deliveries are all available (additional notice needed and charges will apply - please refer to full delivery guidelines for further details)
- Standard delivery will normally be made on an 18T rigid lorry equipped with a tail lift and a single driver with a pump truck
- Other vehicle types will be utilised dependant on any site access issues and delivery size
- If there are access restrictions at your nominated delivery point and a vehicle other than an 18T lorry is required, this will need to be booked in advance and a charge may apply
- Our 'Text Ahead' and 'Ring Ahead' functions are available on most deliveries. For parcel providers, we offer 'Text Ahead' only
- Deliveries available via HIAB (Flatbed vehicle with crane) / with chapter 8 signage - require 48 hours' notice and extra charges may apply
- We offer a 2-man delivery service, removal of packaging and a stair walker - these require 48 hours' notice and extra charges will apply
- Mitsubishi Electric is an Associate Member of the Fleet Operator Recognition Scheme (FORS) and our dedicated fleet vehicles are FORS accredited to Bronze level
- Collection is also available from our Milton Keynes warehouse - this must be pre-arranged and require at least 3 hours' notice
- Returns to be notified within 30 working days - Terms and Conditions apply
- MEHITS product deliveries are subject to alternate delivery arrangements - Terms and Conditions apply
- Please ensure shortages or damages are marked on the delivery note and notified within 3 working days

# Mitsubishi Electric Website, Document Library and The Hub

### Website

For further information on any of our products and services please visit our website: [les.mitsubishielectric.co.uk](http://les.mitsubishielectric.co.uk) which has been designed to provide a detailed overview of the energy saving solutions we can provide you.

### Document Library

Our website: [library.mitsubishielectric.co.uk](http://library.mitsubishielectric.co.uk) features all current operating and installation manuals, as well as product literature, case studies, CPD guides and more. There is no requirement for visitors to login to our sites to download the latest product and technical information. A document library app is also available allowing visitors to access this information simply from their tablet or smart phone.



### The Hub - online content portal

The Hub is a new approach from Mitsubishi Electric which offers useful and informative comments and articles from both leading independent editors and technical experts on the issues affecting the built environment, please visit: [thehub.mitsubishielectric.co.uk](http://thehub.mitsubishielectric.co.uk)

### e-Shop

Online ordering is available to all credit account customers across both Finished Goods (M Series and Mr Slim) and Spare Parts.

### CPD Information Guides

Mitsubishi Electric is accredited by the Construction CPD Certification Service in many different areas, aimed at enhancing the knowledge of its customers and providing a view of the key issues facing our industry today. We have produced a number of Industry Information Guides that are available to download from our Document Library. We also run a number of CPD seminars and training courses across the UK.

**To find out more, simply contact your local Mitsubishi Electric sales office.**



## Sales Contacts



### Corporate Sales

Tel: 0870 3000 070

### Birmingham

Tel: 0121 329 1970

### Bristol

Tel: 01454 202050

### Wakefield

Tel: 01924 241120

### London North & East Anglia

Tel: 01707 282480

### London South

Tel: 01737 387170

### Manchester

Tel: 0161 866 6060

### Scotland

Tel: 01506 444960

### Ireland

Tel: +353 (0)1 419 8800



Telephone: 01707 282880

MELServe Customer Services & Support: 0161 866 6089

Option 1 - Homeowners

Commercial Product Options (following Option 2)

Middlesex: 020 8783 1008

Option 2 - Commercial Products

Option 1 - Technical Support

Scotland: 01786 450 348

Option 3 - Residential Ecodan Installer  
or Service Provider

Option 2 - Spares

Option 3 - Warranty

Option 4 - Site Visits

Option 5 - Training

email: livingenvironmentalsystems@meuk.mee.com

website: les.mitsubishelectric.co.uk

UNITED KINGDOM Mitsubishi Electric Europe Living Environment Systems Division

Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England

General Enquiries Telephone: 01707 282880

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Note: The fuse rating is for guidance only and please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:208), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513a (GWP:631), R454B (GWP:466), R515B (GWP:292), R454C (GWP:148), R1234ze (GWP:7) or R1234yf (GWP:4). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a hydrocarbon, R290 (GWP:0.2). \*\*These GWP values are based on IPCC 6th edition.



Mitsubishi Electric UK's commitment  
to the environment



Follow us @meuk\_les  
Follow us @green\_gateway



Mitsubishi Electric  
Cooling and Heating UK



Mitsubishi Electric  
Living Environmental Systems UK



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thehub.mitsubishelectric.co.uk