

Think GAIA
For Life and the Earth

SANYO



Product Range 2008



ROOM AIR CONDITIONERS
COMMERCIAL SPLIT SYSTEMS

ELECTRIC VRF

GAS DRIVEN VRF

CO₂ WATER HEATERS

HYDRONIC PRODUCTS

VIRUS WASHER

SOLAR POWERED

SANYO Air Conditioners. The natural choice.

**Providing the full spectrum
of environmental
air conditioning solutions**





SANYO

Product Range 2008 - contents

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SANYO Air Conditioners - 50th Anniversary (1958-2008)

SANYO Air Conditioners - the natural choice

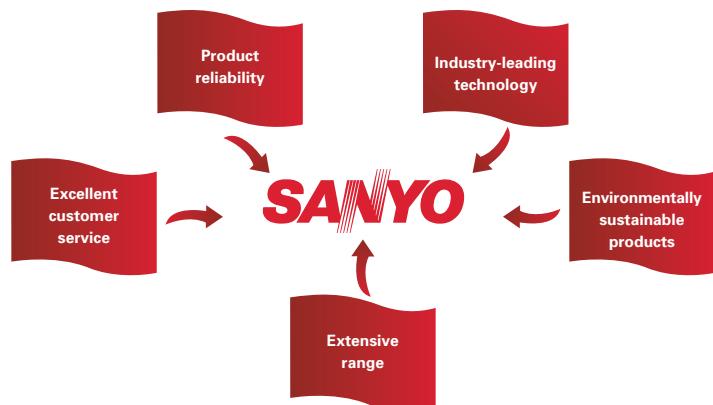
In 2008, SANYO celebrates 50 years in the air conditioning industry. During this time SANYO has earned its reputation as an innovator in air conditioning, consistently delivering market-leading technology and reliability. From the world's first heat pump air conditioners developed in 1960 to the first gas driven VRF systems in the 1980s and the first 3-pipe VRF system developed in 1989, our continuous program of research and development has ensured that SANYO's products remain at the forefront of innovation.

However, developing market-leading technology is only one part of the story. We are committed to delivering a complete service to all of our clients - from offering exemplary customer service to ensuring we provide the most reliable products in the industry.

2008 - another year of innovation

Here at SANYO, we are excited about the future. 2007 saw the launch of many revolutionary new technologies including solar air conditioning, the CO₂ Water Heater and the Virus Washer, to name just a few. In 2008 we plan to celebrate our 50th anniversary with more ground-breaking product launches. These include our new range of Elite PACi - super-efficient Commercial Split Systems, new VRF Indoor Units, more efficient and stylish Room Air Conditioners and the unmatched performance of the new M Series Gas Heat Pumps.

Most notable of all is the launch of the ECO G Power - gas driven VRF combined with an electric generator. This has to be one of the most environmentally-friendly heat pumps ever, providing not only cooling and heating but also a supply of electricity.



SANYO's Solar Ark, the world's largest solar power generator.



"Think GAIA" - the brand vision of SANYO

Environmental sustainability and "Think GAIA"

In the latter part of the last century, mankind's pursuit of convenience and material comforts left indelible marks on the earth, such as global warming and environmental destruction. SANYO has always had a strong environmental focus. However, in 2005 we took that a stage further and based our whole corporate philosophy on the concept of "Think GAIA". Under this brand vision SANYO has committed to using global resources and skills to develop solutions for a sustainable coexistence on earth.

What is "Think GAIA"?

"GAIA", originally the mythological goddess of the Earth, is a concept rapidly gaining momentum today. Based around the belief that living organisms on the earth affect the nature of their environment, the concept of "GAIA" was first proposed in 1979 by the English scientist James Lovelock, who participated in NASA's Mars exploration program during the 1960s. Lovelock proposed the idea of earth as a living, green organism where mankind and all living things live in harmony. His recent book "The Revenge of GAIA" serves as a wake-up call and has sparked much public debate.

SANYO - committed to developing environmental technologies

At SANYO, actions speak louder than words. We are dedicated to incorporating the "Think GAIA" ethos throughout our business. An example of this is our Solar Ark, which is the world's largest solar power generator, with over 5000 cells, which is used to supply one of our production plants.

"Think GAIA" has also been the driving force behind many environmentally sustainable products that are already widely available, including:

- **ECOi Electric VRF systems** - we have developed some of the most energy-efficient and reliable products in the industry.
- **Gas Driven VRF system** - providing an energy-efficient solution that delivers a reduced carbon footprint.
- **Virus Washer** - suppresses 99% of airborne viruses from treated air including common cold, flu and avian flu. Now available as a free-standing unit, it will soon be available in air conditioning systems.
- **Solar air conditioners** - set to revolutionise the air conditioning industry.

World-leading innovators

The "Think GAIA" brand vision is driving environmentally sustainable product development throughout the whole SANYO corporation. This development includes the Eneloop Battery, which can be recharged 1000 times and has a solar charger, and the revolutionary AQUA washing machine, which uses ozone rather than detergent, as well as recycling its water.



The Virus Washer is proven to effectively suppress viruses, bacteria and allergens.



The Eneloop Battery can be recharged 1000 times and has a solar charger.



The revolutionary AQUA washing machine uses ozone rather than detergent and recycles its water.



SANYO supplies the nickel-metal batteries used in hybrid cars such as Ford's Escape Hybrid and Honda's Accord Hybrid.

New PAC2 System Design Software

System designing for VRF (ECOi and GHP) and PACi Commercial Split Systems has never been easier

SANYO has identified the importance of ever-increasing demands for fast and accurate responses to customer requests in our industry. More and more emphasis is being placed upon energy-efficiency in our marketplace. The ability to calculate cooling/heating loads and produce information of actual design conditions is a major advantage to any architect, consultant, contractor or end user.

SANYO understands the ever-changing and demanding industry we are in and we are pleased to announce the launch of the next generation of our system design software program. The new advanced PAC2 system design software has been customised to make any selection and design process as quick and easy as possible. The software features a version of AC Calc Lite (produced by Click Software). This allows small building loadings to be accurately calculated and directly imported into the PAC2 software.

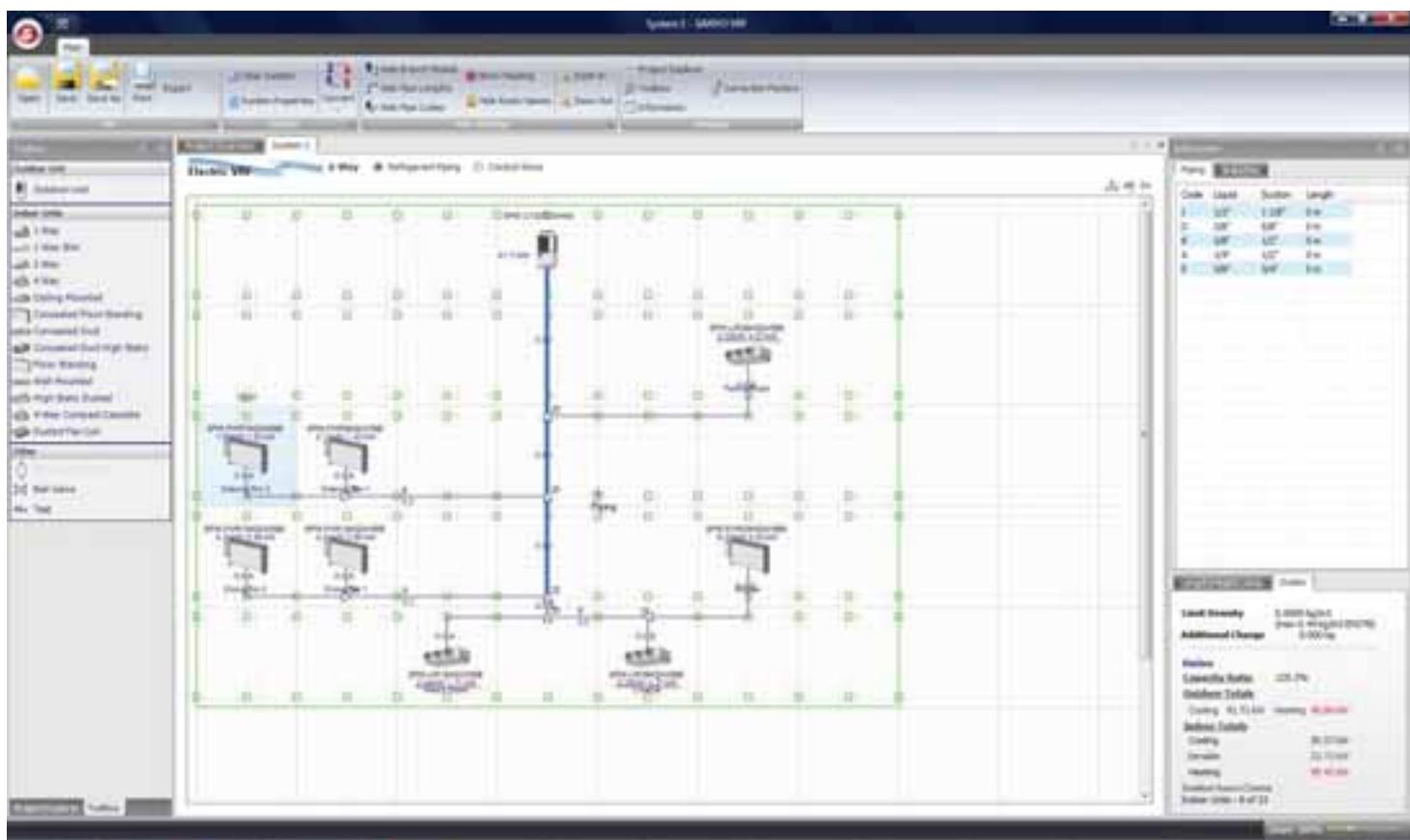
The design package utilises system wizards and import tools to enable both simple and complex systems to be created. In addition, the system will allow outdoor and indoor units to be dragged and dropped on an interactive desktop. This allows users to create everything from realistic floor plans with detailed piping and wiring schematics to send out with quotations, through to installation guidance drawings.



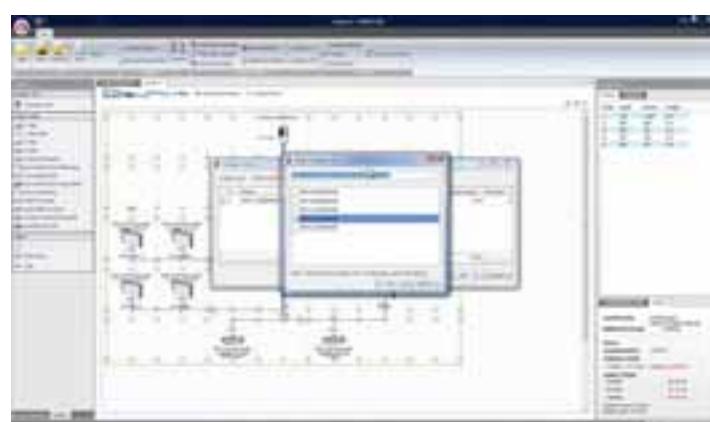
The new PAC2 system software can be used for all SANYO ECOi, GHP and PACi systems.

Features include

- AC Calc Lite (included in the package)
- Easy to use system wizards
- Auto piping and wiring features
- Converted duties for conditions and pipework
- Auto CAD (DXF) export
- Detailed wiring and pipework diagram



The new PAC2 system software can be used for all SANYO ECOi, GHP and PACi systems.







ROOM AIR CONDITIONERS

Introduction

The Room Air Conditioning range, specifically designed for small to medium sized areas, is, like all our air conditioning systems, the result of an extensive research and development program developed since 1958. Our innovative products offer the ideal solution when you need quiet, efficient room air conditioning to create a comfortable environment within a realistic budget. The latest generation of SAP models are among the most technically advanced and energy-efficient systems available today and are backed by SANYO's renowned reliability and customer service.

In addition to 1:1 Split systems, SANYO also produce the Flexi Multi - an advanced range of R410A DC inverter Heat Pump Multi Split Systems. Either 2, 3 or 4 indoor units can be connected to a single outdoor unit of 4.0kW, 6.8kW or 8.0kW.

2008 sees further improvements to the range. Our new Wall Mounted Units not only offer better performance but are also more stylish, making them a welcome addition to any design-conscious home.

For example the sleek, high-performance Mini Shiki Sai Kan comes with a choice of 5 stylish panel colours. Our extended range for 2008 also includes better performance, more efficient comfort heating and cooling systems.

Benefits

Environmentally friendly

The SAP range utilises the non-ozone-depleting R410A refrigerant, which means you can benefit from a comfortable environment without compromising the environment.

Increased efficiency

Innovations in the system mean that the SANYO range of room conditioners deliver market-leading efficiency.

Cost-effective running

Increased efficiency also means lower energy consumption and lower operating costs for you.

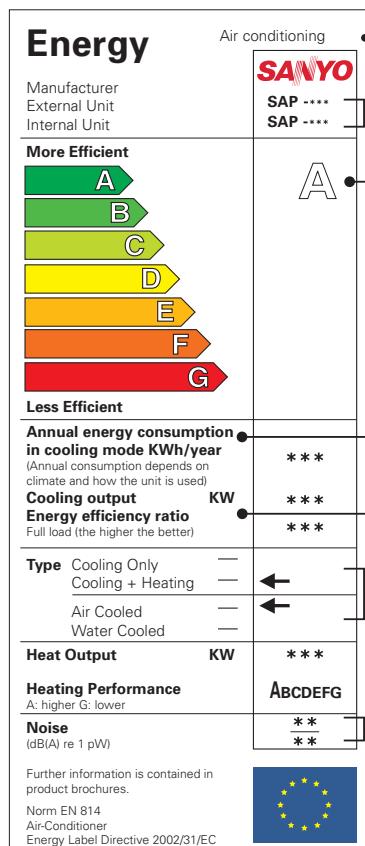
Quiet operation

Our leading technology means you can enjoy the benefits of air conditioning without the noise.

Stylish design

All our range is designed to look good in any environment, but for the ultimate in style the new Shiki Sai Kan and Mini Shiki Sai Kan come with a choice of front panels to match any interior décor.

SANYO Air Conditioners provide comfort cooling and heating



R410A

SAP R410A units are highly rated on EEL, which confirms that they are amongst the most energy-efficient systems available. Powerconsumptionduringoperationis substantially less than that of lower rated units and consequently both the day-to-day running costs and full life cycle costs are significantly reduced.

Room Air Conditioners - Overview

Inverter Systems

| Page | Capacity | kW | 2.65 | 3.5 | 5.1 | 7.1 |
|------|----------|---|------|-----|-----|-----|
| | | | | | | |
| 14 | | Shiki Sai Kan - wall mounted unit | ● | ● | | |
| 16 | | Mini Shiki Sai Kan - wall mounted unit | ● | ● | | |
| 18 | | KRV Type Inverter - wall mounted unit | ● | ● | ● | ● |
| 19 | | XRV Type - 4 way cassettes | ● | ● | ● | |
| 20 | | F/FT Inverter - floor & ceiling mounted units | ● | ● | ● | ● |
| 21 | | URV Type - concealed duct | ● | ● | ● | ● |

Constant Speed ON/OFF systems

| Page | Capacity | kW | 2.65 | 3.5 | 5.1 | 6.4 |
|------|----------|---|------|-----|-----|-----|
| | | | | | | |
| 24 | | KR Type 7 Series - wall mounted unit | ● | ● | | |
| 25 | | KR Type 4 Series - wall mounted unit | ● | ● | ● | ● |
| 26 | | XR Type - 4 way cassette | ● | ● | ● | |
| 27 | | F/FT Type - floor & ceiling mounted units | ● | ● | ● | ● |
| 28 | | UR Type - concealed duct | ● | ● | ● | ● |

Multi-Split systems

| Page | Capacity | kW | Multiple combination possible | | | | |
|------|----------|---|-------------------------------|------|-----|-----|-----|
| | | | 2.2 | 2.65 | 3.5 | 5.1 | 7.1 |
| 31 | | Mini Shiki Sai Kan - wall mounted unit | | ● | ● | | |
| 32 | | K Type 6 Series - wall mounted unit | ● | ● | ● | ● | ● |
| 33 | | XMR Type - 4 way cassette | | ● | ● | ● | |
| 34 | | F/FT Type - floor & ceiling mounted units | | ● | ● | ● | ● |
| z | | UMR Type - concealed duct | | ● | ● | ● | ● |

Shiki Sai Kan - wall mounted unit

SAP-KRV94EHDX SAP-KRV124EHDX



Outdoor unit



Remote

6 colour choices (options)



SPN-EXR(K)
Black



SPN-EXR(D)
Orange



SPN-EXR(R)
Red



SPN-EXR(N)
Gold



SPN-EXR(T)
Brown



SPN-EXR(W)
White

SANYO's Shiki Sai Kan model incorporates cutting-edge technology. This includes the industry's top-class energy-saving design, a wide array of airflow control options and heating/cooling operation down to -15°C.

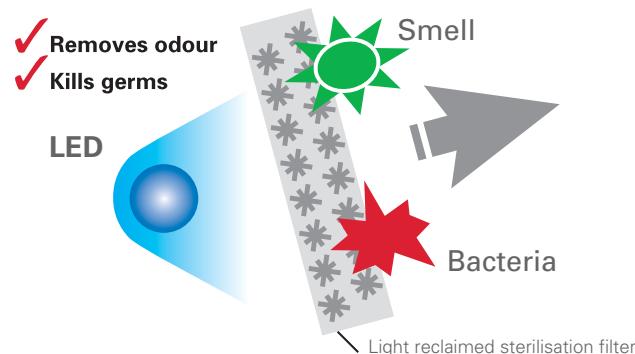
- Amazing performance in energy-saving: COP up to 5.0
- No reverse cycle defrost. Utilises hot gas injection defrosting, for non-stop heating operation
- Sleek & stylish panel design in a choice of 7 designer colours, silver available as standard
- Super quiet mode: 22 dB(A)
- LED photocatalytic sterilisation function features high-performance odour, germ and bacteria filters
- Negative ions generator helps clean the air of pollutants and is beneficial to health
- Air clean apatite filter
- 3D air flow
- Cooling and heating down to -15°C
- Night set back - economy mode function ensures gentle and energy-saving cooling and heating
- Multifunctional wireless remote control with built-in temperature sensor
- Automatic retractable panel to improve air flow, efficiency and reduce sound levels

Air Clean Apatite Filter

Apatite or calcium phosphate is highly effective in trapping germs, mites, pollen, dirt and dust, as well as cigarette odour. The triple layered air clean apatite filter consists of antibacterial, deodourising and dust collecting sections that maintain healthy, clean air in your room.

Photocatalytic sterilisation

The light reclaimed sterilisation filter attracts airborne bacteria, germs and allergens, and inactivates these pollutants with LED irradiation.



Negative Ions Generator



Direct air flow
Airflow is directed to a desired spot.



3-D Air vent



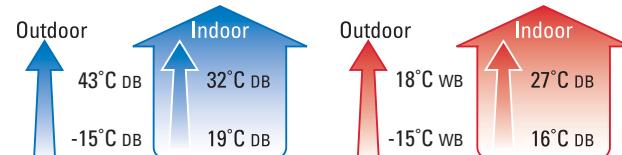
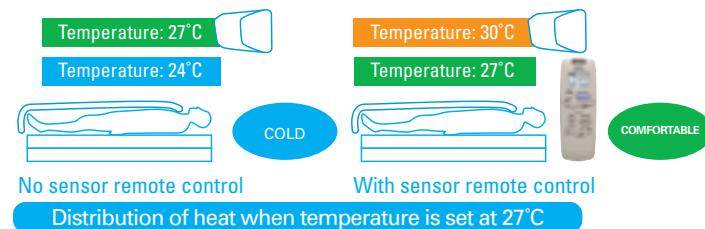
3-D Air vent
Wide air flow
Airflow is directed so that gentle warmth can be felt in the entire room.
Wide Circulation Airflow



Built-in temperature sensor

The temperature sensor incorporated into the remote control monitors the temperature around you.

Place the sensor remote control at your bedside so that you can enjoy comfortable warmth throughout the night.



| | | INVERTER HEAT PUMP | | | |
|---|------------|--------------------|-------------------|-------------------|-------------------|
| | | size 94 | | size 124 | |
| Performance | | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.65 (0.90-3.80)* | 3.60 (0.90-5.50)* | 3.50 (0.90-4.20)* | 4.80 (0.90-6.00)* |
| Power input | W | 250-530-1350 | 250-720-1450 | 250-875-1435 | 250-1140-1545 |
| EER/COP | | 5.00 | 5.00 | 4.00 | 4.21 |
| Energy class | | A | A | A | A |
| Total | kW | 2.55 | 3.2 | 3.37 | 4.3 |
| Sensible | kW | 2.3 | - | 2.7 | - |
| Running current | A | 2.4 (1.6-6.9) | 3.3 (1.6-9.9) | 4.0 (1.6-7.8) | 5.2 (1.6-9.9) |
| Indoor Unit | | SAP-KRV94EHDX | | SAP-KRV124EHDX | |
| Air circulation | (H) m³/h | 600 | | 630 | |
| Moisture removal | Litres/h | 1.8 | | 2.0 | |
| Sound pressure level (Quiet Mode/H/M/L) | dB(A) | 22/39/38/30 | | 22/40/38/30 | |
| Dimensions | (HxWxD) mm | 300x898x200 | | 300x898x200 | |
| Net weight | kg | 12.5 | | 12.5 | |
| Power supply | V,ph,Hz | 220-240V/1Ø 50Hz | | | |
| Outdoor Unit | | SAP-CRV94EHDX | | SAP-CRV124EHDX | |
| Sound power level | (H) dB(A) | 67 | | 68 | |
| Sound pressure level | (H) dB(A) | 49 | | 50 | |
| Dimensions | (HxWxD) mm | 569x790x285 | | | |
| Net weight | kg | 40 | | | |
| Power supply | V,ph,Hz | 220-240V/1Ø 50Hz | | | |
| Installation Data | | size 94 | | size 124 | |
| Pipe size function/discharge | Inches | 1/4, 3/8 | | | |
| Max piping length | m | 15 | | | |
| Precharged piping length | m | 7.5 | | | |
| Amount of additional refrigerant | g/m | 15 | | | |
| Max elevation difference - O.U. - I.U. | m | 10 | | | |
| Recommended fuse size | AMP | 16 | | | |
| Communication cables | mm | 3 Core + Earth | | | |
| Power supply to | | Indoor unit | | | |

* Boost mode allowed to run for a maximum of 20 min.

Mini Shiki Sai Kan - wall mounted unit

SAP-KRV96EHDS SAP-KRV126EHDS

Following the success and popularity of the Shiki Sai Kan, SANYO have developed a smaller version. Not only stylish, it offers exceptional energy-saving performance: COP up to 4.31.

- Cooling and heating down to -15°C
- The LED photocatalytic sterilisation function ensures excellent performance to combat odours, germs and bacteria
- Automatic sweep control
- Apatite ceramic filter
- Multifunctional remote control with built-in temperature sensor
- Simple elegant design with panels available in 4 colour choice options.
- Clock with ON/OFF program timer
- Washable front panel
- Low noise levels: 22 dB(A) (quiet mode)
- Night set back/economy mode function ensures quiet and energy-saving cooling and heating



Outdoor unit



Remote



Retractable panel

During operation, the front panel of the air conditioning unit opens to guarantee the optimal distribution of air across the entire surface of the heat exchanger. This improves the uniformity of the airflow, as well as functional efficiency and operational noise levels. When the air conditioner is shut off, the panel automatically returns to the closed position, protecting the unit from dust.



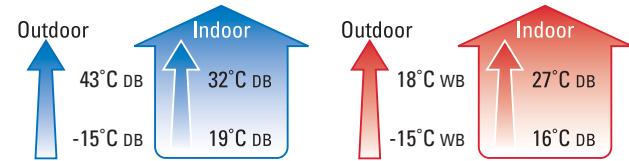
Negative ions generator

The negative ions generator fills and revitalises your room with healthy negative ions throughout the year. Negative ions help clean the air of pollutants and are beneficial to health.





Multi-function Remote Control



| INVERTER HEAT PUMP | | | | | |
|--|-----------|---------------------------|-------------------|-------------------|------------------|
| | | Model 96 | | Model 126 | |
| Performance | | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.65 (0.9-3.6) | 3.60 (0.9-4.9) | 3.50 (0.9-3.6) | 4.8 (0.9-5.9) |
| Power input | W | 250-650-1040 | 250-650-1400 | 250-1090-1200 | 250-1165-1600 |
| EER/COP | | 4.21 | 4.31 | 3.41 | 3.81 |
| Energy class | | A | A | A | A |
| Running current/AMPs | A | 3.3 (1.3-5.4) | 4.0 (1.2-6.8) | 4.8 (1.2-5.6) | 5.8 (1.1-7.3) |
| Annual energy consumption (cooling) | kW | 315 | - | 512.5 | - |
| Power supply | V,ph,Hz | 230, 1+N, 50 outdoor unit | | | |
| Indoor Unit | | SAP-KRV96EHDS | | SAP-KRV126EHDS | |
| Air circulation | (H) m³/h | 480 | 480 | 500 | 500 |
| Moisture removal | Litres/h | 1.6 | - | 2.0 | - |
| Sound power level | (H) dB(A) | 56 | 56 | 57 | 57 |
| Sound pressure level (Quiet/L/M/H) dB(A) | | 22/28/35/41 | 22/28/35/41 | 22/28/35/42 | 22/29/36/42 |
| Dimensions (HxWxD) mm | | 265x789x180 | | 265x789x180 | |
| Net weight | kg | 9.5 | | 9.5 | |
| Outdoor Unit | | SAP-CRV96EHDS | | SAP-CRV126EHDS | |
| Sound power level (H) dB(A) | | 63 | 64 | 65 | 66 |
| Sound pressure level (H) dB(A) | | 45 | 46 | 47 | 48 |
| Dimensions (HxWxD) mm | | 565x790x265 | | 565x790x265 | |
| Net weight | kg | 36 | | 36 | |
| Installation Data | | Model 96 | | Model 126 | |
| Pipe size function/discharge | Inches | 1/4, 3/8 | | 1/4, 3/8 | |
| Max piping length | m | 15 | | 15 | |
| Max elevation difference - O.U. - I.U. | m | 7 | | 7 | |
| Chargeless piping length | m | 7.5 | | 7.5 | |
| Amount of additional refrigerant | AMP | 15 | | 15 | |

KRV Type Inverter - wall mounted unit (6 Series)

R410A

INVERTER
Air Conditioner

SAP-KRV96EH SAP-KRV126EH SAP-KRV186EH SAP-KRV246EH

Ideal solution when you need quiet, energy-efficient and controllable room air conditioning.

NEW

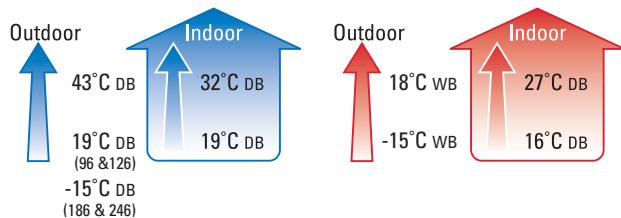
- New stylish appearance and compact flat panel design
- Cooling and heating operation down to -15°C (size 186 & 246)
- DC inverter technology for precise temperature control
- Auto restart after power failure and auto changeover
- Powerful start function for rapid cooling/heating
- Washable and reusable air clean apatite filter
- Infrared remote control with 24 hour clock with ON/OFF program time
- Sleek multifunctional wireless remote control with built-in temperature control



Remote



Outdoor unit



| | INVERTER HEAT PUMP | | | | | | | |
|--|---------------------------|----------------|-----------------------|----------------|---------------------------|----------------|------------------------|------------------|
| | size 96 | | size 126 | | size 186 | | size 246 | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity kW | 0.9-2.5-3.2 | 0.9-3.3-4.3 | 0.9-3.3-3.8 | 0.9-4.0-5.0 | 1.2-5.15-5.5 | 1.3-6.0-6.4 | 1.2-7.1-8.0 | 1.3-8.5-9.5 |
| Power input W | 250-775-1150 | 250-915-1360 | 250-1025-1300 | 250-1105-1470 | 250-1500-1800 | 270-1575-1930 | 280-2355-2845 | 290-2490-3150 |
| EER/COP W/W | 3.23 | 3.61 | 3.22 | 3.62 | 3.43 | 3.81 | 3.01 | 3.41 |
| Energy class | A | A | A | A | A | A | B | B |
| Running amperes A | 1.26-3.92-5.81 | 1.21-4.42-6.57 | 1.14-4.69-5.95 | 1.14-5.06-6.73 | 1.20-6.90-8.40 | 1.30-7.20-9.00 | 1.20-10.50-13.60 | 1.30-11.00-15.10 |
| Annual energy consumption (cooling) kWh | 387.5 | | 512.5 | | 750 | | 1177.5 | |
| Power supply V,ph,Hz | 230, 1+N, 50 outdoor unit | | | | 230, 1+N, 50 outdoor unit | | | |
| Indoor Unit | SAP-KRV96EH | | SAP-KRV126EH | | SAP-KRV186EH | | SAP-KRV246EH | |
| Air circulation (H) m³/h | 390 | 460 | 530 | 580 | 930 | 980 | 1130 | 1180 |
| Moister removal Litres/h | 1.4 | - | 1.8 | - | 2.3 | - | 2.3 | - |
| Sound power level (H) dB(A) | 59 | 59 | 61 | 61 | 59 | 58 | 64 | 63 |
| Sound pressure level (Quiet/L/M/H) dB(A) | 22/30/35/38 | 22/30/35/38 | 25/30/36/40 | 25/30/36/40 | 28/34/38/42 | 28/34/38/41 | 30/41/44/47 | 30/40/43/46 |
| Dimensions (HxWxD) mm | 285x825x213 | | 285x825x213 | | 298x1065x234 | | 298x1065x234 | |
| Net weight kg | 9.0 | | 9.0 | | 12.0 | | 12.0 | |
| Outdoor Unit | SAP-CRV96EH | | SAP-CRV126EH | | SAP-CRV186EH | | SAP-CRV246EH | |
| Sound power level (H) dB(A) | 63 | 63 | 64 | 64 | 71 | 72 | 73 | 74 |
| Sound pressure level (H) dB(A) | 47 | 47 | 48 | 48 | 51 | 52 | 55 | 56 |
| Dimensions (H/W/D) mm | 548x720x265 | | 548x720x265 | | 670x880x285 | | 740x900x320 | |
| Net weight kg | 30 | | 32 | | 44 | | 59 | |
| Refrigerant circuit | size 96 | | size 126 | | size 186 | | size 246 | |
| Tube diameter narrow/wide mm(in) | 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) / 15.88(5/8) | |
| Max piping length m | 15 | | 15 | | 30 | | 30 | |
| Max elevation difference O.U.- I.U. m | 7 | | 7 | | 15 | | 15 | |
| Chargeless piping length m | 7.5 | | 7.5 | | 10 | | 10 | |
| Amount of additional refrigerant g/m | 15 | | 15 | | 25 | | 25 | |

Specifications subject to change without notice

XRV Type Inverter - 4 way cassette (6 Series)

R410A

INVERTER
Air Conditioner

SAP-XRV96EH SAP-XRV126EH SAP-XRV186EH

The X type DC inverter-driven cassette is ultra compact to fit perfectly into standard 600 x 600mm ceiling grid and is ideal for small commercial and retrofit projects.

- Light and compact design making it quick and easy to install
- DC inverter technology for precise temperature control
- Auto restart after power failure and auto changeover
- Auto air sweep control provides uniform air flow in the room
- Powerful start function for rapid cooling/heating
- Automatic cooling/ heating control maintains the desired temperature
- Cooling and heating up to -15°C (Model 186)
- Condensate elimination pump with pressure head up to 250mm
- Multifunctional remote control with integrated temperature sensor
- Clock with ON/OFF program timer
- Washable filter avoids formation of mould and bacteria
- Removable and washable panel with a modern design
- Night Set back/economy mode function ensuring energy-saving in cooling and heating

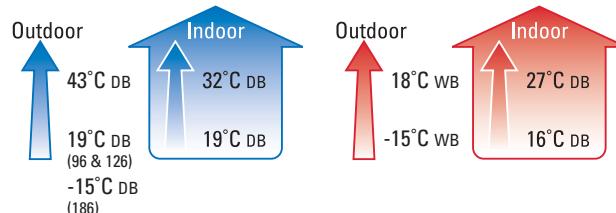
NEW



Remote



Outdoor unit



| INVERTER HEAT PUMP | | | | | | |
|---|---------------------------|--------------|-------------------------|---------------------------|-------------------------|---------------|
| | size 96 | | size 126 | | size 186 | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity Kw | 0.9-2.6-3.2 | 0.9-3.2-4.5 | 0.9-3.3-3.8 | 0.9-4.5-5.8 | 1.2-5.15-5.3 | 1.3-6.0-6.4 |
| Power input W | 250-810-1180 | 250-930-1545 | 250-980-1325 | 250-1240-1720 | 250-1600-1830 | 270-1650-1960 |
| EER/COP W/W | 3.21 | 3.76 | 3.37 | 3.63 | 3.22 | 3.64 |
| Energy class A | A | A | A | A | A | A |
| Running amperes A | 1.2-4.0-6.0 | 1.2-4.5-6.6 | 1.2-4.6-6.3 | 1.2-5.7-7.3 | 1.2-7.2-8.6 | 1.3-7.4-9.2 |
| Annual energy consumption (cooling) kWh | 405 | | 490 | | 800 | |
| Power supply V,ph,Hz | 230, 1+N, 50 outdoor unit | | | 230, 1+N, 50 outdoor unit | | |
| Indoor Unit | SAP-XRV96EH | | SAP-XRV126EH | | SAP-XRV186EH | |
| Air-circulation (H) m³/h | 500/600/700 | | 500/600/700 | | 580/660/790 | |
| Moister removal Litres/h | 1.5 | - | 1.8 | - | 2.0 | - |
| Sound power level (H) dB(A) | 53 | | 53 | | 54 | |
| Sound pressure level (L/M/H) dB(A) | 37/40/44 | | 37/40/44 | | 37/40/45 | |
| Dimensions (HxWxD) Unit mm | 296x575x575 | | 296x575x575 | | 296x575x575 | |
| Dimensions (HxWxD) Panel mm | 64x730x730 | | 64x730x730 | | 64x730x730 | |
| Net weight Unit kg | 16.5 | | 16.5 | | 16.5 | |
| Net weight Panel kg | 2.5 | | 2.5 | | 2.5 | |
| Outdoor Unit | SAP-CRV96EH | | SAP-CRV126EH | | SAP-CRV186EH | |
| Sound power level (H) dB(A) | 63 | 63 | 64 | 64 | 71 | 72 |
| Sound pressure level (H) dB(A) | 47 | 47 | 48 | 48 | 51 | 52 |
| Dimensions (H/W/D) mm | 548x720x265 | | 548x720x265 | | 670x880x285 | |
| Net weight kg | 30 | | 32 | | 44 | |
| Refrigerant circuit | size 96 | | size 126 | | size 186 | |
| Tube diameter narrow/mide mm(in) | 6.35 (1/4) / 9.52 (3/8) | | 6.35 (1/4) / 9.52 (3/8) | | 6.35 (1/4) / 12.7 (1/2) | |
| Length m | 15 | | 15 | | 30 | |
| Max elevation difference O.U. - I.U. m | 7 | | 7 | | 15 | |
| Chargeless piping length m | 7.5 | | 7.5 | | 10 | |
| Amount of additional refrigerant g/m | 15 | | 15 | | 25 | |

Specifications subject to change without notice

F/FT Type Inverter - floor & ceiling mounted units (6 Series)

R410A

INVERTER
Air Conditioner

SAP-FRV96EH SAP-FTRV126EH SAP-FTRV186EH SAP-FTRV246EH

The new floor & ceiling mounted units are flexible and effective alternative to wall-mounted units.

NEW

- DC inverter technology for precise temperature control
- Air flow optimised for heating
- Powerful and lightweight compact design
- Auto restart after power failure and auto changeover
- Automatic air flow control
- Automatic cooling/ heating control maintains the desired temperature
- Cooling and heating up to -15°C (Models 186 and 246)
- Multifunctional remote control with integrated temperature sensor
- Clock with ON/OFF program timer
- Washable filter avoids formation of mould and bacteria
- Washable front panel
- Night Set back/economy mode function ensuring energy-saving in cooling and heating



FR

Outdoor unit

Remote



FTR ceiling mounted

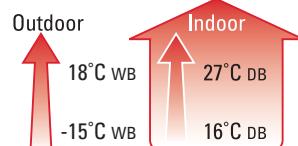
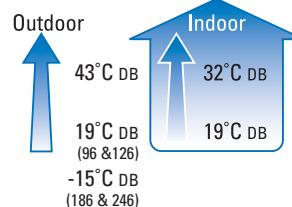


FTR floor mounted

FR



Remote



| | INVERTER HEAT PUMP | | | | | | | |
|---|---------------------------|--------------|-----------------------|----------------|---------------------------|----------------|------------------------|------------------|
| | size 96 | | size 126 | | size 186 | | size 246 | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity kW | 0.9-2.5-3.2 | 0.9-3.2-4.5 | 0.9-3.3-3.8 | 0.9-4.0-5.0 | 1.2-5.15-5.5 | 1.3-6.0-6.4 | 1.2-7.1-8.0 | 1.3-8.5-9.5 |
| Power input W | 250-700-1140 | 250-930-1510 | 250-1025-1300 | 250-1105-1470 | 250-1500-1800 | 270-1575-1930 | 280-2355-2845 | 290-2490-3150 |
| EER/COP W/W | 3.64 | 3.44 | 3.22 | 3.62 | 3.43 | 3.81 | 3.01 | 3.41 |
| Energy class | A | A | A | A | A | A | B | B |
| Running amperes A | 1.2-3.2-5.8 | 1.2-4.5-6.5 | 1.14-4.69-5.95 | 1.14-5.06-6.73 | 1.20-6.90-8.40 | 1.30-7.20-9.00 | 1.20-10.50-13.60 | 1.30-11.00-15.10 |
| Annual energy consumption (cooling) kWh | 350 | | 512.5 | | 750 | | 1177.5 | |
| Power supply V,ph,Hz | 230, 1+N, 50 outdoor unit | | | | 230, 1+N, 50 outdoor unit | | | |
| Indoor Unit | SAP-FRV96EH | | SAP-FTRV126EH | | SAP-FTRV186EH | | SAP-FTRV246EH | |
| Air circulation (H) m ³ /h | 320/390/425 | | 500/590/700 | | 515/615/720 | | 650/800/900 | |
| Moister removal Litres/h | 1.5 | - | 1.8 | - | 2 | - | 2.0 | - |
| Sound power level (H) dB(A) | 51 | 51 | 55 | 55 | 56 | 56 | 58 | 58 |
| Sound pressure level (L/M/H) dB(A) | 34/40/43 | | 38/43/47 | | 39/44/48 | | 44/47/50 | |
| Dimensions (HxWxD) mm | 700x720x265 | | 680x900x190 | | 680x900x190 | | 680x900x190 | |
| Net weight kg | 18.6 | | 23.5 | | 23.5 | | 23.5 | |
| Outdoor Unit | SAP-CRV96EH | | SAP-CRV126EH | | SAP-CRV186EH | | SAP-CRV246EH | |
| Sound power level (H) dB(A) | 63 | 63 | 64 | 64 | 71 | 72 | 73 | 74 |
| Sound pressure level (H) dB(A) | 47 | 47 | 48 | 48 | 51 | 52 | 55 | 56 |
| Dimensions (H/W/D) mm | 548x720x265 | | 548x720x265 | | 670x880x285 | | 740x900x320 | |
| Net weight kg | 30 | | 32 | | 44 | | 59 | |
| Refrigerant circuit | size 96 | | size 126 | | size 186 | | size 246 | |
| Tube diameter narrow/wide mm(in) | 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) / 15.88(5/8) | |
| Max piping length m | 15 | | 15 | | 30 | | 30 | |
| Max elevation difference O.U.- I.U. m | 7 | | 7 | | 15 | | 15 | |
| Chargeless piping length m | 7.5 | | 7.5 | | 10 | | 10 | |
| Amount of additional refrigerant g/m | 15 | | 15 | | 25 | | 25 | |

Specifications subject to change without notice

URV Type Inverter - concealed duct (6 Series)

R410A INVERTER
Air Conditioner

SAP-URV96EH SAP-URV126EH SAP-URV186EH SAP-URV246EH

Top performance ducted units providing flexible air-conditioning together with low noise levels. Ideal for flexible, concealed air conditioning for all types of air conditioning applications.

- The integrated unit has a height of 266mm to fit standard architectural scheme
- Using the supplementary cable it is possible to increase the static pressure to satisfy any duct-related requirement
- DC inverter technology for precise temperature control
- Light and compact design
- Auto restart after power failure and auto changeover
- Powerful start function for rapid cooling/heating
- Automatic cooling/ heating control maintains the desired temperature
- External electrical panel for rapid cable attachments and simple maintenance
- Cooling and heating up to -15°C (models 186-246)
- Condensate elimination pump with pressure head up to 250mm
- Multifunctional remote control with integrated temperature sensor

NEW

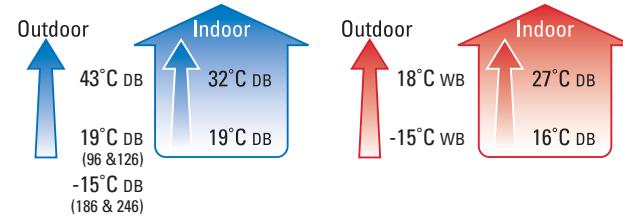


Remote



Outdoor unit

- Clock with ON/OFF program timer
- The included air filter is easily accessible from the lower part of the unit
- Night Set back/economy mode function ensuring energy-saving in cooling and heating



| INVERTER HEAT PUMP | | | | | | | | |
|---|---------------------------|--------------|-----------------------|---------------|---------------------------|---------------|------------------------|---------------|
| | size 96 | | size 126 | | size 186 | | size 246 | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity kW | 0.9-2.6-3.2 | 0.9-3.5-4.8 | 0.9-3.5-3.8 | 0.9-4.5-5.8 | 1.2-5.4-5.5 | 1.3-6.0-6.4 | 1.2-7.15-7.5 | 1.3-8.5-9.5 |
| Power input W | 250-750-1230 | 250-920-1590 | 250-1010-1375 | 250-1245-1765 | 250-1650-1830 | 270-1600-1960 | 280-2370-2850 | 290-2640-3160 |
| EER/COP W/W | 3.47 | 3.8 | 3.47 | 3.61 | 3.27 | 3.75 | 3.02 | 3.22 |
| Energy class | A | A | A | A | A | A | B | C |
| Running amperes A | 3.5 | 4.2 | 4.6 | 5.7 | 7.4 | 7.3 | 10.9 | 12 |
| Annual energy consumption (cooling) kWh | 375 | | 505 | | 825 | | 1185 | |
| Power supply V,ph,Hz | 230, 1+N, 50 outdoor unit | | | | 230, 1+N, 50 outdoor unit | | | |
| Indoor Unit | SAP-URV96EH | | SAP-URV126EH | | SAP-URV186EH | | SAP-URV246EH | |
| Air-circulation (H) m³/h | 470/560/620 | | 470/560/620 | | 455/645/865 | | 530/760/985 | |
| Moister removal Litres/h | 1.5 | - | 1.8 | - | 2.0 | - | 2.5 | - |
| External static pressure (std/booster) Pa | 49/69 | | 49/69 | | 49/69 | | 49/69 | |
| Sound power level (H) dB(A) | 56 | | 56 | | 56 | | 59 | |
| Sound pressure level (L/M/H) dB(A) | 40/43/45 | | 40/43/45 | | 33/38/45 | | 37/40/48 | |
| Dimensions (HxWxD) mm | 266x852x571 | | 266x852x571 | | 266x1058x571 | | 266x1058x571 | |
| Net weight kg | 30 | | 30 | | 35 | | 35 | |
| Outdoor Unit | SAP-CRV96EH | | SAP-CRV126EH | | SAP-CRV186EH | | SAP-CRV246EH | |
| Sound power level (H) dB(A) | 63 | 63 | 64 | 64 | 71 | 72 | 73 | 74 |
| Sound pressure level (L/M/H) dB(A) | 47 | 47 | 48 | 48 | 51 | 52 | 55 | 56 |
| Dimensions (HxWxD) mm | 548x720x265 | | 548x720x265 | | 670x880x285 | | 740x900x320 | |
| Net weight kg | 30 | | 32 | | 44 | | 59 | |
| Refrigerant circuit | size 96 | | size 126 | | size 186 | | size 246 | |
| Tube diameter narrow/mide mm(in) | 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) / 15.88(5/8) | |
| Max piping length m | 15 | | 15 | | 30 | | 30 | |
| Max elevation difference O.U. - I.U. m | 7 | | 7 | | 15 | | 15 | |
| Chargeless piping length m | 7.5 | | 7.5 | | 10 | | 10 | |
| Amount of additional refrigerant g/m | 15 | | 15 | | 25 | | 25 | |

Specifications subject to change without notice

SAP-CRV...EH SAP-CRV...EHDS SAP-CRV...EHDX SAP-CRV...EHAX SAP-CRV...EHFP



The Room Air Conditioners outdoor units utilise the latest SANYO twin rotary compressor, in which perfectly balanced dual rotors revolve smoothly and efficiently to provide powerful, quiet and vibration-free performance.

High energy-efficiency

SANYO conforms to the 2002/31/EC Directive - 92/75/EEC "Energy Labelling Directive (ELD)", which became legislation in June 2004 on all air conditioning products up to 12kW cooling capacity. The DC inverter technology helps us to achieve the "A" class, the highest level of energy-efficiency, as clearly indicated on the standard labelling system.

| Energy | |
|--|--|
| Manufacturer Model | Air Conditioner SANYO AIR CONDITIONERS All R410A Systems |
| <p>More efficient A B C D E F G Less efficient</p> | |

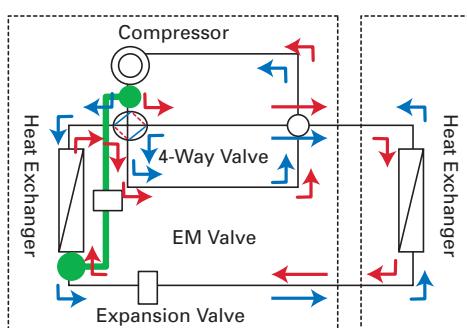
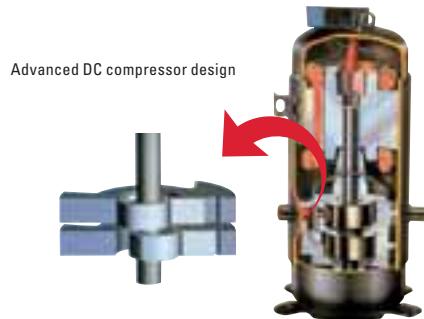
*except CRV244EH and CRV246EH

Rapid and accurate temperature control

The Room Air Conditioner Systems use Advanced Digital Hybrid (ADH) technology for better, smarter and more cost efficient year round climate control. Immediately following start-up, the DC compressor operates at maximum power to provide almost instant heating or cooling. As the desired air temperature is reached, a special Pulse Width Module automatically adjusts the compressor's frequency to exactly meet the cooling or heating requirements of the room. The result is exceptionally precise temperature control, less noise and significant energy savings.

Special defrost operation

SANYO's hot-gas defrost valve avoids uncomfortable conditions during defrosting functions, ensuring continuous operation even in very low ambient temperatures. Comfortable room conditions are maintained while the decline of indoor air temperature is kept to a minimum. (Shiki Sai Kan and Mini Shiki Sai Kan only)





KR Type Constant Speed - wall mounted unit (7 Series)

R410A

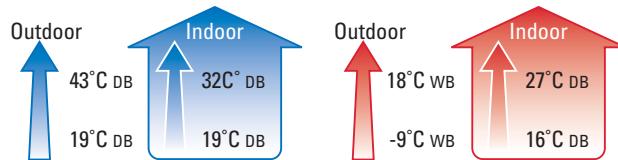
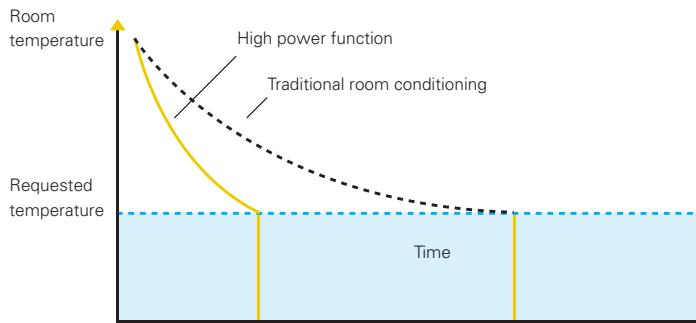
SAP-KR97EHAX SAP-KR127EHAX

SANYO's new 7 Series K type unit is stylish, with a sleek and discrete design that fits perfectly in any interior.

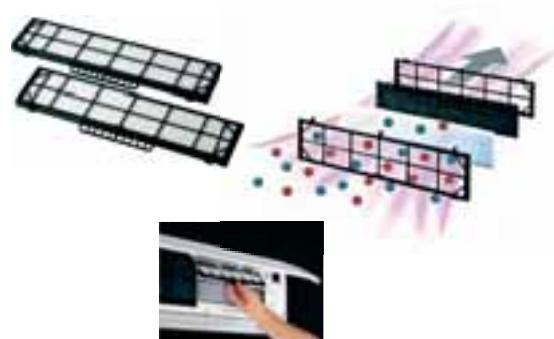
NEW

- Lightweight and compact
- Improved efficiency
- LED sterilisation function
- High power function
- Cold draft prevention in heating mode
- Built-in temperature sensor remote controller
- Economy mode (night set back)

High power key



Double layer filter



| | | CONSTANT SPEED HEAT PUMP | | | |
|--------------------------------------|---------------------|--------------------------|-------------|---------------|-------------|
| | | size 97 | | size 127 | |
| Performance | | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.8 | 2.8 | 3.3 | 3.6 |
| Power input | W | 870 | 775 | 1,025 | 995 |
| EER/COP | W/W | 3.22 | 3.61 | 3.22 | 3.62 |
| Energy class | - | A | A | A | A |
| Running amperes | A | 3.9 | 3.5 | 4.6 | 4.5 |
| Annual energy consumption (cooling) | kWh | 435 | - | 512.5 | - |
| Indoor Unit | | SAP-KR97EHAX | | SAP-KR127EHAX | |
| Air circulation | (H) m³/h | 600 | 600 | 620 | 640 |
| Moisture removal | Litres/h | 1.8 | - | 2.0 | - |
| Sound power level | (H) dB(A) | 56 | 56 | 57 | 57 |
| Sound pressure level | (Quiet/L/M/H) dB(A) | 25/31/34/39 | 25/31/34/39 | 26/32/35/40 | 26/32/35/40 |
| Dimensions | (HxWxD) mm | 250×799×205 | | 250×799×205 | |
| Net weight | kg | 7.5 | | 7.5 | |
| Power supply | V,ph,Hz | 230,1+N,50 | | 230,1+N,50 | |
| Outdoor Unit | | SAP-CR97EHAX | | SAP-CR127EHAX | |
| Sound power level | (H) dB(A) | 65 | 65 | 67 | 67 |
| Sound pressure level | (H) dB(A) | 48 | 48 | 50 | 50 |
| Dimensions | (H/W/D) mm | 510×660×240 | | 598×660×240 | |
| Net weight | kg | 24 | | 31 | |
| Power supply | V,ph,Hz | 230,1+N,50 | | 230,1+N,50 | |
| Refrigerant circuit | | size 97 | | size 127 | |
| Tube diameter narrow/wide | Inches | 1/4, 3/8 | | 1/4, 3/8 | |
| Max piping length | m | 15 | | 15 | |
| Max elevation difference O.U. - I.U. | m | 7 | | 7 | |
| Chargeless piping length | m | 7.5 | | 7.5 | |
| Amount of additional refrigerant | g/m | 20 | | 20 | |

KR Type Constant Speed - wall mounted unit (4 Series)

R410A

SAP-KR74EH SAP-KR94EH SAP-KR124EH SAP-KR184EH SAP-KR224EH

SANYO's online fixed-speed range provides outstanding performance and offers a low-cost alternative to inverter technology.

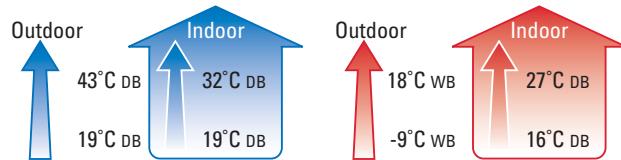
- Lightweight and compact design for easy installation
- Auto restart after power failure
- Multifunctional wireless remote control with built-in temperature sensor with ON/OFF program timer
- Cold draft prevention
- Quiet mode from 21 dB(A)
- Automatic cooling and heating changeover
- Ion generator refreshes your room with negative ions (184 & 224)
- Night set back/economy mode function ensures gentle and energy-saving cooling and heating



Remote



Outdoor unit



| | | CONSTANT SPEED HEAT PUMP | | | | | | | | | |
|--|----------|---------------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|----------------|-------------|
| | | size 74 | | size 94 | | size 124 | | size 184 | | size 224 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.2 | 2.5 | 2.65 | 3.0 | 3.5 | 4.0 | 5.15 | 5.7 | 6.4 | 7.2 |
| Power input | W | 685 | 690 | 825 | 830 | 1090 | 1105 | 1600 | 1580 | 2275 | 2240 |
| COP | W/W | 3.21 | 3.62 | 3.21 | 3.61 | 3.21 | 3.62 | 3.22 | 3.61 | 2.81 | 3.21 |
| Energy class | - | A | A | A | A | A | A | A | A | C | C |
| Running amperes 1ph/3ph | A | 3.1 | 3.1 | 3.7 | 3.8 | 4.9 | 5.0 | 7.1/3.2 | 7.0/3.2 | 10.0/4.4 | 9.8/4.4 |
| Annual energy consumption (cooling) | kWh | 342.5 | - | 412.5 | - | 545 | - | 800 | - | 1137.5 | - |
| Indoor Unit | | SAP-KR74EH | | SAP-KR94EH | | SAP-KR124EH | | SAP-KR184EH | | SAP-KR224EH | |
| Air circulation (H) | m³/h | 430 | 450 | 480 | 500 | 500 | 530 | 890 | 890 | 980 | 980 |
| Moisture removal | Litres/h | 1.3 | - | 1.8 | - | 2.0 | - | 2.3 | - | 3.3 | 3.3 |
| Sound power level (H) dB(A) | dB(A) | 54 | 53 | 56 | 55 | 59 | 58 | 60 | 59 | 62 | 63 |
| Sound pressure level (Quiet/L/M/H) dB(A) | dB(A) | 25/28/32/36 | 24/27/31/35 | 25/28/33/38 | 24/27/32/37 | 25/28/34/41 | 24/27/33/40 | 32/35/39/42 | 32/34/38/41 | 32/36/40/44 | 32/37/41/45 |
| Dimensions (HxWxD) | mm | 285x825x189 | | 285x825x189 | | 285x825x189 | | 298x1065x218 | | 298x1065x218 | |
| Net weight | kg | 10 | | 10 | | 10 | | 12 | | 12 | |
| Power supply | V,ph,Hz | 230, 1+N, 50 | | | | | | | | | |
| Outdoor Unit | | SAP-CR74EH | | SAP-CR94EH | | SAP-CR124EH | | SAP-CR184EH/DH | | SAP-CR224EH/DH | |
| Sound power level (H) dB(A) | dB(A) | 64 | 65 | 65 | 66 | 67 | 68 | 73 | 74 | 75 | 76 |
| Sound pressure level (H/L) dB(A) | dB(A) | 46 | 47 | 47 | 48 | 49 | 50 | 55 | 56 | 57 | 58 |
| Dimensions (H/W/D) | mm | 548x720x265 | | 548x720x265 | | 565x790x285 | | 670x880x285 | | 670x880x285 | |
| Net weight | kg | 29 | | 35 | | 37 | | 48 | | 56 | |
| Power supply | V,ph,Hz | 230, 1+N, 50/400, 3+N, 50 | | | | | | | | | |
| Installation Data | | size 74 | | size 94 | | size 124 | | size 184 | | size 224 | |
| Tube diameter narrow/wide | Inches | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 1/2 | | 1/4, 5/8 | |
| Max piping length | m | 15 | | 15 | | 15 | | 30 | | 30 | |
| Max elevation difference O.U. - I.U. | m | 7 | | 7 | | 7 | | 7 | | 7 | |
| Chargeless piping length | m | 7.5 | | 7.5 | | 7.5 | | 7.5 | | 10 | |
| Amount of additional refrigerant | g/m | 15 | | 15 | | 15 | | 25 | | 25 | |

XR Type Constant Speed - 4 way cassette

R410A

SAP-XR94EH SAP-XR124EH SAP-XR184EH

The X type online cassette is designed to fit into a standard 600 x 600mm ceiling grid and is ideal for small commercial and retrofit applications.

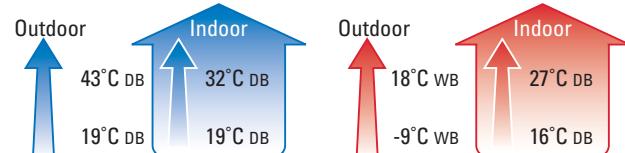
- Lightweight and compact design for easy installation
- Auto restart after power failure and auto changeover
- Cold draft prevention
- Infrared remote control with 24 hour clock with ON/OFF program timer
- Multi-directional airflow provides uniform airflow throughout the room
- Built-in drain pump gives 250mm lift
- Auto air sweep control provides uniform air flow in the room
- The modern-style panel can be removed and washed
- Night set back/economy mode function ensures gentle and energy-saving cooling and heating



Remote



Outdoor unit



| CONSTANT SPEED HEAT PUMP | | | | | | | |
|--------------------------------------|---------------|------------------|----------|----------------|----------|----------------|----------|
| | | size 94 | | size 124 | | size 184 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.87 | 3.10 | 3.65 | 4.52 | 5.15 | 5.70 |
| Power input | W | 875 | 775 | 1075 | 1055 | 1600 | 1580 |
| EER/COP | | 3.28 | 4.00 | 3.40 | 4.28 | 3.21 | 3.61 |
| Energy class | | A | A | A | A | A | A |
| Total | kW | 2.55 | 2.57 | 3.37 | 3.75 | 4.96 | 4.73 |
| Sensible | kW | 2.1 | - | 2.51 | - | 3.74 | - |
| Running current/AMPs | A | 3.7 | 3.8 | 4.9 | 5.0 | 7.1 | 7.0 |
| Indoor Unit | | SAP-XR94EH | | SAP-XR124EH | | SAP-XR184EH | |
| Air circulation | (H) m³/h | 700 | | 700 | | 750 | |
| Moisture removal | Litres/h | 0.5 | - | 1.0 | - | 2.3 | - |
| Sound pressure level | (H/M/L) dB(A) | 43/39/36 | 43/39/36 | 43/39/36 | 43/39/36 | 45/40/37 | 45/40/37 |
| Dimensions - Unit | (HxWxD) mm | 296x575x575 | | 296x575x575 | | 296x575x575 | |
| Dimensions - Panel | (HxWxD) mm | 64x730x730 | | 64x730x730 | | 64x730x730 | |
| Net weight - unit | kg | 16.5 | | 16.5 | | 16.5 | |
| Net weight - panel | kg | 2.5 | | 2.5 | | 2.5 | |
| Power supply | | 220-240V/1Ø 50Hz | | | | | |
| Outdoor Unit | | SAP-CR94EH(A) | | SAP-CR124EH(A) | | SAP-CR184EH(A) | |
| Sound power level | (H) dB(A) | 65 | 66 | 67 | 68 | 73 | 74 |
| Sound pressure level | (H) dB(A) | 47 | 48 | 49 | 50 | 55 | 56 |
| Dimensions | (HxWxD) mm | 548x720x265 | | 565x790x285 | | 670x880x285 | |
| Net weight | kg | 35 | | 37 | | 48 | |
| Power supply | | 220-240V/1Ø 50Hz | | | | | |
| Installation Data | | size 94 | | size 124 | | size 184 | |
| Pipe size suction/discharge | Inches | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 1/2 | |
| Max piping length | m | 15 | | 15 | | 30 | |
| Precharged piping length | m | 7.5 | | 7.5 | | 7.5 | |
| Amount of additional refrigerant | g/m | 15 | | 15 | | 25 | |
| Max elevation difference O.U. - I.U. | m | 7 | | 7 | | 7 | |
| Recommended fuse size | AMP | 10 | | 10 | | 16 | |
| Communication cables | | 4 Core + Earth | | 4 Core + Earth | | 6 Core + Earth | |
| Power supply to | | Indoor unit | | Indoor unit | | Indoor unit | |

F/FT Type Constant Speed - wall & ceiling mounted units

R410A

SAP-FR94EH SAP-FTR124EH SAP-FTR184EH SAP-FTR224EH

SANYO's online fixed-speed FTR range of console units can be mounted on the ceiling or the floor to provide a flexible solution to difficult installation situations.

- Auto restart after power failure and auto changeover
- Cold draft prevention in heating mode
- Lightweight and compact designs
- Infrared remote control with 24 hour clock with ON/OFF program timer
- Automatic louvre control provides uniform airflow throughout the room
- Easy to clean filter prevents mould or bacteria from occurring
- Night set back/economy mode function ensures gentle and energy-saving cooling



FTR ceiling mounted

FTR floor mounted

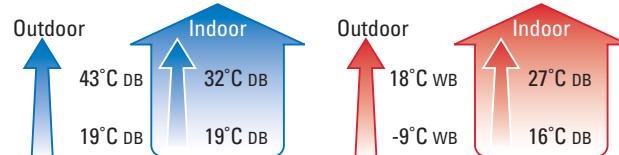
FR



Remote



Outdoor unit



| CONSTANT SPEED HEAT PUMP | | | | | | | | | |
|--------------------------------------|---------------|------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | size 94 | | size 124 | | size 184 | | size 224 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.65 | 3.20 | 3.60 | 4.35 | 5.15 | 5.70 | 6.40 | 7.20 |
| Power input | W | 825 | 810 | 1055 | 1045 | 1600 | 1580 | 2275 | 2240 |
| EER/COP | | 3.21 | 3.95 | 3.41 | 4.16 | 3.22 | 3.61 | 2.81 | 3.21 |
| Energy class | | A | A | A | A | A | A | C | C |
| Total | kW | 2.55 | 2.62 | 3.37 | 3.57 | 4.96 | 4.67 | 6.16 | 5.90 |
| Sensible | kW | 1.8 | - | 2.77 | - | 3.61 | - | 4.13 | - |
| Running current/AMPs | A | 3.7 | 3.8 | 4.9 | 5.0 | 7.1 | 7.0 | 10.0 | 9.8 |
| Indoor Unit | | | SAP-FR94EH | | SAP-FTR124EH | | SAP-FTR184EH | | SAP-FTR224EH |
| Air circulation | (H) m³/h | 400 | | 700 | | 800 | | 840 | |
| Moisture removal | Litres/h | 1.0 | - | 1.3 | - | 2.0 | - | 2.2 | - |
| Sound pressure level | (L/M/H) dB(A) | 34/40/43 | | 38/43/47 | | 39/44/48 | | 44/47/50 | |
| Dimensions | (HxWxD) mm | 700x560x200 | | 680x900x190 | | 680x900x190 | | 680x900x190 | |
| Net weight | kg | 18.6 | | 23.5 | | 23.5 | | 23.5 | |
| Power supply | V,ph,Hz | 220-240V/1Ø 50Hz | | | | | | | |
| Outdoor Unit | | | SAP-CR94EH(A) | | SAP-CR124EH(A) | | SAP-CR184EH(A) | | SAP-CR224EH(A) |
| Sound power level | (H) dB(A) | 65 | 66 | 67 | 68 | 73 | 74 | 75 | 76 |
| Sound pressure level | (H) dB(A) | 47 | 48 | 49 | 50 | 55 | 56 | 57 | 58 |
| Dimensions | (HxWxD) mm | 548x720x265 | | 565x790x285 | | 670x880x285 | | 670x880x285 | |
| Net weight | kg | 35 | | 37 | | 48 | | 56 | |
| Power supply | V,ph,Hz | 220-240V/1Ø 50Hz | | | | | | | |
| Installation Data | | | size 94 | | size 124 | | size 184 | | size 224 |
| Pipe size suction/discharge | Inches | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 1/2 | | 1/4, 5/8 | |
| Max piping length | m | 15 | | 15 | | 30 | | 30 | |
| Precharged piping length | m | 7.5 | | 7.5 | | 7.5 | | 10 | |
| Amount of additional refrigerant | g/m | 15 | | 15 | | 25 | | 25 | |
| Max elevation difference O.U. - I.U. | m | 7 | | 7 | | 7 | | 7 | |
| Recommended fuse size | AMP | 10 | | 10 | | 16 | | 16 | |
| Communication cables | | 4 Core + Earth | | 4 Core + Earth | | 6 Core + Earth | | 6 Core + Earth | |
| Power supply to | | Indoor unit | | Indoor unit | | Indoor unit | | Indoor unit | |

UR Type Constant Speed - concealed duct

R410A

SAP-UR94EH SAP-UR124EH SAP-UR184EH SAP-UR224EH

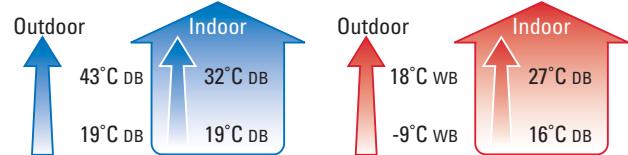
The online UR ducted unit is ideal for flexible, concealed cooling and heating in all types or room air conditioning applications.

- Auto restart after power failure and auto change over
- Cold draft prevention
- Fresh air knockout
- Infrared remote control with 24 hour clock with ON/OFF program timer
- Built-in drain pump gives 250mm lift
- Booster cable available to increase static pressure
- Powerful start function for rapid cooling and heating
- External electrical box allows ease of access for service and maintenance
- Night set back and economy mode function ensures energy-saving cooling and heating



Remote

Outdoor unit



| CONSTANT SPEED HEAT PUMP | | | | | | | | | |
|--|----------|------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| size 94 | | | size 124 | | size 184 | | size 224 | | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 2.65 | 3.00 | 3.50 | 4.62 | 5.15 | 5.70 | 6.40 | 7.20 |
| Power input | W | 880 | 780 | 1130 | 1060 | 1600 | 1580 | 2275 | 2240 |
| EER/COP | | 3.49 | 4.1 | 3.58 | 4.36 | 3.22 | 3.61 | 2.81 | 3.21 |
| Energy class | | A | A | A | A | A | A | C | C |
| Total | kW | 2.55 | 2.95 | 3.37 | 3.52 | 4.96 | 5.04 | 6.84 | 5.31 |
| Sensible | kW | 2.16 | - | 2.67 | - | 3.97 | - | 5.1 | - |
| Running current/AMPs | A | 3.7 | 3.8 | 4.9 | 5.0 | 7.1 | 7.0 | 10.0 | 9.8 |
| Indoor Unit | | | SAP-UR94EH | | SAP-UR124EH | | SAP-UR184EH | | SAP-UR224EH |
| Air circulation | (H) m³/h | 600 | | 600 | | 875 | | 1000 | |
| Moisture removal | Litres/h | 0.8 | - | 1.5 | - | 1.8 | - | 2.6 | - |
| External static pressure (std/booster) | Pa | 49/69 | | 49/69 | | 49/69 | | 49/69 | |
| Sound pressure level (H/M/L) dB(A) | | 45/43/40 | | 45/38/33 | | 48/40/37 | | 48/40/37 | |
| Dimensions (HxWxD) mm | | 266x852x571 | | | | 266x1058x571 | | | |
| Net weight | kg | 30 | | 37 | | 35 | | | |
| Power supply | | 220-240V/1Ø 50Hz | | | | | | | |
| Outdoor Unit | | | SAP-CR94EH(A) | | SAP-CR124EH(A) | | SAP-CR184EH(A) | | SAP-CR224EH(A) |
| Sound power level (H) dB(A) | | 65 | 66 | 67 | 68 | 73 | 74 | 75 | 76 |
| Sound pressure level (H) dB(A) | | 47 | 48 | 49 | 50 | 55 | 56 | 57 | 58 |
| Dimensions (HxWxD) mm | | 548x720x265 | | 565x790x285 | | 670x880x285 | | 670x880x285 | |
| Net weight | kg | 35 | | 37 | | 48 | | 56 | |
| Power supply | | 220-40V/1Ø 50Hz | | | | | | | |
| Installation Data | | | size 94 | | size 124 | | size 184 | | size 224 |
| Pipe size suction/discharge | Inches | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 1/2 | | 1/4, 5/8 | |
| Max piping length | m | 15 | | 15 | | 30 | | 30 | |
| Precharged piping length | m | 7.5 | | 7.5 | | 7.5 | | 10 | |
| Amount of additional refrigerant | g/m | 15 | | 15 | | 25 | | 25 | |
| Max elevation difference O.U. - I.U. | m | 7 | | 7 | | 7 | | 7 | |
| Recommended fuse size | AMP | 10 | | 10 | | 16 | | 16 | |
| Communication cables | mm | 4 Core + Earth | | 4 Core + Earth | | 6 Core + Earth | | 6 Core + Earth | |
| Power supply to | | Indoor unit | | Indoor unit | | Indoor unit | | Indoor unit | |

Flexi Multi DC Inverter Heat Pump Multi Split Systems

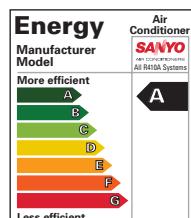
R410A 



R410A

The Flexi Multi systems utilise the non-ozone-depleting R410A refrigerant. This means increased system performance, increased energy-efficiency and improved heat transfer, which results in smaller pipe sizes and more compact indoor units.

All Flexi Multi DC inverter models are rated as EEL Category A, which confirms that they are amongst the most energy-efficient systems available. Power consumption during operation is substantially less than that of lower rated units and consequently both the day to day running costs and full life cycle costs are significantly reduced.



The flexible solution

The new SANYO Flexi Multi range of heat pump multi split systems are the ideal, flexible solution for providing quiet and efficient air conditioning to 2, 3 or 4 areas from a single outdoor unit.

- 5 system capacities 4.0kW to 8.0kW
- 6 indoor model styles
- 2, 3 or 4 way multi split
- DC inverter technology for precise temperature control and low start current
- Provides heating or cooling as required



Simple, one touch control

- Full function remote controller
- Built-in temperature sensor
- Temperature setting
- Operational mode selection
- Fan speed control
- 24 hour ON/OFF timer
- 1 hour timer



Flexi Multi DC Inverter Heat Pump

6 Series Multi Split Systems

R410A

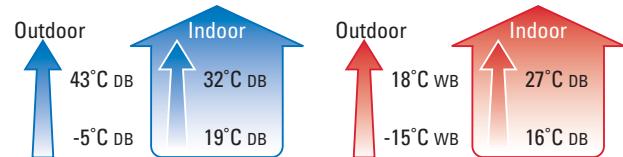
INVERTER
Air Conditioner

SAP-CMRV1426EH SAP-CMRV1926EH SAP-CMRV1936EH SAP-CMRV2446EH SAP-CMRV3146EH

Design guaranteed for an extremely efficient and flexible operation.

NEW

- 4 models with capacity from 4.0 to 8.0 kW
- DC inverter technology for precise temperature control and a low start-up current
- Twin rotary compressor: the dual rotors guarantee perfect balancing ensuring functional reliability and efficiency. This also contributes to increase comfort and accelerate cooling and heating as well as ensuring an extremely quiet and efficient operation.
- Energy class A/A for the whole range, both in cooling and heating modes
- Operating range decreased to -15°C in heating mode and -5°C in cooling mode
- The volume of the external unit has been decreased by 9%, solving the problem of limited space and does not encumber the exterior
- Non-stop heating by means of SANYO's exclusive hot gas by-pass system
- Renewable and washable apatite ceramic filter
- Photo-catalytic LED sterilization function ensures excellent performance in eliminating odours, germs and bacteria (only wall-mounted units)
- Night Set back/Economy modes to guarantee quiet and energy-efficient cooling and heating
- Programmable start-up and shut-off via 24 hour clock



| HEAT-PUMP INVERTER | | | | | | | | | | |
|--|-----------------------|-------------|-----------------------|-------------|-----------------------|-------------|-----------------------------------|-------------|------------------------------------|-------------|
| External units | SAP-CMRV1426EH | | SAP-CMRV1926EH | | SAP-CMRV1936EH | | SAP-CMRV2446EH | | SAP-CMRV3146EH | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity kW | 2.0/4.0/5.0 | 2.2/4.5/5.5 | 2.1/5.6/6.8 | 2.4/7.3/8.4 | 2.9/5.2/6.5 | 3.4/6.8/7.8 | 2.9/6.8/8.1 | 3.4/8.6/9.0 | 2.9/8.0/9.2 | 3.4/9.4/9.8 |
| Power consumption W | 925 | 925 | 1695 | 1735 | 1530 | 1610 | 2000 | 2000 | 1730 | 2040 |
| EER/COP W/W | 4.32 | 4.86 | 3.3 | 4.21 | 3.40 | 4.22 | 3.4 | 4.3 | 4.62 | 4.61 |
| Energy class | A | A | A | A | A | A | A | A | A | A |
| Current draw A | 4.1 | 4.1 | 7.52 | 7.7 | 6.88 | 7.7 | 8.87 | 8.87 | 7.58 | 8.96 |
| Annual consumption (cooling) kW/h | 462.5 | | 847.5 | | 765 | | 1000 | | 865 | |
| Max. number of units N. | 2 | | 3 | | 4 | | 4 | | 4 | |
| Sound pressure dB(A) | | | | | 46 | | 46 | | 48 | |
| Noise level dB(A) | | | | | | | | | 49 | |
| Pipe diameter - suction/discharge mm(in) | 2x6.4(1/4) 2x9.5(3/8) | | 2x6.4(1/4) 2x9.5(3/8) | | 2x6.4(1/4) 2x9.5(3/8) | | 4x6.4 (1/4) 3x9.5(3/8) 12.7 (1/2) | | 4x6.4 (1/4) 2x9.5(3/8) 2x12.7(1/2) | |
| Maximum total pipe length m | 30 | | 45 | | 45 | | 60 | | 70 | |
| Maximum pipe length per unit m | 20 | | 25 | | 25 | | 25 | | 30 | |
| Max. elevation difference E.U - I.U m | 15 | | 15 | | 15 | | 15 | | 15 | |
| Total pipe length - standard charge m | 30 | | 45 | | 45 | | 45* | | 45** | |
| Dimensions (HxLxD) mm | 569x790x285 | | 740x900x320 | | 740x900x320 | | 740x900x320 | | 890x900x320 | |
| Net weight kg | 42 | | 65 | | 65 | | 65 | | 82 | |
| Power supply V,ph,Hz | 230, 1+N, 50 | | | | | | | | | |

Specifications subject to modification without notice.

* For longer pipes, up to 60m add 20 g/m of refrigerant. ** For longer pipes, up to 70m add 20 g/m of refrigerant.

Reference conditions:

Annual energy consumption = consumption for 500 hours at nominal load.

*For external temperatures < 7°C the heating capacity will be lower than the nominal capacity.

Mini Shiki Sai Kan Flexi Multi - wall mounted unit

R410A

INVERTER
Air Conditioner

SAP-KRV96EHDS SAP-KRV126EHDS

SANYO's new Mini Shiki Sai Kan is stylish and elegant, making it the ideal air conditioning system for any room.

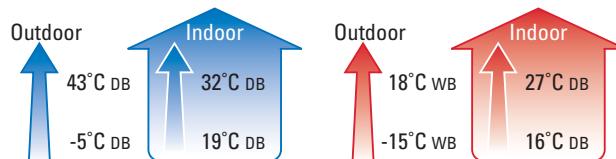
- Exceptional energy-saving performance
- Simple elegant design with panels available in 5 different colour options
- The LED photocatalytic sterilisation function ensures excellent performance to combat odours, germs and bacteria
- Automatic sweep control
- Apatite ceramic filter
- Clock with ON/OFF program timer
- Washable front panel
- Low noise levels: 22 dB(A) (quiet mode)
- Night set back/economy mode function ensures quiet and energy-saving cooling and heating
- Multifunctional wireless remote control with built-in temperature sensor



Remote



Outdoor unit



| Wall mounted unit | | SAP-KRV96EHDS | |
|------------------------------------|-----------|------------------------------|-------------|
| Performance | | Cooling | Heating |
| Capacity | kW | 2.65 | 3.60 |
| Air circulation (H) | m³/h | 480 | 480 |
| Moisture removal | Litres/h | 1.6 | - |
| Sound pressure level (Quiet/L/M/H) | dB(A) | 22/28/35/41 | 22/28/35/41 |
| Sound power level (H) | dB(A) | 56 | 56 |
| Tube diameter narrow/wide | Inches | 1/4, 3/8 | |
| Dimensions (HxWxD) | mm | 265x789x180 | |
| Net weight | kg | 9.5 | |
| Power supply | V, ph, Hz | 230, 1+N, 50 to outdoor unit | |

SAP-KMRV76EH SAP-KMRV96EH SAP-KMRV126EH SAP-KRV186EH SAP-KRV246EH

The new 6 Series K Type wall mounted unit is the ideal solution when you need quiet energy-efficient and controllable room air conditioning.

NEW

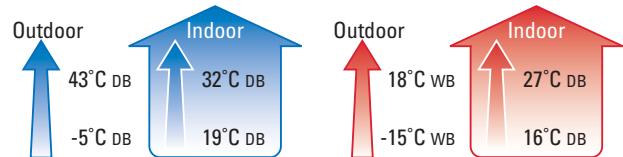
- Designed for flush mounting against a wall
- 5 system capacities from 4.0kW up to 8.0kW
- DC-inverter technology for precise temperature control
- Auto swing louvres for optimum air distribution
- 3 fan speeds
- Quiet operations
- High power mode for rapid cooling or heating



Remote



Outdoor unit



| Indoor Units | | | | | | | | | | | |
|----------------------------|----|--------------|---------|--------------|---------|---------------|---------|--------------|---------|--------------|---------|
| | | 7 | | 9 | | 12 | | 18 | | 24 | |
| Model | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Performance | kW | 2.20 | 2.50 | 2.65 | 3.60 | 3.50 | 4.20 | 5.15 | 6.00 | 7.10 | 8.50 |
| Capacity | | SAP-KMRV76EH | | SAP-KMRV96EH | | SAP-KMRV126EH | | SAP-KRV186EH | | SAP-KRV246EH | |
| New K type 6 Series | | | | | | | | | | | |

Technical specification to be confirmed.

XMR Type Flexi Multi - 4 way blow compact cassette

R410A

INVERTER
Air Conditioner

SAP-XMVR96EH SAP-XMVR126EH SAP-XRV186EH

Designed to fit exactly into a 600 x 600mm ceiling grid without the need to alter the bar configuration, the XMR is ideal for small commercial and retro fit applications.

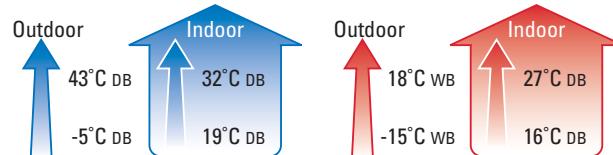
- Lightweight and compact design for easy installation
- Auto restart after power failure and auto changeover
- Designed to fit into standard 600 x 600mm ceiling grid
- Fresh air knock out
- Cold draft prevention in heating mode
- Multi directional airflow provides uniform airflow throughout the room
- Integrated drain pump gives 250mm lift
- Auto swing louvres for optimum air distribution
- Quiet operation
- Infrared remote control with 24 hour clock with ON/OFF program timer
- The modern-style panel can be removed and washed
- Night set back/economy mode function ensures gentle and energy-saving cooling and heating



Remote



Outdoor unit



| Semi-concealed 4 way unit | | SAP-XMVR96EH | | SAP-XMVR126EH | | SAP-XRV186EH | |
|----------------------------|---------------|------------------------------|---------|---------------|---------|--------------|---------|
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Nominal capacity | kW | 2.65 | 3.60 | 3.50 | 4.20 | 5.15 | 6.00 |
| Air circulation | (H) m³/h | 700 | - | 700 | - | 750 | - |
| Moisture removal | Litres/h | 1.5 | - | 1.8 | - | 2.0 | - |
| Sound pressure level | (L/M/H) dB(A) | 36/39/43 | - | 36/39/43 | - | 37/40/45 | - |
| Sound power level | (H) dB(A) | 52 | - | 52 | - | 54 | - |
| Tube diameter narrow/wide | Inches | 1/4, 3/8 | - | 1/4, 3/8 | - | 1/4, 1/2 | - |
| Dimensions (HxWxD) - unit | mm | 296x575x575 | - | 296x575x575 | - | 296x575x575 | - |
| Dimensions (HxWxD) - panel | mm | 64x730x730 | - | 64x730x730 | - | 64x730x730 | - |
| Net weight - unit | kg | 16.5 | - | 16.5 | - | 16.5 | - |
| Net weight - panel | kg | 2.5 | - | 2.5 | - | 2.5 | - |
| Power supply | V, Ph, Hz | 230, 1+N, 50 to outdoor unit | | | | | |

F/FT Type Flexi Multi - floor & ceiling mounted units

R410A

INVERTER
Air Conditioner

SAP-FMRV96EH SAP-FTMRV126EH SAP-FTRV186EH SAP-FTRV246EH

SANYO's FTR range of console units can be mounted on the ceiling or the floor to provide a flexible solution to difficult installation situations.

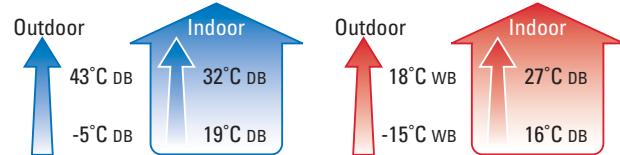
- Flexible design allows floor or ceiling mounting without modification
- Auto restart after power failure and auto changeover
- Cold draft prevention in heating mode
- Large and wide air distribution
- Auto air sweep for optimum distribution
- 3 fan speeds
- Quiet operation
- Easy to clean filter prevents mould or bacteria from occurring
- Infrared remote control with 24 hour clock with ON/OFF program timer
- Night set back/economy mode function ensures gentle and energy-saving cooling
- Anti-mould and anti-bacteria washable filters
- Fresh air intake



FMR

Outdoor unit

Remote



| Floor and Floor/Ceiling unit | | SAP-FMRV96EH | | SAP-FTMRV126EH | | SAP-FTRV186EH | | SAP-FTRV246EH | |
|------------------------------|---------------|------------------------------|---------|----------------|---------|---------------|---------|---------------|---------|
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Nominal capacity | kW | 2.65 | 3.60 | 3.50 | 4.20 | 5.15 | 6.00 | 7.10 | 8.50 |
| Air circulation | (H) m³/h | 425 | | 700 | | 800 | | 900 | |
| Moisture removal | Litres/h | 1.6 | - | 1.8 | - | 2.0 | - | 2.0 | - |
| Sound pressure level | (L/M/H) dB(A) | 37/40/44 | | 35/40/44 | | 39/44/48 | | 44/47/50 | |
| Sound power level | (H) dB(A) | 51 | | 55 | | 59 | | 61 | |
| Tube diameter narrow/wide | Inches | 1/4, 3/8 | | 1/4, 3/8 | | 1/4, 1/2 | | 1/4, 5/8 | |
| Dimensions | (HxWxD) mm | 680x900x190 | | 680x900x190 | | 680x900x190 | | 680x900x190 | |
| Net weight | kg | 18 | | 23.5 | | 23.5 | | 23.5 | |
| Power supply | V,ph,Hz | 230, 1+N, 50 to outdoor unit | | | | | | | |

SAP-UMRV96EH SAP-UMRV126EH SAP-URV186EH SAP-URV246EH

The UMR ducted unit is ideal for flexible, concealed cooling and heating in all types of room air conditioning applications.

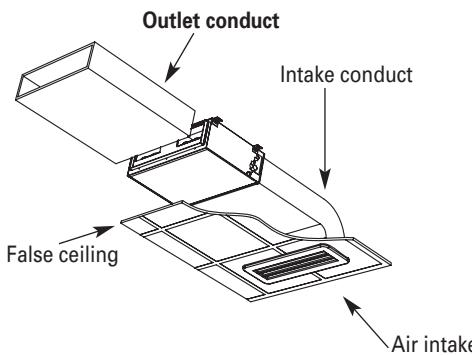
- Maximum depth 266mm
- Boost mode static pressure up to 70 pa
- Ideal for flexible, concealed air conditioning
- Infrared remote control
- Built-in drain pump gives 250mm lift
- 3 fan speeds
- High static pressure



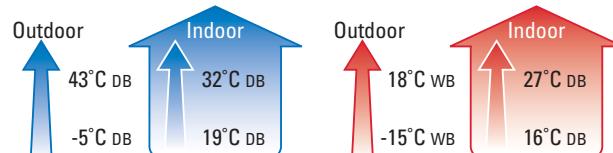
Remote



Outdoor unit



On the front and rear side of the unit, a rectangular port (with flange) helps during duct mounting.



| Concealed duct unit | SAP-UMRV96EH | SAP-UMRV126EH | SAP-URV186EH | SAP-URV246EH | | | | | |
|--|--------------|-----------------------|--------------|-----------------------|------------------------------|-----------------------|---------|------------------------|------|
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | |
| Nominal capacity | kW | 2.65 | 3.60 | 3.50 | 4.20 | 5.15 | 6.00 | 7.10 | 8.50 |
| Air circulation (H) | m³/h | 600 | | 600 | | 875 | | 1000 | |
| Moisture removal | Litres/h | 1.5 | - | 1.8 | - | 2.0 | - | 2.5 | - |
| External static pressure (std/booster) | Pa | 49/69 | | 49/69 | | 49/69 | | 49/69 | |
| Sound pressure level (L/M/H) | (dB(A)) | 40/43/45 | | 40/43/45 | | 33/38/45 | | 37/40/48 | |
| Sound power level (H) | (dB(A)) | 54 | | 54 | | 54 | | 57 | |
| Tube diameter narrow/wide | mm(in) | 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)/15.88 (5/8) | |
| Dimensions (HxWxD) | mm | 266x852x571 | | 266x852x571 | | 266x1058x571 | | 266x1058x571 | |
| Net weight | kg | 30 | | 30 | | 35 | | 35 | |
| Power supply | V, Ph,Hz | | | | 230, 1+N, 50 to outdoor unit | | | | |

Flexi Multi CMRV Outdoor Unit

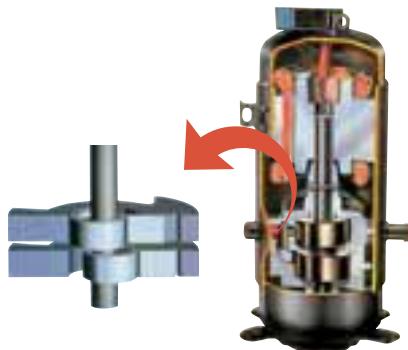
R410A

INVERTER
Air Conditioner

NEW

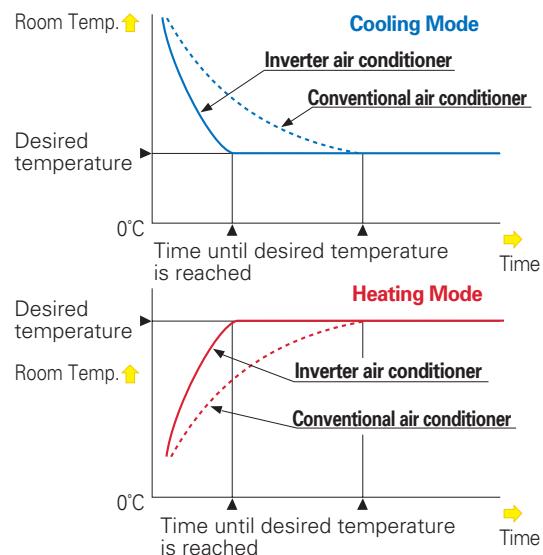
The Room Air Conditioners outdoor units utilise the latest SANYO twin rotary compressor, in which perfectly balanced dual rotors revolve smoothly and efficiently to provide powerful, quiet and vibration-free performance.

Advanced DC compressor design



Rapid and accurate temperature control

The Room Air Conditioner systems use Advanced Digital Hybrid (ADH) technology for better, smarter and more cost-efficient year round climate control. Immediately following start-up, the DC compressor operates at maximum power to provide almost instant heating or cooling. As the desired air temperature is reached, a special Pulse Width Module automatically adjusts the compressor's frequency to exactly meet the cooling or heating requirements of the room. The result is exceptionally precise temperature control, less noise and significant energy savings.



SAP-CMRV1426EH

2.2: SAP-KMRV74/76EH 2.65: SAP-KMRV94/96EH 3.5: SAP-KMRV124/126EH

| Rated cooling capacity: 4.0kW | Indoor unit combination | Indoor Unit Capacity (kW) | | | | | | | |
|----------------------------------|-------------------------|---------------------------|--------|---|--------|---------|---|------|------|
| | | Cooling | | | | Heating | | | |
| | | Room A | Room B | Total performance Capacity (Min.-Max.) | Room A | Room B | Total performance Capacity (Min.-Max.) | | |
| Single room operation | 2.2 | | = 2.2 | 2.20 | | | 2.2 (1.2 - 2.6) | 2.50 | |
| | 2.65 | | = 2.65 | 2.65 | | | 2.65 (1.2 - 3.2) | 3.60 | |
| | 3.5 | | = 3.5 | 3.50 | | | 3.5 (1.3 - 3.6) | 4.20 | |
| | 2.2 + 2.2 = 4.4 | | | 1.80 | 1.80 | | 3.6 (2.0 - 4.5) | 2.10 | 2.10 |
| 2-room operation | 2.2 + 2.65 = 4.85 | | | 1.68 | 2.02 | | 3.7 (2.0 - 4.8) | 1.72 | 2.48 |
| | 2.2 + 3.5 = 5.7 | | | 1.51 | 2.39 | | 3.9 (2.0 - 4.9) | 1.64 | 2.76 |
| | 2.65 + 2.65 = 5.3 | | | 2.00 | 2.00 | | 4.0 (2.0 - 5.0) | 2.25 | 2.25 |
| | 2.65 + 3.5 = 6.15 | | | 1.72 | 2.28 | | 4.0 (2.1 - 5.0) | 2.08 | 2.42 |

2.65: SAP-KRV96EHDS

| Rated cooling capacity: 3.9kW | Indoor unit combination | Indoor Unit Capacity (kW) | | | | | | | |
|----------------------------------|-------------------------|---------------------------|--------|--|--------|---------|--|------|------|
| | | Cooling | | | | Heating | | | |
| | | Room A | Room B | Total performance Capacity (Min.- Max.) | Room A | Room B | Total performance Capacity (Min.- Max.) | | |
| Single room operation | 2.65 | | = 2.65 | 2.65 | | | 2.65 (1.2 - 3.1) | 3.60 | |
| 2 room operation | 2.65 + 2.65 = 5.3 | | | 1.95 | 1.95 | | 3.9 (2.0 - 4.9) | 2.25 | 2.25 |

• The SAP-KRV96EHDS indoor unit can be combined with other SAP-KRV96EHDS, however it cannot be combined with other SAP-KMRVxxEH indoor units.

• The table lists the wall-mounted type of indoor units as representative models.

• For details on the connection of indoor units other than the wall-mounted type, refer to the catalogue.

Flexi Multi Indoor Unit Operating Capacities (6 Series)

NEW

SAP-CMRV1926EH

| Rated cooling capacity: 5.6kW | Indoor unit combination | | | Indoor Unit Capacity (kW) | | | |
|----------------------------------|-------------------------|--------|--|---------------------------|------------------|--|------|
| | | | | Cooling | | Heating | |
| | Room A | Room B | Total performance Capacity (Min.-Max.) | Room A | Room B | Total performance Capacity (Min.-Max.) | |
| Single room operation | 2.2 | = 2.2 | 2.20 | | 2.2 (1.4 - 2.6) | 2.50 | |
| | 2.65 | = 2.65 | 2.65 | | 2.65 (1.4 - 3.2) | 3.60 | |
| | 3.5 | = 3.5 | 3.50 | | 3.5 (1.5 - 3.6) | 4.20 | |
| | 5.15 | = 5.15 | 5.15 | | 5.15 (1.6 - 5.8) | 6.00 | |
| 2 room operation | 2.2 + 2.2 = 4.4 | | 2.20 | 2.20 | 4.4 (2.0 - 5.1) | 2.50 | 2.50 |
| | 2.2 + 2.65 = 4.85 | | 2.20 | 2.20 | 4.85 (2.0 - 5.8) | 2.50 | 3.60 |
| | 2.2 + 3.5 = 5.7 | | 1.97 | 1.97 | 5.1 (2.0 - 6.7) | 2.35 | 3.95 |
| | 2.2 + 5.15 = 7.35 | | 1.65 | 1.65 | 5.5 (2.1 - 6.8) | 2.03 | 4.87 |
| | 2.65 + 2.65 = 5.3 | | 2.50 | 2.50 | 5.0 (2.0 - 6.3) | 3.23 | 3.23 |
| | 2.65 + 3.5 = 6.15 | | 2.24 | 2.24 | 5.2 (2.0 - 6.8) | 3.07 | 3.58 |
| | 2.65 + 5.15 = 7.8 | | 1.90 | 1.90 | 5.6 (2.1 - 6.8) | 2.74 | 4.56 |
| | 3.5 + 3.5 = 7 | | 2.70 | 2.70 | 5.4 (2.0 - 6.8) | 3.45 | 3.45 |
| | 3.5 + 5.15 = 8.65 | | 2.27 | 2.27 | 5.6 (2.1 - 6.8) | 3.01 | 4.29 |
| | | | | | | | |

| Rated cooling capacity: 3.9kW | Indoor unit combination | | | Indoor Unit Capacity (kW) | | | |
|----------------------------------|-------------------------|--------|--|---------------------------|------------------|--|------|
| | | | | Cooling | | Heating | |
| | Room A | Room B | Total performance Capacity (Min. - Max.) | Room A | Room B | Total performance Capacity (Min. - Max.) | |
| Single room operation | 2.65 | = 2.65 | 2.65 | | 2.65 (1.4 - 3.2) | 3.60 | |
| 2 room operation | 2.65 + 2.65 = 5.3 | | 2.50 | 2.50 | 5.0 (2.0 - 6.3) | 3.23 | 3.23 |

• The SAP-KRV96EHDS indoor unit can be combined with other SAP-KRV96EHDS, however it cannot be combined with other SAP-KMRVxxEH indoor units.

• The table lists the wall-mounted type of indoor units as representative models.

• For details on the connection of indoor units other than the wall-mounted type, refer to the catalogue.

SAP-CMRV1936EH

| Rated cooling capacity: 5.6kW | Indoor unit combination | | | Indoor Unit Capacity (kW) | | | | |
|----------------------------------|---------------------------|--------|--------|--|------------------|------------------|--------|--|
| | | | | Cooling | | Heating | | |
| | Room A | Room B | Room C | Total performance Capacity (Min.-Max.) | Room A | Room B | Room C | Total performance Capacity (Min.-Max.) |
| Single room operation | 2.2 | = 2.2 | 2.20 | | 2.2 (1.4-2.6) | 2.50 | | 2.5 (1.8-4.3) |
| | 2.65 | = 2.65 | 2.65 | | 2.65 (1.4-3.2) | 3.60 | | 3.6 (1.8-4.7) |
| | 3.5 | = 3.5 | 3.50 | | 3.5 (1.5-3.6) | 4.20 | | 4.2 (1.9-5.1) |
| | 5.15 | = 5.15 | 5.15 | | 5.15 (1.6-5.8) | 6.00 | | 6.0 (2.0-7.8) |
| 2 room operation | 2.2 + 2.2 = 4.4 | | 2.20 | 2.20 | 4.4 (2.0 - 5.1) | 2.50 | 2.50 | 5.0 (2.0-6.4) |
| | 2.2 + 2.65 = 4.85 | | 2.20 | 3.65 | 4.85 (2.0 - 5.8) | 2.50 | 3.60 | 6.1 (2.1-7.5) |
| | 2.2 + 3.5 = 5.7 | | 1.97 | 2.50 | 5.1 (2.0 - 6.7) | 2.35 | 3.95 | 6.3 (2.1-8.3) |
| | 2.2 + 5.15 = 7.35 | | 1.65 | 2.96 | 5.5 (2.1 - 6.8) | 2.03 | 4.87 | 6.9 (2.4-8.4) |
| | 2.65 + 2.65 = 5.3 | | 2.50 | 2.50 | 5.0 (2.0 - 6.3) | 3.23 | 3.23 | 6.45 (2.3-8.4) |
| | 2.65 + 3.5 = 6.15 | | 2.24 | 2.96 | 5.2 (2.0 - 6.8) | 3.07 | 3.58 | 6.65 (2.3-8.4) |
| | 2.65 + 5.15 = 7.8 | | 1.90 | 3.70 | 5.6 (2.1 - 6.8) | 2.74 | 4.56 | 7.3 (2.4-8.4) |
| | 3.5 + 3.5 = 7 | | 2.70 | 2.70 | 5.4 (2.0 - 6.8) | 3.45 | 3.45 | 6.9 (2.3-8.4) |
| | 3.5 + 5.15 = 8.65 | | 2.27 | 3.33 | 5.6 (2.1 - 6.8) | 3.01 | 4.29 | 7.3 (2.4-8.4) |
| | | | | | | | | |
| 3 room operation | 2.2 + 2.2 + 2.2 = 6.6 | | 1.77 | 1.77 | 1.77 | 5.3 (2.5 - 6.8) | 2.18 | 2.18 |
| | 2.2 + 2.2 + 2.65 = 7.05 | | 1.69 | 1.69 | 2.03 | 5.4 (2.9 - 6.8) | 2.02 | 2.02 |
| | 2.2 + 2.2 + 3.5 = 7.9 | | 1.56 | 1.56 | 2.48 | 5.6 (2.9 - 6.8) | 1.94 | 1.94 |
| | 2.2 + 2.2 + 5.15 = 9.55 | | 1.29 | 1.29 | 3.02 | 5.6 (2.9 - 6.8) | 1.66 | 1.66 |
| | 2.2 + 2.65 + 2.65 = 7.5 | | 1.63 | 1.96 | 1.96 | 5.55 (2.9 - 6.8) | 1.88 | 2.71 |
| | 2.2 + 2.65 + 3.5 = 8.35 | | 1.48 | 1.78 | 2.35 | 5.6 (2.9 - 6.8) | 1.77 | 2.55 |
| | 2.2 + 2.65 + 5.15 = 10 | | 1.23 | 1.48 | 2.88 | 5.6 (2.9 - 6.8) | 1.51 | 2.17 |
| | 2.2 + 3.5 + 3.5 = 9.2 | | 1.34 | 2.13 | 2.13 | 5.6 (2.9 - 6.8) | 1.67 | 2.81 |
| | 2.65 + 2.65 + 2.65 = 7.95 | | 1.87 | 1.87 | 1.87 | 5.6 (2.9 - 6.8) | 2.43 | 2.43 |
| | 2.65 + 2.65 + 3.5 = 8.8 | | 1.69 | 1.69 | 2.23 | .6 (2.9 - 6.8) | 2.31 | 2.31 |
| | 2.65 + 2.65 + 3.5 = 9.65 | | 1.54 | 2.03 | 2.03 | 5.6 (2.9 - 6.8) | 2.19 | 2.56 |
| | 3.5 + 3.5 + 3.5 = 10.5 | | 1.87 | 1.87 | 1.87 | 5.6 (2.9 - 6.8) | 2.43 | V |
| | | | | | | | | 7.3 (3.4 - 8.4) |

| Rated cooling capacity: 5.6kW | Indoor unit combination | | | Indoor Unit Capacity (kW) | | | | |
|----------------------------------|---------------------------|--------|--------|--|-----------------|-----------------|--------|--|
| | | | | Cooling | | Heating | | |
| | Room A | Room B | Room C | Total performance Capacity (Min.-Max.) | Room A | Room B | Room C | Total performance Capacity (Min.-Max.) |
| Single-room operation | 2.65 | = 2.65 | 2.65 | | 2.65 (1.4-3.2) | 3.60 | | 3.6 (1.8-4.7) |
| 2 room operation | 2.2 + 2.2 = 4.4 | | 2.20 | 2.20 | 4.4 (2.0 - 5.1) | 2.50 | 2.50 | 5.0 (2.0-6.4) |
| 2 room operation | 2.65 + 2.65 = 5.3 | | 2.50 | 2.50 | 5.0 (2.0 - 6.3) | 3.23 | 3.23 | 6.45 (2.3-8.4) |
| 3 room operation | 2.65 + 2.65 + 2.65 = 7.95 | | 1.87 | 1.87 | 1.87 | 5.6 (2.9 - 6.8) | 2.43 | 2.43 |

• The SAP-KRV96EHDS indoor unit can be combined with other SAP-KRV96EHDS, however it cannot be combined with other SAP-KMRVxxEH indoor units.

• The table lists the wall-mounted type of indoor units as representative models.

• For details on the connection of indoor units other than the wall-mounted type, refer to the catalogue.

Flexi Multi Indoor Unit Operating Capacities (6 Series) continued

SAP-CMRV2446EH 2.2: SAP-KMRV74/76EH 2.65: SAP-KMRV94/96EH 3.5: SAP-KMRV124/126EH 5.15: SAP-KRV184/186EH 7.1: SAP-KRV244/246EH

| Rated cooling capacity: 6.8kW | Indoor unit combination | Indoor Unit Capacity (kW) | | | | | | | | |
|----------------------------------|----------------------------------|---------------------------|--------|--------|--------|--|---------|--------|--------|----------------|
| | | Cooling | | | | Total performance Capacity (Min.-Max.) | Heating | | | |
| | | Room A | Room B | Room C | Room D | | Room A | Room B | Room C | Room D |
| Single room operation | 2.2 | = 2.2 | 2.20 | | | 2.2 (1.4-2.6) | 2.50 | | | 2.5 (1.8-4.3) |
| | 2.65 | = 2.65 | 2.65 | | | 2.65 (1.4-3.2) | 3.60 | | | 3.6 (1.8-4.7) |
| | 3.5 | = 3.5 | 3.50 | | | 3.5 (1.5-3.6) | 4.20 | | | 4.2 (1.9-5.1) |
| | 5.15 | = 5.15 | 5.15 | | | 5.15 (1.6-5.8) | 6.00 | | | 6.0 (2.0-7.8) |
| | 7.1 | = 7.1 | 6.80 | | | 6.8 (1.6-6.8) | 8.00 | | | 8.0 (2.0-8.0) |
| 2 room operation | 2.2 + 2.2 = 4.4 | 2.20 | 2.20 | | | 4.4 (2.0-5.1) | 2.50 | 2.50 | | 5.0 (2.0-6.4) |
| | 2.2 + 2.65 = 4.85 | 2.20 | 3.65 | | | 4.85 (2.0-5.8) | 2.50 | 3.60 | | 6.1 (2.1-7.5) |
| | 2.2 + 3.5 = 5.7 | 2.20 | 3.50 | | | 5.7 (2.0-6.7) | 2.50 | 4.20 | | 6.7 (2.1-8.3) |
| | 2.2 + 5.15 = 7.35 | 1.95 | 4.55 | | | 6.5 (2.1-7.7) | 2.38 | 5.72 | | 8.1 (2.4-9.0) |
| | 2.2 + 7.1 = 9.3 | 1.57 | 5.08 | | | 6.65 (2.1-7.9) | 2.01 | 6.44 | | 8.45 (2.4-9.0) |
| | 2.65 + 2.65 = 5.3 | 2.65 | 2.65 | | | 5.3 (2.0-6.3) | 3.60 | 3.60 | | 6.45 (2.3-8.4) |
| | 2.65 + 3.5 = 6.15 | 2.54 | 3.36 | | | 5.9 (2.0-6.8) | 3.51 | 4.09 | | 7.2 (2.3-8.5) |
| | 2.65 + 5.15 = 7.8 | 2.28 | 4.42 | | | 6.7 (2.1-7.9) | 3.08 | 5.13 | | 7.6 (2.3-8.5) |
| | 2.65 + 7.1 = 9.75 | 1.85 | 4.95 | | | 6.8 (2.1-7.9) | 2.64 | 5.86 | | 8.5 (2.4-9.0) |
| | 3.5 + 3.5 = 7 | 3.23 | 3.23 | | | 6.45 (2.0-7.9) | 4.00 | 4.00 | | 8.0 (2.3-8.5) |
| 3 room operation | 3.5 + 5.15 = 8.65 | 2.69 | 3.96 | | | 6.65 (2.1-7.9) | 3.42 | 4.88 | | 8.3 (2.4-9.0) |
| | 3.5 + 7.1 = 10.6 | 2.25 | 4.55 | | | 6.8 (2.1-7.9) | 2.96 | 5.64 | | 8.6 (2.4-9.0) |
| | 5.15 + 5.15 = 10.3 | 3.40 | 3.40 | | | 6.8 (2.1-7.9) | 4.28 | 4.28 | | 8.55 (2.4-9.0) |
| | 2.2 + 2.2 + 2.2 = 6.6 | 2.17 | 2.17 | 2.17 | | 6.5 (2.5-7.7) | 2.50 | 2.50 | 2.50 | 7.5 (2.7-8.5) |
| | 2.2 + 2.2 + 2.65 = 7.05 | 2.06 | 2.06 | 2.48 | | 6.6 (2.9-7.9) | 2.33 | 2.33 | 3.35 | 8.0 (3.0-9.0) |
| | 2.2 + 2.2 + 3.5 = 7.9 | 1.88 | 1.88 | 2.99 | | 6.75 (2.9-7.9) | 2.26 | 2.26 | 3.79 | 8.3 (3.2-9.0) |
| | 2.2 + 2.2 + 5.15 = 9.55 | 1.57 | 1.57 | 3.67 | | 6.8 (2.9-7.9) | 1.95 | 1.95 | 4.69 | 8.6 (3.4-9.0) |
| | 2.2 + 2.65 + 2.65 = 7.5 | 1.97 | 2.37 | 2.37 | | 6.7 (2.9-7.9) | 3.12 | 3.12 | 3.12 | 8.4 (3.4-9.0) |
| | 2.2 + 2.65 + 3.5 = 8.35 | 1.79 | 2.16 | 2.85 | | 6.8 (2.9-7.9) | 2.06 | 2.97 | 3.47 | 8.5 (3.4-9.0) |
| | 2.2 + 2.65 + 5.15 = 10 | 1.50 | 1.80 | 3.50 | | 6.8 (2.9-7.9) | 1.78 | 2.56 | 4.26 | 8.6 (3.4-9.0) |
| 4 room operation | 2.2 + 3.5 + 3.5 = 9.2 | 1.63 | 2.59 | 2.59 | | 6.8 (2.9-7.9) | 1.97 | 3.31 | 3.31 | 8.6 (3.4-9.0) |
| | 2.2 + 3.5 + 5.15 = 10.9 | 1.38 | 2.19 | 3.23 | | 6.8 (2.9-7.9) | 1.69 | 2.84 | 4.06 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 2.65 = 7.95 | 2.27 | 2.27 | 2.27 | | 6.8 (2.9-7.9) | 2.87 | 2.87 | 2.87 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 3.5 = 8.8 | 2.05 | 2.05 | 2.70 | | 6.8 (2.9-7.9) | 2.72 | 2.72 | 3.17 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 5.15 = 10.5 | 1.72 | 1.72 | 3.35 | | 6.8 (2.9-7.9) | 2.35 | 2.35 | 3.91 | 8.6 (3.4-9.0) |
| | 2.65 + 3.5 + 3.5 = 9.65 | 1.87 | 2.87 | 2.87 | | 6.8 (2.9-7.9) | 2.58 | 3.01 | 3.01 | 8.6 (3.4-9.0) |
| | 2.65 + 3.5 + 5.15 = 11.3 | 1.59 | 2.11 | 3.10 | | 6.8 (2.9-7.9) | 2.24 | 2.62 | 3.74 | 8.6 (3.4-9.0) |
| | 3.5 + 3.5 + 3.5 = 10.5 | 2.27 | 2.27 | 2.27 | | 6.8 (2.9-7.9) | 2.87 | 2.87 | 2.87 | 8.6 (3.4-9.0) |
| | 3.5 + 3.5 + 5.15 = 12.2 | 1.96 | 1.96 | 2.88 | | 6.8 (2.9-7.9) | 2.51 | 2.51 | 3.58 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.2 + 2.2 = 8.8 | 1.70 | 1.70 | 1.70 | 1.70 | 6.8 (2.9-8.1) | 2.15 | 2.15 | 2.15 | 8.6 (3.4-9.0) |
| 5 room operation | 2.2 + 2.2 + 2.2 + 2.65 = 9.25 | 1.62 | 1.62 | 1.62 | 1.95 | 6.8 (2.9-8.1) | 1.94 | 1.94 | 1.94 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.2 + 3.5 = 10.1 | 1.48 | 1.48 | 1.48 | 2.36 | 6.8 (2.9-8.1) | 1.84 | 1.84 | 1.84 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.2 + 5.15 = 11.75 | 1.27 | 1.27 | 1.27 | 2.98 | 6.8 (2.9-8.1) | 1.59 | 1.59 | 1.59 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.65 + 2.65 = 9.7 | 1.54 | 1.54 | 1.86 | 1.86 | 6.8 (2.9-8.1) | 1.76 | 1.76 | 2.54 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.65 + 3.5 = 10.55 | 1.42 | 1.42 | 1.71 | 2.26 | 6.8 (2.9-8.1) | 1.68 | 1.68 | 2.42 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 2.65 + 5.15 = 12.2 | 1.23 | 1.23 | 1.48 | 2.87 | 6.8 (2.9-8.1) | 1.47 | 1.47 | 2.12 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 3.5 + 3.5 = 11.4 | 1.31 | 1.31 | 2.09 | 2.09 | 6.8 (2.9-8.1) | 1.60 | 1.60 | 2.70 | 8.6 (3.4-9.0) |
| | 2.2 + 2.2 + 3.5 + 5.15 = 13.05 | 1.15 | 1.15 | 1.82 | 2.68 | 6.8 (2.9-8.1) | 1.41 | 1.41 | 2.38 | 8.6 (3.4-9.0) |
| | 2.2 + 2.65 + 2.65 + 2.65 = 10.15 | 1.47 | 1.78 | 1.78 | 1.78 | 6.8 (2.9-8.1) | 1.62 | 2.33 | 2.33 | 8.6 (3.4-9.0) |
| | 2.2 + 2.65 + 2.65 + 3.5 = 11 | 1.36 | 1.64 | 1.64 | 2.16 | 6.8 (2.9-8.1) | 1.55 | 2.23 | 2.23 | 8.6 (3.4-9.0) |
| 6 room operation | 2.2 + 2.65 + 2.65 + 5.15 = 12.65 | 1.18 | 1.42 | 1.42 | 2.77 | 6.8 (2.9-8.1) | 1.37 | 1.97 | 1.97 | 8.6 (3.4-9.0) |
| | 2.2 + 2.65 + 3.5 + 3.5 = 11.85 | 1.18 | 1.42 | 1.42 | 2.77 | 6.8 (2.9-8.1) | 1.48 | 1.48 | 2.49 | 8.6 (3.4-9.0) |
| | 2.2 + 3.5 + 3.5 + 3.5 = 12.7 | 1.18 | 1.87 | 1.87 | 1.87 | 6.8 (2.9-8.1) | 1.42 | 1.42 | 2.39 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 2.65 + 2.65 = 10.6 | 1.70 | 1.70 | 1.70 | 1.70 | 6.8 (2.9-8.1) | 2.15 | 2.15 | 2.15 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 2.65 + 3.5 = 11.45 | 1.57 | 1.57 | 1.57 | 2.08 | 6.8 (2.9-8.1) | 2.06 | 2.06 | 2.06 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 2.65 + 5.15 = 13.1 | 1.38 | 1.38 | 1.38 | 2.67 | 6.8 (2.9-8.1) | 1.84 | 1.84 | 1.84 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 3.5 + 3.5 = 12.3 | 1.47 | 1.47 | 1.93 | 1.93 | 6.8 (2.9-8.1) | 1.98 | 1.98 | 2.32 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 3.5 + 5.15 = 13.8 | 1.38 | 1.38 | 1.38 | 2.67 | 6.8 (2.9-8.1) | 1.84 | 1.84 | 1.84 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 3.5 + 5.15 = 14.3 | 1.47 | 1.47 | 1.93 | 1.93 | 6.8 (2.9-8.1) | 1.98 | 1.98 | 2.32 | 8.6 (3.4-9.0) |
| | 2.65 + 2.65 + 3.5 + 5.15 = 14.8 | 1.38 | 1.38 | 1.38 | 2.67 | 6.8 (2.9-8.1) | 1.84 | 1.84 | 1.84 | 8.6 (3.4-9.0) |

• The table lists the wall-mounted type of indoor units as representative models.

• For details on the connection of indoor units other than the wall-mounted type, refer to the catalogue.

SAP-CMRV3146EH 2.2: SAP-KMRV74/76EH 2.65: SAP-KMRV94/96EH 3.5: SAP-KMRV124/126EH 5.15: SAP-KRV184/186EH 7.1: SAP-KRV244/246EH

| Rated cooling capacity: 8.0kW | Indoor unit combination | | Indoor Unit Capacity (kW) | | | | | | | |
|----------------------------------|---------------------------|--------|---------------------------|--------|---|--------|---------|--------|--------|---|
| | | | Cooling | | | | Heating | | | |
| | Room A | Room B | Room C | Room D | Total performance Capacity (Min.-Max.) | Room A | Room B | Room C | Room D | Total performance Capacity (Min.-Max.) |
| Single room operation | 2.2 | = 2.2 | = 2.2 | = 2.2 | 2.2 (1.5 - 2.6) | 2.50 | | | | 2.5 (1.8 - 4.3) |
| | 2.65 | = 2.65 | = 2.65 | = 2.65 | 2.65 (1.5 - 3.2) | 3.60 | | | | 3.6 (1.8 - 4.7) |
| | 3.5 | = 3.5 | = 3.5 | = 3.5 | 3.5 (1.6 - 3.6) | 4.20 | | | | 4.2 (1.9 - 5.1) |
| | 5.15 | = 5.15 | = 5.15 | = 5.15 | 5.15 (1.7 - 5.8) | 6.00 | | | | 6.0 (2.0 - 7.8) |
| | 7.1 | = 7.1 | = 7.1 | = 7.1 | 7.1 (1.8 - 7.4) | 8.50 | | | | 8.5 (2.0 - 8.8) |
| 2 room operation | 2.2 + 2.2 = 4.4 | 2.20 | 2.20 | | 4.4 (2.0 - 5.1) | 2.50 | 2.50 | | | 5.0 (2.0 - 6.4) |
| | 2.2 + 2.65 = 4.85 | 2.20 | 2.65 | | 4.85 (2.0 - 5.8) | 2.50 | 3.60 | | | 6.1 (2.1 - 7.5) |
| | 2.2 + 3.5 = 5.7 | 2.20 | 3.50 | | 5.7 (2.0 - 6.7) | 2.50 | 4.20 | | | 6.7 (2.3 - 8.3) |
| | 2.2 + 5.15 = 7.35 | 2.14 | 5.01 | | 7.15 (2.2 - 7.7) | 2.50 | 6.00 | | | 8.5 (3.0 - 9.4) |
| | 2.2 + 7.1 = 9.3 | 1.81 | 5.84 | | 7.65 (2.3 - 8.8) | 2.01 | 6.84 | | | 8.85 (3.0 - 9.8) |
| | 2.65 + 2.65 = 5.3 | 2.65 | 2.65 | | 5.3 (2.0 - 6.5) | 3.60 | 3.60 | | | 7.2 (2.4 - 8.5) |
| | 2.65 + 3.5 = 6.15 | 2.54 | 3.36 | | 5.9 (2.0 - 7.4) | 3.51 | 4.09 | | | 7.6 (2.6 - 8.5) |
| | 2.65 + 5.15 = 7.8 | 2.46 | 4.79 | | 7.25 (2.3 - 8.5) | 3.24 | 5.41 | | | 8.65 (3.3 - 9.4) |
| | 2.65 + 7.1 = 9.75 | 2.11 | 5.64 | | 7.75 (2.3 - 8.8) | 2.68 | 6.32 | | | 9.0 (3.3 - 9.8) |
| | 3.5 + 3.5 = 7 | 3.40 | 3.40 | | 6.8 (2.2 - 8.4) | 4.00 | 4.00 | | | 8.0 (2.9 - 8.5) |
| | 3.5 + 5.15 = 8.65 | 3.03 | 4.47 | | 7.5 (2.6 - 8.8) | 3.60 | 5.15 | | | 8.75 (3.4 - 9.8) |
| | 3.5 + 7.1 = 10.6 | 2.61 | 5.29 | | 7.9 (2.6 - 8.8) | 3.01 | 6.09 | | | 9.1 (3.4 - 9.8) |
| | 5.15 + 5.15 = 10.3 | 3.95 | 3.95 | | 7.9 (2.6 - 8.8) | 4.50 | 4.50 | | | 9.0 (3.4 - 9.8) |
| | 5.15 + 7.1 = 12.3 | 3.36 | 4.64 | | 8.0 (2.7 - 8.8) | 3.89 | 5.51 | | | 9.4 (3.4 - 9.8) |
| 3 room operation | 2.2 + 2.2 + 2.2 = 6.6 | 2.20 | 2.20 | 2.20 | 6.6 (2.0 - 7.7) | 2.50 | 2.50 | 2.50 | | 7.5 (2.7 - 9.0) |
| | 2.2 + 2.2 + 2.65 = 7.05 | 2.20 | 2.20 | 2.20 | 7.05 (2.2 - 8.4) | 2.47 | 2.47 | 3.56 | | 8.5 (3.0 - 9.2) |
| | 2.2 + 2.2 + 3.5 = 7.9 | 2.03 | 2.03 | 2.03 | 7.3 (2.4 - 8.6) | 2.34 | 2.34 | 3.93 | | 8.6 (3.2 - 9.8) |
| | 2.2 + 2.2 + 5.15 = 9.55 | 1.77 | 1.77 | 1.77 | 7.7 (2.7 - 9.0) | 2.01 | 2.01 | 4.83 | | 8.85 (3.4 - 9.8) |
| | 2.2 + 2.2 + 7.1 = 11.5 | 1.53 | 1.53 | 1.53 | 8.0 (2.9 - 9.0) | 1.71 | 1.71 | 5.82 | | 9.25 (3.4 - 9.8) |
| | 2.2 + 2.65 + 2.65 = 7.5 | 2.11 | 2.54 | 2.54 | 7.2 (2.3 - 8.6) | 2.23 | 3.21 | 3.21 | | 8.65 (3.3 - 9.3) |
| | 2.2 + 2.65 + 3.5 = 8.35 | 1.95 | 2.35 | 2.35 | 7.4 (2.6 - 9.0) | 2.12 | 3.06 | 3.57 | | 8.75 (3.4 - 9.8) |
| | 2.2 + 2.65 + 5.15 = 10 | 1.72 | 2.07 | 2.07 | 7.8 (2.9 - 9.0) | 1.86 | 2.68 | 4.46 | | 9.0 (3.4 - 9.8) |
| | 2.2 + 2.65 + 7.1 = 12 | 1.47 | 1.77 | 1.77 | 8.0 (2.9 - 9.0) | 1.61 | 2.32 | 5.47 | | 9.4 (3.4 - 9.8) |
| | 2.2 + 3.5 + 3.5 = 9.2 | 1.82 | 2.89 | 2.89 | 7.6 (2.7 - 9.0) | 2.03 | 3.41 | 3.41 | | 8.85 (3.4 - 9.8) |
| | 2.2 + 3.5 + 5.15 = 10.9 | 1.60 | 2.55 | 2.55 | 7.9 (2.9 - 9.0) | 1.79 | 3.01 | 4.30 | | 9.1 (3.4 - 9.8) |
| | 2.2 + 3.5 + 7.1 = 12.8 | 1.38 | 2.19 | 2.19 | 8.0 (2.9 - 9.0) | 1.55 | 2.60 | 5.26 | | 9.4 (3.4 - 9.8) |
| | 2.2 + 5.15 + 5.15 = 12.5 | 1.41 | 3.30 | 3.30 | 8.0 (2.9 - 9.0) | 1.62 | 3.89 | 3.89 | | 9.4 (3.4 - 9.8) |
| | 2.2 + 5.15 + 7.1 = 14.5 | 1.22 | 2.85 | 2.85 | 8.0 (2.9 - 9.0) | 1.38 | 3.32 | 4.70 | | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 2.65 = 7.95 | 2.43 | 2.43 | 2.43 | 7.3 (2.5 - 8.6) | 2.95 | 2.95 | 2.95 | | 8.85 (3.4 - 9.4) |
| | 2.65 + 2.65 + 3.5 = 8.8 | 2.26 | 2.26 | 2.26 | 7.5 (2.7 - 9.0) | 2.81 | 2.81 | 3.28 | | 8.9 (3.4 - 9.8) |
| | 2.65 + 2.65 + 5.15 = 10.5 | 2.00 | 2.00 | 2.00 | 7.9 (2.9 - 9.0) | 2.51 | 2.51 | 4.18 | | 9.2 (3.4 - 9.8) |
| | 2.65 + 2.65 + 7.1 = 12.4 | 1.71 | 1.71 | 1.71 | 8.0 (2.9 - 9.0) | 2.16 | 2.16 | 5.09 | | 9.4 (3.4 - 9.8) |
| | 2.65 + 3.5 + 3.5 = 9.65 | 2.13 | 2.81 | 2.81 | 7.75 (2.7 - 9.0) | 2.70 | 3.15 | | | 9.0 (3.4 - 9.8) |
| | 2.65 + 3.5 + 5.15 = 11.3 | 1.88 | 2.48 | 2.48 | 8.0 (2.9 - 9.0) | 2.43 | 2.83 | 4.04 | | 9.3 (3.4 - 9.8) |
| | 2.65 + 3.5 + 7.1 = 13.3 | 1.60 | 2.11 | 2.11 | 8.0 (2.9 - 9.0) | 2.08 | 2.42 | 4.90 | | 9.4 (3.4 - 9.8) |
| | 2.65 + 5.15 + 5.15 = 13 | 1.64 | 3.18 | 3.18 | 8.0 (2.9 - 9.0) | 2.17 | 3.62 | 3.62 | | 9.4 (3.4 - 9.8) |
| | 3.5 + 3.5 + 3.5 = 10.5 | 2.65 | 2.65 | 2.65 | 7.95 (2.9 - 9.0) | 3.03 | 3.03 | 3.03 | | 9.1 (3.4 - 9.8) |
| | 3.5 + 3.5 + 5.15 = 12.2 | 2.30 | 2.30 | 2.30 | 8.0 (2.9 - 9.0) | 2.73 | 2.73 | 3.90 | | 9.35 (3.4 - 9.8) |
| | 3.5 + 3.5 + 7.1 = 14.1 | 1.99 | 1.99 | 1.99 | 8.0 (2.9 - 9.0) | 2.34 | 2.34 | 4.73 | | 9.4 (3.4 - 9.8) |
| | 3.5 + 5.15 + 5.15 = 13.8 | 2.03 | 2.99 | 2.99 | 8.0 (2.9 - 9.0) | 2.44 | 3.48 | 3.48 | | 9.4 (3.4 - 9.8) |

Flexi Multi Indoor Unit Operating Capacities (6 Series) continued

SAP-CMRV3146EH 2.2: SAP-KMRV74/76EH 2.65: SAP-KMRV94/96EH 3.5: SAP-KMRV124/126EH 5.15: SAP-KRV184/186EH 7.1: SAP-KRV244/246EH

| Rated cooling capacity: 8.0kW | Indoor unit combination | Indoor Unit Capacity (kW) | | | | | | | | | |
|----------------------------------|----------------------------------|---------------------------|--------|--------|--------|--|---------|--------|--------|--------|------------------|
| | | Cooling | | | | Total performance Capacity (Min.-Max.) | Heating | | | | |
| | | Room A | Room B | Room C | Room D | | Room A | Room B | Room C | Room D | |
| 4 room operation | 2.2 + 2.2 + 2.2 + 2.2 = 8.8 | 1.88 | 1.88 | 1.88 | 1.88 | 7.5 (2.9 - 9.2) | 2.18 | 2.18 | 2.18 | 2.18 | 8.7 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.2 + 2.65 = 9.25 | 1.82 | 1.82 | 1.82 | 2.19 | 7.65 (2.9 - 9.2) | 1.99 | 1.99 | 1.99 | 2.87 | 8.85 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.2 + 3.5 = 10.1 | 1.71 | 1.71 | 1.71 | 2.72 | 7.85 (2.9 - 9.2) | 1.91 | 1.91 | 1.91 | 3.21 | 8.95 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.2 + 5.15 = 11.8 | 1.50 | 1.50 | 1.50 | 3.51 | 8.0 (2.9 - 9.2) | 1.71 | 1.71 | 1.71 | 4.11 | 9.25 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.2 + 7.1 = 13.7 | 1.28 | 1.28 | 1.28 | 4.15 | 8.0 (2.9 - 9.2) | 1.47 | 1.47 | 1.47 | 4.99 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.65 + 2.65 = 9.7 | 1.76 | 1.76 | 2.12 | 2.12 | 7.75 (2.9 - 9.2) | 1.85 | 1.85 | 2.67 | 2.67 | 9.05 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.65 + 3.5 = 10.6 | 1.66 | 1.66 | 2.00 | 2.64 | 7.95 (2.9 - 9.2) | 1.79 | 1.79 | 2.57 | 3.00 | 9.15 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.65 + 5.15 = 12.2 | 1.44 | 1.44 | 1.74 | 3.38 | 8.0 (2.9 - 9.2) | 1.61 | 1.61 | 2.32 | 3.86 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.2 + 2.65 + 7.1 = 14.2 | 1.24 | 1.24 | 1.50 | 4.01 | 8.0 (2.9 - 9.2) | 1.37 | 1.37 | 1.98 | 4.67 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.2 + 3.5 + 3.5 = 11.4 | 1.54 | 1.54 | 2.4 | 6.46 | 8.0 (2.9 - 9.2) | 1.72 | 1.72 | 2.88 | 2.88 | 9.2 (3.4 - 9.8) |
| | 2.2 + 2.2 + 3.5 + 5.15 = 13.1 | 1.35 | 1.35 | 2.15 | 3.16 | 8.0 (2.9 - 9.2) | 1.55 | 1.55 | 2.60 | 3.71 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.2 + 5.15 + 5.15 = 14.7 | 1.20 | 1.20 | 2.80 | 2.80 | 8.0 (2.9 - 9.2) | 1.38 | 1.38 | 3.32 | 3.32 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.65 + 2.65 + 2.65 = 10.2 | 1.70 | 2.05 | 2.05 | 2.05 | 7.85 (2.9 - 9.2) | 1.73 | 2.49 | 2.49 | 2.49 | 9.2 (3.4 - 9.8) |
| | 2.2 + 2.65 + 2.65 + 3.5 = 11 | 1.60 | 1.93 | 1.93 | 2.55 | 8.0 (2.9 - 9.2) | 1.67 | 2.41 | 2.41 | 2.81 | 9.3 (3.4 - 9.8) |
| | 2.2 + 2.65 + 2.65 + 5.15 = 12.7 | 1.39 | 1.68 | 1.68 | 3.26 | 8.0 (2.9 - 9.2) | 1.50 | 2.16 | 2.16 | 3.59 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.65 + 3.5 + 3.5 = 11.9 | 1.49 | 1.79 | 2.36 | 2.36 | 8.0 (2.9 - 9.2) | 1.62 | 2.33 | 2.72 | 2.72 | 9.4 (3.4 - 9.8) |
| | 2.2 + 2.65 + 3.5 + 5.15 = 13.5 | 1.30 | 1.57 | 2.07 | 3.05 | 8.0 (2.9 - 9.2) | 1.44 | 2.08 | 2.42 | 3.46 | 9.4 (3.4 - 9.8) |
| | 2.2 + 3.5 + 3.5 + 3.5 = 12.7 | 1.39 | 2.20 | 2.20 | 2.20 | 8.0 (2.9 - 9.2) | 1.56 | 2.61 | 2.61 | 2.61 | 9.4 (3.4 - 9.8) |
| | 2.2 + 3.5 + 3.5 + 5.15 = 14.4 | 1.23 | 1.95 | 1.95 | 2.87 | 8.0 (2.9 - 9.2) | 1.39 | 2.34 | 2.34 | 3.34 | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 2.65 + 2.65 = 10.6 | 2.00 | 2.00 | 2.00 | 2.00 | 8.0 (2.9 - 9.2) | 2.35 | 2.35 | 2.35 | 2.35 | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 2.65 + 3.5 = 11.5 | 1.85 | 1.85 | 1.85 | 2.45 | 8.0 (2.9 - 9.2) | 2.26 | 2.26 | 2.26 | 2.63 | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 2.65 + 5.15 = 13.1 | 1.62 | 1.62 | 1.62 | 3.15 | 8.0 (2.9 - 9.2) | 2.01 | 2.01 | 2.01 | 3.36 | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 3.5 + 3.5 = 12.3 | 1.72 | 1.72 | 2.28 | 2.28 | 8.0 (2.9 - 9.2) | 2.17 | 2.17 | 2.53 | 2.53 | 9.4 (3.4 - 9.8) |
| | 2.65 + 2.65 + 3.5 + 5.15 = 14 | .52 | 1.52 | 2.01 | 2.95 | 8.0 (2.9 - 9.2) | 1.94 | 1.94 | 2.27 | 3.24 | 9.4 (3.4 - 9.8) |
| | 2.65 + 3.5 + 3.5 + 3.5 = 13.2 | 1.61 | 2.13 | 2.13 | 2.13 | 8.0 (2.9 - 9.2) | 2.09 | 2.44 | 2.44 | 2.44 | 9.4 (3.4 - 9.8) |
| | 3.5 + 3.5 + 3.5 + 3.5 = 14 | 2.00 | 2.00 | 2.00 | 2.00 | 8.0 (2.9 - 9.2) | 2.35 | 2.35 | 2.35 | 2.35 | 9.4 (3.4 - 9.8) |

• The table lists the wall-mounted type of indoor units as representative models.

• For details on the connection of indoor units other than the wall-mounted type, refer to the catalogue.

Mobile Air Conditioning Units

R410A

SAP-PFR122E

- Quiet operation
- Infrared remote control with 4 digital timers to be set on the 24 hour and week-end, night set back, start-up of air-conditioning or dehumidifying or ventilation only modes, temperature digital adjustment and room temperature control by a special sensor inside the remote control
- Double temperature sensor (on remote control/on indoor unit)
- Dry function
- Three-speed fan
- Anti-mould and anti-bacteria washable filters
- Auto restart after a power supply black out
- Electronic protection against over-pressures
- High efficiency rotary compressor
- Optional pipe-extension kits connecting Indoor and Outdoor units (2 and 4m)



| Unit model | SAP-PFR122E | |
|-------------------------------|-------------|---------------|
| Performance | | Cooling |
| Capacity | kW | 2.98 |
| E.E.R. | W/W | 3.22 |
| Energy class | | A |
| Annual energy consumption | kWh | 463 |
| Fan speed | | 3 + Auto / 1 |
| Air circulation | m³/h | 370 |
| Tubing length | m | 2 |
| Moisture removal | l/h | 1.2 |
| Sound pressure outdoor (H) | dB(A) | 45 |
| Sound pressure indoor (L/M/H) | dB(A) | 34/36/36 |
| Dimensions - indoor | (HxWxD) mm | 790x580x245 |
| Dimensions - outdoor | (HxWxD) mm | 435x440x230 |
| Net weight indoor | Kg | 44 |
| Net weight outdoor | Kg | 9.5 |
| Power supply | | 1ph/230V/50Hz |
| Running current | Amps | 4.0 |





COMMERCIAL SPLIT SYSTEMS (PACi)

PACi Commercial Split Systems

New High Performance SPW R410A DC Inverter Split Systems

This year SANYO's experienced design engineers have gone back to the drawing board and completely overhauled our range of Commercial Split Systems. After extensive research and development we can unveil the Elite PACi. With its advanced features and superior design, the Elite PACi is one of the top performing split systems in the industry.

The expanded range of new Commercial Split System is of superior performance and quality, providing more choice for customers.

Specifically designed for commercial and retail applications, the ingenious design of the systems not only overcomes the limitations associated with the installation of traditional split systems, but also offers the end user improved comfort and drastically reduced power consumption.

- Single or three phase power supply across the range
- Low start current of indoor units
- Single, twin, triple and quad options
- Systems pre-charged for 30 metres
- Pipe runs up to 100 metres

The SPW DC inverter systems utilise the non-ozone depleting R410A refrigerant, which gives increased system performance, increased energy-efficiency and improved heat transfer, which results in smaller pipe sizes and more compact indoor units.

Now range extends from 5kW through to 25kW

The new Elite PACi benefits from increased performance and efficiency, with COP ratings that are some of the highest in the industry. For higher capacities, SANYO's Big PACi is a newly compact design with a twin fan, saving valuable installation space compared to traditional 8-10HP systems.

Wide capacity range

DC inverter-controlled compressors have an operating range of 25-90Hz, which enables the sine wave to be shortened or lengthened, either slowing the compressor to reduce capacity for the nominal figure (measured at 50Hz) or increasing its speed to offer increased output.

Other factors, such as coil size, restrict the maximum output of the system and SANYO would recommend that equipment is always selected at nominal capacity to ensure the optimum lifespan of the equipment.

**Entire new range of
Commercial Split Systems!**



Elite PACi

Big PACi

Classic PACi

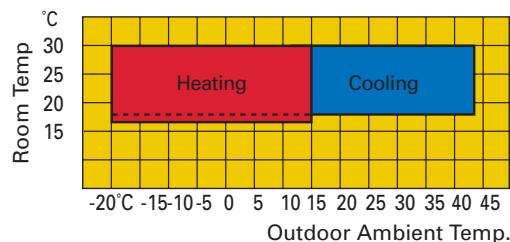


Standard PACi

Affordable technology

When comparing the COPs of DC inverter systems (which are stated at 100% capacity) with an equivalent fixed speed system, the improved energy-efficiency and consequent lower running costs of the DC inverter can be easily calculated. However, DC Inverters control the room temperature far more precisely, generally operating in part load conditions where the COPs are considerably higher, thereby delivering further substantial energy savings and ensuring that this new technology has an almost immediate payback.

Operation range (cooling and heat pump model)



*Cooling operation -20°C to 43°C

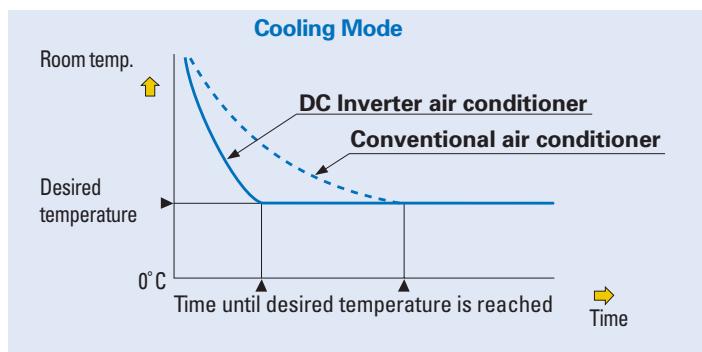
*Heating operation -20°C to 15°C

Note Heating operation is only for Heat pump model.
Standard PACi heating operation down to -15°C.

Taking inverter technology to a new level of comfort

The SPW DC Inverters use Advanced Digital Hybrid (ADH) technology for better, smarter and more cost-efficient year round climate control. Immediately following start-up, the DC compressor operates at maximum power to provide almost instant heating or cooling. As the desired air temperature is reached, a special Pulse Width Module automatically adjusts the compressor's frequency to exactly meet the cooling or heating requirements of the room. The result is exceptionally precise temperature control, less noise and significant energy savings.

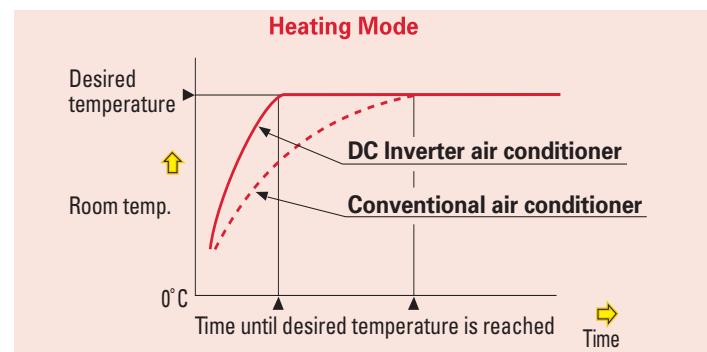
The DC motor uses powerful neodymium magnets, which are approximately 15-20 times stronger than the ferrite magnets used in conventional AC compressors. This, combined with precise digital control, gives the SANYO DC compressor an operation rate 15-20% higher than that of a conventional AC compressor.



New increased range of indoor units

Not only have the PACi range of outdoor units been completely overhauled, but also our range of indoor units has doubled from four to eight. Added to the range are the XM Mini Cassette, the ultra slim US ducted unit and the specially designed UR square ducted unit with internal filter.

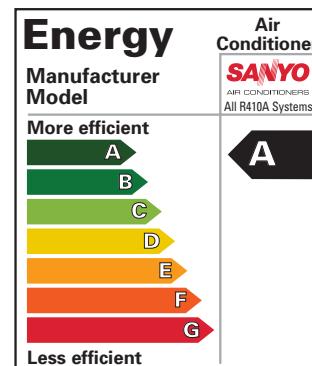
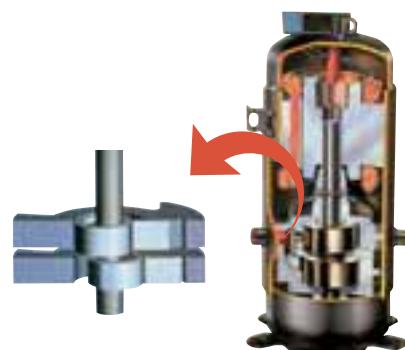
All these units are high-performance and feature rich - just as you would expect from SANYO. They are also designed with the needs of the installer as well as the end user in mind, making installation and maintenance a breeze.



Twin rotary compressor

The SPW outdoor units utilise the latest SANYO twin rotary compressor, in which perfectly balanced dual rotors revolve smoothly and efficiently to provide powerful, quiet and vibration-free performance.

All SANYO SPW DC inverter systems are highly rated on EEL, which confirms that they are amongst the most energy-efficient systems available. Power consumption during operation is substantially less than that of lower rated units and consequently both the day to day running costs and full life cycle costs are significantly reduced.



PACi Range Overview

Indoor units

| Page | | Capacity cooling/heating BTU/h | Class Kw | 12 | 16 | 18 | 25 |
|-----------|--|--------------------------------------|---|---|---|-------------------------------------|----------------|
| | | | | 3.6 12,000 | 4.2 14,000 | 4.5 15,000 | 45.2 17,500 |
| 49 | KR Type | | SPW-KR124GH56B | SPW-KR164GH56B | SPW-KR184GH56B | SPW-KR254GH56B | |
| 50 | T Type | | SPW-T125H | SPW-T165H | SPW-T185H | SPW-T255H | |
| 51 | X Type | | SPW-X125H Panel PNR-XD484GHAB | SPW-X165H Panel PNR-XD484GHAB | SPW-X185H Panel PNR-XD484GHAB | SPW-X255H Panel PNR-XD484GHAB | |
| | XMR | | SPW-XMR124EH56B Panel PNR-XM184EHAB | SPW-XMR164EH56B Panel PNR-XM484EHAB | SPW-XMR184EH56B Panel PNR-XM484EHAB | | |
| 52 | XM Type | | SPW-XM125H Panel PNR-XM185 | SPW-XM165H Panel PNR-XM185 | SPW-XM185H Panel PNR-XM185 | | |
| 54 | NEW US Type | | SPW-US125H | SPW-US165H | SPW-US185H | | |
| 55 | U Type | | SPW-U125H | SPW-U165H | SPW-U185H | SPW-U225H | |
| 56 | NEW UR Type with filter | | | | SPW-U185SHT | SPW-U225SHT | |
| | UM Type | | SPW-UMR124EH56B | SPW-UMR164EH56B | SPW-UMR184EH56B | | |
| | FT Type - floor/ceiling mounted units | | SPW-FTR124EH56B | SPW-FTR164EH56B | SPW-FTR184EH56B | | |
| 59 and 63 | D Type | | | | | | |

Outdoor units

| Page | | Capacity cooling/heating BTU/h | HP Class | 2 | 3 | 4 | 5 |
|------|----------------------------|--------------------------------------|-----------------|-----------------|-----------------|-----------------|----|
| | | | | 18 | 25 | 36 | 48 |
| | NEW | | | | | | |
| | Elite | | | | | | |
| 48 | 1 phase: 220-240V; 50Hz | | SPW-C186VEH | SPW-C256VEH | SPW-C366VEH | SPW-C486VEH | |
| 48 | 3 phase: 380-415V; 50/60Hz | | - | SPW-C256VEH8* | SPW-C366VEH8* | SPW-C486VEH8* | |
| | Standard | | | | | | |
| 60 | 1 phase: 220-240V; 50/60Hz | | SPW-CR184GVH56B | SPW-CR254GVH56B | SPW-CR364GVH56B | SPW-CR484GVH56B | |
| 60 | 3 phase: 380-415V; 50Hz | | - | SPW-CR254GVH8B | SPW-CR364GVH8B | SPW-CR484GVH8B | |
| | Classic | | | | | | |
| 61 | 1 phase: 220-240V; 50/60Hz | | - | SPW-CR256VH | SPW-CR366VH | SPW-CR486VH | |
| 61 | 3 phase: 380-415V; 50Hz | | - | SPW-CR256VH8* | SPW-CR366VH8* | SPW-CR486VH8* | |

*Green coloured models are in planning

| | 36 | 48 | 60 | 70 | 90 | Functions | | | | | |
|-------------------------------------|----------------|-------------------------------------|----------------|-------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|---|
| | 10.0 34,000 | 11.2 38,000 | 12.5 42,500 | 14.0 48,000 | 14.0 48,000 | 16.0 54,500 | 20.0 68,200 | 22.4 76,400 | 25.0 85,300 | 28.0 85,500 | |
| | | | | | | | | | | |   |
| SPW-T365H | | SPW-T485H | | SPW-T605H | | | | | | |   |
| SPW-X365H Panel PNR-XD484GHAB | | SPW-X485H Panel PNR-XD484GHAB | | SPW-X605H Panel PNR-XD484GHAB | | | | | | |     |
| | | | | | | | | | | |     |
| | | | | | | | | | | |     |
| SPW-U365H | | SPW-U485H | | SPW-U605H | | | | | | |  |
| SPW-U365SHT | | SPW-U485SHT | | SPW-U605SHT | | | | | | |   |
| | | | | | | | | | | |   |
| | | | | | | | SPW-D0705H | | SPW-D0905H | | |

| | 6 | 8 | 10 | |
|--|----------------|----------------|----------------|----------------|
| | 60 | 70 | 90 | |
| | 14.0 48,000 | 16.0 54,500 | 20.0 68,200 | 22.4 76,400 |
| | | | 25.0 85,300 | 28.0 95,500 |

NEW



BIG PACi

| | | |
|--|-------------|-------------|
| SPW-C606VEH | - | - |
| SPW-C606VEH* | SPW-C706VCH | SPW-C906VCH |
|  | | |
| SPW-CR604GVH56B | - | - |
| SPW-CR604GVH8B | - | - |
| | - | - |
| SPW-CR606VH8* | - | - |

| | |
|---------------------|---|
| Long life filter |  |
| Built-in drain pump |  |
| Automatic flap |  |
| Automatic swing |  |

Single phase - SPW-C186VEH SPW-C256VEH SPW-C366VEH SPW-C486VEH SPW-C606VEH
 Three phase - SPW-C256VEH8 SPW-C366VEH8 SPW-C486VEH8 SPW-C606VEH8

NEW

The newly designed and engineered Elite PACi is one of the top performers of its type in the industry. Especially designed for light commercial projects where efficiency and performance must not be compromised, the Elite PACi boasts many advanced features. SANYO's DC inverter technology offers outstanding heating and cooling power with quieter operation and energy-saving.

- Newly designed heat exchanger and outdoor fan means that COP ratings are some of the highest in the industry
- Piping length has been increased by 40% to 70m
- Reduced refrigerant charge to help comply with F-Gas regulations
- Now operates at temperatures as low as -20°C in heating and cooling mode
- New compact and lightweight design for ease of installation
- Available in single phase and three phase
- Very quiet operation with sounds levels from just 53 dB(A)
- Ideal for enhancing the air quality in shops, restaurants and other businesses
- Up to 4 indoor units can be fitted on multi-split systems
- Now 8 different styles of indoor units to provide more flexibility for different applications

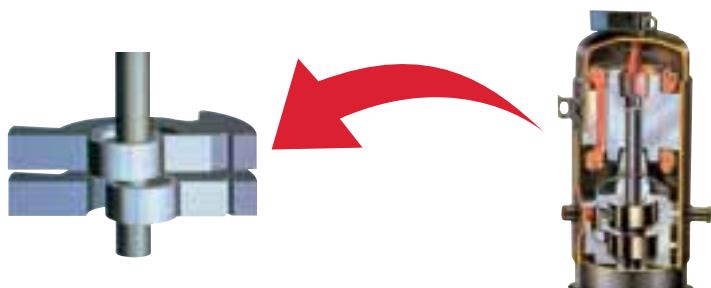
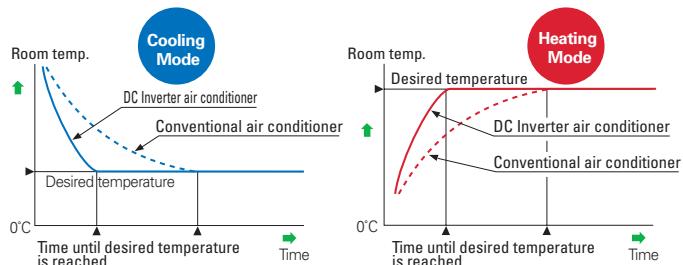


Quick start up - takes half the time to reach cool or warm air

SANYO DC i nverter technology has efficient rapid heating and cooling capacity which is produced by variable compressor rotation speed; it ensures quicker control of room temperature than conventional air conditioners.

High efficiency - COPs of up to 4.05

Elite PACi uses a twin rotary compressor. The dual rotors revolve smoothly in a well-balanced fashion for stable and efficient performance. This contributes to increased comfort and rapid heating and cooling as well as ultra-quiet operation.



KR Wall Mounted Unit

Elite PACi

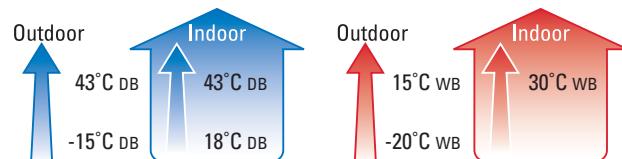
R410A

INVERTER
Air Conditioner

SPW-KR184GH56B SPW-KR254GH56B

The slimline designed KR Type Wall Mounted is small and light, making it ideal for commercial applications. It is also available in a wide variety of capacities.

- Simple, versatile design with anti-mould filters as standard
- Twin rotary compressor dramatically reduces vibration and noise during operation
- Cooling and heating operation down to -15°C
- Low operating sound levels from 32 dB(A)
- Single phase electrical supplier
- Multifunctional wireless remote control with built-in temperature control
- Twin, triple and quadruple split options



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-SH1BGB

RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Washable front panel

The indoor unit's front panel can be easily removed and washed for trouble-free cleaning.



For more technical specifications please refer to our new "PACi" Series product brochure 2008

T Type Ceiling Mounted Unit

Elite PACi

R410A

INVERTER
Air Conditioner

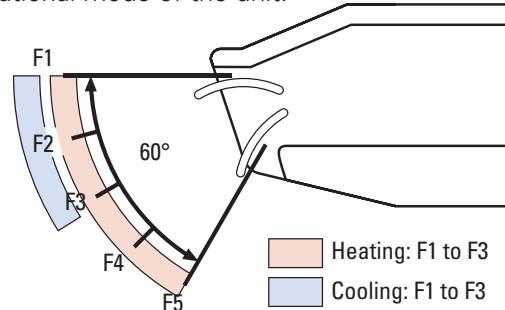
SPW-T185H SPW-T255H SPW-T365H SPW-T485H SPW-T605H

The range of ceiling mounted systems feature a DC fan motor for increased efficiency and reduced operating sound levels. All the units are the same height and depth for a uniform appearance in mixed installations and feature a fresh air knockout for improved air quality.

- All units just 210mm high
- Twin rotary compressor dramatically reduces vibration and noise during operation
- DC inverter control
- Large and wide air distribution
- SANYO DC fan motor for increased efficiency
- Cooling and heating operation down to -15°C
- Industry low sound levels
- Twin, triple and quadruple split options



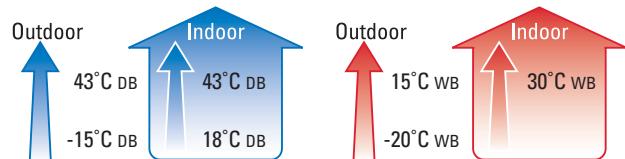
Air distribution is automatically altered depending on the operational mode of the unit.



Controller Options



Simplified remote controller



| | INVERTER HEAT PUMP | | | | | |
|--|--------------------|----------------|--------------|----------------|----------|----------------|
| | size 366 | | size 486 | | size 606 | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 10.0 | 11.2 | 12.5 | 14.0 | 14.0 |
| Power input | kW | 2.75 | 2.87 | 3.71 | 3.88 | 4.95 |
| EER/COP | W/W | 3.64 | 3.90 | 3.37 | 3.62 | 2.83 |
| Energy class | | A | A | A | A | B |
| Running amperes 1ph | A | 13.1 | 13.6 | 19.1 | 18.8 | 25.3 |
| Annual energy consumption (cooling) | kWh | 1375 | - | - | - | - |
| Indoor Unit | | SPW-T365H | | SPW-T485H | | SPW-T605H |
| Air-circulation | (H/M/L) m³/h | 1650/1380/1260 | | 1800/1560/1320 | | 1800/1560/1320 |
| Moister removal | Litres/h | 3.9 | - | 5.6 | - | 5.6 |
| Sound power level | (H) dB(A) | 58 | | 60 | | 60 |
| Sound pressure level | (H/M/L) dB(A) | 41/38/35 | | 43/40/37 | | 43/40/37 |
| Dimensions | (HxWxD) mm | 210/1595/680 | | 210/1595/680 | | 210/1595/680 |
| Net weight | kg | 33 | | 33 | | 33 |
| Power supply | V, ph, Hz | | 230, 1+N, 50 | | | |
| Outdoor Unit | | SPW-C366VEH | | SPW-C486VEH | | SPW-C606VEH |
| Sound power level | (H) dB(A) | 70 | - | 72 | - | 73 |
| Sound pressure level | (H) dB(A) | 52.0 | 53.0 | 53.0 | 54.0 | 54.0 |
| Dimensions | (H/W/D) mm | 1330x940x410 | | 1330x940x410 | | 1330x940x410 |
| Net weight | kg | 90 | | 95 | | 95 |
| Power supply | V, ph, Hz | | 230, 1+N, 50 | | | |
| Refrigerant Circuit | | size 366 | | size 486 | | size 606 |
| Tube diameter narrow/wide | Inches | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 |
| Max piping length | m | 70 | | 70 | | 70 |
| Max elevation difference - O.U. above/below I.U. | m | 30 / 15 | | 30 / 15 | | 30 / 15 |
| Chargeless piping length | m | 30 | | 30 | | 30 |
| Amount of additional refrigerant | g/m | 40 | | 40 | | 40 |

X Type 4 Way Blow Cassette System

Elite PACi

R410A

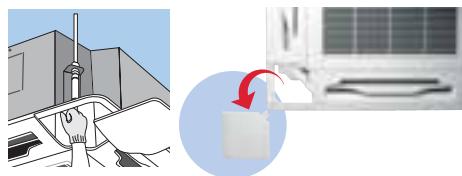
INVERTER
Air Conditioner

SPW-X125H SPW-X165H SPW-X185H SPW-X255H SPW-X365H SPW-X485H SPW-X605H

The award winning range of X Type cassettes are smaller, shallower and lighter than previous models and feature a 950 x 950mm panel throughout. The DC fan motor and new air discharge louvre ensure quiet, optimum air distribution.

- New compact design
- Twin rotary compressor dramatically reduces vibration and noise during operation
- Reduced sound levels
- DC fan motor for increased efficiency
- Cooling and heating operation down to -15°C
- Powerful drain pump gives 850mm lift
- Fresh air knockout for improved air quality
- Twin, triple and quadruple split options

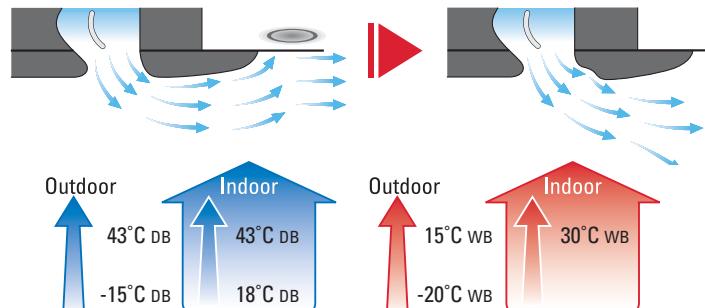
Easy installation



Controller Options



The airflow is directed away from the unit to help prevent the smudging effect so often seen on ceiling tiles.



| | | INVERTER HEAT PUMP | | | | | |
|--|---------------|--------------------|---------|----------------|---------|----------------|---------|
| | | size 366 | | size 486 | | size 606 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 10.0 | 11.2 | 12.5 | 14.0 | 14.0 | 16.0 |
| Power input | kW | 2.50 | 2.80 | 3.57 | 3.66 | 4.37 | 4.54 |
| EER/COP | W/W | 4.00 | 4.00 | 3.50 | 3.83 | 3.20 | 3.52 |
| Energy class | - | A | A | A | A | A | B |
| Running amperes 1ph | A | 11.9 | 13.3 | 17.4 | 17.7 | 22.3 | 23.2 |
| Annual energy consumption (cooling) | kWh | 1250 | - | - | - | - | - |
| Indoor Unit | | SPW-X365H | | SPW-X485H | | SPW-X605H | |
| Air-circulation | (H/M/L) m³/h | 1680/1380/1260 | | 1980/1500/1320 | | 2040/1620/1380 | |
| Moister removal | Litres/h | 3.9 | - | 4.6 | - | 4.8 | - |
| Sound power level | (H) dB(A) | 56 | | 59 | | 59 | |
| Sound pressure level | (H/M/L) dB(A) | 39/36/33 | | 42/38/34 | | 44/40/36 | |
| Dimensions HxWxD - including Panel | mm | 354/950/950 | | 354/950/950 | | 354/950/950 | |
| Net weight | kg | 30.5 | | 30.5 | | 30.5 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | 230, 1 + N, 50 | | 230, 1 + N, 50 | |
| Outdoor Unit | | SPW-C366VEH | | SPW-C486VEH | | SPW-C606VEH | |
| Sound power level | (H) dB(A) | 70 | - | 72 | - | 73 | - |
| Sound pressure level | (H) dB(A) | 52.0 | 53.0 | 53.0 | 54.0 | 54.0 | 56.0 |
| Dimensions | (H/W/D) mm | 1330x940x410 | | 1330x940x410 | | 1330x940x410 | |
| Net weight | kg | 90 | | 95 | | 95 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | 230, 1 + N, 50 | | 230, 1 + N, 50 | |
| | | size 366 | | size 486 | | size 606 | |
| Tube diameter narrow/wide | Inches | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 70 | | 70 | | 70 | |
| Max elevation difference - O.U. above/below I.U. | m | 30 / 15 | | 30 / 15 | | 30 / 15 | |
| Chargeless piping length | m | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 40 | | 40 | | 40 | |

XM Type Mini Semi-Concealed Cassette

Elite PACi

SPW-XM125H SPW-XM165H SPW-XM185H

Designed to fit exactly into a 600x600mm ceiling grid without the need to alter the bar configuration, the XMR is ideal for small commercial and retro fit applications.

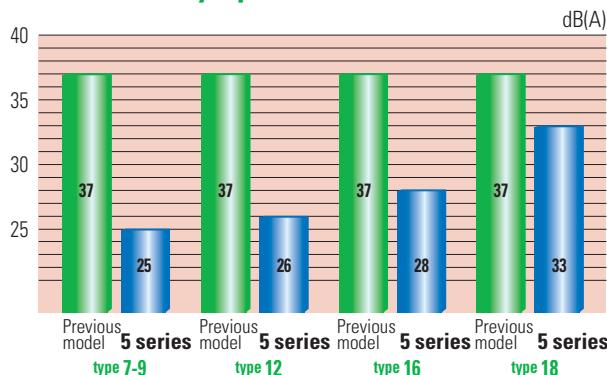
In addition, the improvements to efficiency make this one of the most advanced units in the industry.

- Fresh air knock out
- Multidirectional air flow
- Integrated drain pump gives 250mm lift
- 3 speed centrifugal fan
- Anti-mould and anti-bacteria washable filters

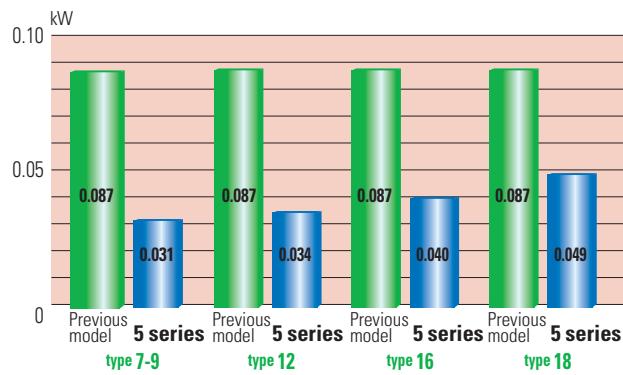
NEW



New turbo fans and heat exchanger fins with improved design - and the operating sound has been reduced by up to 12 dB(A)

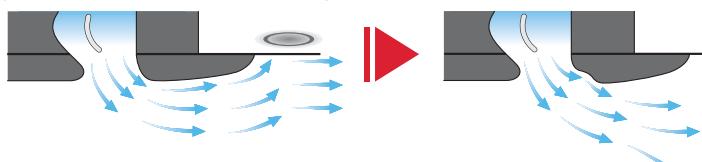


Significant reduction of power consumption by using newly developed DC fan motors with variable speed, new heat exchangers, etc



Discharge opening and flap with new design

The condensate and dirt that appears near the discharge ports of conventional ceiling cassettes have been reduced.

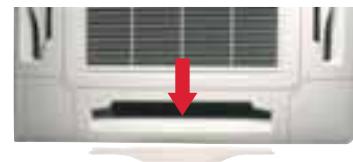


Previous

The discharged air hits the ceiling and causes dirt.



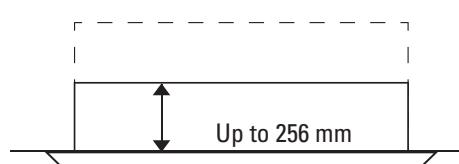
The flap can be removed easily for washing.



New ceiling cassette
Upward air flow is suppressed.

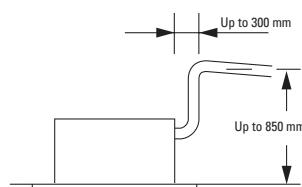
Lighter and slimmer, easier installation

A lightweight unit at 26 kg (for type 36-60), the unit is also very slim with a height only 256 mm (7-25), making installation possible even in narrow ceilings.



A drain height of approx. 850 mm from the ceiling surface

The drain height can be increased by approx. 350 mm over the conventional value by using a high-lift drain pump, and long horizontal piping is possible.





Controller Options

Timer remote controller



Wireless remote controller



Simplified remote controller



RCS-TM80BG

Panel



RCS-KR1AGB

PNR-XM185

| | | INVERTER HEAT PUMP | | |
|---------------------------|-----------------------------|--------------------|-------------------------------|-------------------|
| Model name | | SPW-XM125H | SPW-XM165H | SPW-XM185H |
| Power source | | | 220/230/240V, 1 phase-50,60Hz | |
| Cooling capacity | kW | 3.6 | 4.5 | 5.0 |
| | BTU/h | 12,000 | 15,000 | 17,000 |
| Heating capacity | kW | 4.2 | 5.2 | 5.6 |
| | BTU/h | 14,000 | 17,500 | 19,000 |
| Moisture removal (High) | Litres/h | 1.1 | 1.5 | 1.9 |
| Power input | Cooling kW | 0.026/0.02/0.027 | 0.030/0.031/0.031 | 0.037/0.038/0.038 |
| | Heating kW | 0.017/0.017/0.018 | 0.020/0.021/0.021 | 0.029/0.029/0.029 |
| Running amperes | Cooling A | 0.18/0.18/0.17 | 0.21/0.21/0.20 | 0.29/0.29/0.28 |
| | Heating A | 0.15/0.15/0.14 | 0.18/0.18/0.17 | 0.26/0.26/0.25 |
| Fan motor | Type | | Centrifugal fan | |
| | Airflow rate (H/M/L) m³/min | 9/8/7 | 10.7/8.5/7.5 | 12.5/10.5/9 |
| | Output kW | | 0.020 | |
| Power sound level (H/M/L) | dB(A) | 49/46/42 | 53/48/45 | 58/54/50 |
| Operating sound (H/M/L) | dB(A) | 32/29/26 | 36/32/28 | 41/37/33 |
| Dimensions | Height mm | | 283 | |
| | Width mm | | 575<625> | |
| | Depth mm | | 575<625> | |
| Piping connections | Liquid (Flare) mm | | 6.35(1/4) | |
| | Gas (Flare) mm | | 12.7(1/2) | |
| | Drain piping | | VP-20 | |
| Net weight | kg | | 16+<2.4> | |

US Type Ultra-Slim Concealed Duct

Elite PACi

R410A

INVERTER
Air Conditioner

SPW-US125H SPW-US165H SPW-US185H

The new-ultra slim US Type is one of the leading products of its type in the industry. With a depth of only 200mm it provides greater flexibility and can be used in far more applications. In addition, its high-efficiency and extremely quiet sound levels make it very popular with many users, including hotels and small offices.

- Ultra-slim profile: 200mm for all models
- Reduced power consumption by 50%
- 40pa static pressure
- Extremely quiet: 26 dB(A) at low speed (class 7,9,12)
- Anti-mould washable filters included
- Easy maintenance and service by an external electrical box
- 3 speed centrifugal fan through wired or wireless remote control
- DC fan motor reduces power consumption
- Ideal for applications with limited false ceiling space
- Built in drain pump

NEW



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller

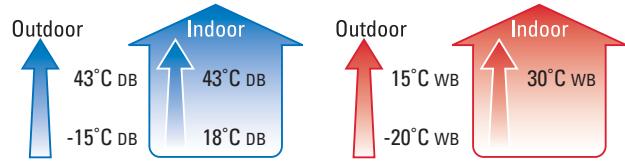


RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB



| Model name | SPW-US125H | | | SPW-US165H | SPW-US185H |
|--------------------------|-------------------------|-------------------|-------------------|-------------------------------|------------|
| Power source | | | | 220/230/240V, 1 phase-50,60Hz | |
| Cooling capacity | kW | 3.6 | 4.5 | 5.0 | |
| | BTU/h | 12,000 | 15,000 | 17,000 | |
| Heating capacity | kW | 4.2 | 5.2 | 5.6 | |
| | BTU/h | 14,000 | 17,500 | 19,000 | |
| Power input | Cooling kW | 0.042/0.042/0.042 | 0.049/0.049/0.049 | 0.064/0.064/0.064 | |
| | Heating kW | 0.032/0.032/0.032 | 0.039/0.039/0.039 | 0.054/0.054/0.054 | |
| Running amperes | Cooling A | 0.31/0.31/0.31 | 0.37/0.37/0.37 | 0.48/0.48/0.48 | |
| | Heating A | 0.28/0.28/0.28 | 0.34/0.34/0.34 | 0.45/0.45/0.45 | |
| Fan motor | Type | Sirocco fan | | | |
| Airflow rate | (H/M/L) m³/min | 9/8/7 | 10.5/9.5/8 | 12.5/11.5/10 | |
| Output | kW | | 0.05 | | |
| External static pressure | Standard Pa | 15 | | | |
| | High static pressure Pa | 40 | | | |
| Power sound level | (H/M/L) dB(A) | 47/45/43 | 49/47/45 | 52/50/48 | |
| Operating sound | (H/M/L) dB(A) | 32/30/28 | 34/32/30 | 35/33/31 | |
| Moisture removal | (High) Litres/h | 1.2 | 1.7 | 1.8 | |
| Unit dimensions | Height mm | 200 | | | |
| | Width mm | 750 | | | |
| | Depth mm | 640 | | | |
| | Height mm | 220 | | | |
| Package dimensions | Width mm | 1030 | | | |
| | Depth mm | 745 | | | |
| Piping connections | Liquid (flare) mm | 6.35(1/4) | | | |
| | Gas (flare) mm | 12.7(1/2) | | | |
| | Drain piping | VP-20 (OD26) | | | |
| Net weight | kg | 19 | | | |
| Shipping weight | kg | 23 | | | |
| Shipping volume | m³ | 0.169 | | | |

U Type Ducted Systems

Elite PACi

R410A INVERTER
Air Conditioner

SPW-U365H SPW-U485H SPW-U605H

The U Type ducted systems are the ideal solution for flexible, concealed air conditioning and the standard 200mm spigots ensure simple, hassle-free connection to spiral ductwork.

- Extremely quiet operation from 25dB(A)
- Integrated drain pump gives 785mm lift
- Auto restart after power failure
- Auto changeover
- Twin, triple and quadruple split options

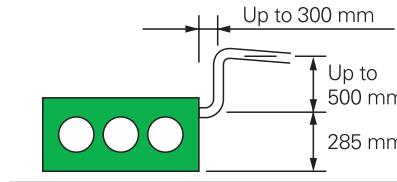
The new powerful built-in drain pump has an improved lift of 785mm.



| Indoor Unit Size | Pa | 254 | 364 | 484 |
|--------------------|----|-----|-----|-----|
| Standard | Pa | 50 | 79 | 78 |
| With booster cable | Pa | 92 | 122 | 113 |

Flexible air distribution is achieved by discharge grilles.

The static pressure can be increased by using a booster cable, which is particularly useful should the ductwork layout be changed after the initial installation.



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller

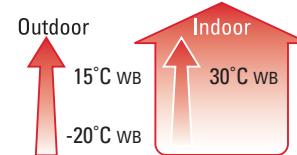
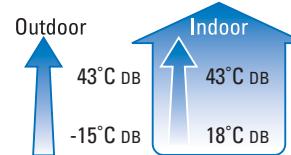


RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB



| | | INVERTER HEAT PUMP | | | | | |
|---|--------------|---------------------|---------|---------------------|---------|---------------------|---------|
| | | size 366 | | size 486 | | size 606 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 10.0 | 11.2 | 12.5 | 14.0 | 14.0 | 16.0 |
| Power input | kW | 2.89 | 3.07 | 4.10 | 4.13 | 4.96 | 5.08 |
| EER/COP | W/W | 3.46 | 3.65 | 3.05 | 3.39 | 2.82 | 3.15 |
| Energy class | - | A | A | B | B | C | C |
| Running amperes 1ph | A | 13.5 | 14.3 | 19.2 | 19.7 | 24.9 | 25.5 |
| Annual energy consumption (cooling) | kWh | 1445 | - | - | - | - | - |
| Indoor Unit | | SPW-U365H | | SPW-U485H | | SPW-U605H | |
| Air-circulation | (H/M/L) m³/h | 1800/1560/1260 | | 1980/1800/1500 | | 1980/1800/1500 | |
| Moister removal | Litres/h | 4.2 | - | 6.6 | - | 6.6 | - |
| Sound power level | (H) dB(A) | 64 | | 66 | | 66 | |
| Sound pressure level (H/M/L) (with booster cable) | dB(A) | 38/33/31 (42/38/33) | | 40/37/33 (44/40/37) | | 40/37/33 (44/40/37) | |
| Dimensions | (HxWxD) mm | 310/1480/630 | | 310/1480/630 | | 310/1480/630 | |
| Net weight | kg | 47 | | 47 | | 47 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | 230, 1 + N, 50 | | 230, 1 + N, 50 | |
| Outdoor Unit | | SPW-C366VEH | | SPW-C486VEH | | SPW-C606VEH | |
| Sound power level | (H) dB(A) | 70 | - | 72 | - | 73 | - |
| Sound pressure level | (H) dB(A) | 52.0 | 53.0 | 53.0 | 54.0 | 54.0 | 56.0 |
| Dimensions | (H/W/D) mm | 1330x940x410 | | 1330x940x410 | | 1330x940x410 | |
| Net weight | kg | 90 | | 95 | | 95 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | 230, 1 + N, 50 | | 230, 1 + N, 50 | |
| Refrigerant Circuit | | size 366 | | size 486 | | size 606 | |
| Tube diameter narrow/wide | Inches | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 70 | | 70 | | 70 | |
| Max elevation difference - O.U. above/below I.U. | m | 30/15 | | 30/15 | | 30/15 | |
| Chargeless piping length | m | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 40 | | 40 | | 40 | |

UR Type Concealed Duct

Elite PACi

SPW-U185SHT SPW-U255SHT SPW-U365SHT SPW-U485SHT SPW-U605SHT

The new UR Type is designed specifically for applications requiring fixed square ducting. With internal filter and 10kW cooling capacity the UR Type is ideal for installations such as apartments.

- Powerful and compact design for easier installation in any commercial space
- High static pressure available for optimum air distribution
- Low operating sound levels
- R410A refrigerant
- Highly efficient scroll compressor
- Piping length up to 100m
- Cooling and heating operation down to -15°C
- Air off sensors avoids cold air dumping
- Multifunctional wireless remote control with built-in temperature control
- Piping outlet in 3 directions
- Fresh air knockout for improved air quality

The static pressure outside the unit can be increased

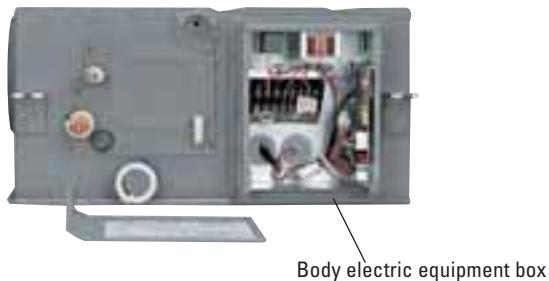
By using the booster cable, the static pressure outside the unit can be increased.

| type | 7-9-12 | 16-18 | 25 | 36 | 46-60 |
|------------------------|--------|-------|----|-----|-------|
| standard | 49 | 40 | 50 | 79 | 78 |
| with booster cable use | 69 | 62 | 92 | 122 | 113 |

(Pa)

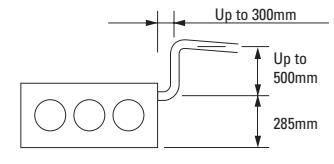
Easy maintenance by external installation of the electric equipment box

System example



Drain pump with increased power

By adoption of a high-lift drain pump, the drain piping rise height can be increased to 785 mm from the lower surface of the body.



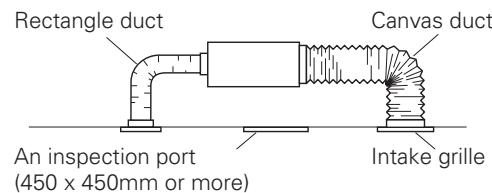
Unified body height of approx. 310 mm for all models

Even models with different capacities can be installed smoothly in the ceiling.

Lowest noise levels in the industry

Anti-mould washable filters included

An inspection port (450 x 450mm or more) is required at the lower side of the unit body.





Controller Options



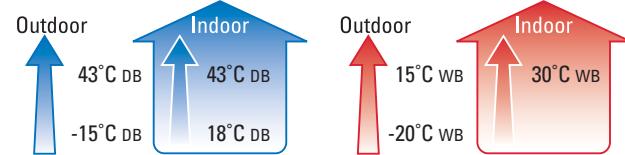
RCS-TM80BG



RCS-BH80AG.WLB



RCS-KR1AGB



| | INVERTER HEAT PUMP | | | | | | |
|---|--------------------|---------------------|-------------|---------------------|-------------|---------------------|--|
| | size 366 | | size 486 | | size 606 | | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | |
| Capacity | kW | 10.0 | 11.2 | 12.5 | 14.0 | 16.0 | |
| Power input | kW | 2.89 | 3.07 | 4.10 | 4.13 | 4.96 | |
| EER/COP | W/W | 3.46 | 3.65 | 3.05 | 3.39 | 2.82 | |
| Energy class | - | A | A | B | B | C | |
| Running amperes 1ph | A | 13.5 | 14.3 | 19.2 | 19.7 | 24.9 | |
| Annual energy consumption (cooling) | kWh | 1445 | - | - | - | - | |
| Indoor Unit | SPW-U365SHT | | SPW-U485SHT | | SPW-U605SHT | | |
| Air-circulation (H/M/L) | m³/h | 1800/1560/1260 | | 1980/1800/1500 | | 1980/1800/1500 | |
| Moister removal | Litres/h | 4.2 | - | 6.6 | - | 6.6 | |
| Sound power level (H) | dB(A) | 64 | | 66 | | 66 | |
| Sound pressure level (H/M/L) (with booster cable) | dB(A) | 38/33/31 (42/38/33) | | 40/37/33 (44/40/37) | | 40/37/33 (44/40/37) | |
| Dimensions (HxWxD) | mm | 310/1480/686 | | 310/1480/686 | | 310/1480/686 | |
| Net weight | kg | 47 | | 47 | | 47 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | | | | |
| Outdoor Unit | SPW-C366VEH | | SPW-C486VEH | | SPW-C606VEH | | |
| Sound power level (H) | dB(A) | 70 | - | 72 | - | 73 | |
| Sound pressure level (H) | dB(A) | 52.0 | 53.0 | 53.0 | 54.0 | 54.0 | |
| Dimensions (H/W/D) | mm | 1330x940x410 | | 1330x940x410 | | 1330x940x410 | |
| Net weight | kg | 90 | | 95 | | 95 | |
| Power supply | V, ph, Hz | 230, 1 + N, 50 | | | | | |
| Refrigerant Circuit | | size 366 | | size 486 | | size 606 | |
| Tube diameter narrow/wide | Inches | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 70 | | 70 | | 70 | |
| Max elevation difference - O.U. above/below I.U. | m | 30/15 | | 30/15 | | 30/15 | |
| Chargeless piping length | m | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 40 | | 40 | | 40 | |

SPW-C706VH8 SPW-C906VH8

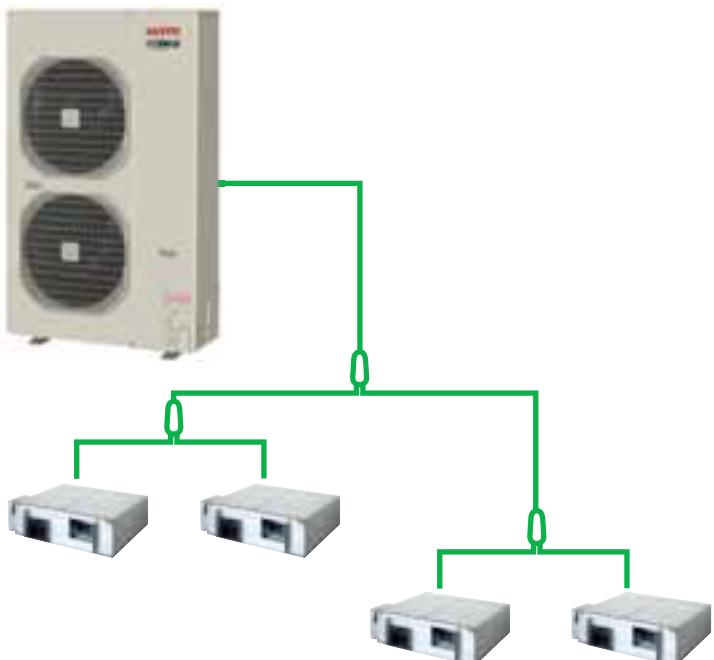
Powerful performance in a compact space

SANYO's Big PACi breaks new ground in offering high-performance and power in a small space. The Big PACi is ideally suited for large retail applications and other large areas not needing the higher capacities of VRF systems. The new lightweight and compact design enables easier installation in any commercial space. The twin fan system saves valuable footprint compared to traditional 8-10HP systems which have a larger footprint design.

The new high capacity range of condensing units utilises highly efficient twin scroll compressors and R410A refrigerant. The outdoor unit can be mounted up to 100 metres away from its associated indoor unit. The result is a very flexible cooling and heating solution for large commercial applications. The outdoor units are capable of providing heating and cooling down to -15°C, ensuring a comfortable environment all year round, and each can be matched with a single ducted unit or up to four indoor units of the same type.

- Compact twin fan design saving on valuable footprint
- Highly efficient inverter compressor
- Reduced weight
- Forward discharge fan - unique design for this size capacity unit
- High capacity 8-10 HP
- Maximum pipe length 100m (more than 40% longer than other split systems)
- 3 phase
- Simultaneous operation with multiple combinations (only with common indoor units)
- Twin, triple and quad systems available
- Now 8 different styles of indoor units to provide more flexibility for different applications
- Operates at temperatures as low as -15°C in heating and cooling mode

NEW



D0705H8 D0905H8

The D range high static ducted systems are the ideal solution for flexible, concealed air conditioning of large areas such as retail and entertainment projects.

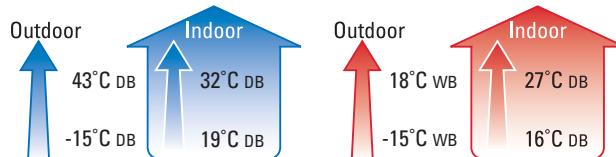
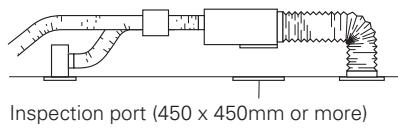
- High static pressure available for optimum air distribution
- Low operating sound levels
- R410A refrigerant
- Highly efficient scroll compressor
- Piping length up to 100m
- Cooling and heating operation down to -15°C
- Multifunctional wireless remote control with built-in temperature control
- Piping outlet in three directions
- Fresh air knockout for improved air quality

System example

An inspection port (450 x 450mm or more) is required at the lower side of the indoor unit body. Distributor (field supply)



The D range of high capacity ducted units make an ideal solution when heating or cooling large open plan areas such as car showrooms, theatres, studios and similar applications. The high static pressure (215pa - size 905) makes the use of extended ductwork practicable, which allows the indoor unit to be concealed within a suitable area of the building.



Options



RCS-TM80BG



RCS-BH80AG.WLB



RCS-KR1AGB

| Big PACi | | | | | |
|------------|----------|---------|---------|---------|---------|
| Model size | Capacity | NEW 70 | | NEW 90 | |
| | | kW | Cooling | Heating | Cooling |
| D Type | | 20.0 | 22.4 | | 25.0 |
| | | D0705H8 | | D0905H8 | |

For more technical specifications please refer to our new "PACi" Series product brochure 2008

Classic PACi

Single phase SPW-C256VH SPW-C366VH SPW-C486VH SPW-C606VH
Three phase SPW-C256VH8 SPW-C366VH8 SPW-C486VH8 SPW-C606VH8

NEW

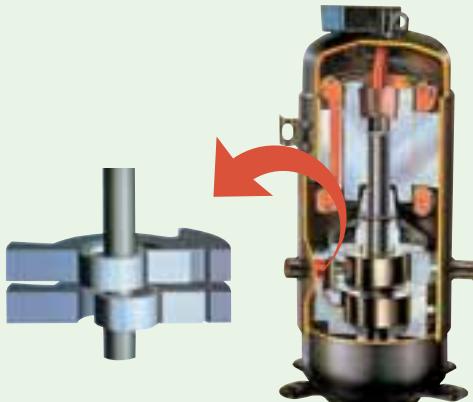
Classic PACi for economy and value

SANYO's new Classic PACi is the perfect solution for projects which demand quality on a limited budget. With high quality design and engineering, the Classic PACi offers reliability and robust operation. In addition, its compact size and light weight make it ideal for installations with limited space including small commercial and residential applications.

- New single fan design
- SANYO DC inverter compressor
- Quality design and engineering
- Compact size saving valuable footprint
- Lightweight
- Low start current
- Great value and reliability at a low capital cost
- Available in four sizes (3, 4, 5 and 6 HP)
- Available in both single and three phase
- Pipe runs up to 50m
- Ideal for small commercial and residential applications
- Up to 4 indoor units can be fitted on multi-split systems
- Now 8 different styles of indoor units to provide more flexibility for different applications
- Operates at temperatures as low as -15°C in heating mode



Uses SANYO's advanced DC inverter compressor



| Classic PACi | | | | | | | | | |
|--------------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|------|
| HP | 3 | | 4 | | 5 | | 6 | | |
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | |
| Capacity | kW | 7.1 | 8.0 | 10.0 | 11.2 | 12.5 | 14.0 | 14.0 | 16.0 |
| Single phase | SPW-C256VH | | SPW-C366VH | | SPW-C486VH | | SPW-C606VH | | |
| 3 phase | SPW-C256VH8 | | SPW-C366VH8 | | SPW-C486VH8 | | SPW-C606VH8 | | |

For more technical specifications, please refer to our new "PACi" Series product brochure 2008

SANYO's Standard commercial split systems range still available

Specifically designed for commercial and retail applications, the ingenious design of the systems not only overcomes the limitations associated with the installation of traditional split systems, but also offers the end user improved comfort and drastically reduced power consumption.

- Single or three phase power supply across the range
- Low start current across the range
- Complete range of indoor units
- Single, twin, triple and quad options
- Systems pre-charged for 30 metres
- Pipe runs up to 100 metres

The SPW DC Inverter systems utilise the non-ozone depleting R410A refrigerant, which gives increased system performance, increased energy-efficiency and improved heat transfer, resulting in smaller pipe sizes and more compact indoor units.

Wide capacity range

DC inverter controlled compressors have an operating range of 25-90Hz, which enables the sine wave to be shortened or lengthened, either slowing the compressor to reduce capacity from the nominal figure (measured at 50Hz) or increasing its speed to offer increased output.

Affordable technology

When comparing the COPs of DC Inverter systems (which are stated at 100% capacity) with an equivalent fixed speed system, the improved energy-efficiency and consequent lower running costs of the DC Inverter can be easily calculated. However, DC Inverters control the room temperature far more precisely, generally operating in part load conditions where the COPs are considerably higher, thereby delivering further substantial energy savings and ensuring that this new technology has an almost immediate payback.



SPW-CR184GVH56



SPW-CR364GVH56/8
SPW-CR604GVH56/8



SPW-CR484GVH56/8
SPW-CR604GVH56/8



C0705H
C0905H

KR Wall Systems Standard PACi



| | | INVERTER HEAT PUMP | | | |
|----------------------------------|---------------|------------------------|---------|-------------------|----------|
| | | size 184 | | size 254 | |
| Performance | | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 5.00 | 5.60 | 7.10 | 8.00 |
| Power input | W | 1625 | 1735 | 2360 | 2260 |
| EER/COP | | 3.08 | 3.23 | 3.01 | 3.54 |
| Energy class | | B | C | B | B |
| Running current/AMPs 1ph/3ph | A | 8.4 | 8.9 | 12.7/3.9 | 12.2/3.8 |
| Indoor Unit | | SPW-KR184GH56B | | SPW-KR254GH56B | |
| Air circulation | (H/M/L) m³/h | 780/660/480 | | 1140/960/720 | |
| Sound pressure level | (H/M/L) dB(A) | 38/34/30 | | 41/37/34 | |
| Dimensions | (HxWxD) mm | 285x995x203 | | 330x1140x228 | |
| Outdoor Unit | | SPW-CR184GVH56 | | SPW-CR254GVH56/H8 | |
| Sound pressure level | (H/L) dB(A) | 46/43 | 47/43 | 47/45 | 49/45 |
| Dimensions | (HxWxD) mm | 565x790(+70)x285 | | 780x940x340 | |
| Net weight | kg | 40 | | 58 | |
| Power supply* | | 220-240V/1ø 50Hz | | 220-240V/1ø 50Hz | |
| Recommended fuse rating | AMP | 16 | | 20 | 10 |
| Refrigerant Circuit | | size 184 | | size 254 | |
| Pipe size suction/discharge | Inches | 1/4, 1/2 | | 3/8, 5/8 | |
| Max piping length | m | 40 | | 50 | |
| Precharged piping length | m | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 20 | | 40 | |
| Recommended fuse size | AMP | 20 | | 20 | |
| Communication cables | mm | 2 core 0.75mm shielded | | | |

* Power supply to outdoor unit. The indoor unit can take its power from the outdoor unit or from a separate supply.

X Type 4 Way Blow Cassette Systems

Standard PACi

R410A

INVERTER
Air Conditioner



| | | INVERTER HEAT PUMP | | | | | | | | | |
|----------------------------------|---------------|--|---------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 5.00 | 5.60 | 7.10 | 8.00 | 10.00 | 11.20 | 12.50 | 14.00 | 14.00 | 16.00 |
| Power input | W | 1497 | 1398 | 2130 | 2070 | 3120 | 2960 | 3860 | 3830 | 4610 | 4650 |
| EER/COP | | 3.34 | 4.01 | 3.33 | 3.86 | 3.21 | 3.78 | 3.24 | 3.66 | 3.04 | 3.44 |
| Energy class | | A | A | A | A | A | A | A | A | B | B |
| Running current/AMPs 1ph/3ph | A | 8.5 | 8.9 | 12.8/4.0 | 12.2/3.8 | 16.3/5.7 | 15.2/5.2 | 20.4/7.2 | 20.2/7.1 | 26.5/9.1 | 24.0/8.2 |
| Indoor Unit | | SPW-X185H | | SPW-X255H | | SPW-X365H | | SPW-X485H | | SPW-X605H | |
| Air circulation | (H/M/L) m³/h | 960/840/780 | | 1200/960/840 | | 1680/1380/1260 | | 1980/1500/1320 | | 2040/1620/1380 | |
| Sound pressure level | (H/M/L) dB(A) | 31/29/27 | | 34/31/28 | | 39/36/33 | | 42/38/34 | | 44/40/36 | |
| Dimensions - Unit | (HxWxD) mm | 256x840x840 | | 256x840x840 | | 319x840x840 | | 319x840x840 | | 319x840x840 | |
| Outdoor Unit | | SPW-CR184GVH56 | | SPW-CR254GVH56/H8 | | SPW-CR364GVH56/H8 | | SPW-CR484GVH56/H8 | | SPW-CR604GVH56/H8 | |
| Sound pressure level | (H/L) dB(A) | 46/43 | 47/43 | 47/45 | 49/45 | 51/45 | 52/45 | 52/45 | 53/45 | 53/45 | 54/45 |
| Dimensions | (HxWxD) mm | 565x790(+70)x285 | | 780x940x340 | | 780x940x340 | | 1230x940x340 | | 1230x940x340 | |
| Net weight | kg | 40 | | 58 | | 65 | | 100 | | 100 | |
| Power supply* | | 220-240V/1Ø 50Hz 220-240V/1Ø 50Hz 400V/3Ø+N 50Hz | | | | | | | | | |
| Recommended fuse rating | AMP | 16 | | 20 | | 10 | | 25 | | 16 | |
| Refrigerant Circuit | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Pipe size suction/discharge | Inches | 1/4, 1/2 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 40 | | 50 | | 50 | | 50 | | 50 | |
| Precharged piping length | m | 30 | | 30 | | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 20 | | 40 | | 40 | | 40 | | 40 | |
| Recommended fuse size | AMP | 20 | | 20 | | 32 | | 32 | | 40 | |
| Communication cables | mm | 2 core 0.75mm shielded | | | | | | | | | |

* Power supply to outdoor unit. The indoor unit can take its power from the outdoor unit or from a separate supply.

T Type Ceiling Systems

Standard PACi

R410A

INVERTER
Air Conditioner



| | | INVERTER HEAT PUMP | | | | | | | | | |
|----------------------------------|---------------|---------------------------------|---------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 5.30 | 5.60 | 7.10 | 8.00 | 10.00 | 11.20 | 12.50 | 14.00 | 14.00 | 16.00 |
| Power input | W | 1801 | 1669 | 2350 | 2250 | 3290 | 3050 | 4120 | 4070 | 5250 | 4750 |
| EER/COP | | 2.78 | 3.36 | 3.02 | 3.56 | 3.04 | 3.67 | 3.03 | 3.44 | 2.67 | 3.36 |
| Running current/AMPs 1ph/3ph | A | 8.5 | 9.0 | 12.8/4.1 | 12.3/4.0 | 16.2/5.8 | 15.1/5.4 | 20.3/7.1 | 20.0/7.0 | 26.6/9.2 | 24.2/8.4 |
| Indoor Unit | | SPW-T185H | | SPW-T255H | | SPW-T365H | | SPW-T485H | | SPW-T605H | |
| Air circulation | (H/M/L) m³/h | 780/660/540 | | 1100/900/840 | | 1650/1380/1200 | | 1800/1560/1320 | | 1920/1620/1380 | |
| Sound pressure level | (H/M/L) dB(A) | 36/33/30 | | 38/36/33 | | 41/38/35 | | 43/40/37 | | 45/41/38 | |
| Dimensions | (HxWxD) mm | 210x910x680 | | 210x1180x680 | | 210x1595x680 | | 210x1595x680 | | 210x1595x680 | |
| Outdoor Unit | | SPW-CR184GVH56 | | SPW-CR254GVH56/H8 | | SPW-CR364GVH56/H8 | | SPW-CR484GVH56/H8 | | SPW-CR604GVH56/H8 | |
| Sound pressure level | (H/L) dB(A) | 46/43 | 47/43 | 47/45 | 49/45 | 51/45 | 52/45 | 52/45 | 53/45 | 53/45 | 54/45 |
| Dimensions | (HxWxD) mm | 565x790(+70)x285 | | 780x940x340 | | 780x940x340 | | 1230x940x340 | | 1230x940x340 | |
| Net weight | kg | 40 | | 58 | | 65 | | 100 | | 100 | |
| Power supply* | | 220-240V/1Ø 50Hz 400V/3Ø+N 50Hz | | | | | | | | | |
| Refrigerant Circuit | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Pipe size suction/discharge | Inches | 1/4, 1/2 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 40 | | 50 | | 50 | | 50 | | 50 | |
| Precharged piping length | m | 30 | | 30 | | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 20 | | 40 | | 40 | | 40 | | 40 | |
| Recommended fuse size | AMP | 20 | | 20 | | 32 | | 32 | | 40 | |
| Communication cables | mm | 2 core 0.75mm shielded | | | | | | | | | |

* Power supply to outdoor unit. The indoor unit can take its power from the outdoor unit or from a separate supply.

U Type Ducted Systems

Standard PACi

R410A

INVERTER
Air Conditioner



| INVERTER HEAT PUMP | | | | | | | | | | | |
|----------------------------------|---------------|------------------|---------|---------------------------------|----------|------------------------|----------|-------------------|----------|-------------------|----------|
| | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 5.00 | 5.60 | 7.10 | 8.00 | 10.00 | 11.20 | 12.50 | 14.00 | 14.00 | 16.00 |
| Power input | W | 1843 | 1831 | 2490 | 2380 | 3530 | 3280 | 4340 | 4290 | 5060 | 4980 |
| EER/COP | | 2.71 | 3.06 | 2.85 | 3.36 | 2.83 | 3.36 | 2.88 | 3.26 | 2.77 | 3.21 |
| Running current/AMPs 1ph/3ph | A | 8.7 | 9.1 | 13.3/4.6 | 12.7/4.4 | 17.1/6.7 | 16.0/6.2 | 21.1/7.9 | 20.7/7.8 | 27.1/9.7 | 24.7/8.9 |
| Indoor Unit | | SPW-U185H | | SPW-U255H | | SPW-U365H | | SPW-U485H | | SPW-U605H | |
| Air circulation | (H/M/L) m³/h | 720/630/540 | | 1080/900/780 | | 1800/1560/1260 | | 1980/1560/1320 | | 2040/1620/1440 | |
| External static pressure | (H) Pa | 40 (62) | | 50 (92) | | 79 (122) | | 78 (113) | | 78 (113) | |
| Sound pressure level | (H/M/L) dB(A) | 30/28/25 | | 34/30/27 | | 38/33/31 | | 40/37/33 | | 45/42/38 | |
| Dimensions | (HxWxD) mm | 310x700x630 | | 310x1000x630 | | 310x1480x630 | | 310x1480x630 | | 310x1480x630 | |
| Spigot | No. | 2 | | 3 | | 4 | | | | | |
| Outdoor Unit | | SPW-CR184GVH56 | | SPW-CR254GVH56/H8 | | SPW-CR364GVH56/H8 | | SPW-CR484GVH56/H8 | | SPW-CR604GVH56/H8 | |
| Sound pressure level | (H/M/L) dB(A) | 46/43 | 47/43 | 47/45 | 49/45 | 51/45 | 52/45 | 52/45 | 53/45 | 53/45 | 54/45 |
| Dimensions | (HxWxD) mm | 565x790(+70)x285 | | 780x940x340 | | 780x940x340 | | 1230x940x340 | | 1230x940x340 | |
| Net weight | kg | 40 | | 58 | | 65 | | 100 | | 100 | |
| Power supply* | | 220-240V/1ø 50Hz | | 220- 40V/1ø 50Hz 400V/3ø+N 50Hz | | | | | | | |
| Refrigerant circuit | | size 184 | | size 254 | | size 364 | | size 484 | | size 604 | |
| Pipe size suction/discharge | Inches | 1/4, 1/2 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | | 3/8, 5/8 | |
| Max piping length | m | 40 | | 50 | | 50 | | 50 | | 50 | |
| Precharged piping length | m | 30 | | 30 | | 30 | | 30 | | 30 | |
| Amount of additional refrigerant | g/m | 20 | | 40 | | 40 | | 40 | | 40 | |
| Recommended fuse size | AMP | 20 | | 20 | | 32 | | 32 | | 40 | |
| Communication cables | mm | | | | | 2 core 0.75mm shielded | | | | | |

* Power supply to outdoor unit. The indoor unit can take its power from the outdoor unit or from a separate supply.

D Range High Static Ducted Systems

Standard PACi

R410A



| CONSTANT SPEED HEAT PUMP | | | | | | | | | |
|----------------------------------|---------------|-------------------|---------|------------------------|---------|-------------------|---------|---------|---------|
| | | size 705 | | | | size 905 | | | |
| Performance | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 20.00 | 22.40 | 25.00 | 28.00 | | | | |
| Power input | W | 7150 | 7370 | 10080 | 10170 | | | | |
| EER/COP | | 2.80 | 3.04 | 2.48 | 2.75 | | | | |
| Running current/AMPs | A | 14.8 | 15.2 | 21.1 | 21.2 | | | | |
| Indoor Unit | | SPW-D705H8 | | SPW-D905H8 | | | | | |
| Air circulation | (H/M/L) m³/h | 3360/3186/2976 | | 4320/4200/3960 | | | | | |
| Sound pressure level | (H/M/L) dB(A) | 48/47/46 | | 51/50/49 | | | | | |
| Dimensions | (HxWxD) mm | 467x1428x1230 | | 467x1428x1230 | | | | | |
| Outdoor Unit | | SPW-C0705H8 | | SPW-C0905H8 | | | | | |
| Sound pressure level | (H/L) dB(A) | 54.5/49.5 | | 55.0/50.0 | | | | | |
| Dimensions | (HxWxD) mm | 1543x890(+75)x890 | | 1543x890(+75)x890 | | 1543x890(+75)x890 | | | |
| Net weight | kg | 276 | | 276 | | | | | |
| Power supply* | | 400V/ 3ø+N 50Hz | | | | | | | |
| Refrigerant Circuit | | size 705 | | size 905 | | | | | |
| Pipe size suction/discharge | Inches | 1/2/7/8 | | 1/2/1 1/8 | | | | | |
| Max piping length | m | 100 | | 100 | | | | | |
| Precharged piping length | m | 30 | | 30 | | | | | |
| Amount of additional refrigerant | g/m | 80 | | 80 | | | | | |
| Recommended fuse size | AMP | 32 | | 32 | | | | | |
| Communication cables | mm | | | 2 core 0.75mm shielded | | | | | |

* Power supply to outdoor unit. The indoor unit can take its power from the outdoor unit or from a separate supply.

Standard PACi Range Multi Systems

R410A

INVERTER
Air Conditioner

The SPW DC inverter system is the ideal versatile solution for air conditioning irregularly shaped or open plan areas, as 2, 3 or 4 indoor units can operate in multi-split configuration from a single outdoor unit.

Any combination of indoor unit style with a common capacity can operate in a single mode to provide an economical solution where effective air distribution is required.

| Outdoor unit | Performance | | Combination | | |
|----------------------------------|-------------|---------|-------------|--------|--------|
| | Cooling | Heating | TWIN | TRIPLE | QUAD |
| SPW-CR254 - Inverter model | 7.1 | 8.0 | 12 x 2 | | |
| SPW-CR364 - Inverter model | 10.0 | 11.2 | 18 x 2 | 12 x 3 | |
| SPW-CR484 - Inverter model | 12.5 | 14.0 | 25 x 2 | 16 x 3 | 12 x 4 |
| SPW-CR604 - Inverter model | 14.0 | 16.0 | 25 x 2 | 18 x 3 | 16 x 4 |
| SPW-C0705 - Constant speed model | 20.0 | 22.4 | 36 x 2 | 25 x 3 | 18 x 4 |
| SPW-C0905 - Constant speed model | 25.0 | 28.0 | 48 x 2 | 36 x 3 | 25 x 4 |

| Indoor unit | SPW-TDR124GH56(B) | SPW-TDR164GH56(B) | SPW-TDR184GH56(B) | SPW-TDR254GH56(B) | SPW-TDR364GH56(B) |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| Air-circulation (H/M/L) m³/h | 780/660/540 | 720/600/540 | 780/660/540 | 1100/900/840 | 1650/1380/1200 |
| Sound power level (H) dB(A) | 46 | 46 | 47 | 49 | 52 |
| Sound pressure level (H/M/L/Quiet) dB(A) | 35/32/30 | 35/32/30 | 36/33/30 | 38/36/33 | 41/38/35 |
| Dimensions (HxWxD) mm | 210x910x680 | 210x910x680 | 210x910x680 | 210x1180x680 | 210x1595x680 |
| Net weight kg | 21 | 21 | 21 | 25 | 33 |

| Ceiling mounted unit | SPW-XDR124GH56 | SPW-XDR164GH56 | SPW-XDR184GH56 | SPW-XDR254GH56 | SPW-XDR364GH56 | SPW-XDR484GH56 |
|------------------------------------|------------------|----------------|----------------|----------------|----------------|----------------|
| Air circulation (H/M/L) m³/h | 930/840/780 | 930/840/780 | 960/840/780 | 1200/960/840 | 1680/1380/1260 | 1980/1500/1320 |
| Sound pressure level (H/M/L) dB(A) | 31/29/27 | 31/29/27 | 31/29/27 | 34/31/28 | 39/36/33 | 42/38/34 |
| Dimensions - unit (HxWxD) mm | 256x840x840 | 256x840x840 | 256x840x840 | 256x840x840 | 319x840x840 | 319x840x840 |
| Dimensions - panel (HxWxD) mm | 35x950x950 | 35x950x950 | 35x950x950 | 35x950x950 | 35x950x950 | 35x950x950 |
| Net weight - unit kg | 21 | 21 | 21 | 22 | 26 | 26 |
| Net weight - panel kg | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Power supply | 220-240V/1Ø 50Hz | | | | | |

| Floor mounted unit | SPW-FTR124EH56B | SPW-SPW-FTR164EH56B | SPW-FTR184EH56B |
|--|------------------|---------------------|-----------------|
| Air circulation (H/M/L) m³/h | 630/540/450 | 720/650/580 | 720/650/580 |
| Sound power level (H) dB(A) | 60/54/49 | 62/58/54 | 62/58/54 |
| Sound pressure level (quiet H/M/L) dB(A) | 49/43/38 | 51/47/43 | 51/47/43 |
| Dimensions (HxWxD) mm | | 680x8900x190 | |
| Net weight kg | | 23.5 | |
| Power supply | 220-240V/1Ø 50Hz | | |

| Wall mounted unit | SPW-KR124GH56 | SPW-KR164GH56 | SPW-KR184GH56 | SPW-KR254GH56 |
|------------------------------------|------------------|---------------|---------------|---------------|
| Air circulation (H/M/L) m³/h | 720/600/420 | 720/600/420 | 780/660/480 | 1140/960/720 |
| Sound pressure level (H/M/L) dB(A) | 35/31/27 | 35/31/27 | 38/34/30 | 41/37/34 |
| Dimensions (HxWxD) mm | 285x995x203 | 285x995x203 | 285x995x203 | 330x1140x228 |
| Net weight kg | 12 | 12 | 12 | 21 |
| Power supply | 220-240V/1Ø 50Hz | | | |

| Ceiling mounted unit | SPW-T125H | SPW-T165H | SPW-T185H | SPW-T255H | SPW-T365H | SPW-T485H |
|------------------------------------|------------------|-------------|-------------|--------------|----------------|----------------|
| Air circulation (H/M/L) m³/h | 780/660/540 | 720/600/540 | 780/660/540 | 1100/900/840 | 1650/1380/1200 | 1800/1560/1320 |
| Sound pressure level (H/M/L) dB(A) | 35/32/30 | 35/32/30 | 36/33/30 | 38/36/33 | 41/38/35 | 43/40/37 |
| Dimensions (HxWxD) mm | 210x910x680 | 210x910x680 | 210x910x680 | 210x1180x680 | 210x1595x680 | 210x1595x680 |
| Net weight kg | 21 | 21 | 21 | 25 | 33 | 33 |
| Power supply | 220-240V/1Ø 50Hz | | | | | |

| Indoor unit | SPW-UR124GH56(B) | SPW-UR164GH56(B) | SPW-UR184GH56(B) | SPW-UR254GH56(B) | SPW-UR364GH56(B) | SPW-UR484GH56(B) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
| Air circulation (H/M/L) m³/h | 600/510/420 | 720/630/540 | 720/630/540 | 1080/900/780 | 1800/1560/1260 | 1980/1560/1320 |
| External static pressure std (booster) Pa | 40 (62) | 50 (92) | 40 (62) | 50 (92) | 79 (122) | 78 (113) |
| Sound power level (H) dB(A) | 49 | 50 | 50 | 54 | 58 | 60 |
| Sound pressure level (H/M/L) dB(A) | 29/26/22 | 30/28/25 | 30/28/25 | 34/30/27 | 38/33/31 | 40/37/33 |
| Dimensions (HxWxD) mm | 310x700x630 | 310x1000x630 | 310x700x630 | 310x1000x630 | 310x1480x630 | 310x1480x630 |
| Net weight kg | 24 | 25 | 25 | 32 | 47 | 47 |
| Power supply | 220-240V/1Ø 50Hz | | | | | |

| Concealed duct | SPW-U125H | SPW-U165H | SPW-U185H | SPW-U255H | SPW-U365H | SPW-U485H |
|---|------------------|--------------|-------------|--------------|----------------|----------------|
| Air circulation (H/M/L) m³/h | 600/510/420 | 720/630/540 | 720/630/540 | 1080/900/780 | 1800/1560/1260 | 1980/1560/1320 |
| External static pressure std (booster) Pa | 40 (62) | 50 (92) | 40 (62) | 50 (92) | 79 (122) | 78 (113) |
| Sound pressure level (H/M/L) dB(A) | 29/26/22 | 30/28/25 | 30/28/25 | 34/30/27 | 38/33/31 | 40/37/33 |
| Dimensions (HxWxD) mm | 310x700x630 | 310x1000x630 | 310x700x630 | 310x1000x630 | 310x1480x630 | 310x1480x630 |
| Net weight kg | 24 | 25 | 25 | 32 | 47 | 47 |
| Power supply | 220-240V/1Ø 50Hz | | | | | |

Controller Options



The Touch Screen web-enabled controller - SHA-KT256EG with web control and e-mail alarm generation enables a "S net" network system to be connected to the Internet via an IP address with up to 256 indoor units.

- Schedule operation of zone, tenant, and units in a group
- Tenant billing for cooling or heating consumed over a time period
- Use of schedule timer is possible for remote time control over a number of indoor units



The RCS-TM80BG standard wired remote controller is ideally suited for most commercial applications, allowing for mode, room temperature and time schedules to be easily set up and adjusted by an end user.

- Standard individual controller also allows group control of up to 8 units
- 7 day programmable with day omission and set back control
- Full self-diagnosis facility with detailed performance history



The Wireless remote controller - RCS-SH80AG.WL/RCS-TH80AG.WL/RCS-BH80AG.WLB/RCS-TRP80AG.WL/RCS-SH80ANG.WL/RCS-SH1AG.

- Standard individual controller also allows group control of up to 8 units
- Allows for combinations of indoor units to be controlled from 1 infrared remote control handset
- Up to 2 remote controllers can be connected per group



The RCS-KR1AG simplified remote control is ideal for areas where limited access to the control functions of a system is desired such as open plan offices or hotel bedrooms.

- Standard individual controller also allows group control of up to 8 units
- Includes built-in air temperature sensor
- Up to 2 remote controllers can be connected per group



The SHA-TM64AG weekly timer enables the control of up to 8 groups with a maximum of 64 indoor units. It can be used in conjunction with all room controllers.

- 7 day timer with 3 operations per day
- The controller can be used in conjunction with SHA-KC64AG for group control
- Temporary cancellation of the time schedule is possible



The SHA-KC64AG system controller provides overall system management of up to 64 indoor units in 4 zones. It can be used in conjunction with all room controllers.

- 3 levels of prohibitive control restricts local functionality of room controllers
- Common alarm, operation outputs and remote start/stop inputs available
- 2 system controllers can be installed on a single "S net" network system



This interface is a communications converter for connecting LonWorks to the SANYO air conditioner unit (PACi, ECOii, GHP) control network.

From the host connected to LonWorks, basic settings and status monitoring is possible for up to 16 groups of A/C units.





ELECTRIC VRF

ECOi - the next generation of 2 and 3 pipe electric VRF systems

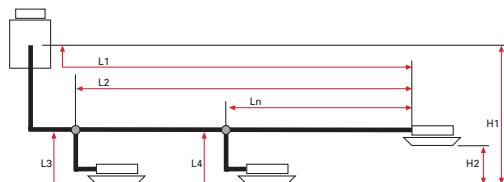
Since its formation in 1958, SANYO Air Conditioners has been at the forefront of innovation with its market-leading research and development program. From the world's first heat pump air conditioner in 1960 to the first 3 pipe VRF system in 1989, SANYO continues to deliver leading technology combined with the reliability and customer service that you would expect from SANYO.



Benefits

Ease of installation

R410A has a higher operating pressure with a lower pressure loss than previous refrigerants. This enables smaller pipe sizes to be used and allows reduced refrigerant charges which are easier to install.



Simple to design

SANYO recognise that designing, selecting and preparing a professional VRF quotation can be a time consuming and costly process, especially as it is often also a speculative exercise. So we have designed proprietary software which is quick and easy to use and produces a full schematic layout of pipework and controls, as well as a full materials list and performance data.

Easy to position

The compact design of the ECOi outdoor units means that they fit into a standard lift and are easy to handle and position when on site. The small footprint and modular appearance of the units ensure a cohesive appearance to an installation.

Wide selection

With 15 indoor model styles available, ECOi systems are the ideal choice for multiple small capacity indoor unit installations, with the ability to connect up to 40 indoor units to systems of 24HP or greater.

Off-coil temperature control

SANYO ducted units offer the unique advantage of being able to offer off-coil temperature coil as standard. This allows designers to select units using an off coil temperature between 7 and 22°C. This allows room environments to be cooled without subjecting its occupants to cold drafts or uncomfortable conditions. This is achieved without any extra controls or wiring to each unit.

| Category | Item | Description | | Max length (m) |
|-----------------------------|----------|--|-------------------|----------------|
| Allowable pipework length | L1 | Maximum pipe run in one direction | Actual length | 150 |
| | | | Equivalent length | 175 |
| | L2-L3 | Difference between maximum length and minimum length from the first distribution joint | | 40 |
| | L3 L4 Ln | Maximum length of each distribution joint | | 30 |
| Allowable height difference | L1+L3+L4 | Maximum total pipe run length | | 300 |
| | H1 | When outdoor unit installed higher | | 50 |
| | | When outdoor unit installed lower | | 40 |
| | H2 | Maximum difference between indoor units | | 15 |

Easy to control

A wide variety of control options are available to ensure that the ECOi system provides the user with the degree of control that they desire, from simple room controllers through to state of the art BMS controls.

Simple to commission

Simple set-up procedure including automatic addressing of connected indoor units. Configuration settings can be made from an outdoor unit via a remote controller.

Accurate capacity control

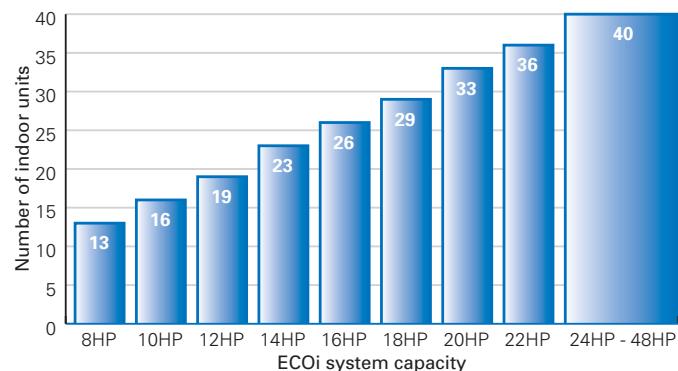
To ensure that the compressor capacity is matched to building load as accurately and efficiently as possible, SANYO has designed its range of 2 and 3 way ECOi systems to operate with DC inverter and high-efficiency fixed speed compressors. The system selects the most efficient compressor to operate by dynamically monitoring the building load and choosing the best compressor combination to run.

Easy to maintain

Each system allows the use of prognostic and diagnostic controls routines, from refrigerant charge control through to complex fault code diagnostics, all designed to reduce the speed of maintenance calls and unit down time.

Lower running and life cycle costs

SANYO ECOi VRF systems are amongst the most efficient VRF systems on the market, offering COPs in excess of 4.0 at full load conditions. The system is also designed to make sure that we reduce the running cost of each system by using our unique road map control routine to ensure that the most efficient combination of compressors are running at any one time. Improved defrost sequencing also reduces running cost by defrosting each outdoor coil in turn when conditions allow.





SPW-C0705DXHN8B SPW-C0905DXHN8B SPW-C1155DXHN8B SPW-C1305DXHN8B SPW-C1405DXHN8B

ECOi 2 Way is a high-performance multi system with excellent energy-saving features, designed for creating comfortable environment when either heating or cooling is required.

- Heat pump systems offer heating or cooling
- Single footprint size for all unit capacities
- DC inverter technology combined with R410A for excellent efficiency
- System configuration from 8HP to 48HP
- Diversity ratio 50-130%
- Industry low outdoor unit sound levels: from 54.5dB(A) Extended Compressor Life
- Quiet mode offers a further 3dB(A) reduction
- Extended pipe runs of up to 150m
- COPs up to 4.10
- Heating capacity to -20°C
- Connectability of 40 indoor units from 24HP upwards
- Units available from 8-16HP as single units
- Nominal ESP standard on all outdoor units

Extended compressor life

The compressor running time is monitored and optimised by a microcomputer to ensure that there is no imbalance in the operation times of compressors on the same refrigerant circuit.

Save on piping cost

R410A with low pressure loss enables smaller pipe sizes. This means reduced piping space, improved workability at the site and reduced piping material costs.

Extended operating range - better output at lower temperatures

The operating range of heating has been extended from 16° to 30°

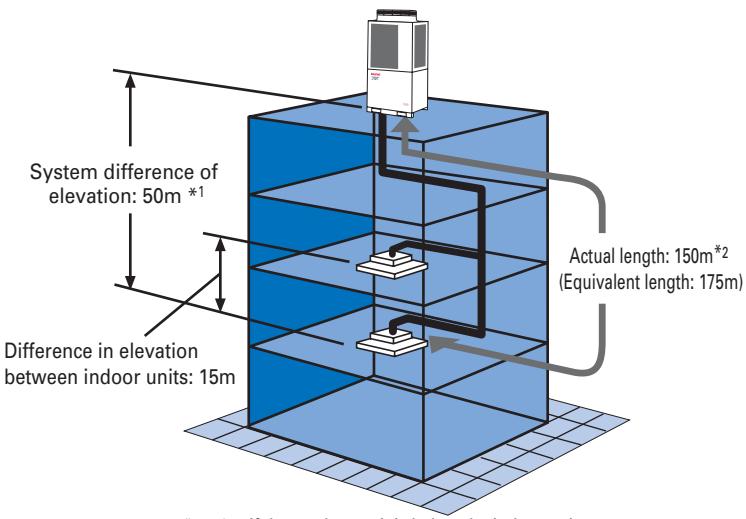
Increased performance

SANYO continues to raise the performance by introducing new heat exchanger designs. The new ECOi 2 way system has improved its COP by 12% - one of the highest COPs in the industry.



Longer piping means greater installation area

Reducing the refrigerant volume by reducing piping size has extended the piping actual length to 150m (175m equivalent piping length).



Higher COPs - lower running costs

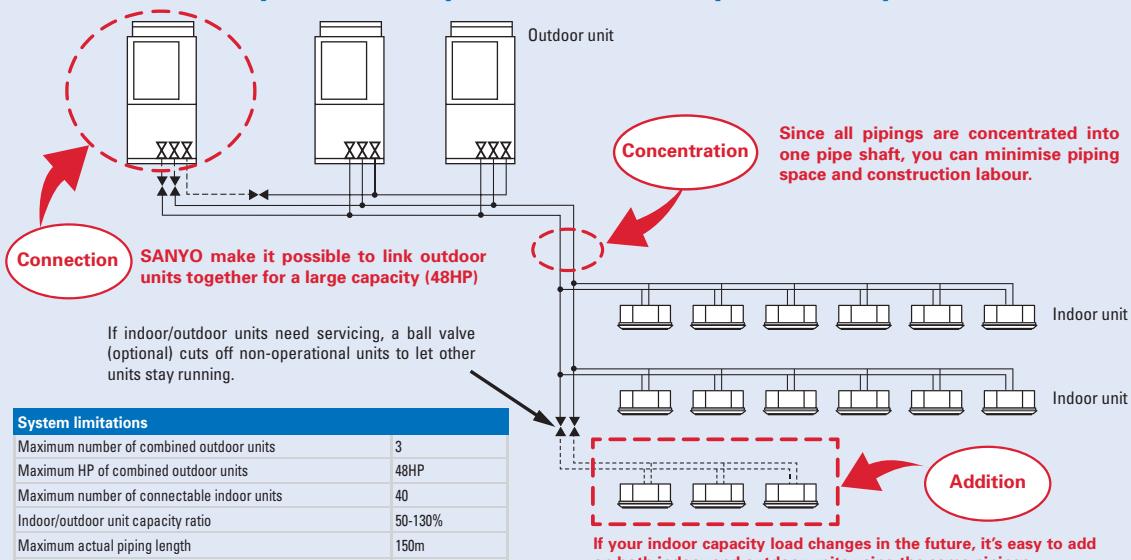
| HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| EER Cooling | 3.74 | 3.54 | 3.50 | 3.45 | 3.38 | 3.63 | 3.54 | 3.51 | 3.49 | 3.44 | 3.43 | 3.41 | 3.38 | 3.50 | 3.47 | 3.47 | 3.45 | 3.42 | 3.43 | 3.40 | 3.38 |
| COP Heating | 4.10 | 4.10 | 3.91 | 3.91 | 3.79 | 4.06 | 4.06 | 3.97 | 3.96 | 3.88 | 3.84 | 3.85 | 3.79 | 4.00 | 3.94 | 3.89 | 3.91 | 3.86 | 3.83 | 3.83 | 3.79 |

ECOi 2 Way Heat Pump VRF Inverter Systems



| HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | |
|-------------------------------------|--------------------------------------|----------------------------|---|----------------|----------------|----------------|---|--------------------------|--------------------------|----------------|
| Model | C0705DXHN8 | C0905DXHN8 | C1155DXHN8 | C1305DXHN8 | C1405DXHN8 | 10 8 | C0905DXHN8 C0705DXHN8 | C0905DXHN8 C0905DXHN8 | C1155DXHN8 C0905DXHN8 | 14 10 |
| Power supply | | | | | | | | | | |
| Cooling capacity | kW | 22.40 | 28.00 | 33.50 | 40.00 | 45.00 | 50.40 | 56.00 | 61.50 | |
| Heating capacity | kW | 25.00 | 31.50 | 37.50 | 45.00 | 50.00 | 56.50 | 63.00 | 69.00 | |
| EER Cooling | | 3.74 | 3.54 | 3.50 | 3.45 | 3.38 | 3.63 | 3.54 | 3.51 | |
| COP Heating | | 4.10 | 4.10 | 3.91 | 3.91 | 3.79 | 4.06 | 4.06 | 3.96 | |
| Electric rating | Cooling | Running current/ A AMPS | 10.1/9.6/9.3 | 13.3/12.7/12.2 | 16.2/15.4/14.8 | 20.0/19.0/18.3 | 23.0/21.8/21.0 | 23.4/22.3/21.5 | 26.6/25.4/24.4 | 29.5/28.1/27 |
| | Power input kW | | 5.99 | 7.90 | 9.58 | 11.6 | 13.3 | 13.9 | 15.8 | 17.5 |
| | Heating | Running current/ A AMPS | 10.4/9.9/9.5 | 13.1/12.4/12.0 | 16.2/15.4/14.8 | 19.9/18.9/18.2 | 22.8/21.6/20.9 | 23.5/22.3/21.5 | 26.2/24.8/24.0 | 29.3/27.8/26.8 |
| | Power input kW | | 6.17 | 7.75 | 9.60 | 11.5 | 13.2 | 13.9 | 15.5 | 17.4 |
| | Recommended fuse sizes (motor rated) | | 32 | 32 | 32 | 40 | 40 | 32x2 | 32x2 | 1x14 1x32 |
| | Dimensions (H/W/D) | mm | 1887x890x890 (+60) | | | | 1887x1880x890 (+60) | | | |
| Net weight | kg | 245 | 295 | 295 | 345 | 345 | 540 | 590 | 590 | 640 |
| Air circulation | m³/min | 150 | 160 | 180 | 200 | 220 | 160+150 | 160+160 | 180+160 | 200+160 |
| Piping connection | Gas Inches | 3/4 | 7/8 | 1 1/8 | | 1 3/8 | 1 3/8 | | | |
| | Liquid Inches | 3/8 | | 1/2 | | | 5/8 | | | |
| | Balance Inches | 1/4 | | | | | 1/4 | | | |
| Ambient temperature operating range | | | Cooling: -10°C DB +43°CDB Heating: -20°CWB 15°CWB | | | | Cooling: -10°C DB +43°CDB Heating: -20°CWB 15°CWB | | | |
| Operating sound - normal mode | dB(A) | 54.5 | 55.0 | 56.0 | 60.0 | 61.0 | 58.0 | 58.0 | 58.5 | 61.5 |
| Operating sound - quiet mode | dB(A) | 51.5 | 52.0 | 53.0 | 57.0 | 58.0 | 55.0 | 55.0 | 55.5 | 58.5 |
| Maximum number of indoor units | | 13 | 16 | 19 | 23 | 26 | 29 | 33 | 36 | 40 |

System example for ECOi 2 Way and 3 Way

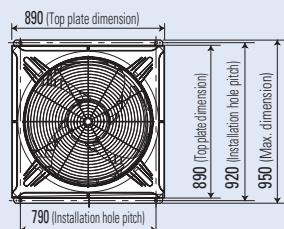




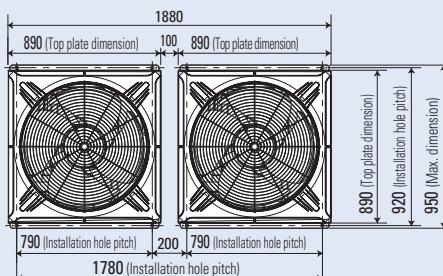
| 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 |
|---|----------------|----------------|----------------|--|----------------|----------------|----------------|---------------------|----------------|----------------|----------------|
| 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 14 C1305DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 |
| 10 C0905DXHN8 | 12 C1155DXHN8 | 14 C1305DXHN8 | 16 C1405DXHN8 | 10 C0905DXHN8 | 10 C0905DXHN8 | 12 C1155DXHN8 | 14 C1305DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 | 16 C1405DXHN8 |
| 380/400/415V-3 phase/50,60Hz | | | | | | | | | | | |
| 380/400/415V-3 phase/50,60Hz | | | | | | | | | | | |
| 73.00 | 78.50 | 85.00 | 90.00 | 96.00 | 101.00 | 107.00 | 113.00 | 118.00 | 124.00 | 130.00 | 135.00 |
| 81.50 | 87.50 | 95.00 | 100.00 | 108.00 | 113.00 | 119.00 | 127.00 | 132.00 | 138.00 | 145.00 | 150.00 |
| 3.44 | 3.43 | 3.41 | 3.38 | 3.50 | 3.47 | 3.47 | 3.45 | 3.42 | 3.43 | 3.40 | 3.38 |
| 3.88 | 3.84 | 3.85 | 3.79 | 4.00 | 3.94 | 3.89 | 3.91 | 3.86 | 3.83 | 3.83 | 3.79 |
| 36.3/34.5/33.2 | 39.2/37.2/35.8 | 43.0/40.8/39.3 | 46.0/43.6/42.0 | 46.6/44.4/42.7 | 49.6/47.2/45.4 | 52.5/49.9/48.0 | 56.3/53.5/51.5 | 59.3/56.3/54.2 | 62.2/59.0/56.8 | 66.0/62.6/60.3 | 69.0/65.4/63.0 |
| 21.2 | 22.9 | 24.9 | 26.6 | 27.4 | 29.1 | 30.8 | 32.8 | 34.5 | 36.2 | 38.2 | 39.9 |
| 35.9/34.0/32.9 | 39.0/37.0/35.7 | 42.7/40.5/39.1 | 45.6/43.2/41.8 | 46.1/43.7/42.2 | 49.0/46.4/44.9 | 52.1/49.4/47.7 | 55.8/52.9/51.1 | 58.7/55.6/53.8 | 61.8/58.6/56.6 | 65.5/62.1/60.0 | 68.4/64.8/62.7 |
| 21.0 | 22.8 | 24.7 | 26.4 | 27.0 | 28.7 | 30.6 | 32.5 | 34.2 | 36.0 | 37.9 | 39.6 |
| 1x40 | 1x40 | 2x40 | 2x40 | 2x32 | 2x32 | 2x32 | 1x32 | 1x32 | 1x32 | 3x40 | 1x40 |
| 1x32 | 1x32 | | | 1x40 | 1x40 | 2x40 | 2x40 | 2x40 | 2x40 | | 1x32 |
| 1887x1880x890 (+60) | | | | 1887x2870x890 (+60) | | | | 1887x2870x890 (+60) | | | |
| 640 | 640 | 690 | 690 | 929 | 929 | 929 | 985 | 985 | 985 | 1035 | 1035 |
| 220+160 | 220+180 | 220+200 | 220+220 | 200+160+160 | 220+160+160 | 220+180+160 | 220+200+160 | 220+220+160 | 220+220+180 | 220+220+200 | 220+220+220 |
| 1 3/8 | | | | 1 5/8 | | | | 1 5/8 | | | |
| 3/4 | | | | 3/4 | | | | 1/4 | | | |
| Cooling: -10°CDB +43°CDB Heating: -20°CWB 15°CWB | | | | Cooling: -10°CDB +43°CDB Heating: -20°CWB 15°CWB | | | | | | | |
| 62.0 | 62.5 | 63.5 | 64.0 | 62.5 | 63.0 | 63.0 | 64.5 | 64.5 | 65.0 | 65.5 | 66.0 |
| 59.0 | 59.5 | 60.5 | 61.0 | 59.5 | 60.0 | 60.0 | 61.5 | 61.5 | 62.0 | 62.5 | 63.0 |
| 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |

Dimensions of unit combinations (ECOi 2 Way and 3 Way)

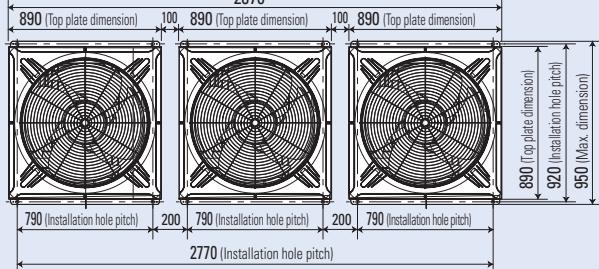
8 to 16 HP



18 to 32 HP



34 to 48 HP



SPW-CR704GDZH8B SPW-CR904GDZH8B SPW-CR1154GDZH8B SPW-CR1304GDZH8B SPW-CR1404GDZH8B

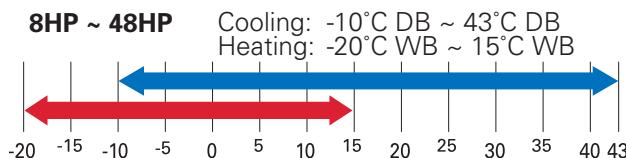
ECOi 3 Way is one of the most advanced VRF systems available. Not only offering high-efficiency and performance for simultaneous heating and cooling, its sophisticated design makes installation and maintenance much easier.

- Simultaneous heating and cooling for total control
- Single footprint size for all unit capacities (8-16HP)
- DC inverter technology combined with R410A for excellent efficiency
- System configuration from 8HP to 48HP
- Diversity ratio 50-130%
- Sound levels: from 54.5dB(A)
- Quiet mode offers a further 3dB(A) reduction
- Extended pipe runs of up to 150m
- COPs to 4.09
- Provides cooling down to -10°C ambient
- Connectability of 40 indoor units from 24HP upwards



Extended operating range - better output at lower temperatures

The operating range for heating has been extended to -20°C. The remote controller temperature setting for heating operation has also been extended from 16°C to 30°C.

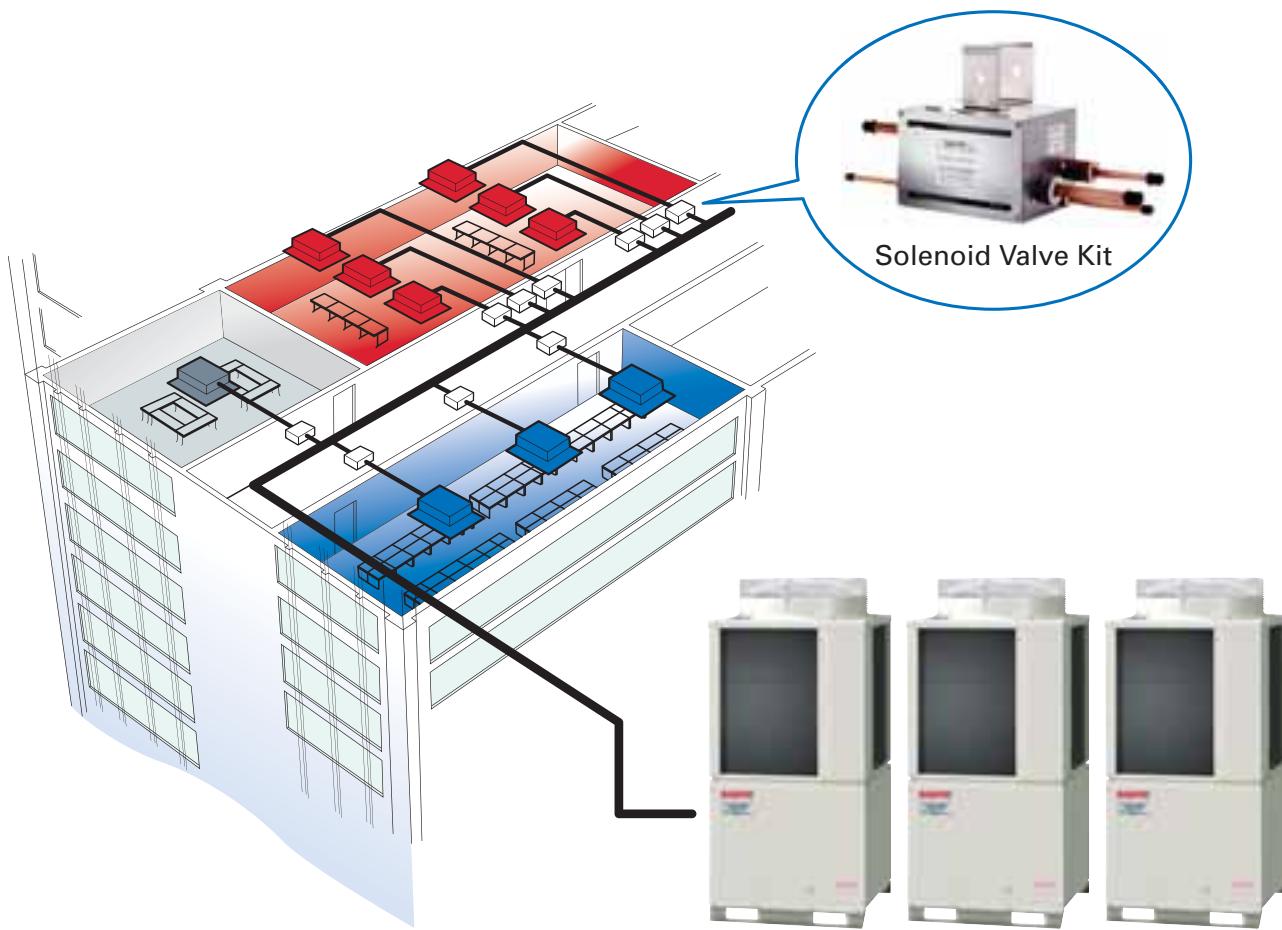
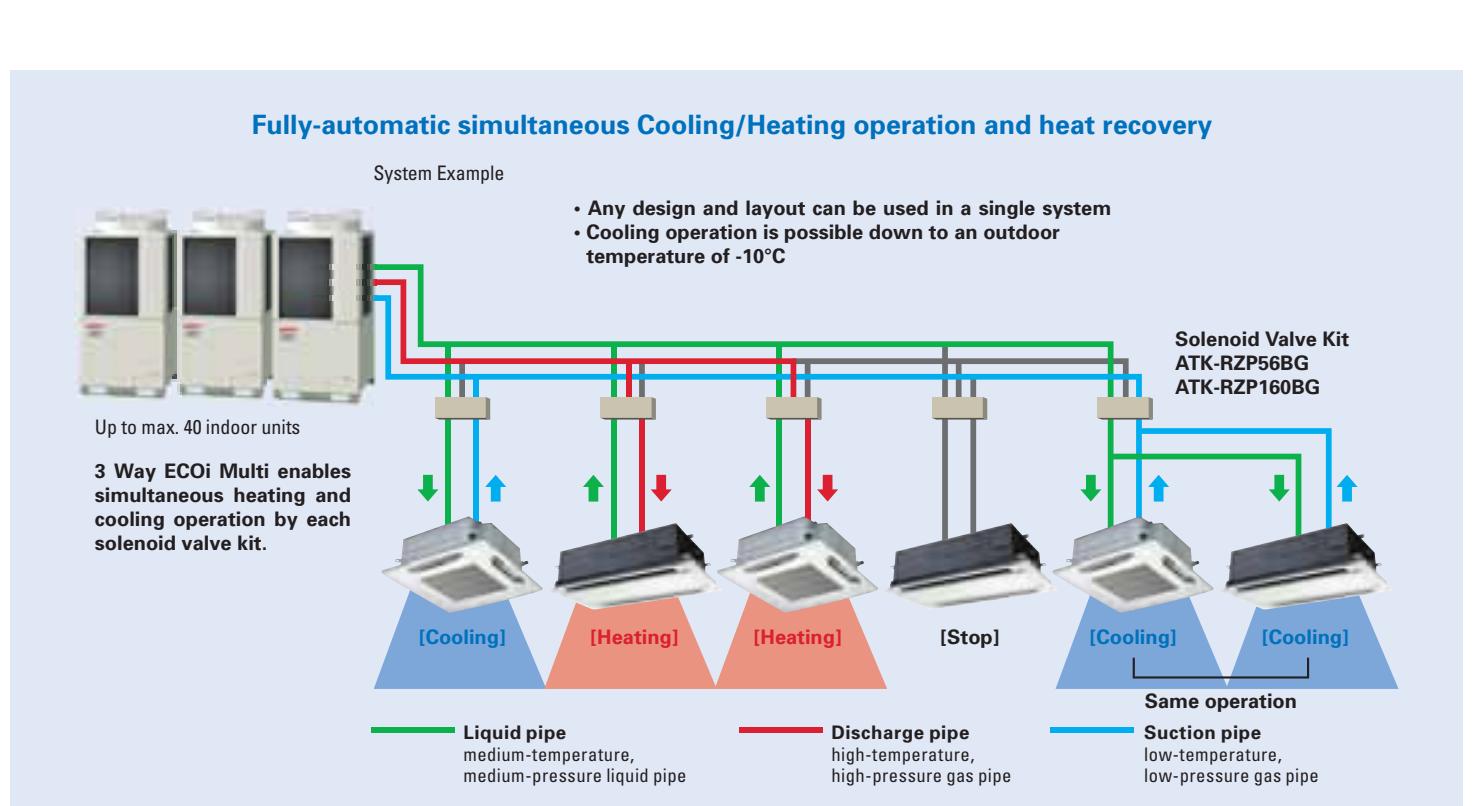


There is improved performance at lower ambient conditions due to SANYO's unique wrap-around outdoor unit coil design and active defrost management.

Higher COPs - lower running costs

| HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 |
|-------------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|
| EER Cooling | 3.78 | 3.45 | 3.41 | 3.45 | 3.38 | 3.57 | 3.46 | 3.44 | 3.45 | 3.41 | 3.4 | 3.41 | 3.38 | 3.45 | 3.41 | 3.42 | 3.42 | 3.4 | 3.41 | 3.40 | 3.38 |
| COP Heating | 4.09 | 3.95 | 3.81 | 3.91 | 3.79 | 4.01 | 3.96 | 3.88 | 3.92 | 3.84 | 3.8 | 3.85 | 3.79 | 3.93 | 3.88 | 3.84 | 3.88 | 3.84 | 3.81 | 3.83 | 3.79 |

Solenoid Valve Kit



ECOi 3 Way Heat Recovery VRF Inverter Systems



| HP (Combined systems) | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 |
|--------------------------------------|-------------|----------------------|--------------------|--------------|----------------|----------------|---------------------|-----------------|-----------------|----------------|
| Model | CR704GDZH8B | CR904GDZH8B | CR1154GDZH8B | CR1304GDZH8B | CR1404GDZH8B | 8 CR704GDZH8B | 10 CR904GDZH8B | 10 CR1154GDZH8B | 10 CR1304GDZH8B | 10 CR904GDZH8B |
| Power supply | | | | | | | | | | |
| 380/400/415V-3phase/50Hz | | | | | | | | | | |
| Cooling capacity | kW | 22.40 | 28.00 | 33.50 | 40.00 | 45.00 | 50.40 | 56.00 | 61.50 | 68.00 |
| Heating capacity | kW | 25.00 | 31.50 | 37.50 | 45.00 | 50.00 | 56.50 | 63.00 | 69.00 | 76.50 |
| EER Cooling | kW | 3.78 | 3.45 | 3.41 | 3.45 | 3.38 | 3.57 | 3.46 | 3.44 | 3.45 |
| COP Heating | kW | 4.09 | 3.95 | 3.81 | 3.91 | 3.79 | 4.01 | 3.96 | 3.88 | 3.84 |
| Electric ratings | Cooling | Running current/AMPs | A | 10.0/9.5/9.2 | 13.7/13.0/12.6 | 16.6/15.7/15.2 | 20.0/19.0/18.3 | 23.0/21.8/21.0 | 23.8/22.6/21.8 | 27.3/26.0/25.0 |
| | | Power input | kW | 5.93 | 8.12 | 9.82 | 11.59 | 13.31 | 14.1 | 16.2 |
| | Heating | Running current/AMPs | A | 10.3/9.8/9.4 | 13.5/12.8/12.3 | 16.6/15.8/15.2 | 19.9/18.9/18.2 | 22.8/21.6/20.9 | 23.9/22.6/21.8 | 26.8/25.5/24.6 |
| | | Power input | kW | 6.11 | 7.97 | 9.84 | 11.51 | 13.19 | 14.1 | 15.9 |
| Recommended fuse sizes (motor rated) | | 32 | 32 | 32 | 40 | 40 | 32x2 | 32x2 | 32x2 | 1x14 1x32 |
| Dimensions (H/W/D) | | mm | 1887x890x890 (+60) | | | | 1887x1880x890 (+60) | | | |
| Net weight | kg | 290 | 290 | 290 | 350 | 350 | 580 | 580 | 580 | 640 |
| Airflow | m³/min | 150 | 160 | 180 | 200 | 220 | 150+160 | 160+160 | 160+180 | 160+200 |
| Piping connection | Gas | Inches | 3/4 | 7/8 | 1 1/8 | | 1 1/8 | | | |
| | Discharge | Inches | 5/8 | 3/4 | | 7/8 | 7/8 | | | |
| | Liquid | Inches | 3/8 | | 1/2 | | 5/8 | | | |
| | Balance | Inches | 3/8 | | | | 3/8 | | | |
| Operating sound - normal mode | | dB(A) | 54.5 | 55 | 56 | 60 | 61 | 57.8 | 58 | 58.5 |
| Operating sound - quiet mode | | dB(A) | 51.5 | 52 | 53 | 57 | 58 | 54.8 | 55 | 55.5 |
| Maximum number of indoor units | | | 13 | 16 | 19 | 23 | 26 | 29 | 33 | 36 |
| | | | | | | | | | 40 | 40 |

ATK-RZP56BG ATK-RZP160BG

Industry's smallest changeover boxes - fewer siting problems

The SANYO solenoid valve kit is only 147mm high (without the removable bracket) and takes its power from the indoor unit, saving the cost of an additional supply.

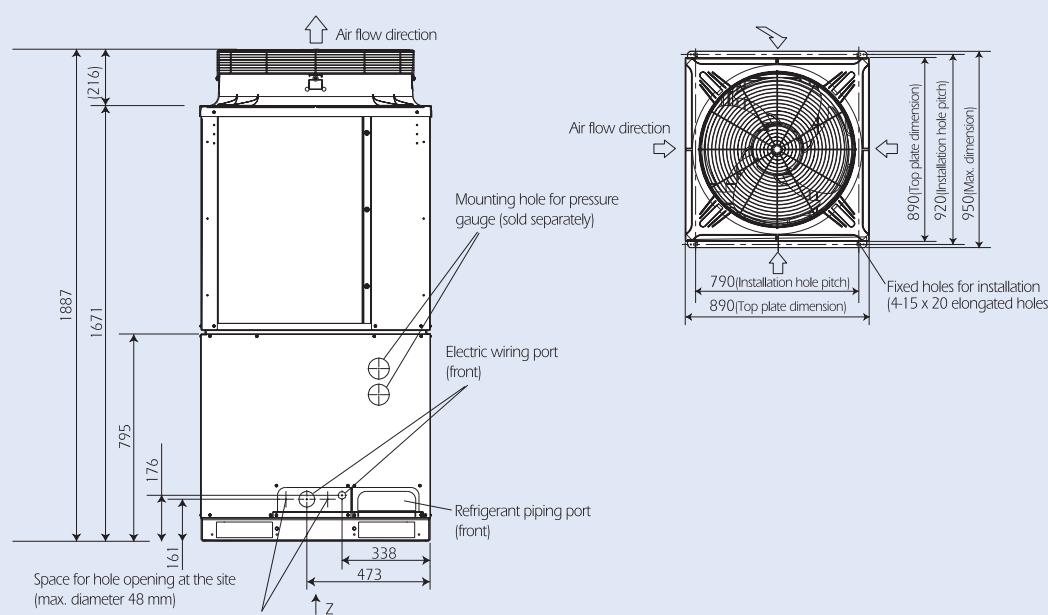
- No additional power supply required
- Single mounting fix point
- 2 sizes available





| 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | |
|--------------------------|-----------------|-----------------|---------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| 12 CR1154GDZH8B | 14 CR1304GDZH8B | 16 CR1404GDZH8B | 10 CR904GDZH8B | 10 CR904GDZH8B | 10 CR904GDZH8B | 10 CR904GDZH8B | 10 CR904GDZH8B | 12 CR1154GDZH8B | 14 CR1304GDZH8B | 16 CR1404GDZH8B | |
| 16 CR1404GDZH8B | 16 CR1404GDZH8B | 16 CR1404GDZH8B | 10 CR904GDZH8B | 10 CR904GDZH8B | 12 CR1154GDZH8B | 14 CR1304GDZH8B | 16 CR1404GDZH8B | 16 CR1404GDZH8B | 16 CR1404GDZH8B | 16 CR1404GDZH8B | |
| 380/400/415V-3phase/50Hz | | | | | | | | | | | |
| 78.50 | 85.00 | 90.00 | 96.00 | 101.00 | 107.00 | 113.00 | 118.00 | 124.00 | 130.00 | 135.00 | |
| 87.50 | 95.00 | 100.00 | 108.00 | 113.00 | 119.00 | 127.00 | 132.00 | 138.00 | 145.00 | 150.00 | |
| 3.4 | 3.41 | 3.38 | 3.45 | 3.41 | 3.42 | 3.42 | 3.4 | 3.41 | 3.40 | 3.38 | |
| 3.8 | 3.85 | 3.79 | 3.93 | 3.88 | 3.84 | 3.88 | 3.84 | 3.81 | 3.83 | 3.79 | |
| 39.4/37.5/36.1 | 43.0/40.8/39.4 | 45.9/43.6/42.1 | 47.5/45.1/43.5 | 50.5/48.0/46.3 | 53.0/51.0/49.0 | 57.0/54.0/52.0 | 60.0/57.0/55.0 | 63.0/60.0/58.0 | 66.0/63.0/60.0 | 69.0/65.0/63.0 | |
| 23.1 | 24.9 | 26.6 | 27.8 | 29.6 | 31.3 | 33 | 34.7 | 36.4 | 38.2 | 39.9 | |
| 39.3/37.3/36.0 | 42.6/40.5/39.0 | 45.6/43.3/41.7 | 46.9/44.6/43.0 | 49.7/47.2/45.5 | 53.0/50.0/48.0 | 56.0/54.0/52.0 | 59.0/56.0/54.0 | 63.0/59.0/57.0 | 65.0/62.0/60.0 | 68.0/65.0/63.0 | |
| 23 | 24.7 | 26.4 | 27.5 | 29.1 | 31 | 32.7 | 34.4 | 36.2 | 37.9 | 39.6 | |
| 1x14 1x32 | 2x40 | 2x40 | 2x32 1x40 | 2x32 1x40 | 2x32 2x40 | 1x32 2x40 | 1x32 2x40 | 1x40 2x40 | 1x40 1x32 | 1x40 1x32 | |
| 1887x1880x890 (+60) | | | 1887x2870x890 (+60) | | | | | | | | |
| 640 | 700 | 700 | 930 | 930 | 930 | 990 | 990 | 990 | 1050 | 1050 | |
| 180+220 | 200+220 | 220+220 | 160+160+200 | 160+160+220 | 160+180+220 | 160+200+220 | 160+220+220 | 180+220+220 | 200+220+220 | 220+220+220 | |
| 1 3/8 | | | 1 3/8 | | | 1 5/8 | | | | | |
| 1 1/8 | | | 1 1/8 | | | 1 3/8 | | | | | |
| 3/4 | | | | | | 3/4 | | | | | |
| 3/8 | | | | | | 3/8 | | | | | |
| 60.4 | 61 | 61.5 | 60.8 | 61.3 | 61.5 | 62 | 62.4 | 62.6 | 63 | 63.3 | |
| 57.4 | 58 | 58.5 | 57.8 | 58.3 | 58.5 | 59 | 59.4 | 59.6 | 60 | 60.3 | |
| 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | |

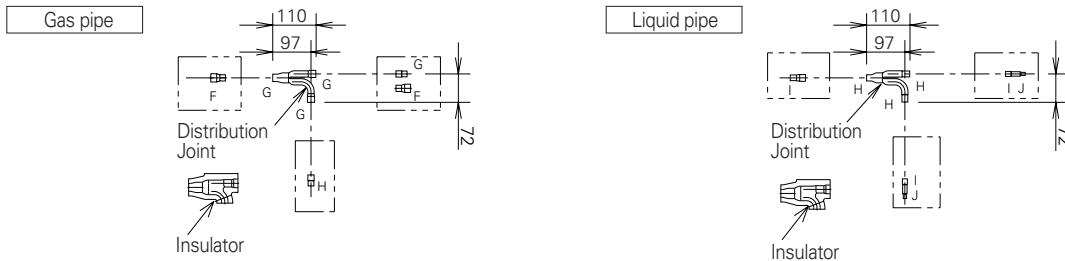
Dimensions ECOi 2 Way and 3 Way (8-16 HP)



Distribution Joint Kit for ECOi 2 Way 5 Series

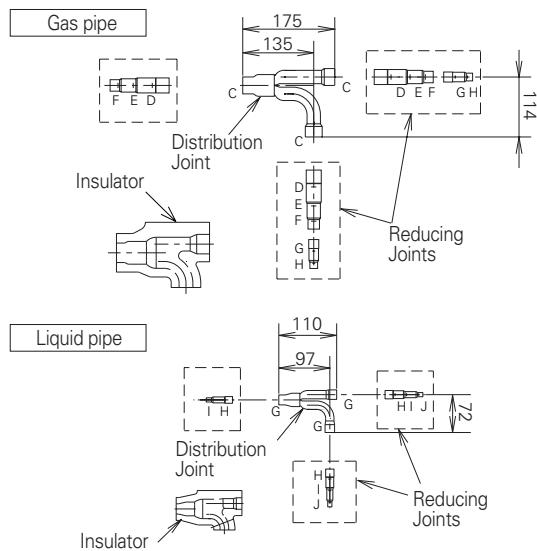
| Position | Part A | Part B | Part C | Part D | Part E | Part F | Part G | Part H | Part I | Part J |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Dimension | ø38.1 | ø31.75 | ø28.58 | ø25.4 | ø22.22 | ø19.05 | ø15.88 | ø12.7 | ø9.52 | ø6.35 |

●APR-P160BG (for indoor units) (Capacity after distribution joint is 22.4 kW or less)



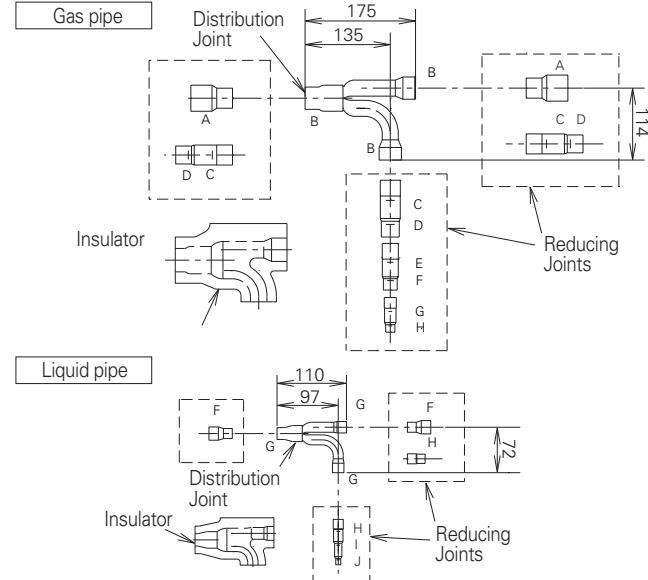
●APR-P680BG (for indoor units)

(Capacity after distribution joint is greater than 22.4 kW and no more than 68.0 kW)

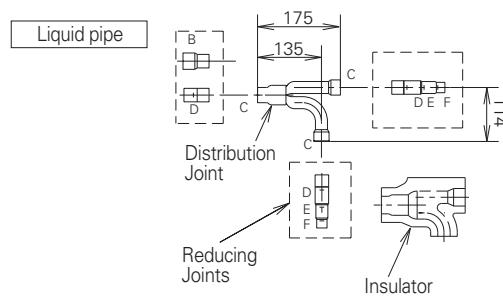
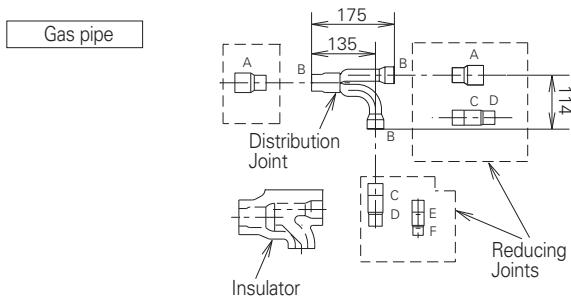


●APR-P1350BG (For indoor units)

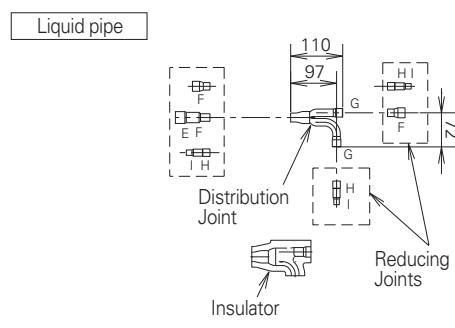
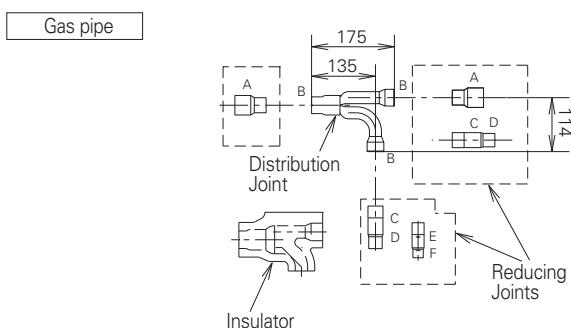
(Capacity after distribution joint is greater than 68.0 kW and no more than 135.0 kW)



●APR-CHP680BG (for outdoor units) (Capacity after distribution joint is 68.0 kW or less)



●APR-CHP1350BG (for outdoor units) (Capacity after distribution joint is greater than 68.0 kW and no more than 135.0 kW)



Distribution Joint Kit for ECOi 3 Way 5 Series Multi

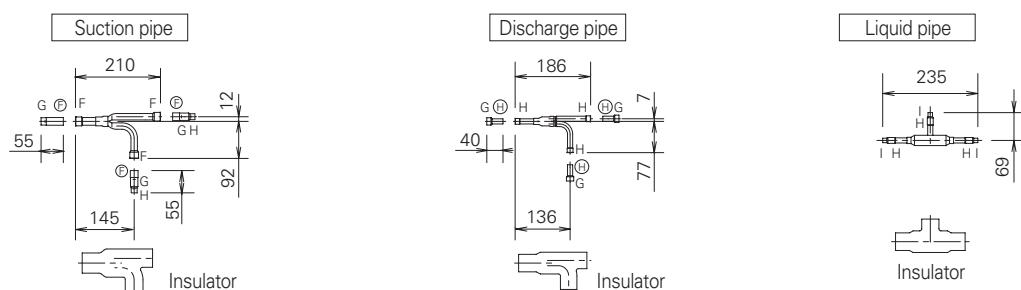
● Connection dimensions of the parts

** Example: In the drawing, F indicates an inner diameter dimension, ⌀ indicates an outer diameter dimension.

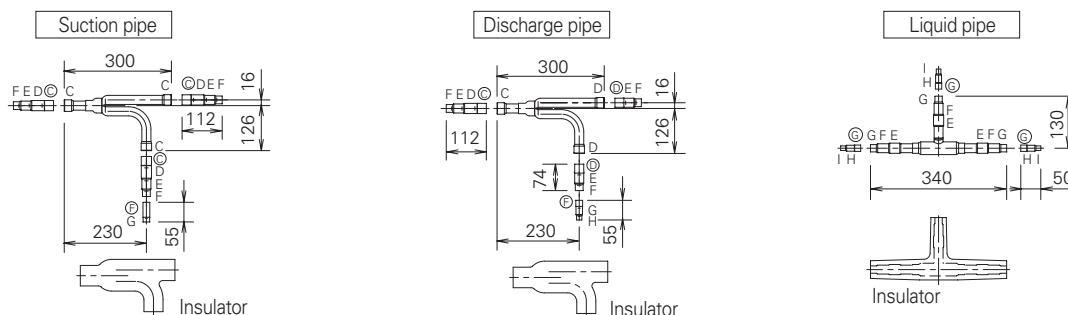
(mm)

| Position | Part A | Part B | Part C | Part D | Part E | Part F | Part G | Part H | Part I | Part J |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Dimension | ø38.1 | ø31.75 | ø28.58 | ø25.4 | ø22.22 | ø19.05 | ø15.88 | ø12.7 | ø9.52 | ø6.35 |

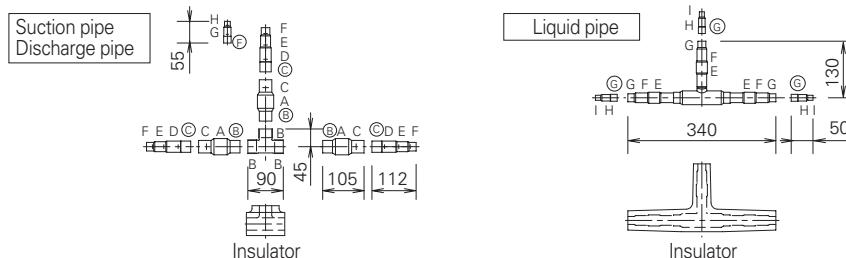
● APR-RZP224BGB (for indoor units) (Capacity after distribution joint is 22.4 kW or less.)



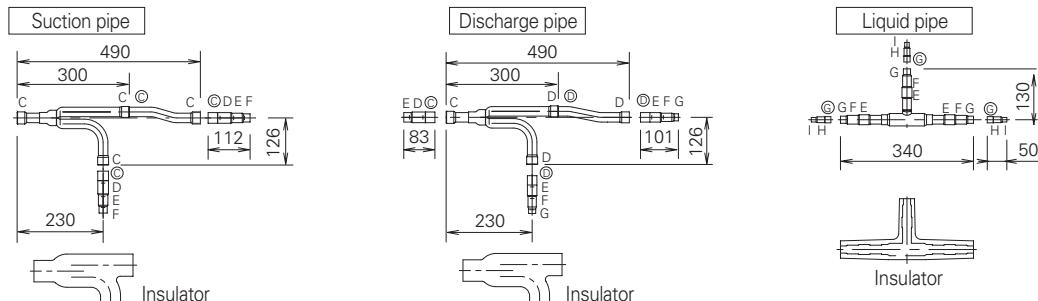
● APR-RZP680BGB (for indoor units) (Capacity after distribution joint is greater than 22.4 kW and no more than 68.0 kW)



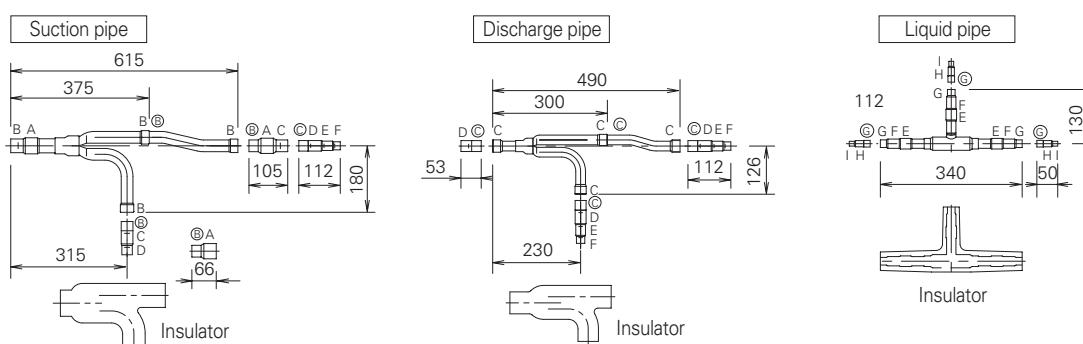
● APR-RZP1350BGB (for indoor units) (Capacity after distribution joint is greater than 68.0 kW and no more than 135.0 kW)



● APR-CHRZP680BGB (for outdoor units) (Capacity after distribution joint is 68.0 kW or less)



● APR-CHRZP1350BGB (for outdoor units) (Capacity after distribution joint is greater than 68.0 kW and no more than 135.0 kW)



ECOi Mini 4-6HP 2 Way Inverter Heat Pump VRF Systems

SPW-CR365GXH56B/8B SPW-CR485GXH56B/8B SPW-CR605GXH56B/8B

SANYO's policy of product development continues with the expansion of the ECOi Mini, the 2 pipe heat pump small VRF system specifically designed for the European market.

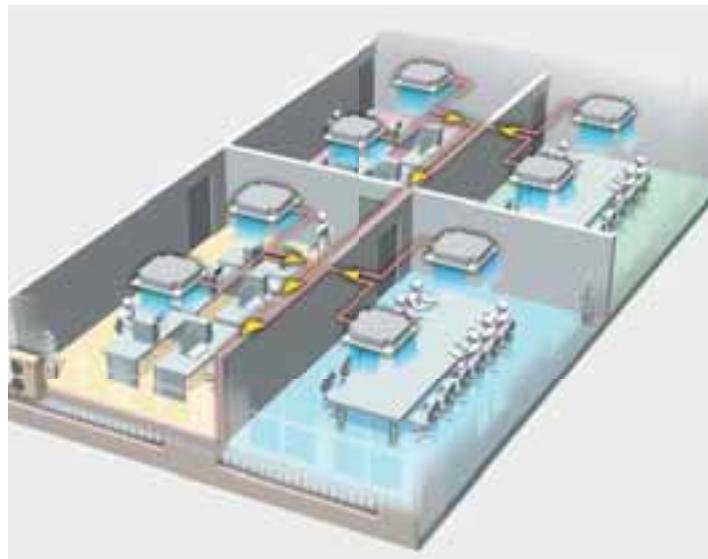
Offering between 11kW and 16kW cooling capacity in 3 sizes and up to 10 indoor units connected, the ECOi Mini sets new standards of performance and flexibility.

Utilising R410A and DC inverter technology, SANYO offers VRF to a new and growing market.

Forming a new key part of the SANYO VRF line up, the ECOi Mini is compatible with the same indoor units and controls as the rest of the electric and gas-powered range.

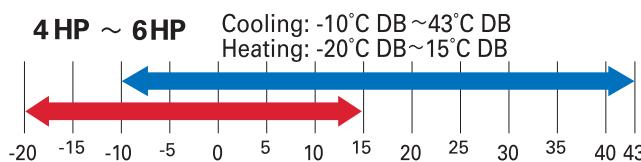
Features at a glance

- Single phase or three phase power supply
- One AMP start current
- DC inverter technology combined with R410A for excellent efficiency
- COP of up to 4.34
- Diversity ratio 50-130%
- 150m pipe runs
- Cooling operation to -10°C
- Full range of indoor units and control options
- Compact outdoor unit 1230x940x340mm



Wide operating range

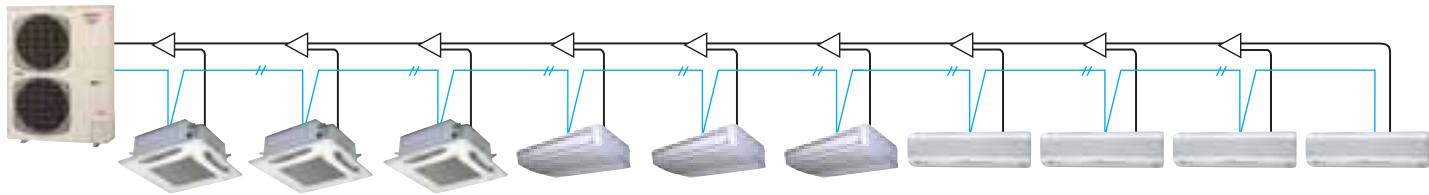
The operating range for heating operation is to -20°C, the cooling range is to -10°C. The remote controller temperature setting offers a range from 16°C to 30°C.



Highest COPs - lowest running costs

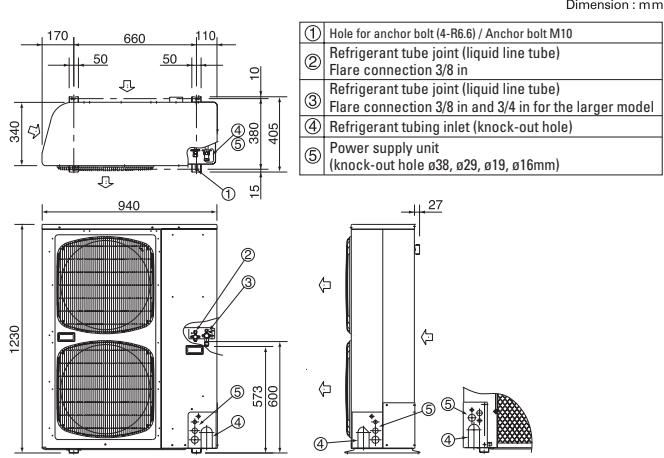
| HP | 4 | 5 | 6 |
|-------------|------|------|------|
| EER Cooling | 4.06 | 3.66 | 3.39 |
| COP Heating | 4.34 | 4.10 | 3.84 |

Up to 10 indoor units per system



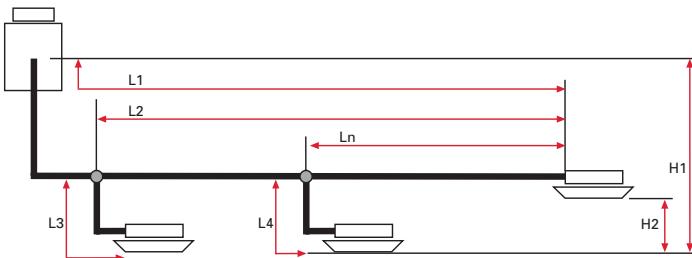
| HP | | 4 | 5 | 6 |
|-------------------------------------|--------------------------------|--|--------------------------------|-----------|
| Model name | SPW-CR365GXH56B/SPW-CR365GXH8B | SPW-CR485GXH56B/SPW-CR485GXH8B | SPW-CR605GXH56B/SPW-CR605GXH8B | |
| Power supply | | 230V, 1 phase, 50/60Hz/400, 3 phase, 50/60Hz | | |
| Cooling capacity | kW | 11.20 | 14.00 | 15.50 |
| Heating capacity | kW | 12.50 | 16.00 | 17.60 |
| EER cooling | | 4.06 | 3.66 | 3.39 |
| COP heating | | 4.34 | 4.10 | 3.84 |
| Electric rating | Cooling | Running current/AMPS A | 14.1/4.52 | 19.9/6.13 |
| | | Power input kW | 2.76 | 3.83 |
| | Heating | Running current/AMPS A | 14.1/4.52 | 19.9/6.13 |
| | | Power input kW | 2.88 | 3.90 |
| Recommended fuse size (motor rated) | | 16 | 16 | 16 |
| Dimensions (H/W/D) mm | | | 1230x940x340 | |
| Net weight kg | | | 104 | |
| Air circulation m³/min | | | 100 | |
| Refrigerant amount at shipment kg | | | 3.5 | |
| Piping connection | Gas Inches | 5/8 | 5/8 | 3/4 |
| | Liquid Inches | 3/8 | 3/8 | 3/8 |
| Operating sound normal mode dB(A) | | 51.0 | 51.0 | 52.0 |
| Quiet mode dB(A) | | 48.0 | 48.0 | 49.0 |
| Maximum number of indoor units | | 6 | 8 | 9 |

Dimensions



Flexible pipework design

| Category | Item | Description | Max length (m) |
|-----------------------------|----------|--|--|
| Allowable pipework length | L1 | Maximum pipe run | Actual pipe length 150 Equivalent pipe length 175 |
| | L2- L3 | Difference between maximum length and minimum length from the first distribution joint | 40 |
| | L3 L4 Ln | Maximum length of each distribution point | 30 |
| | L1+L3+L4 | Maximum total pipe run length | 200 |
| Allowable height difference | H1 | When outdoor installed higher | 50 |
| | H2 | When outdoor installed lower | 40 |
| | | | 15 |



VRF Indoor Unit Range for ECOi and GHP

Wide choice of models depending on the indoor requirements

| | Model size | 7 | 9 | 12 | 16 | 18 | 22 | 25 |
|------|---|--|--|---|--|--|--|--|
| Page | Capacity kW | Cooling 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 6.4 | 7.3 |
| | | Heating 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 7.0 | 8.0 |
| | Capacity BTU/h | Cooling 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 22,000 | 25,000 |
| | | Heating 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 24,000 | 27,000 |
| 85 | X Type Semi-Concealed Cassette |  | SPW-X075XH Panel PNR-XD484GHAB | SPW-X095XH Panel PNR-XD484GHAB | SPW-X125XH Panel PNR-XD484GHAB | SPW-X165XH Panel PNR-XD484GHAB | SPW-X185XH Panel PNR-XD484GHAB | SPW-X255XH Panel PNR-XD484GHAB |
| 86 | NEW XM Type Semi-Concealed |  | SPW-XM075XH Panel PNR-XM185 | SPW-XM095XH Panel PNR-XM185 | SPW-XM125XH Panel PNR-XM185 | SPW-XM165XH Panel PNR-XM185 | SPW-XM185XH Panel PNR-XM185 | |
| 88 | XMR Type 600 x 600 Semi-Concealed Cassette |  | SPW-XMR74EXH56B Panel PNR-XM184EHA | SPW-XMR94EXH56B Panel PNR-XM184EHA | SPW-XMR124EXH56B Panel PNR-XM184EHA | SPW-XMR164EXH56B Panel PNR-XM184EHA | SPW-XMR184EXH56B Panel PNR-XM184EHA | |
| 89 | ADR Type Semi-Concealed Cassette 1-Way Air Discharge |  | SPW-ADR74GXH56B Panel PNR-AD124GHB | SPW-ADR94GXH56B Panel PNR-AD124GHB | SPW-ADR124GXH56B Panel PNR-AD124GHB | | | |
| 90 | SR Type Semi-Concealed Cassette 2-Way Air Discharge |  | SPW-SR74GXH56B Panel PNR-S124GHB | SR94GXH56B Panel PNR-S124GHB | SR124GXH56B Panel PNR-S124GHB | SR164GXH56B, Panel PNR-S124GHB | SR184GXH56B Panel PNR-S124GHB | SPW-SR254GXH56B Panel PNR-S253GHANB |
| 91 | LDR Type Semi-Concealed Slim Cassette |  | | SPW-LDR94GXH56B Panel PNR-LD254GHAB | SPW-LDR124GXH56B Panel PNR-LD254GHAB | SPW-LDR164GXH56B Panel PNR-LD254GHAB | SPW-LDR184GXH56B Panel PNR-LD254GHAB | SPW-LDR254GXH56B Panel PNR-LD254GHAB |
| 92 | DR Type Concealed Duct |  <i>25,48 type</i> <i>76,96 type</i> | | | | | | SPW-DR254GXH56B |
| 93 | NEW US Type Concealed Duct |  | SPW-US075XH | SPW-US095XH | SPW-US125XH | SPW-US165XH | SPW-US185XH | |
| 94 | U Type Concealed Duct |  | SPW-U075XH | SPW-U095XH | SPW-U125XH | SPW-U165XH | SPW-U185XH | SPW-U255XH |
| 96 | NEW UR Type with filter Concealed Duct |  | SPW-U075SXHT | SPW-U095SXHT | SPW-U125SXHT | SPW-U165SXHT | SPW-U185SXHT | SPW-U255SXHT |
| 98 | FUR Type Floor/Ceiling Slim Concealed Duct |  | SPW-FUR74EXH56B | SPW-FUR94EXH56B | SPW-FUR124EXH56B | SPW-FUR164EXH56B | SPW-FUR184EXH56B | SPW-FUR224EXH56B |
| 99 | UMR Type Concealed Duct |  | SPW-UMR74EXH56B | SPW-UMR94EXH56B | SPW-UMR124EXH56B | SPW-UMR164EXH56B | SPW-UMR184EXH56B | SPW-UMR224EXH56B |
| 100 | FTR Type Floor/Ceiling Mounted Units |  | SPW-FTR74EXH56B | SPW-FTR94EXH56B | SPW-FTR124EXH56B | SPW-FTR164EXH56B | SPW-FTR184EXH56B | SPW-FTR224EXH56B |
| 101 | T Type Ceiling- Mounted Unit |  | | | SPW-T125XH | SPW-T165XH | SPW-T185XH | SPW-T225XH |
| 102 | NEW K Type Wall Mounted Unit |  | SPW-K075XH | SPW-K095XH | SPW-K125XH | | | |
| 104 | KR Type Wall Mounted Unit |  | SPW-KR74GXH56B | SPW-KR94GXH56B | SPW-KR124GXH56B | SPW-KR164GXH56B | SPW-KR184GXH56B | SPW-KR254GXH56B |
| 105 | FR Type Floor Standing Unit |  | SPW-FR74GXH56B | SPW-FR94GXH56B | SPW-FR124GXH56B | SPW-FR164GXH56B | SPW-FR184GXH56B | SPW-FR254GXH56B |
| 106 | FMR Type Concealed Floor Standing Unit |  | SPW-FMR74GXH56B | SPW-FMR94GXH56B | SPW-FMR124GXH56B | SPW-FMR164GXH56B | SPW-FMR184GXH56B | SPW-FMR254GXH56B |
| 107 | GU Type Total Heat Exchanger |  | | SPW-GU055XH | | SPW-GU075XH | SPW-GU105XH | |

| Wider operation  | | | Self-diagnosing function  | | | Automatic fan operation  | | | Mild dry  | | |
|---|--------|--------|--|--------|---------|---|---|--|---|--|--|
| Comfortable auto-flap control  | | | Automatic restart function for power failure  | | | Air Sweep  | | | Built-in drain pump  | | |
| 30 | 36 | 48 | 60 | 76 | 96 | Wireless remote control | | | | | |
| 9.0 | 10.6 | 14.0 | 16.0 | 22.4 | 28.0 | | | | | | |
| 10.0 | 11.4 | 16.0 | 18.0 | 25.0 | 31.5 | | | | | | |
| 30,000 | 36,000 | 47,800 | 54,600 | 76,400 | 95,500 | | | | | | |
| 34,000 | 39,000 | 54,600 | 61,500 | 85,300 | 107,500 | | | | | | |
| | | | | | | Type with built-in reception part | Type with separately installed reception part | | Functions | | |
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A wide range of quality indoor units with many unique features

SANYO's indoor unit range are compatible across all the ECOi, GHP and PACi systems, enabling the system to be designed without being restrained by the choice of outdoor unit.

- Even wider range - 4 new models means a total choice of 19 models to suit every application
- Expanded range includes 6 semi-concealed cassettes, 6 concealed ducted units, 4 wall/ceiling mounted units, 3 floor standing units and a total heat exchanger with DX coil
- The highest quality design and manufacture to ensure reliable, problem free operation
- Very efficient units with some of the best COPs in the industry
- Indoor unit power consumption greatly reduced by use of high technology DC fan motors
- Unique off coil temperature control to prevent cold draughts available on ECOi and GHP ducted units
- Very quiet operation ranging from just 22 db(A) for UR Type ducted units
- All units carefully designed to ensure ease of installation and maintenance

Control Options

A wide choice of system controllers ranging from simple remotes to more sophisticated web applications

Controllers have flexibility to match across the range of ECOi, GHP and PACi systems

NEW

PAC2 System Design Software for ECOi, GHP and PACi systems

- System design and selection has never been easier
- Very user friendly interface with design wizards plus drag and drop icons
- AC Calc Lite included free
- Auto piping and wiring features
- Auto CAD (DXF) export
- Plus much more... ask for free demo



X Type Semi-Concealed Cassette

R410A

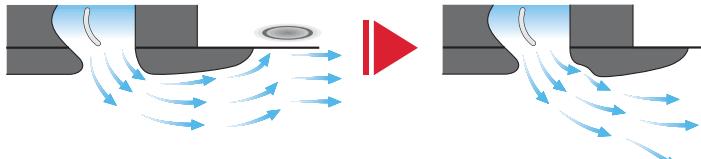
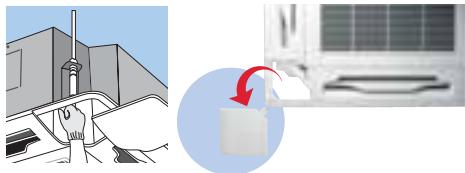
**SPW-X075XH SPW -X095XH SPW-X125XH SPW-X165XH SPW-X185XH
SPW-X255XH SPW-X365XH SPW-X485XH SPW-X605XH**

The award winning range of X Type cassettes are smaller, shallower and lighter than previous models and feature a 950 x 950mm panel throughout. The DC fan motor and new air discharge louvre ensure quiet, optimum air distribution.

- New compact design
- Reduced sound levels
- DC fan motor for increased efficiency
- Powerful drain pump gives 850mm lift
- Lightweight design
- Fresh air knockout
- Branch duct connection



Easy installation



The airflow is directed away from the unit to help prevent the smudging effect so often seen on ceiling tiles.

Controller Options

| Timer remote controller | Wireless remote controller | Simplified remote controller | Air intake chamber | Panel |
|-------------------------|----------------------------|----------------------------------|--------------------|---------------|
| | | | | |
| RCS-TM80BG | (Transmitter, common part) | RCS-SH80BG.WLB RCS-BH80AG.WLB | RCS-KR1AGB | PNR-XD484GHAB |

*Both Air intake plenum and Air intake box is necessary

Indoor unit specifications

| Model Name | SPW-X075XH | SPW -X095XH | SPW-X125XH | SPW-X165XH | SPW-X185XH | SPW-X255XH | SPW-X365XH | SPW-X485XH | SPW-X605XH | |
|--|-------------------|-------------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------|
| Power source | | | | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.3 | 10.6 | 14 | 16 |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 25,000 | 36,000 | 47,800 | 54,600 |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 | 11.4 | 16.0 | 18.0 |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 | 39,000 | 54,600 | 61,400 |
| Power input | Cooling kW | 0.033/0.032/0.032 | | 0.033/0.032/0.032 | 0.035/0.034/0.034 | 0.042/0.041/0.041 | 0.070/0.069/0.069 | 0.099/0.097/0.097 | 0.107/0.105/0.105 | |
| | Heating kW | 0.023/0.022/0.022 | | 0.023/0.022/0.022 | 0.023/0.023/0.023 | 0.031/0.031/0.031 | 0.062/0.060/0.060 | 0.095/0.093/0.093 | 0.100/0.098/0.098 | |
| Running amperes | Cooling A | 0.22/0.21/0.20 | | 0.22/0.21/0.20 | 0.23/0.22/0.21 | 0.29/0.27/0.26 | 0.49/0.46/0.44 | 0.67/0.63/0.60 | 0.72/0.68/0.65 | |
| | Heating A | 0.19/0.18/0.17 | | 0.19/0.18/0.17 | 0.20/0.19/0.18 | 0.26/0.25/0.24 | 0.48/0.45/0.43 | 0.67/0.63/0.60 | 0.76/0.71/0.68 | |
| Fan motor | Type | | | | Turbo fan | | | | | |
| Airflow rate (H/M/L) m ³ /min | | 15.5/14/13 | | | 16/14/13 | 20/16/14 | 28/23/21 | 33/25/22 | 34/27/23 | |
| Output kW | | | 0.05 | | | | | 0.09 | | |
| Power sound level (H/M/L) db(A) | | 42/40/38 | | | 45/42/39 | 50/47/44 | 53/49/45 | 55/51/47 | | |
| Sound pressure sound (H/M/L) db(A) | | 31/29/27 | | | 34/31/28 | 39/36/33 | 42/38/34 | 44/40/36 | | |
| Dimensions | Height mm | | 256 + <35> | | | | 319 + <35> | | | |
| | Width mm | | | | 840 <950> | | | | | |
| | Depth mm | | | | 840 <950> | | | | | |
| Piping connections | Liquid (flare) mm | 6.35 | | | | 9.52 | | | | |
| | Gas (flare) mm | 12.7 | | | | 15.88 | | | | |
| | Drain piping | | | | VP-25 | | | | | |
| Net weight | kg | 21 + <4.5> | | | | | 26 + <4.5> | | | |

The values in <> for external dimensions and Net weight are the values for the optional ceiling panel. Data subject to change without notice.

XM Type Mini Semi-Concealed Cassette

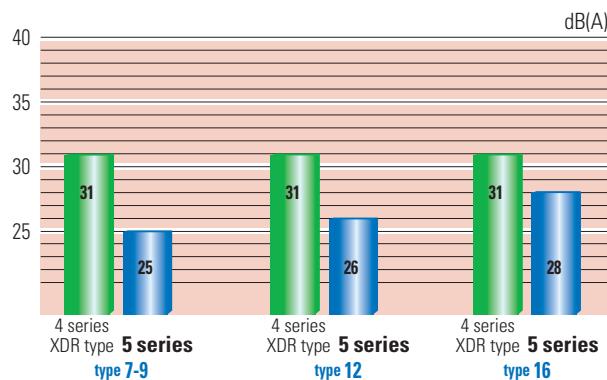
SPW-XM075XH SPW-XM095XH SPW-XM125XH SPW-XM165XH SPW-XM185XH

Designed to fit exactly into a 600x600mm ceiling grid without the need to alter the bar configuration, the XM is ideal for small commercial and retro fit applications.

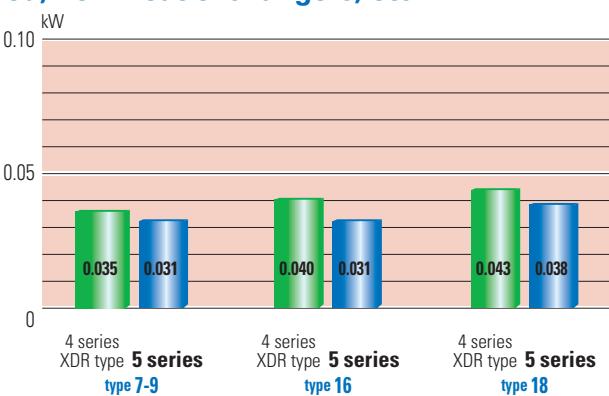
In addition, the improvements to efficiency make this one of the most advanced units in the industry.

- Fresh air knock out
- Multidirectional air flow
- 3 speed centrifugal fan
- Anti-mould and anti-bacteria washable filters
- Powerful drain pump gives 850mm lift

New turbo fans and heat exchanger fins with improved design. The operating sound has been reduced dramatically.



Significant reduction of power consumption by using newly developed DC fan motors with variable speed, new heat exchangers, etc.

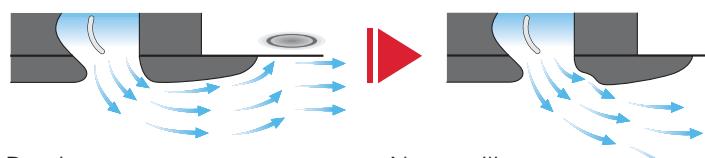


NEW



Discharge opening and flap with new design

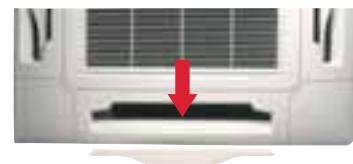
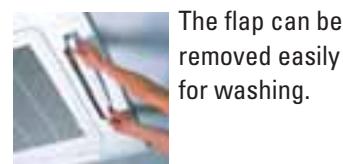
The condensate and dirt that appears near the discharge ports of conventional ceiling cassettes have been reduced.



Previous

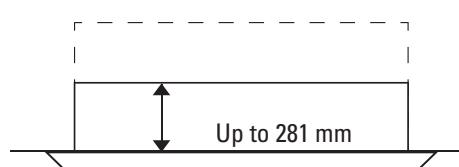
The discharged air hits the ceiling and causes dirt.

New ceiling cassette
Upward air flow is suppressed.



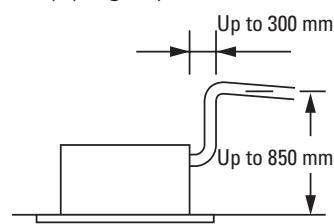
Lighter and slimmer, easier installation

A lightweight unit at 26 kg (for type 36-60), the unit is also very slim with a height of only 281 mm, making installation possible even in narrow ceilings.



A drain height of approx. 850 mm from the ceiling surface

The drain height can be increased by approximately 350 mm over the conventional value by using a high-lift drain pump, and long horizontal piping is possible.





Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-XM18BG.WL

Simplified remote controller



RCS-BH80BG.WL

Panel



PNR-XM185

RCS-KR1AGB

Indoor unit specifications

| Model Name | | SPW-XM075XH | SPW-XM095XH | SPW-XM125XH | SPW-XM165XH | SPW-XM185XH |
|------------------------------------|-----------------------------|----------------------------------|-------------|-------------------|-------------------|-------------------|
| Power source | | 220/230/240V, 1 phase - 50, 60Hz | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 |
| Power input | Cooling kW | 0.034/0.031/0.030 | | 0.037/0.034/0.031 | 0.044/0.040/0.037 | 0.055/0.049/0.040 |
| | Heating kW | 0.024/0.021/0.020 | | 0.027/0.024/0.021 | 0.034/0.030/0.027 | 0.045/0.039/0.030 |
| Running amperes | Cooling A | 0.26/0.23/0.21 | | 0.29/0.26/0.23 | 0.37/0.33/0.29 | 0.47/0.42/0.33 |
| | Heating A | 0.24/0.21/0.19 | | 0.27/0.24/0.21 | 0.35/0.31/0.27 | 0.45/0.40/0.31 |
| Fan motor | Type | Centrifugal fan | | | | |
| | Airflow rate (H/M/L) m³/min | 9/8/7 | | 10/9/8 | 12/11/10 | 14/13/11 |
| | Output kW | 0.030 | | | | |
| Power sound level (H/M/L) db(A) | | 41/38/36 | | 43/40/37 | 47/43/39 | 52/48/44 |
| Pressure sound level (H/M/L) db(A) | | 30/27/25 | | 32/29/26 | 36/32/28 | 41/37/33 |
| Dimensions | Height mm | 283 | | | | |
| | Width mm | 575 <625> | | | | |
| | Depth mm | 575 <625> | | | | |
| Piping connections | Liquid (flare) mm (inches) | 6.35 (1/4) | | | | |
| | Gas (flare) mm (inches) | 12.7 (1/2) | | | | |
| | Drain piping VP-20 | | | | | |
| Net weight kg | | 19 + <2.7> | | | | |

Heating: Indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.

Data subject to change without notice.

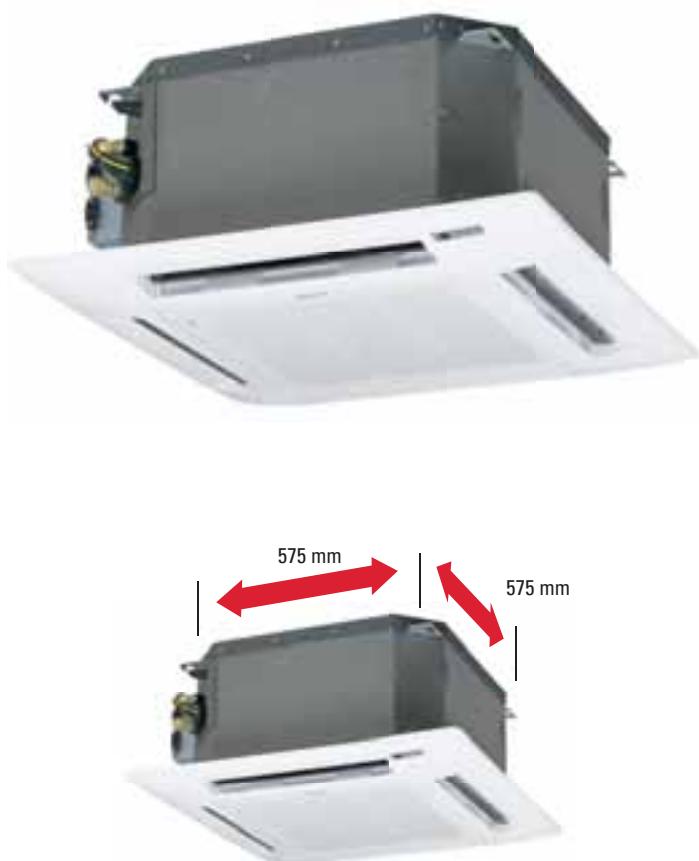
XMR Type 600 x 600 Semi-Concealed Cassette

R410A

SPW-XMR74EXH56B SPW-XMR94EXH56B SPW-XMR124EXH56B SPW-XMR164EXH56B SPW-XMR184EXH56B

Designed to fit exactly into a 600 x 600mm ceiling grid without the need to alter the bar configuration, the XMR is ideal for small commercial and retro fit applications.

- New dimensions 600 x 600mm suitable for European ceiling standards
- Multi-directional air flow
- 3-speed centrifugal fan
- Fresh air knockout
- Anti-mould and anti-bacteria washable filters
- Low operating sound
- Integral drain pump gives 250mm lift



Controller Options



Timer remote controller



Wireless remote controller
(Transmitter, common part)



Simplified remote controller
RCS-KR1AGB

Panel



PNR-XM184EHA

Indoor unit specifications

| Model Name | | SPW-XMR74EXH56B | SPW-XMR94EXH56B | SPW-XMR124EXH56B | SPW-XMR164EXH56B | SPW-XMR184EXH56B | | | |
|------------------------------|----------------------|-------------------------------|-------------------|------------------|------------------|------------------|--|--|--|
| Power source | | 220/230/240V, 1 phase - 50 Hz | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | | | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | | | |
| Power input | Cooling | kW | 0.087/0.087/0.087 | | | | | | |
| | Heating | kW | 0.087/0.087/0.087 | | | | | | |
| Running amperes | Cooling | A | 0.41/0.41/0.41 | | | | | | |
| | Heating | A | 0.41/0.41/0.41 | | | | | | |
| Fan motor | Type | | Centrifugal fan | | | | | | |
| | Airflow rate (H/M/L) | m³/min | 11.7/10/8.3 | | 12.5/10.5/8.8 | | | | |
| | Output | kW | 0.06 | | 0.06 | | | | |
| Power sound level (H/M/L) | | db(A) | 54/51/48 | | 55/51/48 | | | | |
| Pressure sound level (H/M/L) | | db(A) | 43/40/37 | | 44/40/37 | | | | |
| Dimensions | Height | mm | 296 (41mm) | | | | | | |
| | Width | mm | 575 <730> | | | | | | |
| | Depth | mm | 575 <730> | | | | | | |
| Piping connections | Liquid (flare) | mm (inches) | 6.35 (1/4) | | | | | | |
| | Gas (flare) | mm (inches) | 12.7 (1/2) | | | | | | |
| | Drain piping | | VP-18 | | | | | | |
| Net weight | | kg | 16.5 + <2.5> | | 18 + <2.5> | | | | |

The values in <> for external dimensions and Net weight are the values for the optional ceiling panel..

Data subject to change without notice.

ADR Type Semi-Concealed Cassette

R410A

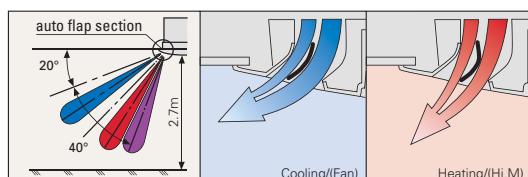
SPW-ADR74GXH56B SPW-ADR94GXH56B SPW-ADR124GXH56B

The new ADR unit features reduced sound levels, compact design and improved airflow distribution.

- New development concept: low sound, lightweight and compact
- Ideal for hotel bedroom applications
- Ease of service access in restricted locations
- Built-in drain pump provides 850mm lift
- Ultra light design: only 17kg
- Auto-flap and auto-swing functions to remotely control air direction



Airflow and distribution is automatically altered depending on the operational mode of the unit.



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



(Transmitter, common part)

Simplified remote controller



RCS-BH80AG.WLB

Panel



PNR-AD124GHB

Indoor unit specifications

| Model Name | | SPW-ADR74GXH56B | SPW-ADR94GXH56B | SPW-ADR124GXH56B |
|------------------------------|----------------------|-----------------------------------|-------------------|------------------|
| Power source | | 220/230/240V, 1 phase - 50, 60 Hz | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 |
| | BTU/h | 7,500 | 9,600 | 12,000 |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 |
| | BTU/h | 8,500 | 11,000 | 14,000 |
| Power input | Cooling | kW | 0.064/0.064/0.067 | |
| | Heating | kW | 0.039/0.039/0.04 | |
| Running amperes | Cooling | A | 0.25/0.24/0.24 | |
| | Heating | A | 0.17/0.17/0.17 | |
| Type | | Sirocco fan | | |
| Fan motor | Airflow rate (H/M/L) | m³/min | 8/7/6.0 | 9/8/7.0 |
| | Output | kW | 0.02 | |
| Power sound level (H/M/L) | | db(A) | 44/42/40 | 47/45/42 |
| Pressure sound level (H/M/L) | | db(A) | 33/31/29 | 36/34/31 |
| Dimensions | Height | mm | 300 + <30> | |
| | Width | mm | 600 <760> | |
| | Depth | mm | 560 <620> | |
| Piping connections | Liquid (flare) | mm | 6.35 | |
| | Gas (flare) | mm | 12.7 | |
| | Drain piping | | VP-25 | |
| Net weight kg | | | 17 + <2.5> | |

The values in <> for external dimensions and Net weight are the values for the optional ceiling panel.

Data subject to change without notice.

SR Type Semi-Concealed Cassette

R410A

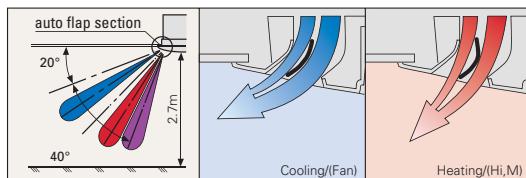
**SPW-SR74GXH56B SPW-SR94GXH56B SPW-SR124GXH56B
SPW-SR164GXH56B SPW-SR184GXH56B SPW-SR254GXH56B**

Realisation of thin, compact and light units

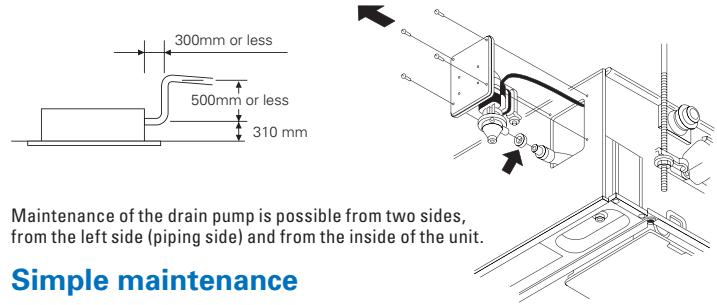
Remarkable size and weight reductions have been achieved by improvement of the design around the fan. In addition, compared to the previous model the size and weight for the type 18 has been reduced by approximately 30% body volume and to 30kg weight.



Airflow and distribution is automatically altered depending on the operational mode of the unit.



Drain up is possible up to 500mm from the drain port.



Maintenance of the drain pump is possible from two sides, from the left side (piping side) and from the inside of the unit.

Simple maintenance

The drain pan is equipped with site wiring and can be removed. The fan case has a split construction, and the fan motor can be removed easily when the lower case is removed.

Controller Options



RCS-TM80BG



(Transmitter, common part)



RCS-KR1AGB



PNR-S183GHANB (For 254 type)
PNR-S124GHB (For 74-184 type)

Indoor unit specifications

| Model Name | | SPW-SR74GXH56B | SPW-SR94GXH56B | SPW-SR124GXH56B | SPW-SR164GXH56B | SPW-SR184GXH56B | SPW-SR254GXH56B |
|----------------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | | | | | | |
| Cooling capacity | | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 |
| Heating capacity | | kW | 2.5 | 3.2 | 4.2 | 5 | 6.3 |
| | | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 |
| Power input | Cooling | kW | 0.095 | 0.088/0.092/0.097 | 0.088/0.093/0.099 | 0.103/0.097/0.091 | 0.091/0.097/0.103 |
| | Heating | kW | 0.062 | 0.055/0.060/0.064 | 0.057/0.061/0.066 | 0.070/0.065/0.060 | 0.060/0.065/0.070 |
| Running amperes | Cooling | A | 0.45 | 0.44/0.45/0.45 | 0.44/0.45/0.45 | 0.45/0.45/0.45 | 0.45/0.45/0.45 |
| | Heating | A | 0.3 | 0.28/0.29/0.30 | 0.28/0.29/0.30 | 0.30/0.29/0.29 | 0.29/0.29/0.30 |
| Fan motor | Type | | | Sirocco | | | |
| | Airflow rate | (H/M/L) m³/min | 480/420/360 | 9.0/8.0/7.0 | 9.6/8.6/7.6 | 11.0/9.0/8.0 | 19/16/14 |
| | Output | kW | | | 0.03 | | 0.05 |
| Power sound level | (H/M/L) db(A) | | 49/46/44 | 44/40/37 | 45/42/39 | 46/44/40 | 49/46/44 |
| Pressure sound level | (H/M/L) db(A) | | 30/27/24 | 33/29/26 | 34/31/28 | 35/33/29 | 38/35/33 |
| Dimensions | Height | mm | 358 | | 350 + <8> | | |
| | Width | mm | | | 840 <1060> | | 1140 <1360> |
| | Depth | mm | | | 600 <680> | | |
| Piping connections | Liquid (flare) | mm | | | 6.35 | | 9.52 |
| | Gas (flare) | mm | | | 12.7 | | 15.88 |
| | Drain piping | VP-26 | | | VP-25 | | |
| Net weight | kg | 30 | | 23 + <7> | | | 30 + <9> |

The values in <> for external dimensions and Net weight are the values for the optional ceiling panel. Data subject to change without notice.

LDR Type Semi-Concealed Slim Cassette R410A

SPW-LDR94GXH56B SPW-LDR124GXH56B SPW-LDR164GXH56B SPW-LDR184GXH56B SPW-LDR254GXH56B

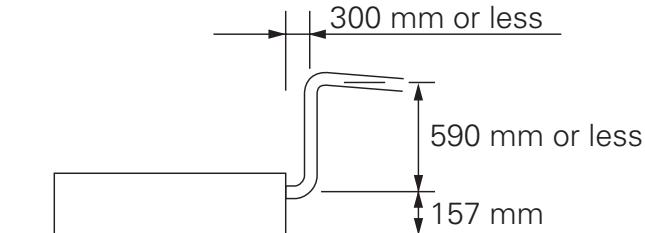
Designed for installation within the ceiling void, the LDR range of slimline 1 Way blow cassettes feature powerful yet quiet fans for up to 3.5 metres.

- Ultra-slim design, just 198mm high - ideal for low ceiling spaces
- Suitable for standard and high ceilings
- Built-in drain pump provides 747mm lift
- Easy to install and maintain
- Hanging height can be easily adjusted
- Uses a DC fan motor to improve energy-efficiency



Drain pump power increased

Drain can be pumped up for approx. 747mm from the ceiling surface.



Controller Options

Timer remote controller Wireless remote controller



RCS-TM80BG
(Transmitter, common part)



RCS-TRP80BG.WLB



RCS-BH80AG.WLB



RCS-KR1AGB

Panel



PNR-LD254GHAB

Indoor unit specifications

| Model Name | | SPW-LDR94GXH56B | SPW-LDR124GXH56B | SPW-LDR164GXH56B | SPW-LDR184GXH56B | SPW-LDR254GXH56B |
|---|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | | | | | |
| Cooling capacity | kW | 2.8 | 3.6 | 4.5 | 5.6 | 7.3 |
| | BTU/h | 9,600 | 12,000 | 15,000 | 19,000 | 25,000 |
| Heating capacity | kW | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 |
| | BTU/h | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 |
| Power input | Cooling kW | 0.105/0.110/0.115 | 0.105/0.110/0.115 | 0.105/0.110/0.115 | 0.110/0.115/0.120 | 0.115/0.120/0.125 |
| | Heating kW | 0.075/0.080/0.085 | 0.075/0.080/0.085 | 0.075/0.080/0.085 | 0.080/0.085/0.090 | 0.085/0.090/0.095 |
| Running amperes | Cooling A | 0.50/0.50/0.51 | 0.50/0.50/0.51 | 0.50/0.50/0.51 | 0.53/0.53/0.54 | 0.55/0.55/0.56 |
| | Heating A | 0.36/0.37/0.38 | 0.36/0.37/0.38 | 0.36/0.37/0.38 | 0.38/0.39/0.40 | 0.40/0.41/0.42 |
| Fan motor | Type | Sirocco fan | | | | |
| | Airflow rate (H/M/L) m³/min | 12/10/9.0 | | 12/11/10.0 | 13/11.5/10 | 18/15/13 |
| | Output kW | 0.05 | | | | |
| Power sound level | (H/M/L) dB(A) | 47/45/44 | | 47/46/45 | 49/47/45 | 56/51/47 |
| Pressure sound level | (H/M/L) dB(A) | 36/34/33 | | 36/35/34 | 38/36/34 | 45/40/36 |
| Dimensions | Height mm | 200 + <20> | | | | |
| | Width mm | 1,000 <1,230> | | | | |
| | Depth mm | 710 <800> | | | | |
| Piping connections | Liquid (flare) mm | 6.35 | | | | |
| | Gas (flare) mm | 12.7 | | | | |
| | Drain piping | VP-25 | | | | |
| Net weight | kg | 21 + <5.5> | | | | |
| The values in <> for external dimensions and Net weight are the values for the optional ceiling panel. Data subject to change without notice. | | | | | | |

DR Type Concealed Duct

R410A

SPW-DR254GXH56B SPW-DR364GXH56B SPW-DR484GXH56B SPW-DR764GXH56B SPW-DR964GXH56B

The DR range of ducted units offers improved design flexibility for extended duct layouts as a result of their increased external static pressures.

- Can be used as 1:1 split system if required
- Complete flexibility for ductwork design
- Can be located into a weatherproof housing for external siting
- Air off sensor avoids cold air dumping
- Configurable air temperature control

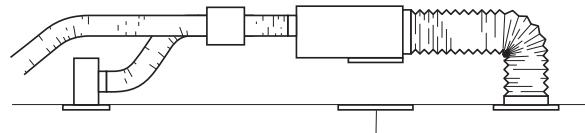


25-48 Type

76-96 Type

System example

An inspection port (450 x 450mm or more) is required at the lower side of the indoor unit body. Distributor (field supply).



Inspection port (450 x 450mm or more)

Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Rap valve kit

The types 76 and 96 require two rap valve kits for each unit.



Indoor unit specifications

| Model Name | | SPW-DR254GXH56B | SPW-DR364GXH56B | SPW-DR484GXH56B | SPW-DR764GXH56B | SPW-DR964GXH56B |
|------------------------------------|-----------------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | 220/230/240V, 1 phase - 50, 60 Hz | | | | |
| Cooling capacity | kW | 7.3 | 10.6 | 14.0 | 22.4 | 28.0 |
| | BTU/h | 25,000 | 36,000 | 47,800 | 76,400 | 95,500 |
| Heating capacity | kW | 8 | 11.4 | 16.0 | 25.0 | 31.5 |
| | BTU/h | 27,000 | 39,000 | 54,600 | 85,300 | 107,500 |
| Power input | Cooling | 0.480/0.505/0.530 | 0.520/0.545/0.570 | 0.600/0.660/0.710 | 0.870/0.900/0.930 | 1.270/1.330/1.390 |
| | Heating | 0.480/0.505/0.530 | 0.520/0.545/0.570 | 0.600/0.660/0.710 | 0.870/0.900/0.930 | 1.270/1.330/1.390 |
| Running amperes | Cooling | A | 2.29/2.30/2.31 | 2.46/2.46/2.47 | 2.80/2.90/3.00 | 4.05/4.06/4.07 |
| | Heating | A | 2.29/2.30/2.31 | 2.46/2.46/2.47 | 2.80/2.90/3.00 | 4.05/4.06/4.07 |
| Fan motor | Type | Sirocco fan | | | | |
| | Airflow rate (H/M/L) m³/min | 23/22/21 | 30/28/25 | 36/35/33 | 56/53/1/49.6 | 72/70/66 |
| | Output kW | | 0.2 | 0.35 | 0.2*2 | 0.4*2 |
| | External static pressure Pa | 186 | 176 | 167 | 176 | 216 |
| Power sound level (H/M/L) db(A) | | 55/54/53 | 56/55/53 | 58/57/55 | 59/58/57 | 62/61/60 |
| Pressure sound level (H/M/L) db(A) | | 44/43/42 | 45/44/42 | 47/46/44 | 48/47/46 | 51/50/49 |
| Dimensions | Height mm | 420 | | 450 | 467 | |
| | Width mm | 1065 | | | 1428 | |
| | Depth mm | 620 | | | 1230 | |
| Piping connections | Liquid (flare) mm | | | | 9.52 | |
| | Gas (flare) mm | | | | 15.88 | 19.05 |
| | Drain piping mm | | | | VP-25 | 22.22 |
| Net weight kg | 47 | 50 | 54 | 54 | 110 | 120 |

Data subject to change without notice.

US Type Ultra-Slim Concealed Duct

R410A

SPW -US075XH SPW-US095XH SPW-US125XH SPW-US165XH SPW-US185XH

The new ultra slim US Type is one of the leading products of its type in the industry. With a depth of only 200mm it provides greater flexibility and can be used in far more applications.

In addition, its high-efficiency and extremely quiet sound levels make it very popular with many users, including hotels and small offices.

- Ultra-slim profile: 200 mm for all models
- DC fan motor greatly reduces power consumption.
- Ideal for hotel application with very narrow false ceilings
- Anti-mould washable filters included
- Easy maintenance and service by external electrical box
- 40 pa static pressure enables ductwork to be fitted.
- Includes drain pump

NEW



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Indoor unit specifications

| Model Name | | SPW -US075XH | SPW-US095XH | SPW-US125XH | SPW-US165XH | SPW-US185XH |
|----------------------|--------------------------|----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | 220/230/240V, 1 phase - 50, 60Hz | | | | |
| Cooling capacity | KW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 |
| Heating capacity | KW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 |
| Power input | Cooling | kW | 0.022/0.022/0.022 | 0.027/0.027/0.027 | 0.028/0.028/0.028 | 0.037/0.037/0.037 |
| | Heating | kW | 0.022/0.022/0.022 | 0.027/0.027/0.027 | 0.028/0.028/0.028 | 0.037/0.037/0.037 |
| Running amperes | Cooling | A | 0.22/0.22/0.22 | 0.23/0.23/0.23 | 0.25/0.25/0.25 | 0.32/0.32/0.32 |
| | Heating | A | 0.22/0.22/0.22 | 0.23/0.23/0.23 | 0.25/0.25/0.25 | 0.32/0.32/0.32 |
| Fan motor | Type | | | Sirocco fan | | |
| | Airflow rate | (H/M/L) m³/min | 8/7/6 | 8.5/7.5/6.5 | 9/8/7 | 10.5/9.5/8 |
| | Output | kW | | | 0.05 | |
| | External static pressure | Pa | 10--30 | 15 - 30 | | 15 - 40 |
| Power sound level | (H/M/L) db(A) | | 42/41/39 | 43/42/40 | 44/42/40 | 45/43/41 |
| Pressure sound level | (H/M/L) db(A) | | 31/30/28 | 32/31/29 | 33/31/29 | 34/32/30 |
| Dimensions | Height | mm | | 200 | | |
| | Width | mm | | 750 | | |
| | Depth | mm | | 640 | | |
| Piping connections | Liquid (flare) | mm (inches) | | 6.35 (1/4) | | |
| | Gas (flare) | mm (inches) | | 12.7 (1/2) | | |
| | Drain piping | | | VP-21 | | |
| Net weight | kg | | | 21 | | |

Data subject to change without notice.

U Type Concealed Duct

**SPW-U075XHT SPW-U 095XHT SPW-U125XHT SPW-U165XHT
SPW-U185XHT SPW-U255XHT SPW-U365XHT SPW-U485XHT SPW-U605XHT**

The U Type ducted systems are the ideal solution for flexible, concealed air conditioning and the standard 200mm spigots ensure simple, hassle-free connection to spiral ductwork. The external static pressure can be increased via an optional booster cable to provide increased design flexibility.

- Industry-leading low sound levels from 22 dB(A)
- Built-in drain pump provides 785mm lift
- Easy to install and maintain
- Air off sensor avoids cold air dumping
- Configurable air temperature control



Lowest noise levels in the industry

The static pressure outside the unit can be increased

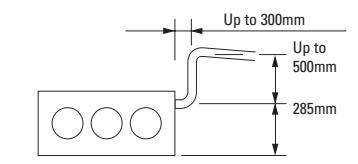
By using the booster cable, the static pressure outside the unit can be increased.

| type | 7-9-12 | 16-18 | 25 | 36 | 48 |
|------------------------|--------|-------|----|-----|-----|
| standard | 49 | 40 | 50 | 79 | 78 |
| with booster cable use | 69 | 62 | 92 | 122 | 113 |

(Pa)

More powerful drain pump

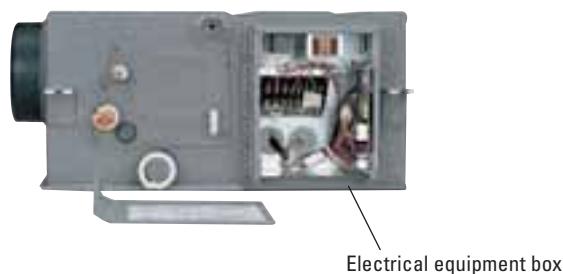
By adoption of a high-lift drain pump, the drain piping rise height can be increased to 785mm from the lower surface of the body.



Flexible air distribution is achieved by discharge grilles



External electrical equipment box makes maintenance easy

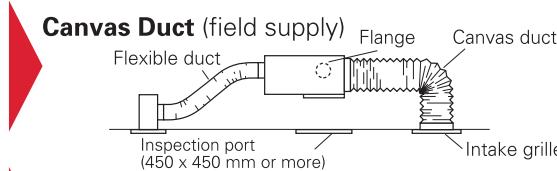


Unified body height of approximately 310 mm for all models

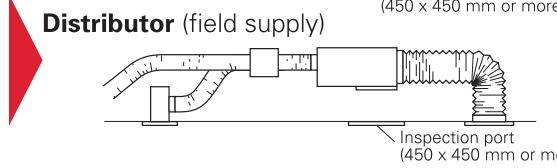
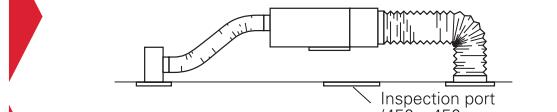
Even models with different capacities can be installed smoothly in the ceiling.

System examples

An inspection port (450 x 450mm or more) is required at the lower side of the indoor unit body.

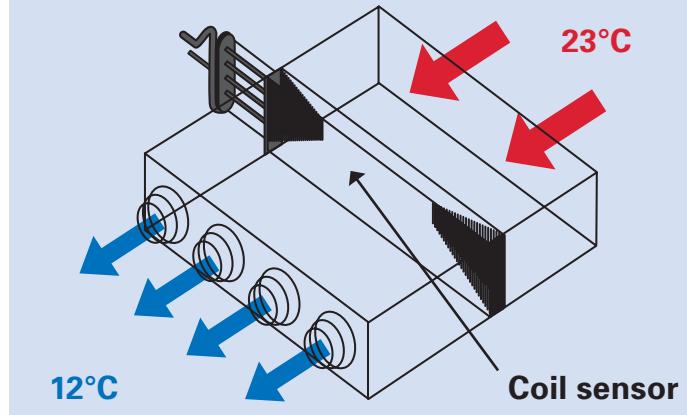


High-Performance Filter Long-life filter (field supply)



7-22°C Air off temperature control as standard

- Able to control air off temperature
- Reduces cold drafts
- Accurate room temperature controls



Controller Options



RCS-TM80BG



RCS-BH80AG.WLB



RCS-KR1AGB

Indoor unit specifications

| Model Name | | SPW-U075XHT SPW-U095XHT SPW-U125XHT SPW-U165XHT SPW-U185XHT SPW-U255XHT SPW-U365XHT SPW-U485XHT SPW-U605XHT | | | | | | | | | | | |
|---|-----------------------------|---|--------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|--|--|--|
| Power source | | 220/230/240V, 1 phase - 50, 60 Hz | | | | | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.3 | 10.6 | 14.0 | 16.0 | | | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 25,000 | 36,000 | 47,800 | 54,600 | | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 | 11.4 | 16.0 | 18.0 | | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 | 39,000 | 54,600 | 61,500 | | | |
| Power input | Cooling kW | 0.094/0.100/0.106 | | | 0.109/0.102/0.096 | 0.096/0.102/0.109 | 0.180/0.195/0.210 | 0.312/0.327/0.342 | 0.308/0.325/0.341 | 0.341 | | | |
| | Heating kW | 0.082/0.088/0.094 | | | 0.097/0.090/0.084 | 0.084/0.090/0.097 | 0.168/0.183/0.198 | 0.300/0.315/0.330 | 0.296/0.313/0.329 | 0.329 | | | |
| Running amperes | Cooling A | 0.45/0.46/0.47 | | | 0.46/0.45/0.44 | 0.44/0.45/0.46 | 0.83/0.86/0.89 | 1.44/1.45/1.46 | 1.42/1.43/1.44 | 1.44 | | | |
| | Heating A | 0.40/0.41/0.42 | | | 0.41/0.40/0.39 | 0.39/0.40/0.41 | 0.78/0.81/0.84 | 1.39/1.40/1.41 | 1.36/1.37/1.38 | 1.38 | | | |
| Fan motor | Type | Sirocco fan | | | | | | | | | | | |
| | Airflow rate (H/M/L) m³/min | 10/8.5/7 | | | 12/10.5/9 | | | 18/15/13 | 30/26/21 | 33/30/25 | | | |
| | Output kW | 0.05 | | | 40(62) | | | 50(92) | 79(122) | 78(113) | | | |
| | External static pressure Pa | 49(69) | | | 50(92) | | | 78(113) | 78(113) | 78(113) | | | |
| Power sound level | (H/M/L) db(A) | 40/37/33 | | | 41/39/36 | | | 45/41/38 | 49/44/42 | 51/48/44 | | | |
| Pressure sound level | (H/M/L) db(A) | (32)/29/26/22 | | | (33)/30/28/25 | | | (38)/34/30/27 | (42)/38/33/31 | (44)/40/37/33 | | | |
| Dimensions | Height mm | 310 | | | | | | | | | | | |
| | Width mm | 700 | | | | | | | | | | | |
| | Depth mm | 630 | | | | | | | | | | | |
| Piping connections | Liquid (flare) mm | 6.35 | | | 9.52 | | | 1480 | | | | | |
| | Gas (flare) mm | 12.7 | | | 15.88 | | | VP-25 | | | | | |
| | Drain piping | VP-26 | | | | | | | | | | | |
| Net weight | kg | 24 | | | 25 | | | 32 | | | | | |
| The values in () for the external static pressure and operating sound are for use of booster cable. Data subject to change without notice. | | | | | | | | | | | | | |

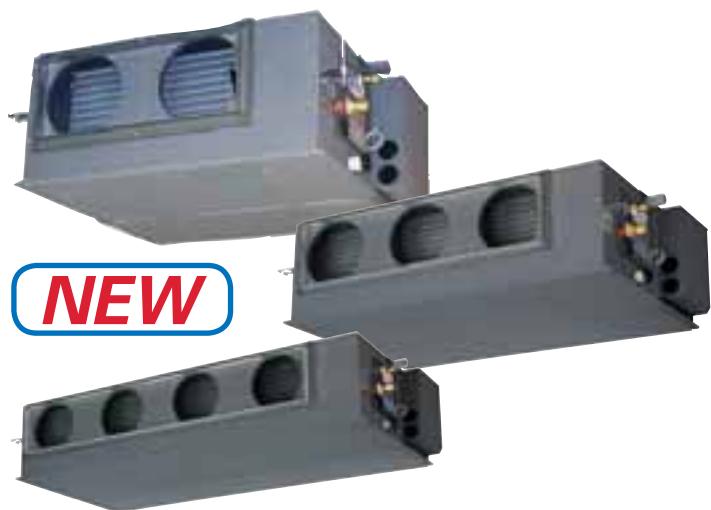
Rating Conditions: Cooling Indoor 27°C DB 19°C WB Outdoor 35°C DB 24°C WB Heating Indoor 20°C DB Outdoor 7°C DB 6°C WB

UR Type Concealed Duct

SPW-U075SXHT SPW-U095SXHT SPW-U125SXHT SPW-U165SXHT SPW-U185SXHT
SPW-U255SXHT SPW-U305SXHT SPW-U365SXHT SPW-U485SXHT SPW-U605SXHT

The new UR Type is designed specifically for applications requiring fixed square ducting. With internal filter and 10kW cooling capacity the UR Type is ideal for installations such as apartments.

- Lowest noise levels in the industry
- Anti-mould washable filters included



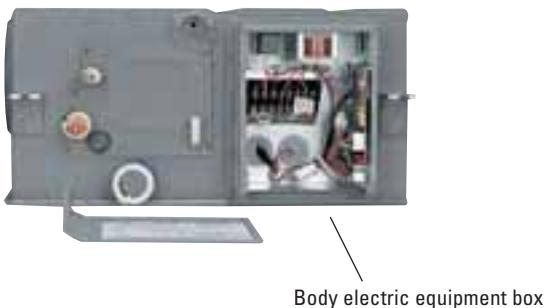
The static pressure outside the unit can be increased

By using the booster cable, the static pressure outside the unit can be increased.

| type | 7-9-12 | 16-18 | 25 | 36 | 46-60 |
|------------------------|--------|-------|----|-----|-------|
| standard | 49 | 40 | 50 | 79 | 78 |
| with booster cable use | 69 | 62 | 92 | 122 | 113 |

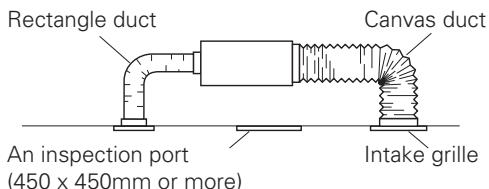
(Pa)

External electric equipment box makes maintenance easy



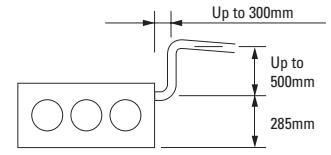
System example

An inspection port (450 x 450mm or more) is required at the lower side of the unit body.



Drain pump with increased power

By adoption of a high-lift drain pump, the drain piping rise height can be increased to 785 mm from the lower surface of the body.

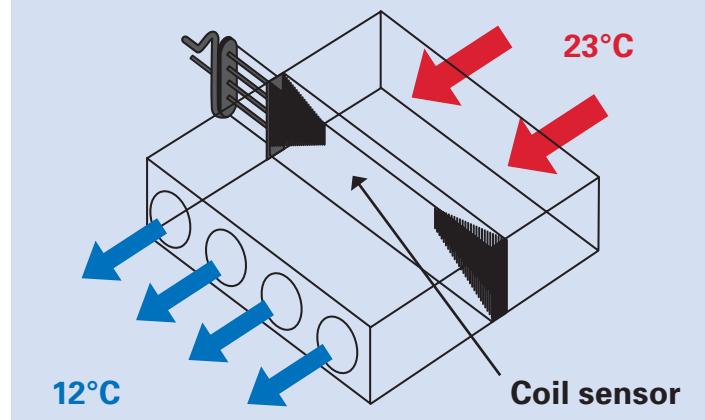


Unified body height of approximately 310mm for all models

Even models with different capacities can be installed smoothly in the ceiling.

7-22°C Air off temperature control as standard

- Able to control air off temperature
- Reduces cold drafts
- Accurate room temperature controls





Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Indoor unit specifications

| Model Name | | SPW-U075SXHT | SPW-U095SXHT | SPW-U125SXHT | SPW-U165SXHT | SPW-U185SXHT | SPW-U255SXHT | SPW-U305SXHT | SPW-U365SXHT | SPW-U485SXHT | SPW-U605SXHT | | |
|----------------------|-----------------------------|-------------------|--------------|-------------------|---------------|-------------------|--------------|-------------------|-------------------|-------------------|-------------------|--|--|
| Power source | | | | | | | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.3 | 9.0 | 10.6 | 14.0 | 16.0 | | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 25,000 | 30,000 | 36,000 | 47,800 | 54,600 | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 | 10.0 | 11.4 | 16.0 | 18.0 | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 | 34,000 | 39,000 | 54,600 | 61,400 | | |
| Power input | Cooling kW | 0.094/0.100/0.106 | | 0.109/0.102/0.096 | | 0.096/0.102/0.109 | | 0.180/0.195/0.210 | 0.312/0.327/0.342 | 0.308/0.325/0.341 | 0.308/0.325/0.341 | | |
| | Heating kW | 0.082/0.088/0.094 | | 0.097/0.090/0.084 | | 0.084/0.090/0.097 | | 0.168/0.183/0.198 | 0.300/0.315/0.330 | 0.296/0.313/0.329 | 0.296/0.313/0.329 | | |
| Running amperes | Cooling A | 0.45/0.46/0.47 | | 0.46/0.45/0.44 | | 0.44/0.45/0.46 | | 0.83/0.86/0.89 | 1.44/1.45/1.46 | 1.42/1.43/1.44 | 1.42/1.4/1.44 | | |
| | Heating A | 0.40/0.41/0.42 | | 0.41/0.40/0.39 | | 0.39/0.40/0.41 | | 0.78/0.81/0.84 | 1.39/1.40/1.41 | 1.36/1.37/1.38 | 1.36/1.37/1.38 | | |
| Fan motor | Type | Sirocco fan | | | | | | | | | | | |
| | Airflow rate (H/M/L) m³/min | 10/8.5/7 | | | 12/10.5/9 | | | 18/15/13 | 30/26/21 | 33/30/25 | 33/30/25 | | |
| | Output kW | 0.05 | | | | | | 0.07 | 0.14 | 0.14 | | | |
| | External static pressure Pa | 49(69) | | | 40(62) | | | 50(92) | 79(122) | 78(113) | 78(113) | | |
| Power sound level | (H/M/L) db(A) | 40/37/33 | | | 41/39/36 | | | 45/41/38 | 49/44/42 | 51/48/44 | 51/48/44 | | |
| Pressure sound level | (H/M/L) db(A) | (32)/29/26/22 | | | (33)/30/28/25 | | | (38)/34/30/27 | (42)/38/33/31 | (44)/40/37/33 | (44)/40/37/33 | | |
| Dimensions | Height mm | 310 | | | | | | | | | | | |
| | Width mm | 700 | | | | 1000 | | | | 1480 | | | |
| | Depth mm | 630 | | | | | | | | | | | |
| Piping connections | Liquid (flare) mm (inches) | 6.35 (1/4) | | | | 9.52 (3/8) | | | | | | | |
| | Gas (flare) mm (inches) | 12.7 (1/2) | | | | 15.88 (5/8) | | | | | | | |
| | Drain piping | VP-25 | | | | | | | | | | | |
| Net weight | kg | 24 | | 25 | | 32 | | 47 | | | | | |

Heating: Indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.

Data subject to change without notice.

FUR Type Floor/Ceiling Slim Concealed Duct

R410A

**SPW-FUR74EXH56B SPW-FUR94EXH56B SPW-FUR124EXH56B
SPW-FUR164EXH56B SPW-FUR184EXH56B SPW-FUR224EXH56B**

The slim duct fan coil is ideally suited to hotel bedrooms and small offices with its ultra slim profile. It is also flexible and can be used in both floor and ceiling installations.

- Ultra-slim profile: 190 mm for all models
- Suitable for horizontal and vertical installation
- Ideal for hotel applications or projects with very shallow ceilings
- Quiet operation: 29dB(A) at low speed (Class 7, 9, 12)
- Anti-mould washable filters included
- Easy maintenance and service through air suction port
- 3 speed centrifugal fan through wired or wireless remote controller



Controller Options

Timer remote controller



RCS-TM80BG

Wireless remote controller



RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Indoor unit specifications

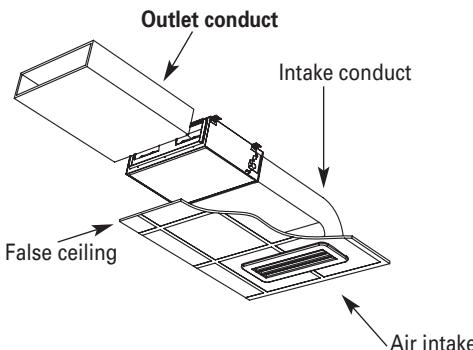
| Model Name | | SPW-FUR74EXH56B | SPW-FUR94EXH56B | SPW-FUR124EXH56B | SPW-FUR164EXH56B | SPW-FUR184EXH56B | SPW-FUR224EXH56B | | |
|------------------------------------|-----------------------------|------------------------------|-----------------|------------------|-------------------|------------------|-------------------|--|--|
| Power source | | 220/230/240V, 1 phase - 50Hz | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 6.4 | | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 22,000 | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 7.0 | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 24,000 | | |
| Power input | Cooling kW | 0.037/0.037/0.037 | | | 0.065/0.065/0.065 | | 0.088/0.088/0.088 | | |
| | Heating kW | 0.037/0.037/0.037 | | | 0.065/0.065/0.065 | | 0.088/0.088/0.088 | | |
| Running amperes | Cooling A | 0.17/0.17/0.17 | | | 0.29/0.29/0.29 | | 0.41/0.41/0.41 | | |
| | Heating A | 0.17/0.17/0.17 | | | 0.29/0.29/0.29 | | 0.41/0.41/0.41 | | |
| Fan motor | Type | Sirocco fan | | | | | | | |
| | Airflow rate (H/M/L) m³/min | 7.8/6.3/5.6 | | | 10.3/9/7.5 | | 11.3/10/8.7 | | |
| | Output kW | 0.04 | | | 0.07 | | 0.09 | | |
| | External static pressure Pa | 7.5 | | | 10 | | | | |
| Power sound level (H/M/L) db(A) | | 48/41/37 | | | 56/52/44 | | 60/56/51 | | |
| Pressure sound level (H/M/L) db(A) | | 37/30/26 | | | 45/41/33 | | 49/45/40 | | |
| Dimensions | Height mm | 190 | | | | | | | |
| | Width mm | 890 | | | | | | | |
| | Depth mm | 614 | | | | | | | |
| Piping connections | Liquid (flare) mm (inches) | 6.35 (1/4) | | | | | | | |
| | Gas (flare) mm (inches) | 12.7 (1/2) | | | | | | | |
| | Drain piping | VP-26 | | | | | | | |
| Net weight kg | | 25 | | | | | | | |

Data subject to change without notice.

**SPW-UMR74EXH56B SPW-UMR94EXH56B SPW-UMR124EXH56B
SPW-UMR164EXH56B SPW-UMR184EXH56B SPW-UMR224EXH56B**

The UMR ducted unit is suitable for areas where there is restricted ceiling void space and a demand for longer ductwork runs.

- Maximum depth 266mm
- Boost mode static pressure up to 70 pa
- Drain pump maximum lift 250mm
- Anti-mould and anti-bacteria washable filters
- Fresh air intake
- High static option



Controller Options



Timer remote controller



Wireless remote controller



Simplified remote controller

On the front and rear side of the unit a rectangular port (with flange) helps during duct mounting.

Indoor unit specifications

| Model Name | | SPW-UMR74EXH56B SPW-UMR94EXH56B SPW-UMR124EXH56B SPW-UMR164EXH56B SPW-UMR184EXH56B SPW-UMR224EXH56B | | | | | |
|------------------------------------|-----------------------------|---|--------|--------|-------------------|--------|-------------------|
| Power source | | 220/230/240V, 1 phase - 50 Hz | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 6.4 |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 22,000 |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 7.0 |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 24,000 |
| Power input | Cooling kW | 0.11/0.11/0.11 | | | 0.138/0.138/0.138 | | 0.136/0.136/0.136 |
| | Heating kW | 0.11/0.11/0.11 | | | 0.138/0.138/0.138 | | 0.136/0.136/0.136 |
| Running amperes | Cooling A | 0.45/0.45/0.45 | | | 0.60/0.60/0.60 | | 0.57/0.57/0.57 |
| | Heating A | 0.45/0.45/0.45 | | | 0.60/0.60/0.60 | | 0.57/0.57/0.57 |
| Fan motor | Type | Sirocco fan | | | | | |
| | Airflow rate (H/M/L) m³/min | 10/8.5/7.3 | | | 14.6/10/6.7 | | 16.7/11.7/10 |
| | Output kW | 0.11 | | | 0.14 | | |
| | External static pressure Pa | 49 (70) | | | | | |
| Power sound level (H/M/L) db(A) | | 54/52/49 | | | 54/47/42 | | 57/49/46 |
| Pressure sound level (H/M/L) db(A) | | 43/41/38 | | | 43/36/31 | | 46/38/35 |
| Dimensions | Height mm | 266 | | | | | |
| | Width mm | 852 | | | 1,058 | | |
| | Depth mm | 572 | | | | | |
| Piping connections | Liquid (flare) mm (inches) | 6.35 (1/4) | | | | | |
| | Gas (flare) mm (inches) | 12.7 (1/2) | | | | | |
| | Drain piping | VP-18 | | | | | |
| Net weight kg | | 30 | | | 35 | | |

The values in () for the external static pressure and operating sound are for use of booster cable.

Data subject to change without notice.

FTR Type Floor/Ceiling Mounted Unit

R410A

**SPW-FTR74EXH56B SPW-FTR94EXH56B SPW-FTR124EXH56B
SPW-FTR164EXH56B SPW-FTR184EXH56B SPW-FTR224EXH56B**

The FTR Type units offer the flexibility of floor or ceiling application without the need for further modification at installation stage.

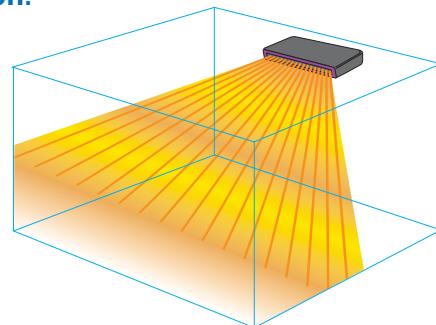
- 3 speed centrifugal fan
- Anti-mould and anti-bacterial washable filters
- Horizontal flap swinging or set on a fixed position
- Shallow design
- Easy to install



Controller Options



Further comfort improvement with airflow distribution.



Indoor unit specifications

| Model Name | | SPW-FTR74EXH56B | SPW-FTR94EXH56B | SPW-FTR124EXH56B | SPW-FTR164EXH56B | SPW-FTR184EXH56B | SPW-FTR224EXH56B | |
|----------------------|----------------|-----------------------------|-----------------|------------------|------------------|------------------|------------------|--|
| Power source | | 220/230/240V, 1 phase-50 Hz | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 6.4 | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 22,000 | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 7.0 | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 24,000 | |
| Power input | Cooling | kW | 0.65/0.65/0.65 | | | 0.88/0.88/0.88 | | |
| | Heating | kW | 0.65/0.65/0.65 | | | 0.88/0.88/0.88 | | |
| Running amperes | Cooling | A | 0.29/0.29/0.29 | | | 0.41/0.41/0.41 | | |
| | Heating | A | 0.29/0.29/0.29 | | | 0.41/0.41/0.41 | | |
| Fan motor | Type | | Sirocco fan | | | | | |
| | Airflow rate | (H/M/L) m³/min | 10.5/9/7.5 | | 12/10.8/9.7 | | 15/13.5/12 | |
| | Output | kW | 0.07 | | 0.09 | | | |
| Power sound level | | (H/M/L) db(A) | 60/54/49 | | 62/58/54 | | 63/60/57 | |
| Pressure sound level | | (H/M/L) db(A) | 49/43/38 | | 51/47/43 | | 52/49/46 | |
| Dimensions | Height | mm | | 680 | | | | |
| | Width | mm | | 900 | | | | |
| | Depth | mm | | 190 | | | | |
| Piping connections | Liquid (flare) | mm (inches) | | 6.35 (1/4) | | | | |
| | Gas (flare) | mm (inches) | | 12.7 (1/2) | | | | |
| | Drain piping | | | VP-26 | | | | |
| Net weight | | kg | | 23.5 | | | | |

Data subject to change without notice.

T Type Ceiling Mounted Unit

R410A

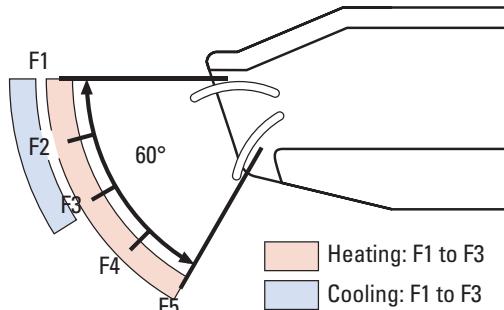
SPW-T125XH SPW-T165XH SPW-T185XH SPW-T225XH SPW-T365XH SPW-T485XH

The range of ceiling mounted systems feature a DC fan motor for increased efficiency and reduced operating sound levels. All the units are the same height and depth for a uniform appearance in mixed installations and feature a fresh air knockout for improved air quality.



- Low sound levels
- New design all units just 210mm high
- Large and wide air distribution
- Easy to install and maintain
- Fresh air knockout

Air distribution is automatically altered depending on the operational mode of the unit.



Controller Options

| Timer remote controller | Wireless remote controller | Simplified remote controller |
|-------------------------|----------------------------|------------------------------|
| | | |
| RCS-TM80BG | (Transmitter, common part) | RCS-BH80AG.WLB |
| | | RCS-KR1AGB |

Indoor unit specifications

| Model Name | | SPW-T125XH | SPW-T165XH | SPW-T185XH | SPW-T225XH | SPW-T365XH | SPW-T485XH |
|----------------------|----------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | | | | | | |
| Cooling capacity | kW | 3.6 | 4.5 | 5.6 | 7.3 | 10.6 | 14.0 |
| | BTU/h | 12,000 | 15,000 | 19,000 | 25,000 | 36,000 | 47,800 |
| Heating capacity | kW | 4.2 | 5.0 | 6.3 | 8.0 | 11.4 | 16.0 |
| | BTU/h | 14,000 | 17,000 | 21,000 | 27,000 | 39,000 | 54,600 |
| Power input | Cooling | kW | 0.028/0.029/0.029 | 0.039/0.029/0.028 | 0.031/0.032/0.032 | 0.043/0.043/0.044 | 0.073/0.074/0.075 |
| | Heating | kW | 0.028/0.029/0.029 | 0.029/0.029/0.028 | 0.031/0.032/0.032 | 0.042/0.042/0.043 | 0.072/0.073/0.074 |
| Running amperes | Cooling | A | 0.26/0.24/0.23 | 0.26/0.24/0.23 | 0.28/0.26/0.24 | 0.38/0.35/0.33 | 0.62/0.57/0.53 |
| | Heating | A | 0.26/0.24/0.23 | 0.26/0.24/0.23 | 0.28/0.26/0.25 | 0.38/0.35/0.34 | 0.62/0.57/0.55 |
| Fan motor | Type | | Sirocco fan | | | | |
| Airflow rate | (H/M/L) m³/min | 12/10/9.0 | 13/11/9.0 | | 18.5/15/14 | 27.5/23/20 | 30/26/22 |
| Output | kW | | 0.03 | | 0.04 | | 0.08 |
| Power sound level | (H/M/L) db(A) | 46/43/41 | 47/44/41 | | 49/47/44 | 52/49/46 | 54/51/48 |
| Pressure sound level | (H/M/L) db(A) | 35/32/30 | 36/33/30 | | 38/36/33 | 41/38/35 | 43/40/37 |
| Dimensions | Height | mm | 210 | | | | |
| | Width | mm | 910 | | | | |
| | Depth | mm | 680 | | | | |
| Piping connections | Liquid (flare) | mm | z6.35 | | | | |
| | Gas (flare) | mm | 12.7 | | | | |
| | Drain piping | | VP-20 | | | | |
| Net weight | kg | | 21 | | 25 | | 33 |

Data subject to change without notice.

K Type Wall Mounted Unit

SPW-K075XH SPW-K095XH SPW-K125XH

The new K Type wall mounted unit has a stylish smooth panel which not only looks good but is even easier to clean.

The unit is also smaller, lighter and substantially quieter than previous models making it ideal for small offices and other commercial applications.



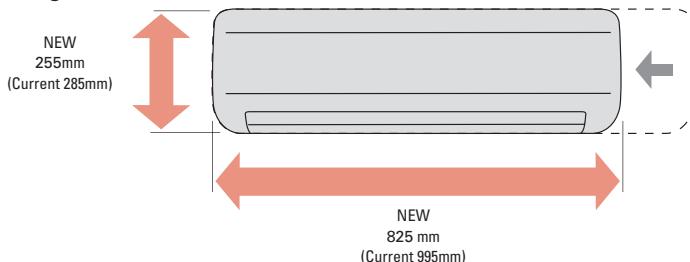
NEW

Closed discharge port

When the unit is turned off, the flap closes completely to prevent entry of dust into the unit and to keep the equipment clean.

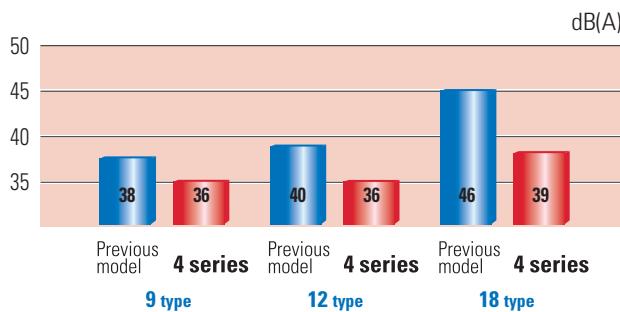
Lighter and smaller units make the installation easy

The width has been decreased by 17% and the units are lighter.



Quiet operation

These units are among the quietest in the industry, making them ideal for hotels and hospitals.



Smooth and hardwaring design

The smooth cover means these units match most modern interiors. Their compact size enables them to blend in, even in small spaces.

Washable front panel

The indoor unit's front panel can be easily removed and washed for trouble-free cleaning.

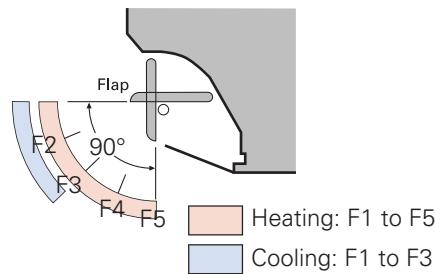


Piping outlet in three directions

Piping outlet is possible in the three directions of rear, right, and left, making the installation work easier.

Anti-mould filters are standard

Air distribution is automatically altered depending on the operational mode of the unit



Important

When an indoor unit is installed in a quiet place such as a hotel meeting room, bedroom or VIP room, the Electronic Expansion Valve may be noisy during cooling and heating operation.

In order to prevent the noise, an optional External Electronic Expansion Valve Kit (ATK-SVRK160AGB) can be installed in a narrow tube 5 to 15m away from the indoor unit.



Controller Options

Timer remote controller



RCS-SH1AGB

Wireless remote controller



RCS-SH1BG

RCS-BH80AG.WLB

Simplified remote controller



RCS-KR1AGB

Indoor unit specifications

| Indoor Unit | | SPW-K075XH | SPW-K095XH | SPW-K125XH |
|----------------------|-----------------------------|----------------------------------|-------------|-------------------|
| Power Source | | 220/230/240V, 1 phase - 50, 60Hz | | |
| Cooling capacity | kW | 2.20 | 2.80 | 3.60 |
| | BTU/h | 7,500 | 9,600 | 12,000 |
| Heating capacity | kW | 2.50 | 3.20 | 4.20 |
| | BTU/h | 8,500 | 11,000 | 14,000 |
| Power input | Cooling kW | 0.018/0.019/0.019 | | 0.021/0.022/0.023 |
| | Heating kW | 0.019/0.019/0.020 | | 0.022/0.023/0.023 |
| Running amperes | Cooling A | 0.16/0.16/0.16 | | 0.19/0.19/0.20 |
| | Heating A | 0.17/0.17/0.18 | | 0.20/0.20/0.20 |
| Power sound level | (H/M/L) dB(A) | 46/43/39 | | 48/44/40 |
| Sound pressure level | (H/M/L) dB(A) | 35/32/28 | | 37/33/29 |
| Fan motor | Type | Cross flow fan | | |
| | Airflow rate (H/M/L) m³/min | 9/7.5/6 | | 10/8.5/6.5 |
| | Output kW | 0.047 | | |
| Air circulation | (H/M/L) m³/hr | 540/450/360 | 540/450/360 | 600/510/390 |
| Dimensions | (HxWxD) mm | 285x825x217 | 285x825x217 | 285x825x217 |
| Piping connections | Liquid (flare) | mm (inches) | 6.35 (1/4) | |
| | Gas (flare) | mm (inches) | 12.7 (1/2) | |
| | Drain piping | | VP-13 | |
| Net weight | kg | | 10 | |

KR Type Wall Mounted Unit

R410A

**SPW-KR74GXH56B SPW-KR94GXH56B SPW-KR124GXH56B
SPW-KR164GXH56B SPW-KR184GXH56B SPW-KR254GXH56B**

The slim line designed KR Type Wall Mounted is small and light, making it ideal for commercial applications. It is also available in a wide variety of capacities.

- Lighter and small units make the installation easy
- Quiet design
- Smart colour and round-shape design with horizontal stripes
- Piping outlet in 3 directions
- Anti-mould filters are standard equipment
- Washable front panel
- Optional external electronic expansion valve kit ATK-SURK160AGB prevent noise in quiet rooms and bed rooms



Washable front panel

The indoor unit's front panel can be easily removed and washed for trouble-free cleaning.



Controller Options



Important

When an indoor unit is installed in a quiet place such as a hotel meeting room, bedroom or VIP room, the Electronic Expansion Valve may be noisy during cooling and heating operation.

In order to prevent the noise, an optional External Electronic Expansion Valve Kit (ATK-SVRK160AGB) can be installed in a narrow tube 5 to 15m away from the indoor unit.

Indoor unit specifications

| Model Name | | SPW-KR74GXH56B | SPW-KR94GXH56B | SPW-KR124GXH56B | SPW-KR164GXH56B | SPW-KR184GXH56B | SPW-KR254GXH56B | | |
|----------------------|----------------|-----------------------------|-------------------|-----------------|-----------------|-----------------|-------------------|--|--|
| Power source | | | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.3 | | |
| | BTU/h | 7,500 | 9,600 | 12,000 | 15,000 | 19,000 | 25,000 | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 | | |
| Power input | Cooling | kW | 0.031/0.033/0.035 | | | | 0.049/0.052/0.055 | | |
| | Heating | kW | 0.031/0.033/0.035 | | | | 0.049/0.052/0.055 | | |
| Running amperes | Cooling | A | 0.15/0.15/0.15 | | | | 0.23/0.23/0.24 | | |
| | Heating | A | 0.15/0.15/0.15 | | | | 0.23/0.23/0.24 | | |
| Fan motor | Type | Cross flow fan | | | | | | | |
| | Airflow rate | (H/M/L) m ³ /min | 10/8/6.0 | | 12/10/8.0 | | 16/14/10 | | |
| | Output | kW | 0.011 | | 0.015 | | 0.023 | | |
| Power sound level | (H/M/L) db(A) | | 47/43/39 | | | | 53/49/46 | | |
| Pressure sound level | (H/M/L) db(A) | | 36/32/28 | | | | 42/35/38 | | |
| Dimensions | Height | mm | 285 | | | | 330 | | |
| | Width | mm | 995 | | | | 1140 | | |
| | Depth | mm | 203 | | | | 228 | | |
| Piping connections | Liquid (flare) | mm | 6.35 | | | | 9.52 | | |
| | Gas (flare) | mm | 12.7 | | | | 15.88 | | |
| | Drain piping | | VP-13 | | | | | | |
| Net weight | kg | | 14 | | | | 21 | | |

Data subject to change without notice.

FR Type Floor Standing Unit

R410A

**SPW-FR74GXH56B SPW-FR94GXH56B SPW-FR124GXH56B
SPW-FR164GXH56B SPW-FR184GXH56B SPW-FR254GXH56B**

The compact floor mounted FR range of units, at 230mm deep, are the ideal solution for providing perimeter air conditioning. The standard wired controller can be incorporated into the body of the unit.

- Front panel opens fully for easy maintenance
- Removable air discharge grille gives flexible air flow
- Pipes can be connected to either side of the unit from the bottom or rear
- Easy to install
- Room for condensate pump



A standard wired remote control can be installed in the body.

Controller Options



Simplified remote controller
RCS-KR1AGB

Indoor unit specifications

| Model Name | | SPW-FR74GXH56B | SPW-FR94GXH56B | SPW-FR124GXH56B | SPW-FR164GXH56B | SPW-FR184GXH56B | SPW-FR254GXH56B | | | |
|------------------------------------|-----------------------------|-------------------|----------------|-------------------|-------------------|-------------------|-------------------|--|--|--|
| Power source | | | | | | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.1 | | | |
| | BTU/h | 7,500 | 9,800 | 12,000 | 15,000 | 19,000 | 24,000 | | | |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 | | | |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 | | | |
| Power input | Cooling kW | 0.051/0.056/0.061 | | 0.079/0.085/0.091 | 0.136/0.126/0.116 | 0.116/0.126/0.136 | 0.150/0.160/0.170 | | | |
| | Heating kW | 0.036/0.040/0.045 | | 0.064/0.070/0.076 | 0.101/0.091/0.079 | 0.079/0.091/0.101 | 0.110/0.120/0.130 | | | |
| Running amperes | Cooling A | 0.24/0.25/0.26 | | 0.37/0.38/0.39 | 0.58/0.56/0.54 | 0.54/0.56/0.58 | 0.70/0.72/0.73 | | | |
| | Heating A | 0.17/0.18/0.19 | | 0.30/0.31/0.32 | 0.43/0.41/0.37 | 0.37/0.41/0.43 | 0.52/0.54/0.56 | | | |
| Fan motor | Type | Sirocco fan | | | | | | | | |
| | Airflow rate (H/M/L) m³/min | 7/6/5.0 | | 9/7/6.0 | 12/9/8.0 | 15/13/11 | 17/14/12 | | | |
| | Output kW | 0.01 | | 0.02 | 0.02 | 0.03 | 0.06 | | | |
| Power sound level (H/M/L) dB(A) | | 44/41/39 | | 50/46/40 | 49/46/42 | 50/47/42 | 52/49/46 | | | |
| Pressure sound level (H/M/L) dB(A) | | 33/30/28 | | 39/35/29 | 38/35/31 | 39/36/31 | 41/38/35 | | | |
| Dimensions | (HxWxD) mm | 615x1065x230 | | | 615x1380x230 | | | | | |
| Piping connections | Liquid (flare) mm | 6.35 | | | | | | | | |
| | Gas (flare) mm | 12.7 | | | | | | | | |
| | Drain piping | VP-20 | | | | | | | | |
| Net weight kg | | 29 | | 39 | | | | | | |

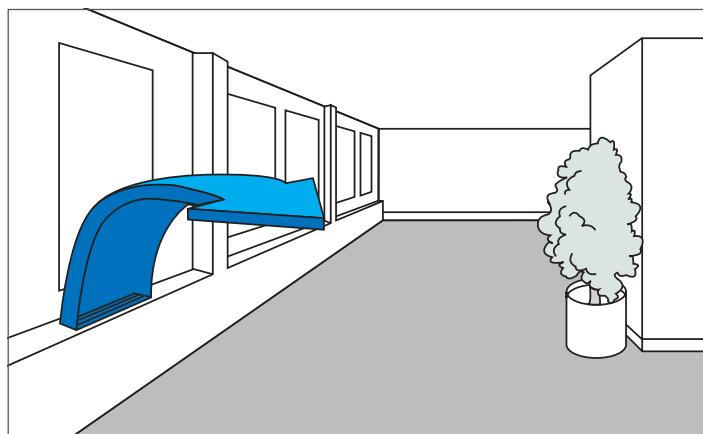
FMR Type Concealed Floor Standing Unit

R410A

**SPW-FMR74GXH56B SPW-FMR94GXH56B SPW-FMR124GXH56B
SPW-FMR164GXH56B SPW-FMR184GXH56B SPW-FMR254GXH56B**

At just 229mm deep, the FMR unit can be easily concealed in perimeter areas to provide powerful and effective air conditioning.

- Chassis unit for discrete installation
- Complete with removable filters
- Pipes can be connected to either side of the unit from the bottom or rear
- Easy to install



Controller Options



Timer remote controller



Wireless remote controller



Simplified remote controller

| Model Name | | SPW-FMR74GXH56B | SPW-FMR94GXH56B | SPW-FMR124GXH56B | SPW-FMR164GXH56B | SPW-FMR184GXH56B | SPW-FMR254GXH56B |
|----------------------|----------------|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Power source | | 220/230/240 1 phase - 50, 60 Hz | | | | | |
| Cooling capacity | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.1 |
| | BTU/h | 7,500 | 9,800 | 12,000 | 15,000 | 19,000 | 24,000 |
| Heating capacity | kW | 2.5 | 3.2 | 4.2 | 5.0 | 6.3 | 8.0 |
| | BTU/h | 8,500 | 11,000 | 14,000 | 17,000 | 21,000 | 27,000 |
| Power input | Cooling | kW | 0.051/0.056/0.061 | 0.079/0.085/0.091 | 0.136/0.126/0.116 | 0.116/0.126/0.136 | 0.150/0.160/0.170 |
| | Heating | kW | 0.036/0.040/0.045 | 0.064/0.070/0.076 | 0.101/0.091/0.079 | 0.079/0.091/0.101 | 0.110/0.120/0.130 |
| Running amperes | Cooling | A | 0.24/0.25/0.26 | 0.37/0.38/0.39 | 0.58/0.56/0.54 | 0.54/0.56/0.58 | 0.70/0.72/0.73 |
| | Heating | A | 0.17/0.18/0.19 | 0.30/0.31/0.32 | 0.43/0.41/0.37 | 0.37/0.41/0.43 | 0.52/0.54/0.56 |
| | | Type | Sirocco fan | | | | |
| Fan motor | Airflow rate | (H/M/L) m³/min | 7/6/5.0 | 9/7/6.0 | 12/9/8.0 | 15/13/11 | 17/14/12 |
| | Output | kW | 0.01 | 0.02 | 0.02 | 0.03 | 0.06 |
| Power sound level | (H/M/L) db(A) | | 44/41/39 | 50/46/40 | 49/46/42 | 49/46/42 | 52/49/46 |
| Pressure sound level | (H/M/L) db(A) | | 33/30/28 | 39/35/29 | 38/35/31 | 39/36/31 | 41/38/35 |
| Dimensions | (HxDxW) mm | | 616x904x229 | 616x1219x229 | | | |
| Piping connections | Liquid (flare) | mm | | 6.35 | | | 9.52 |
| | Gas (flare) | mm | | 12.7 | | | 15.88 |
| | Drain piping | | | VP-20 | | | |
| | Net weight | kg | 21 | | | 28 | |

GU Type Total Heat Exchanger

R410A

SPW-GU055XH SPW-GU075XH SPW-GU105XH

SANYO's new heat recovery ventilation system allows total control via a system network whilst modulating the temperature and humidity of incoming air supply.

- Integration of heat recovery ventilation and DX coil technology for optimum air temperature control
- The DX coil can be connected to all ECO & GHP outdoor units
- Humidifying function available as an option
- Easy to clean filter
- Compact design
- Humidifier & filter option
- 3 Way: Solenoid valve kit is required for each unit.
- 2 Way: RAP kit is required for each unit.



Controller Options

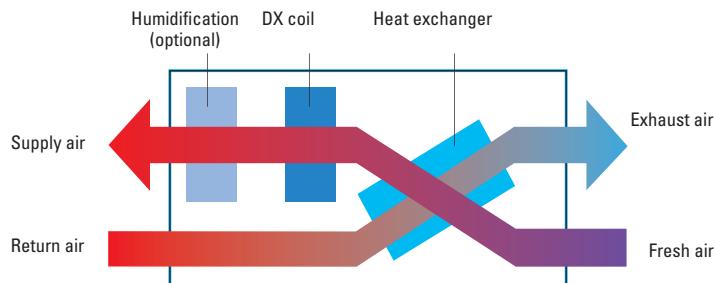


RCS-TM80BG

RCS-BH80AG.WLB

RCS-KR1AGB

Installation example



Indoor unit specifications

| Model Name | | SPW-GU055XH | SPW-GU075XH | SPW-GU105XH |
|-----------------------------------|--|-------------------------------|----------------------------|----------------------------|
| Air circulation (H) m³/h | | 500 | 750 | 1,000 |
| Power source | | 220/230/240V, 1 phase - 50 Hz | | |
| Fresh air load treatment capacity | Cooling kW | 5.3 (1.7)*1 | 8.2 (2.6)*1 | 10.7 (3.4)*1 |
| | Heating kW | 6.5 (2.3)*1 | 9.8 (3.5)*1 | 12.6 (4.6)*1 |
| Enthalpy Exchange Efficiency | Cooling % | | 59 | |
| | Heating % | | 67 | |
| Temp exchange efficiency | | 75 | | |
| Equivalent cooling capacity | | kW 3.6 | 5.6 | 7.3 |
| | | BTU/h 12,000 | 19,000 | 25,000 |
| Power input | Cooling kW | 0.532/0.532/0.532 | 0.737/0.737/0.737 | 0.798/0.798/0.798 |
| | Heating kW | 0.532/0.532/0.532 | 0.737/0.737/0.737 | 0.798/0.798/0.798 |
| Running amperes | Cooling A | 2.4/2.4/2.4 | 3.2/3.2/3.2 | 3.5/3.5/3.5 |
| | Heating A | 2.4/2.4/2.4 | 3.2/3.2/3.2 | 3.5/3.5/3.5 |
| Fan motor | Type | Sirocco fan | | |
| | External static pressure-return air Pa | 183 (170) | 221 (188) | 135 (88) |
| | External static pressure-supply air Pa | 205 (182) | 264 (218) | 176 (137) |
| | Output kW | 0.28 (4P)x2 | 0.35 (4P)x2 | |
| Power sound level (C/H) | | 57 (Cooling), 58 (Heating) | 58 (Cooling), 59 (Heating) | 59 (Cooling), 60 (Heating) |
| Pressure sound level (C/H) | | 46 (Cooling), 47 (Heating) | 47 (Cooling), 48 (Heating) | 48 (Cooling), 49 (Heating) |
| Dimensions | Height mm | 425 | 450 | |
| | Width mm | 1785 | 1903 | |
| | Depth mm | 1000 | 1120 | 1220 |
| Piping connections | Liquid (flare) mm (inches) | 6.35 (1/4) | | |
| | Gas (flare) mm (inches) | 12.7 (1/2) | | |
| | Drain piping | VP-25 | | |
| Connection duct diameter | mm | 250 | 300 | |
| Net weight | kg | 134 | 153 | 168 |

The values in () for the external static pressure and operating sound are for use of booster cable. *1: Heat recovery capacity by heat exchanger. Data subject to change without notice.

Individual Control Systems Overview

A wide variety of control options to meet the requirements of different customers.

| Operation system | Individual control systems | | | Timer operation |
|--|---|---|---|---|
| Requirements | Normal operation | Operation from each seat | Simple operation | Daily and weekly program |
| External appearance |  |  |  |  |
| Type, model name | Timer wired remote controller RCS-TM80BG | Wireless remote controller RCS-SH80BG.WL RCS-TH80BG.WL RCS-BH80AG.WL RCS-TRP80BG.WL RCS-SH1BG | Simplified remote controller RCS-KR1AGB | Schedule timer SHA-TM64AGB |
| Number of indoor units which can be controlled | 1 group, 8 units | 1 group, 8 units | 1 group, 8 units | 64 groups, max. 64 units |
| Use limitations | Up to 2 units can be connected per group. | Up to 2 units can be connected per group. | Up to 2 units can be connected per group. | Power supply from the system controller. When there is no system controller, connection is possible to the T10 terminal of an indoor unit. |
| Connectable indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit |
| Function | | | | |
| ON/OFF | ● | ● | ● | - |
| Mode setting | ● | ● | ● | - |
| Fan speed setting | ● | ● | ● | - |
| Temperature setting | ● | ● | ● | - |
| Air flow direction | ● ^{*1} | ● ^{*1} | ● ^{*1} | - |
| Permit/Prohibit switching | - | - | - | - |
| Weekly program | ● | - | - | ● |
| Page | 110 | 110 | 111 | 111 |

*1 Setting is not possible when a remote control unit is present. (Use the remote control for setting.)

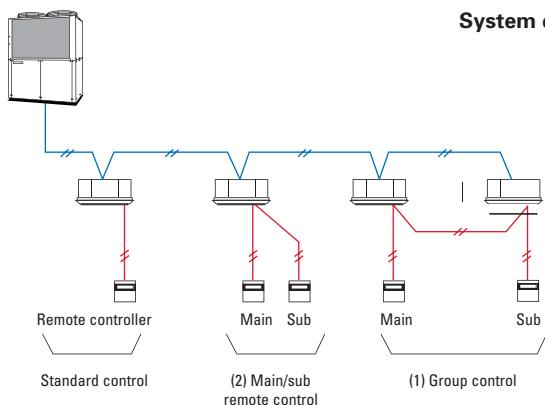
Centralised Control Systems Overview

R410A

| Centralised control systems | | | | |
|--|--|--|--|--|
| | Operation with various function from central station | Only ON/OFF operation from central station | Simplified charge ratio for each tenant | |
| External appearance | | | | |
| Type, model name | System controller SHA-KC64AGB | ON/OFF controller SHA-KC16KAGB | Intelligent controller SHA-KT256EG | Communication adaptor SHA-KA128AGB |
| Number of indoor units which can be controlled | 64 groups, max. 64 units | 16 groups, max. 64 units | 64 units x 4 networks, max. 256 units | 2 systems, max. 128 units |
| Use limitations | Up to 10 units, can be connected to one system. Main unit/sub unit (1 main unit + 1 sub unit) connection is possible. Use without remote controller is possible. | Up to 8 units (4 main units + 4 sub units) can be connected to one system. Use without remote controller is impossible. | A communication adaptor (SHA-KA128AGB) must be installed for three or more networks. | Maximum 500 indoor units (128 per communication adaptor) |
| Connectable indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit |
| Function | | | | |
| ON/OFF | • | • | • | • |
| Mode setting | • | - | • | • |
| Fan speed setting | • | - | • | • |
| Temperature setting | • | - | • | • |
| Air flow direction | *1 • | - | • *1 | • *1 |
| Permit/prohibit switching | • | • | • | • |
| Weekly program | | - | • | • |
| | 112 | 114 | 113 | 113 |

Individual Control Systems

Remote controller (Wired remote controller/Wireless remote controller)



| Control contents | Part name, model No. | Quantity |
|--|---|-------------|
| Standard Control <ul style="list-style-type: none"> Control of the various operations of the indoor unit by wired or wireless remote controller. Cooling or heating mode of the outdoor unit is decided by the first priority of the remote controller. Switching between remote controller sensor and body sensor is possible. | Timer remote controller RCS-TM80BG Wireless remote controller RCS-SH80BG.WL RCS-SS80BG.WL RCS-BH80BG.WL RCS-TRP80BG.WL RCS-SH1BG | 1 unit each |
| (1) Group control <ul style="list-style-type: none"> Batch remote control on all indoor units. Operation of all indoor cells in the same mode. Up to 8 units can be connected. The sensor is the body sensor, and thermostat ON/OFF setting in regard to the temperature set by the remote controller is possible for each indoor unit. | Timer remote controller RCS-TM80BG | 1 unit |
| (2) Main/sub remote control <ul style="list-style-type: none"> Max 2 remote controllers per indoor unit. (Main remote controller can be connected) The button pressed last has priority. Timer setting is possible even with the sub remote controller. | Main or sub Timer remote controller RCS-TM80BG Wireless remote controller RCS-XM18BG.WL RCS-SH80BG.WL RCS-SS80BG.WL RCS-BH80BG.WL RCS-TRP80BG.WL RCS-SH1BG | As required |

Timer remote controller (RCS-TM80BG)



(Dimensions: H 120 x W 120 x D 16 mm)

• Basic remote controller ON/OFF

- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan)
- Temperature setting (Cooling/Dry: 18-30 deg Heating: 16-30 deg)
- Air volume adjustment (HH, H, LL, Auto).
- Air flow direction adjustment

• Time Function

- 24 hours real time clock
- Day of the week indicator

• Weekly Programme Function

A maximum of 6 actions can be programmed for each day

• Outing Function

- This function can prevent the room temperature from dropping or rising when the occupants are out for a long time

• Sleeping Function

- This function controls the room temperature for comfortable sleeping.
- Max. 8 indoor units can be controlled from one remote controller.**
- Remote control by main remote controller and sub controller is possible**

Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit

• Ventilation independent operation is possible

When commercial ventilation fans or heat-exchange ventilation fans have been installed, they can be operated with this remote control (interlocked operation with the indoor unit or independent ventilation ON/OFF)

• Easy installation for the 4-way cassette type simply by replacing the corner part

• 24 hour timer function

• Remote control by main remote controller and sub controller is possible

- Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit
- Do not perform group control for 3 Series indoor units and 4 Series indoor units together**

• When RCS-BH80BG.WL is used, wireless control becomes possible for all indoor units

- When a separate receiver is set up in a different room, control from that room also becomes possible
- Automatic operation by means of the emergency operation button is possible even when the remote controller has been lost or the batteries have been exhausted

• In addition, there are other functions such as temperature setting, operation switching, wind direction/fan speed setting, etc

Wireless remote controller



XM Type
RCS-XM18BG.WL



X Type
RCS-SH80BG.WL



XMR, SR, FTR Types
RCS-SS80BG.WL



ADR, T, LDR Types
RCS-TRP90BG.WL



K Type
RCS-SH1BG



For all indoor units
RCS-BH80BG.WL

Simplified remote controller (RCS-KR1AGB)



(Dimensions: H 120 x W 70 x D 16 mm)

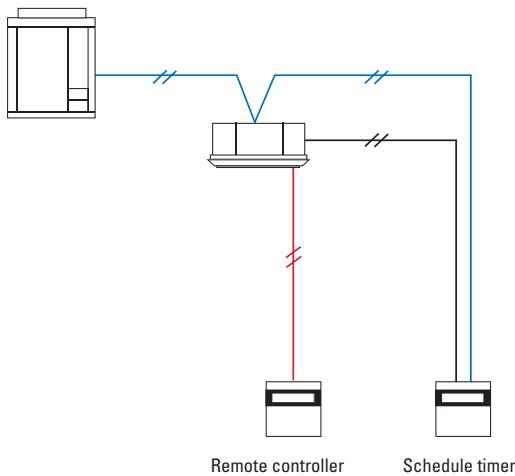
Schedule timer (RCS-TM64AGB)



(Dimensions: H 120 x W 120 x D 16 mm)

- * The power supply for the schedule timer is taken from one of the following
 - 1 Control circuit board (T10) of a nearby indoor unit (power supply wiring length: within 200 m from the indoor unit)
 - 2 System controller (power supply wiring length: within 100 m from the indoor unit)
- * When the power supply for the schedule timer is taken from the control circuit board of the indoor unit, that indoor unit cannot be used with other control devices using the T10 terminal.

Connection example 1 (power supply from the indoor unit)



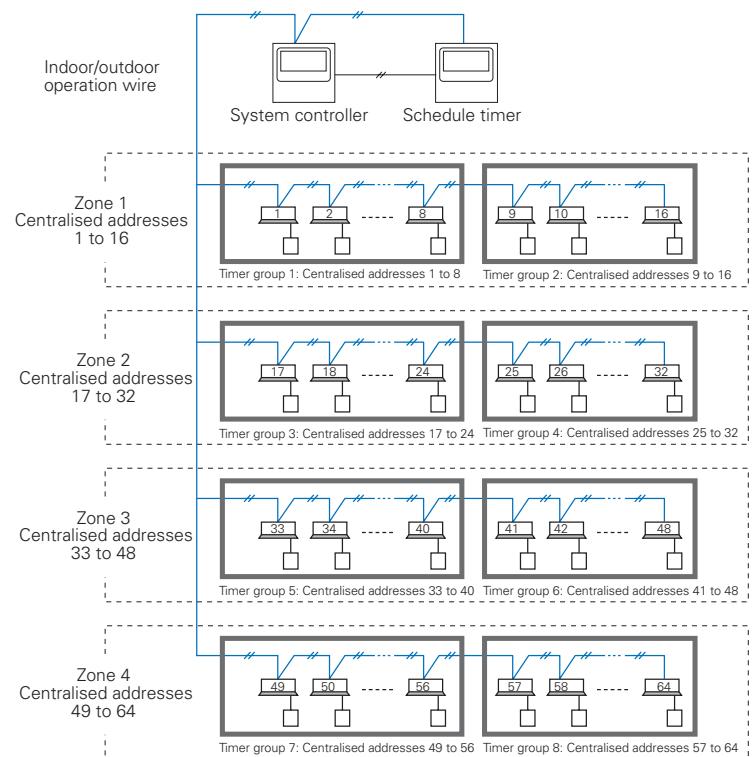
• A remote controller with simple functions and basic operation.

- Suitable for open rooms or hotels where detailed functions are not required.
- ON/OFF, operation mode switching, temperature setting, wind velocity switching, wind direction setting, alarm display, and remote controller self-diagnosis can be performed.
- Batch group control for up to 8 indoor units.
- Remote control by main remote controller and sub controller is possible with a simplified remote controller or a wired remote controller (up to two units).

* As operation mode and temperature settings are not possible with the schedule timer, it must be used together with a remote controller, a system controller, an intelligent controller, etc. Also, as it does not have an address setting function, the control function of a system controller etc. must be used for address setting

- Up to 64 groups (max. 64 indoor units) can be controlled divided into 8 timer groups
- Six program operations (Operation/Stop/Local permission/Local prohibition) per day can be set in a program for one week
 - Only operation or stop, remote controller local permission or remote controller local prohibition, and their respective combinations are possible. (Operation + local permission, stop + local prohibition, only local permission, etc.)
 - Local prohibition and the combination of the three items of temperature setting, mode change, and operation/stop can be set at the time of installation
- A function for pausing the timer in case of national holidays has been added, and timer operation also can be stopped for a long time
 - By setting holidays or operation stop within one week, the timer can be paused just for that week.
 - All timer settings can be stopped with the timer "ON/OFF effective" button. (Return to timer operation is made by pressing the button again.)

Connection example 2 (power supply from the central controller)



Convenient System Control

System controller (SHA-KC64AGB)



(Dimensions: H 160 x W 160 x D 21 + 69 (embedding dimension) mm)

- * Power supply AC 220 to 240 V
- * I/O part Remote input (effective voltage: DC 24 V):
All ON/All OFF
Remote output (voltage-free contact):
All ON/All OFF
(external Power supply within DC 30 V)

* Total wiring length 1km

- A control mode corresponding to the use condition can be selected from 10 patterns

A Operation mode: Central control mode or remote control mode can be selected

Central control mode: The system controller is used as centralised control device. (Setting from a remote controller can be prohibited by prohibiting local operation from the system controller.)

Remote control mode: The system controller is used as a remote controller. (Setting from the system controller can be prohibited by prohibiting local operation from another central control unit.)

B Controlled unit number mode: All mode or zone 1, 2, 3, 4 mode can be selected

All mode: All, zone, or group unit can be selected. Zone 1, 2, 3, 4 mode: Setting is possible only for the indoor units of zone 1, 2, 3, or 4

| B Controlled unit number mode | A Operation mode | |
|-------------------------------|--------------------------------------|-------------------------------------|
| | Central control mode | Remote control mode |
| All mode | All central control *Example | All remote control |
| Zone 1 mode | Zone 1 central control *Example 2 | Zone 1 remote control |
| Zone 2 mode | Zone 2 central control | Zone 2 remote control *Example 3 |
| Zone 3 mode | Zone 3 central control *Example 4 | Zone 3 remote control |
| Zone 4 mode | Zone 4 central control | Zone 4 remote control *Example 5 |

- Individual control is possible for max. 64 groups, 64 indoor units.

Control of 64 indoor units divided into 4 zones. (One zone can have up to 16 groups, and one group can have up to 8 units.)

Control is possible for ON/OFF, operation mode, fan speed, air flow direction (only when used without a remote controller), operation monitoring, alarm monitoring, ventilation, remote controller local operation prohibition, etc

Individual All operations are possible also from the remote controller. However, the contents will be changed to the contents of the controller operated last

Central: 1 The remote controller cannot be used for ON/OFF.

Central: 3 The remote controller cannot be used for mode change or temperature setting change. (All other operations are possible from the remote controller.)

Central: 4 The remote controller cannot be used for operation mode change. (All other operations are possible from the remote controller.)

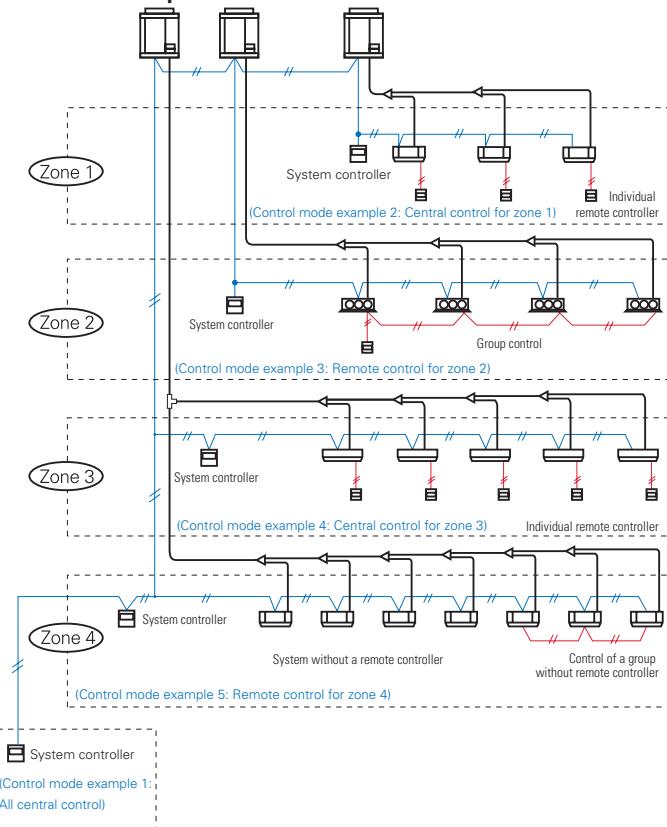
- Joint use with a remote controller, an intelligent controller, a schedule timer, etc. is possible

(The maximum number of connectable system controllers is 10, including other central controllers on the same circuit.)

(In case of joint use with a wireless remote controller, there are limitations for the control mode. Please use only with "Individual" and "Central 1".)

- Control of systems without a remote controller and of main/sub systems (a total of up to 2 units) is possible

Connection example



Intelligent controller (SHA-KT256EG)



Touch panel

(Dimensions: H 240 x W 280 x D 138 mm)

- * Power supply AC 100 to 240 V (50 Hz), 20 W (separate power supply)
- * I/O part Remote input (voltage-free contact): All ON/OFF
Remote output (voltage-free contact): All ON, All alarm (external power supply within DC 30 V)
- * Total wiring length 1 km for each system
- * Only for embedding in the panel

• Limitation contents for prohibited operation

Prohibition means limitation of the operation contents from the remote controller. It is also possible to change the prohibition items.

Limitation contents

- | | |
|-----------------------|--|
| Individual | There is no limitation for the operation of the remote controller. However, the contents will be changed to the contents of the controller operated last. (Last-pressed priority.) |
| Prohibition: 1 | The remote controller cannot be used for ON/OFF. (All other operations are possible from the remote controller.) |
| Prohibition: 2 | The remote controller cannot be used for ON/OFF, operation mode change and temperature setting. (All other operations are possible from the remote controller.) |
| Prohibition: 3 | The remote controller cannot be used for operation mode change and temperature setting. (All other operations are possible from the remote controller.) |
| Prohibition: 4 | The remote controller cannot be used for operation mode change. (All other operations are possible from the remote controller.) |

Note: Avoid joint use of the AMY system and the intelligent controller on the same indoor/outdoor operation line

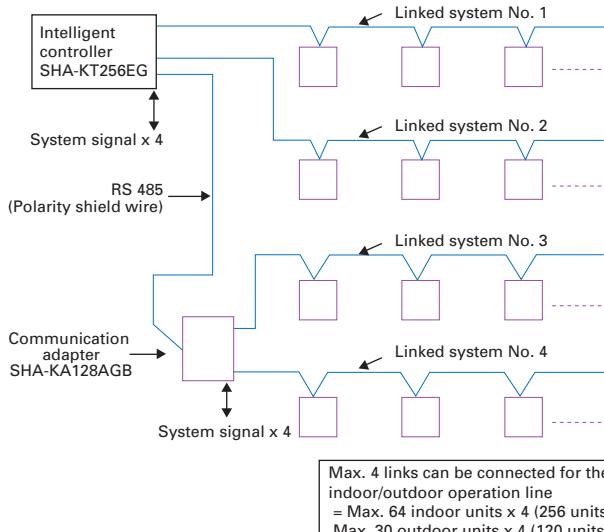
- Max. 256 indoor units (4 systems x 64 units) can be controlled. In case of three or more systems, a communication adapter SHA-KA128AG must be installed on the outside
- Operation is possible as batch, in zone units, in tenant units and in group units
- ON/OFF, operation mode setting, temperature setting, for fan speed setting, air flow direction setting (when used without a remote controller), and remote controller local operation prohibition (prohibition 1, 2, 3, 4) can be done
- A system without a remote controller is possible. Joint use with a remote controller or a system controller is also possible
- Use of a schedule timer and holiday setting also can be done
- Proportional distribution of the air-conditioning energy is possible
- NEW function: Pulse signal input from electric/gas consumption meter

*In case of joint use with a wireless remote control system, there are limitations for the control mode. Please use only with "Permission" and "Prohibition 1"



Web application

*Display sample



Communication adaptor (SHA-KA128AGB)



(Dimensions: H 260 x W 200 x D 68 mm)

*Power supply: AC 100 to 240 V (50 Hz),
3 W (separate power supply)

For more information on how to connect please see installation manual.

- Required to connect three or more linked wiring systems (indoor/outdoor operation lines) to the intelligent controller
- Also required for connection of the AMY software
- Two linked wiring systems can be connected to one SHA-KA128AG, but max. 4 systems can be connected for the entire intelligent controllers

*As this is not a splash-proof design, it must be installed indoors or in the control panel etc

Convenient System Control continued

Seri-Para I/O unit (ACC-SP16TAGB)



Input

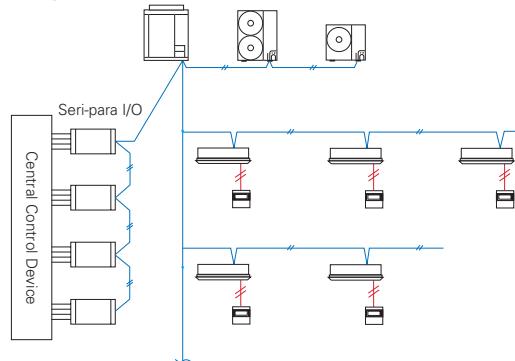
- ON/OFF (Pulse DC24V)
- Local prohibit (Continuous DC24V)
- Temp setting (Analog DC1~5V)
- All ON/OFF (Pulse DC24V)
- All local prohibit & emergency stop (Continuous DC24V)

Output

- On/Alarm/Answer back/Filter sign
- Room temp (Analog DC4-20mA)
- All ON/OFF

- This is the interface for connecting signals from the central control device with the SANYO air conditioner unit control network
- This unit can control and monitor the status up to 16 groups of indoor units (max 64 indoor units)
- Up to 4 seri-para units can be connected in one system
- From the central control device, it is possible to set the temperature and to monitor the room temperature or intake air temperature

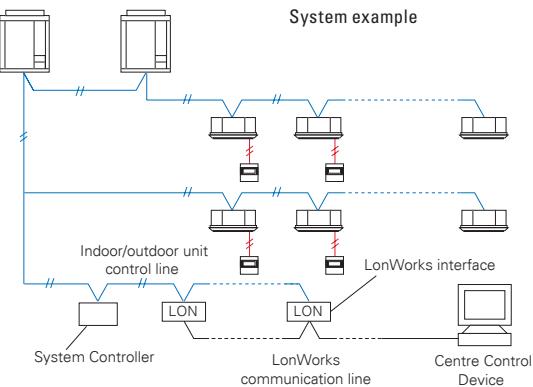
System example



LonWorks interface (SHA-LN16UGB)



System example



- This interface is a communications converter for connecting LonWorks to the SANYO air conditioner unit (PAC, ECOi, GHP) control network
- From the host connected to LonWorks, basic settings and status monitoring is possible for up to 16 groups of A/C units

Functions

| A/C unit settings from the LonWorks communicator | Settings for each group of indoor units | Start/stop Temp. setting Operation mode Option 1 settings(*) Option 2 settings(*) Emergency stop |
|--|---|--|
| | Settings for all units | Start/stop Temp setting Operation mode Option 1 settings(*) Option 2 settings(*) Alarm status Indoor units with active alarms Room temp. A/C unit status |
| | Configuration properties | Transmission intervals settings Minimum time secured for transmission |

* Select two of the following: remote controller prohibit, fan speed setting, air direction setting, filter sign reset.

Remote sensor (ART-K45AGB)



- This is a remote sensor which can be used with 4 series indoor units. Please use it to detect the room temperature when no remote controller sensor or body sensor is used. (Correspondence to a system without a remote controller is possible.)
- For joint use with a remote control switch, use the remote control switch as main remote controller

ON/OFF controller (SHA-KC16KAGB)



Dimensions: H 121 x W 122 x D 14 + 52 (embedding dimension mm)

*Power supply: AC 220 to 240 V

*I/O part:
Remote input (effective voltage: within DC 240V) : All ON/OFF.
Remote output (allowable voltage: within DC 30V) : All ON, All alarm

- 16 groups of indoor units can be controlled
- Collective control and individual group (unit) control can also be performed
- Up to 8 ON/OFF controller (4 main, 4 sub) can be installed in one link system
- The operation status can be determined immediately

* As operation mode and temperature settings are not possible with the ON/OFF controller, it must be used together with a remote controller a system controller etc

Seri-Para I/O unit for outdoor unit (ACC-XSP4U1GB)

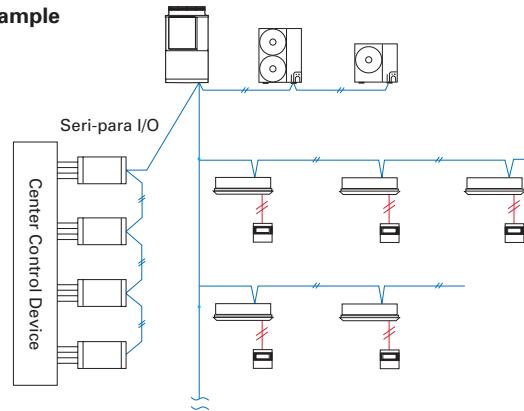


(Dimensions: H 80 x W 290 x D 260 mm)

| | |
|----------------|--|
| *Power supply | Single phase 100/200V (50/60 Hz), 18W |
| *Input | Batch operation/Batch stop (non-voltage contact/ DC 24V, pulse signal) Cooling/Heating (non-voltage contact/static signal) Demand 1/2 (non-voltage contact/static signal) (Local stop by switching) |
| *Output | Operation output (non-voltage contact) Alarm output (non-voltage contact) |
| *Wiring length | Indoor/Outdoor operation lines: Total length 1km Digital signal: 100m or shorter |

- This unit can control up to 4 outdoor units.
- From the centre control device, mode changing and batch operation/batch stop are possible
- Required for demand control.

System example

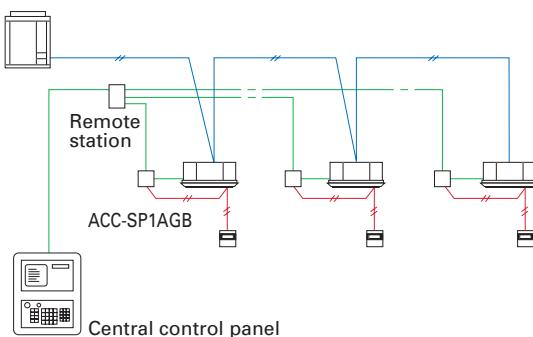


MINI Seri-Para I/O Unit (ACC-SP1AGB)

- Control and status monitoring is possible for individual indoor unit (1 group)
- In addition to operation and stop, there is a digital input function for air speed and operation mode
- Temperature setting and measuring of the indoor suction temperature can be performed from central monitoring
- The analog input for temperature setting is 0 to 10 V
- Power is supplied from the T10 terminal of the indoor unit
- Separate power supply also is possible (in case of suction temperature measuring)

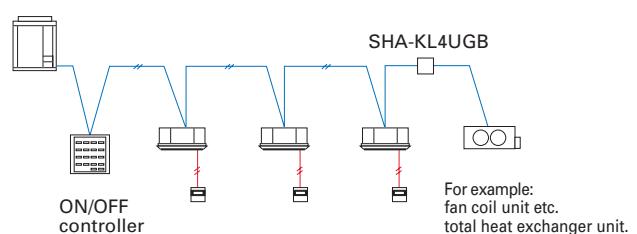


System example



Local adaptor for ON/OFF control (SHA-KL4UGB)

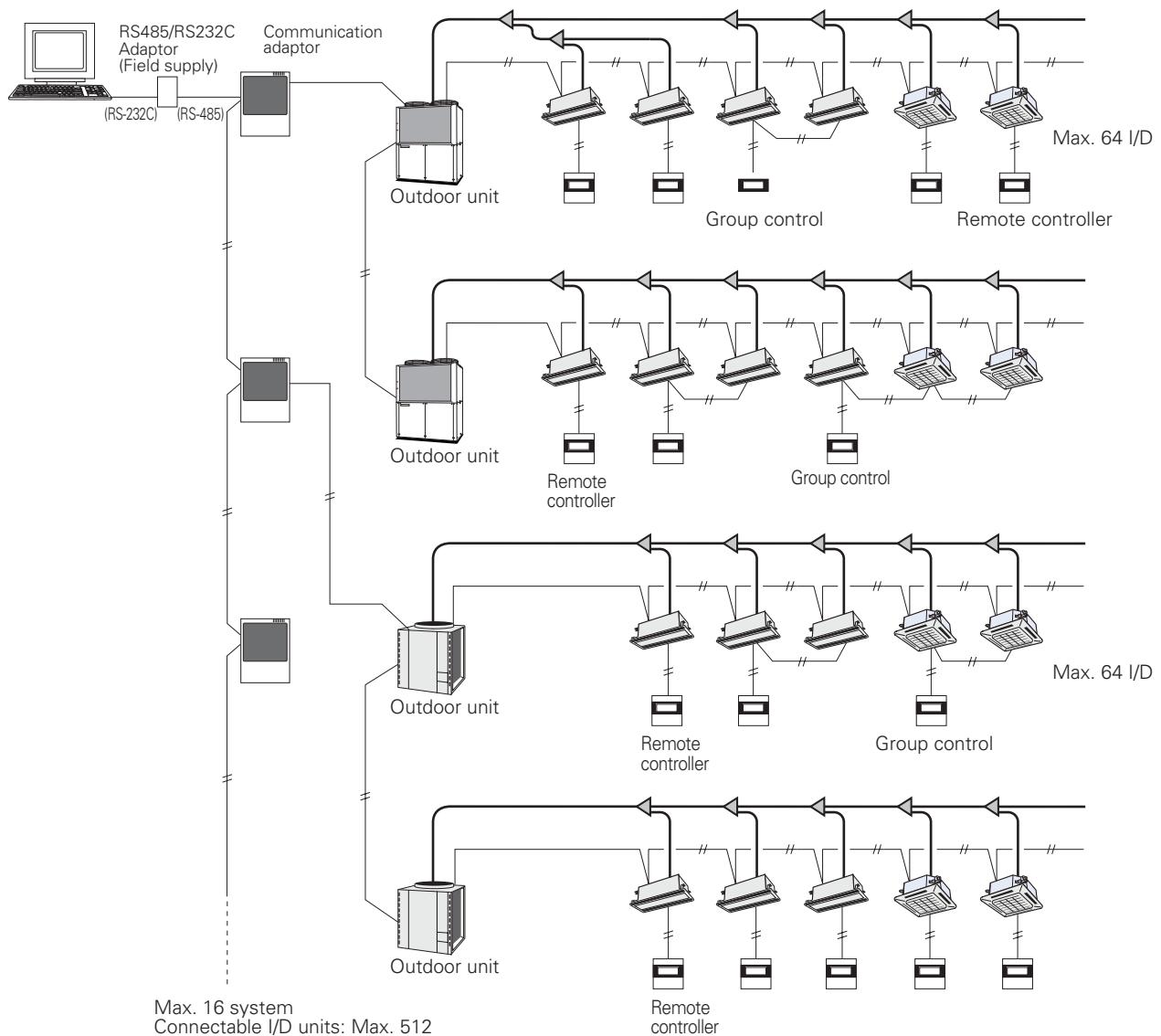
- Control and status monitoring is possible for individual indoor unit by contact signal.



For example:
fan coil unit etc.
total heat exchanger unit.

Convenient System Control continued

AMY software is an air conditioner (A/C) central control system for buildings



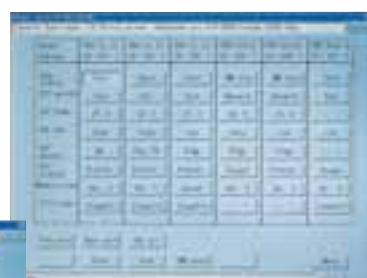
Functions

| | |
|-------------------|--------------------------|
| A/C unit settings | Unit ON/OFF |
| | Mode-change |
| | Room temperature setting |
| | Fan speed setting |
| | Flap setting |
| | Central control setting |
| | Filter-sign clear |
| | Alarm reset |
| | Unit ON/OFF status |
| | Operation mode |
| A/C unit status | Setting temperature |
| | Fan speed status |
| | Flap status |
| | Central control setting |
| | Filter-sign situation |
| | Correct/incorrect status |
| | Alarm code |
| | Charge calculation rate |

Software environment

OS: Windows 2000, Windows NT 4.0
Service Pack 6 or above

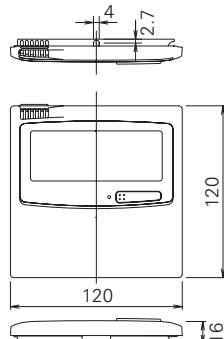
Browser: Internet Explorer 4.0
or above



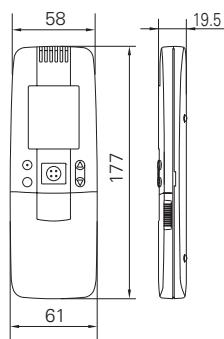
Control Equipment Dimensional Drawings

R410A

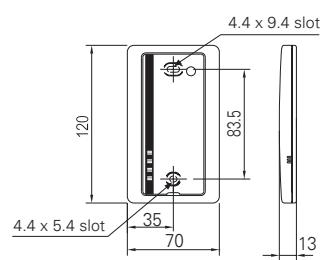
Timer remote controller
(RCS-TM80AGB)



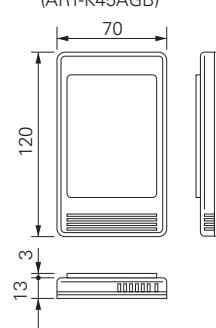
Wireless remote controller



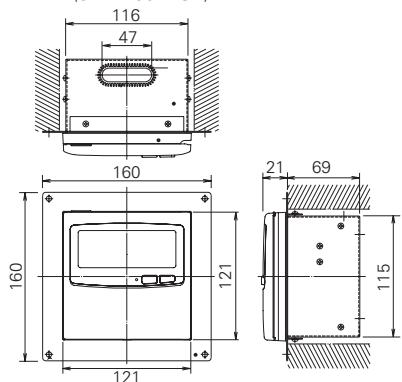
Separate receiver for wireless remote controller



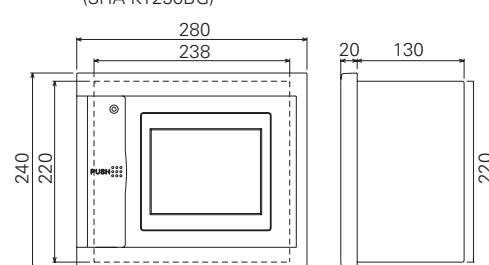
Simplified remote controller
(RCS-KR1AGB)
Remote sensor
(ART-K45AGB)



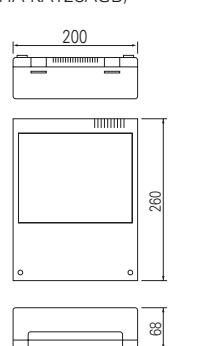
System controller
(SHA-KC64AGB)



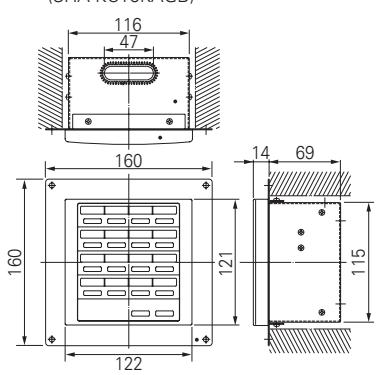
Intelligent controller
(SHA-KT256BG)



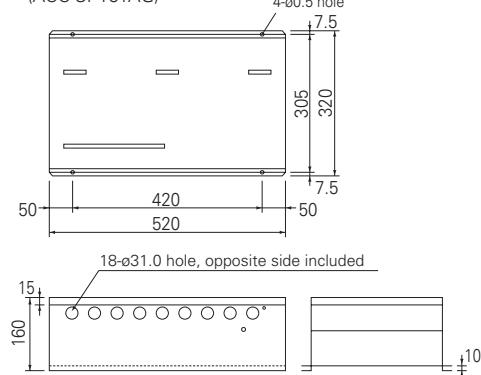
Communication adapter
(SHA-KA128AGB)



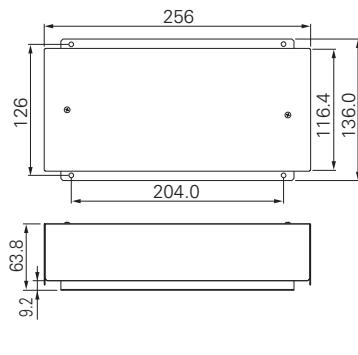
ON/OFF controller
(SHA-KC16KAGB)



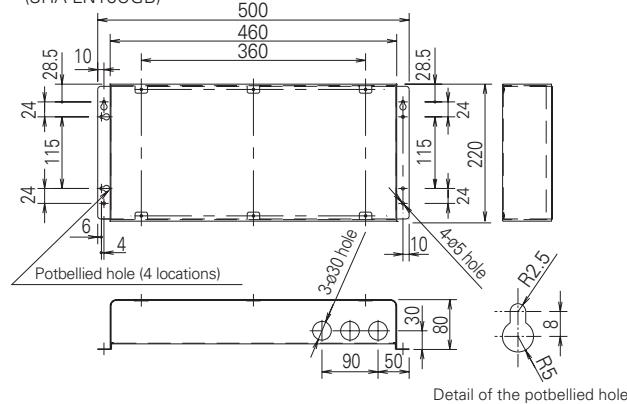
Seri-Para I/O unit for 16 groups indoor unit
(ACC-SP16TAG)



Seri-Para I/O unit for each indoor unit
(ACC-SP1AGB)

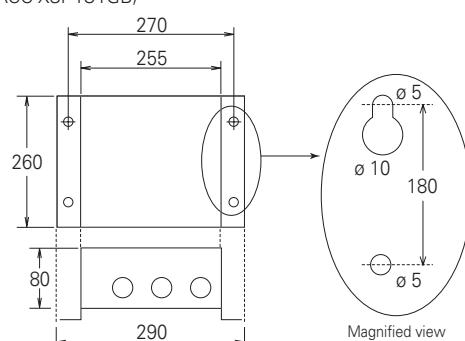


LonWorks interface
(SHA-LN16UGB)



Detail of the potbellied hole

Seri-Para I/O unit for outdoor unit
(ACC-XSP4U1GB)



Magnified view



A photograph showing a person's right arm and leg reaching out towards the horizon against a clear blue sky. The person is wearing a light-colored long-sleeved shirt, dark blue jeans, and white sneakers with red accents.

GAS DRIVEN VRF

NEW Gas Heat Pump M Series - the perfect solution when you're short of power

SANYO has been developing GHP VRF systems since 1980, during which time we have been committed to delivering ground-breaking technology. As a result, the commercial range of GHP VRF systems is leading the industry in the development of efficient and flexible systems, making them the natural choice for commercial projects, especially for those projects where power restrictions apply. As you would expect, all of our gas driven VRF systems have the highest reliability rates in the industry and a leading customer service program.

The new M Series of gas driven VRF systems offers increase efficiency and performance across the range. Now more powerful than ever before, it can connect to up to 48 indoor units.

Improvements include increased part load performance, reduced gas consumption with a Miller-cycle engine and reduced electrical consumption from using DC fan motors.

- Up to 71kW of cooling from a maximum running capacity of 5 AMPs
- Single phase power supply across the range
- The option of natural gas or LPG as its main power source
- Free hot water! A water heat exchanger to connect to domestic hot water systems 13-25 HP (2-pipe only)
- Option of DX or chilled water for indoor heat exchange
- Option to connect to third party AHU
- Reduced CO₂ emissions

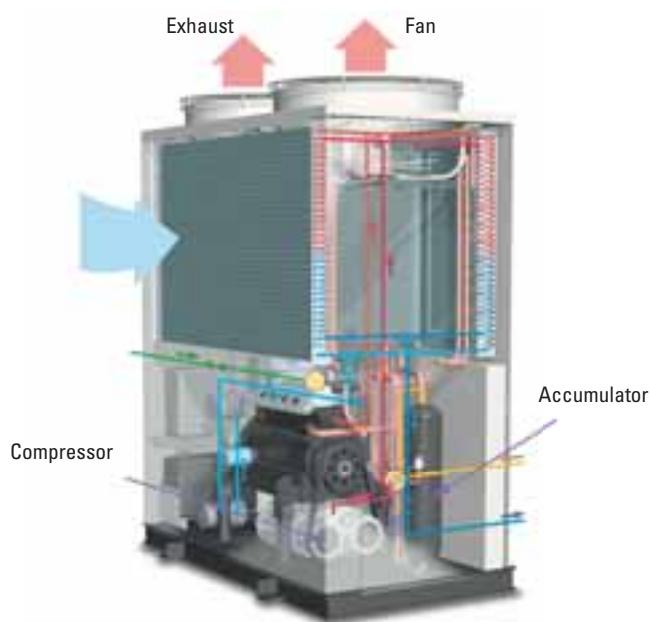
Benefits

High-efficiency operation

13-25 HP models are equipped with a high-performance air exchanger and a newly developed refrigerant heat exchanger for high-efficiency operation, making them one of the most energy-efficient solutions on the market.

Lowest nitrogen oxide emissions

The GHP VRF systems have the lowest nitrogen oxide emissions, 66% below the standard. In a pioneering development, the SANYO GHP features a brand new lean-burn combustion system that utilises air fuel ratio feedback control to reduce NOx emissions to an all time low.



Power supply problems?

If you are short of electrical power, gas heat pump could be the perfect solution:

- Runs on gas and just needs single phase supply
- Enables the building's electrical power supply to be used for other critical electrical demands
- Reduces capital cost to upgrade power substations to run heating and cooling systems
- Reduces power loadings within a building especially during peak periods
- Electricity supply freed up for other uses such as IT servers, commercial refrigeration, manufacturing, lighting etc



Excellent economy

The SANYO GHP provides quick and powerful cooling/heating and increases delivery of heat into the space by the efficient recovery of heat from the engine cooling water, which is injected into the refrigerant circuit.

In addition, the use of engine waste heat ensures that our gas heat pump air conditioner requires no defrost cycle, therefore providing continuous 100% heating performance in severe weather conditions with an outside air temperature as low as -20°C. During cooling mode the rejected heat from the engine is available for use with in a DHW system and can supply up to 22 kW of hot water at 65 °C.

High performance

With its advanced heat exchanger design, this new GHP system offers improved efficiency and reduced running costs, which, coupled with improved engine management systems, have greatly improved the system COP rating.

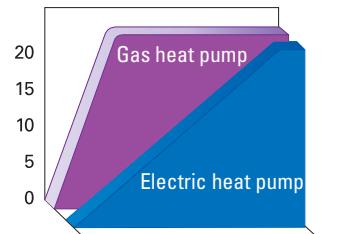
Water chiller option

Our GHP system is also available with a water chiller option, which can be combined with individual outdoor units or as part of a DX chilled water mix of indoor units. The system can be operated via a BMS system or a SANYO supplied control panel, with chilled water set points from -15°C up to 15°C and heating set points up to 25°C to 55°C.

New electrical power generator model

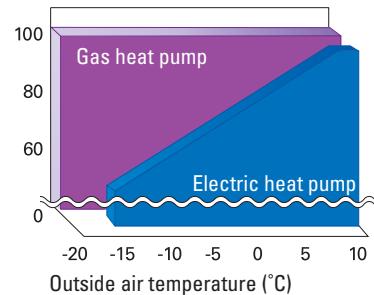
The biggest breakthrough in recent GHP technology is the launch of the ECO G Power, which provides 4.0kW of power. That's enough electricity to power 8 computers or 40 indoor units.

Comparison of the start times for heating operation
Room temperature (°C)



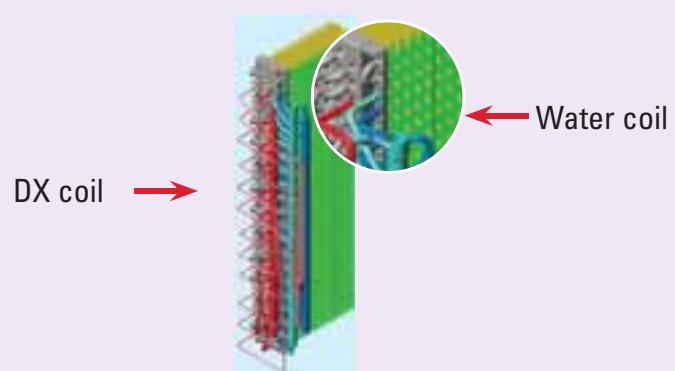
Time axis (in case of the same load)

Comparison of heating capacity
Heating capacity (%)



Outside air temperature (°C)

GHP Outdoor Heat Exchanger



ECO G Power - GHP with electricity generation & hot water supply

NEW

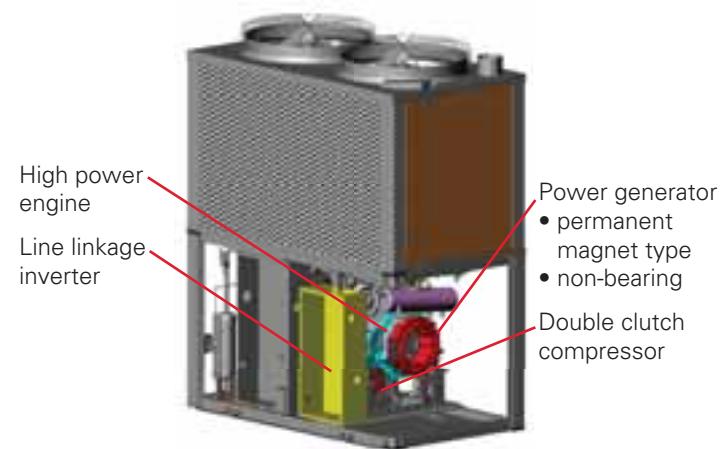
NEW 2 way gas driven VRF with electrical power generator

SANYO's ECO G Power is a revolution in air conditioning design. Fitted with a permanent magnet, non-bearing type generator, it is the first VRF system that can supply heating, cooling, hot water and now also a supply of electrical power.

Each ECO G Power unit has a 4.0kW generator, which provides enough power for 40 indoor units or the equivalent of 8 computers.

- Innovative technology that reduces CO₂ emissions by more than 30%
- 2 way air conditioning system providing cooling or heating
- Can provide both electricity and hot water in heating and cooling mode
- Up to 4kW electricity generated
- Provides power for indoor units
- Very efficient generator
- Electricity is output to line linkage converter
- Hot water provided when cooling and when heating above 7°C*
- 22kW hot water generation capacity
- 20HP model provides 56kW cooling or 63kW heating
- Can connect to up to 24 indoor units
- 200m maximum allowable piping length (L1)
- IU/OU capacity ratio 50 - 130%

* referring to outside temperature

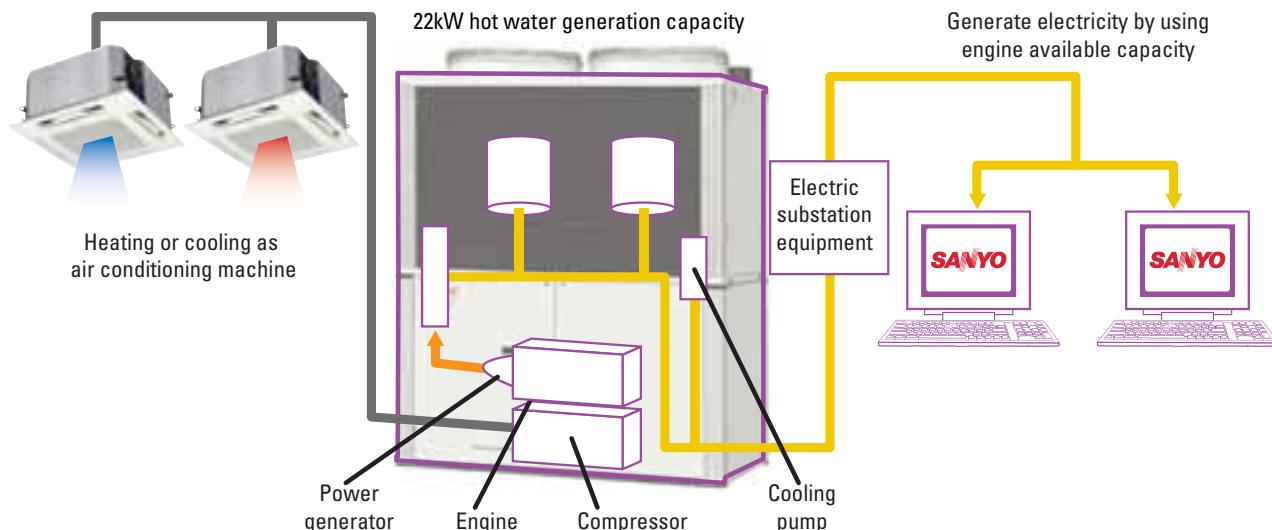
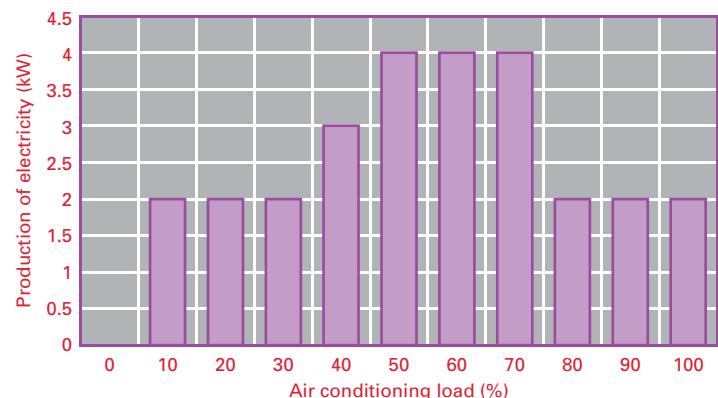


Generate electricity during heating or cooling operation

Generate electricity and air conditioning (heating or cooling) at the same time by using remaining engine power. ECO G Power can generate from 2.3 to 3.95kW electricity at a generation efficiency of more than 40%.

Production of electricity

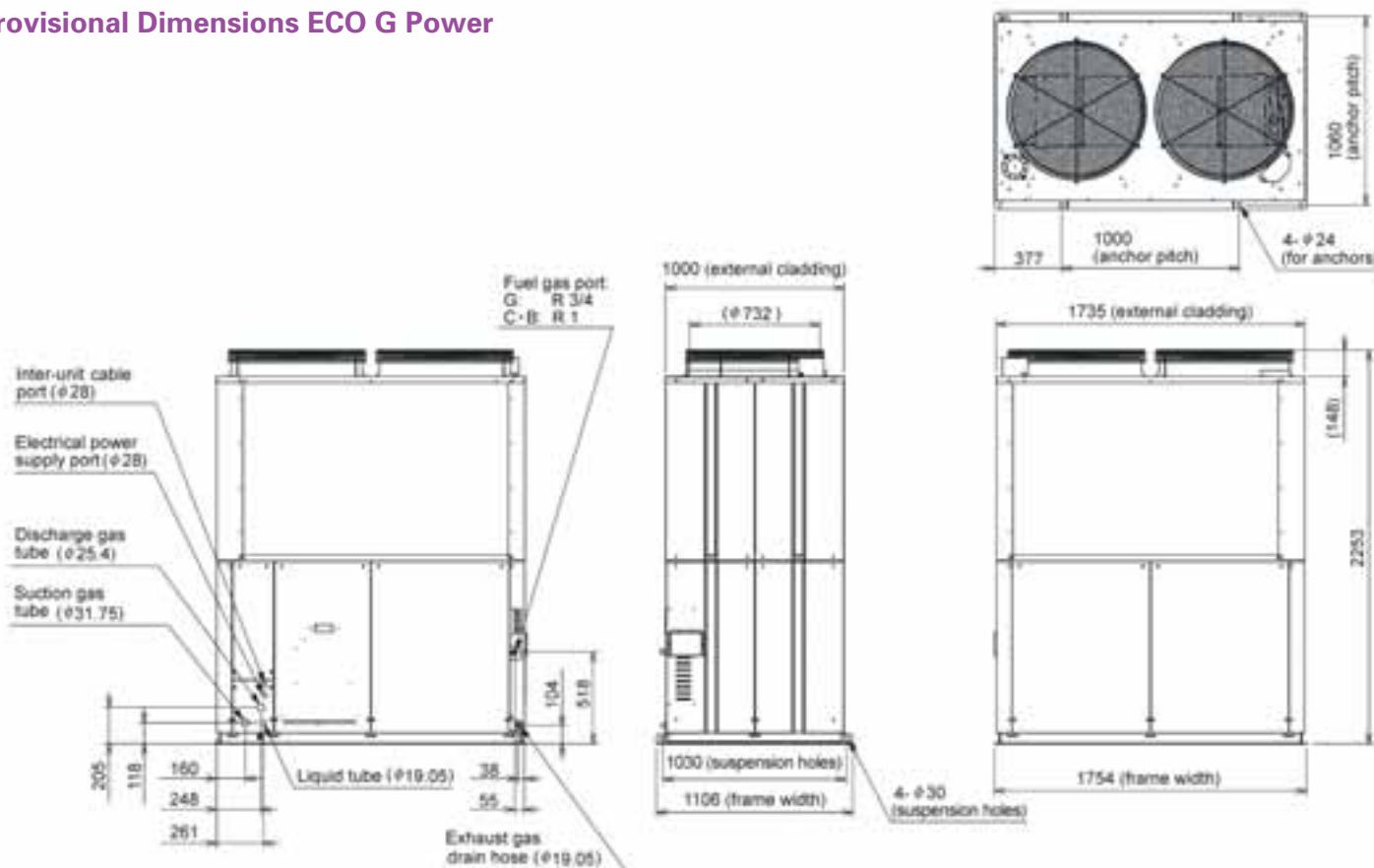
Generates from 2kW to 4kW depending on air conditioning load



| HP | | 20 | 33 | 36 | 40 | 45 | | |
|------------------------------------|--------------------------|-----------------|-----------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------|------|
| Model name | | SGP-EGW190M2G2W | SGP-EW120M2G2W SGP-EGW190M2G2W | SGP-EW150M2G2W SGP-EGW190M2G2W | SGP-EGW190M2G2W SGP-EGW190M2G2W | SGP-EGW190M2G2W SGP-EW240M2G2W | | |
| Capacity | Cooling | kW | 56.0 | 91.5 | 101.0 | 112.0 | 127.0 | |
| | Heating | STD kW | 63.0 | 103.0 | 113.0 | 126.0 | 143.0 | |
| | Hot water (cooling mode) | kW | 67.0 | 109.5 | 120.0 | 134.0 | 142.0 | |
| Power generator capacity at rating | | kW | DC 2.5 (Max 4.3) | DC 2.5 (Max 4.3) | DC 2.5 (Max 4.3) | DC 5.0 (Max 8.6) | DC 2.5 (Max 4.3) | |
| Electricity | Cooling | kW | 1.35 | 2.20 | 2.70 | 2.70 | 2.70 | |
| | Heating | kW | 1.01 | 2.02 | 2.02 | 2.02 | 2.55 | |
| Gas consumption | | Cooling kW | 44.0 (38.3)* | 68.5 | 75.6 | 88.0 | 104.9 | |
| | | Heating STD kW | 48.7 (43.0)* | 76.8 | 84.8 | 97.4 | 101.0 | |
| | | Heating LOW kW | 62.1 (56.4)* | 98.9 | 109.4 | 124.2 | 121.3 | |
| COP | Cooling | | 1.33 (1.41)* | 1.29 | 1.29 | 1.23 | 1.18 | |
| | Air conditioning only | Heating | | 1.34 (1.43)* | 1.31 | 1.30 | 1.27 | 1.38 |
| | | AVE | | 1.34 (1.42)* | 1.30 | 1.30 | 1.25 | 1.28 |
| Max COP (Inc generator, hot water) | | Cooling | 1.78 | 1.81 | 1.80 | 1.78 | 1.69 | |
| Size | Height | mm | 2,248 | | 2,248 | | | |
| | Width | mm | 1,800 | | 1,800 + 100 (Min distance) + 1,800 | | | |
| | Depth | | | | 1,000 (+60) | | | |
| Weight | | kg | 875 | 1,660 | 1,685 | 1,740 | 1,720 | |
| Starter amperes | | A | 30 | 30 | | | | |
| Pipe | Gas | | ø28.58 | ø31.75 | ø31.75 | ø38.1 | ø38.1 | |
| | Liquid | | ø15.88 | ø19.05 | ø19.05 | ø19.05 | ø19.05 | |
| | Balance | | ø9.52 | ø9.52 | | | | |
| | Fuel gas | | | | R3/4 (bolt, thread) | | | |
| | Exhaust drain port | mm | | | ø25 rubber hose | | | |
| Operation sound | | dB(A) | 58 | 61 | 61 | 61 | 63 | |
| Indoor/outdoor capacity ratio | | | | | 50-130% | | | |
| Number of connections indoor* | | | 28 | | 48 | | | |

*In case of not generator working. *1 Low temp condition: outdoor temperature 2°C

Provisional Dimensions ECO G Power



ECO G 2 Way Heat Pump VRF System

ECO G W-Multi 2 Way for Heat Pump Applications

The new and improved M Series 2 Way not only offers improved performance but also increased flexibility. Now available as multi-systems, many combinations are possible, from 13HP to 50HP, allowing for more power and enabling accurate matching of a system building load. Additional new features include part load engine management and compressor run hour equalisation.

- Reduced gas consumption by Miller-cycle engine
- Reduced electrical power consumption by using DC motors
- New lightweight design by use of aluminium engine block reduces weight by 110kg
- Part load efficiencies increased
- Connectability increased - now up to 48 indoor units
- Multi-systems with combinations from 13HP up to 50HP
- 200m maximum allowable piping length (L1)
- Diversity ratio 50-200% (single modls only; excluding ECO G Power)
- Extended pipe runs (total 780m)
- Equivalent sound levels to electric VRF systems

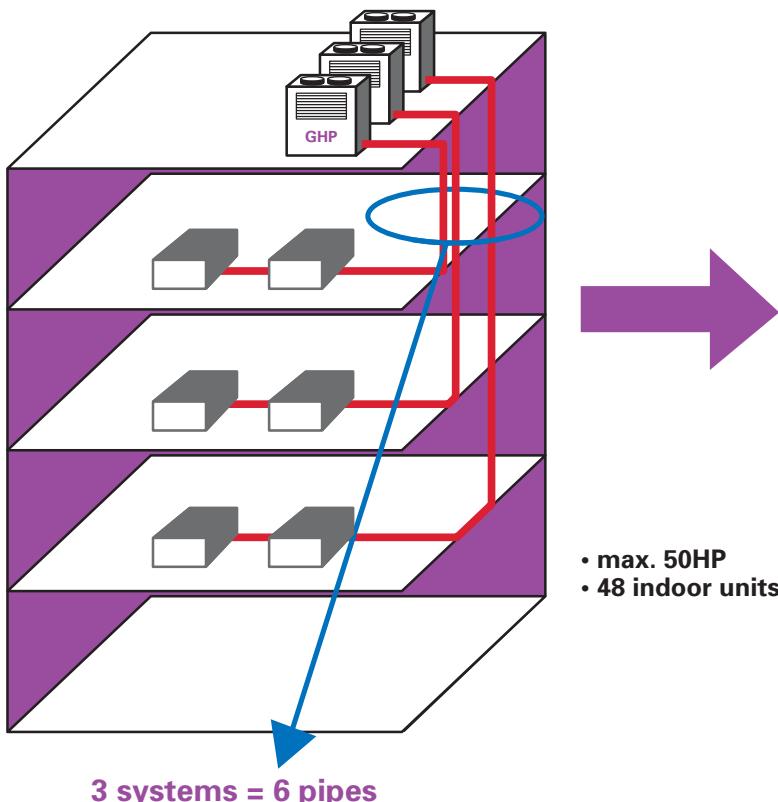


- Quiet mode offers a further 2dB(A) reduction
- Chiller option
 - 9HP (25kW cooling - 30kW heating)
 - 18HP (50kW cooling - 60kW heating)
- 10,000 run hours between engine service intervals (equivalent to one maintenance every 3.2 years*)
- Full heating capacity down to -20°C
- No defrost cycle

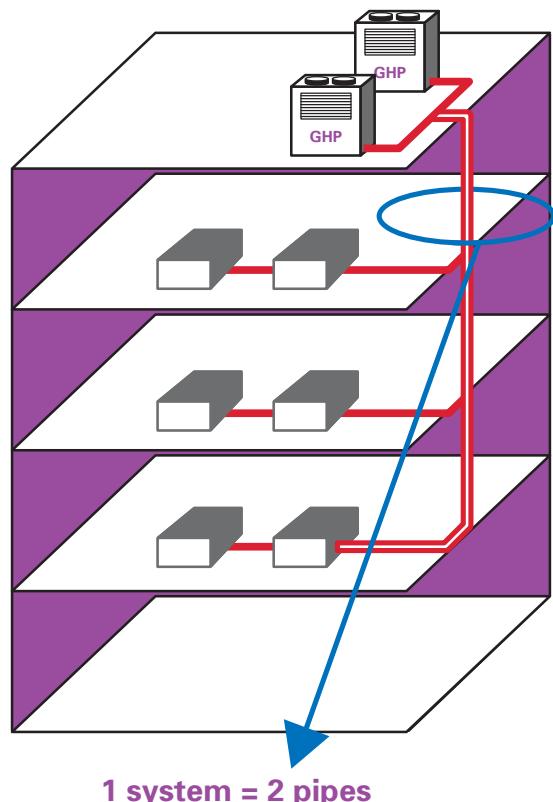
* Assuming 3120 running hrs per year - 12 hrs x 5 days x 52 weeks

New M-Series 2-way W-Multi

Previous Model - K Series 3 x 45kW units (135kW)

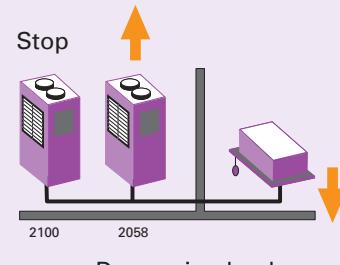
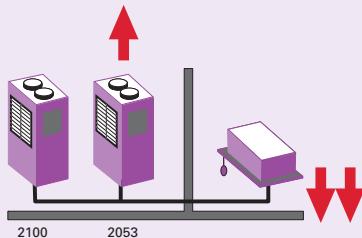


New M Series 2 Way W Multi 2 x 71kW (142kW)

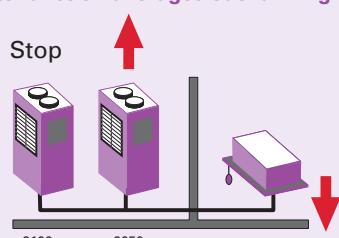


Advantages of ECO G W-Multi

Depending on buildings requirements load can be quickly and efficiently increased or decreased



Rotate function averages out running hours



- Running hours reduced by 40% by load sharing
- Back-up mode means no down time during maintenance

Hot water supply function

SGP-EW120M2G2W - SGP-EW150M2G2W - SGP-EW190M2G2W - SGP-EW240M2G2W

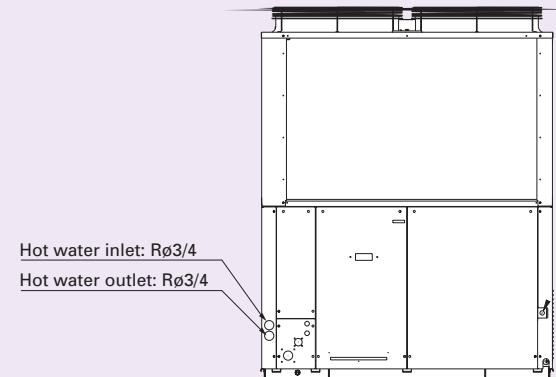
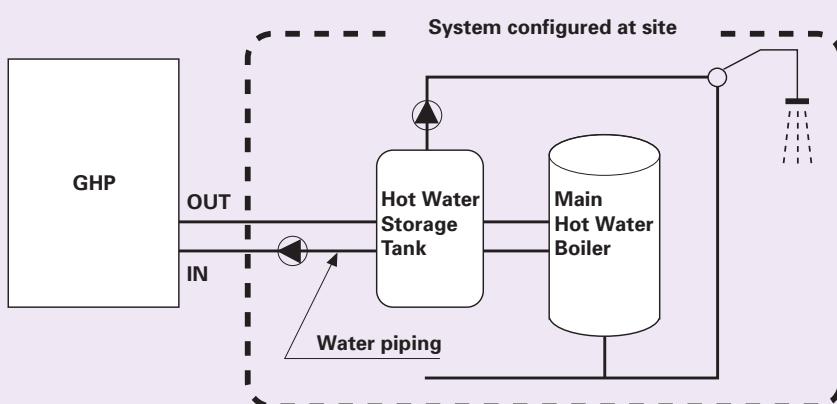
The engine waste heat, which is normally exhausted into the atmosphere, is recovered via the heat exchanger and effectively used as hot water, so the GHP chiller acts as a subsystem that alleviates the load on the client's main hot water system and therefore offers "free" hot water.

Water heating capacity up to 22kW (of 75°C hot water)

Hot water piping allowable pressure 0.7 MPa

Hot water circulation rate 2 - 3.9m³/h

Hot water pipe size 3/4 inch



ECO G 2 Way Outdoor Unit Specifications

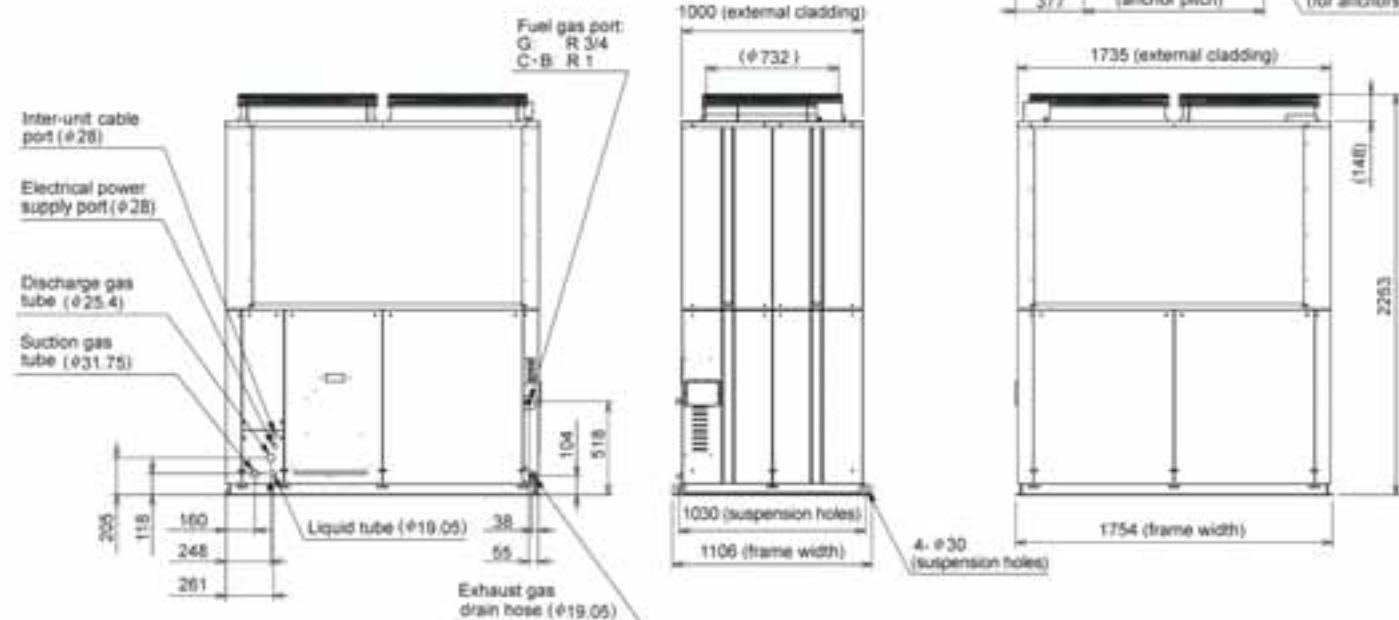
| HP | | 13 | 16 | 20 | 25 | 26 | 29 | 32 | 33* | 36* | 40* | 45* | 50 | |
|-------------------------------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|----------------|----------------|----------------|----------------|---|
| Model name | | SGP-EW120M2G2W | SGP-EW150M2G2W | SGP-EW190M2G2W | SGP-EW240M2G2W | SGP-EW120M2G2W | SGP-EW120M2G2W | SGP-EW150M2G2W | SGP-EW120M2G2W | SGP-EW150M2G2W | SGP-EW190M2G2W | SGP-EW190M2G2W | SGP-EW240M2G2W | |
| Capacity | Cooling | kW | 35.5 | 45.0 | 56.0 | 71.0 | 71.0 | 80.5 | 90.0 | 91.5 | 101.0 | 112.0 | 127.0 | 142.0 |
| | Heating | STD kW | 40.0 | 50.0 | 63.0 | 80.0 | 80.0 | 90.0 | 100.0 | 103.0 | 113.0 | 126.0 | 143.0 | 160.0 |
| | Low temp*1 | kW | 42.5 | 53.0 | 67.0 | 75.0 | 85.0 | 95.5 | 106.0 | 109.5 | 120.0 | 134.0 | 142.0 | 150.0 |
| | Hot water (cooling mode) | kW | 12.0 | 16.0 | 20.0 | 25.0 | 24.0 | 28.0 | 32.0 | 32.0 | 36.0 | 40.0 | 45.0 | 50.0 |
| Electricity | Cooling | kW | 0.85 | 1.35 | 1.35 | 1.35 | 1.70 | 2.20 | 2.70 | 2.20 | 2.70 | 2.70 | 2.70 | 2.70 |
| | Heating | kW | 1.01 | 1.01 | 1.01 | 1.54 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | 2.08 |
| | Cooling | kW | 24.5 | 31.6 | 38.3 | 60.9 | 49.0 | 56.1 | 63.2 | 62.8 | 69.9 | 76.6 | 99.2 | 121.8 |
| Gas consumption | | Heating STD kW | 28.1 | 36.1 | 43.0 | 58.0 | 56.2 | 64.2 | 72.2 | 71.1 | 79.1 | 86.0 | 101.0 | 116.0 |
| | | Heating LOW kW | 36.8 | 47.3 | 56.4 | 64.9 | 73.6 | 84.1 | 94.6 | 93.2 | 103.7 | 112.8 | 121.3 | 129.8 |
| COP | Cooling | | 1.40 | 1.37 | 1.41 | 1.14 | 1.40 | 1.38 | 1.37 | 1.41 | 1.39 | 1.41 | 1.25 | 1.14 |
| | Heating | | 1.37 | 1.35 | 1.43 | 1.34 | 1.37 | 1.36 | 1.35 | 1.41 | 1.39 | 1.43 | 1.38 | 1.34 |
| | AVE | | 1.39 | 1.36 | 1.42 | 1.24 | 1.39 | 1.37 | 1.36 | 1.41 | 1.39 | 1.42 | 1.31 | 1.24 |
| Max COP (inc hot water) | Cooling | | 1.87 | 1.85 | 1.92 | 1.54 | 1.87 | 1.86 | 1.85 | 1.90 | 1.89 | 1.92 | 1.69 | 1.54 |
| Size | Height | mm | | | | | | | 2,248 | | | | | |
| | Width | mm | | | | 1,800 | | | | | | | | 1,800 + 100 (min distance) + 1,800 (in a straight installation) |
| | Depth | mm | | | | | | | | 1,000 (+60) | | | | |
| Weight | kg | | 790 | | 820 | 850 | 1,580 | 1,580 | 1,580 | 1,610 | 1,610 | 1,640 | 1,670 | 1,700 |
| Starter amperes | A | | | | | | | | 30 | | | | | |
| Pipe | Gas | | ø25.4 | ø28.58 | ø28.58 | - | ø31.75 | ø31.75 | ø31.75 | - | ø31.75 | ø38.1 | ø38.1 | ø38.1 |
| | Liquid | | ø12.7 | ø12.7 | ø15.88 | | ø15.88 | ø19.05 | ø19.05 | - | ø19.05 | ø19.05 | ø19.05 | ø19.05 |
| | Balance | | | | | | | | ø9.52 | | | | | |
| | Fuel gas | | | | | | | | R3/4 (bolt thread) | | | | | |
| | Exhaust drain | | | | | | | | ø25 rubber hose | | | | | |
| Operation sound | dB(A) | | 57 | | 58 | 62 | 60 | 60 | 60 | - | 61 | 61 | 63 | 65 |
| Indoor/outdoor capacity ratio | | | 50-200 % | | | | | | | 50-200 % | | | | |
| Number of indoor connections | | | 24 | 24 | 28 | 32 | | | | 48 | | | | |

*In these combinations, EGW190M2G2W is able to connect to a W-multi system instead of a EW190M2G2W.

*1 Low temp condition: outdoor temperature 2°C.

Specifications subject to change without notice.

Provisional Dimensions ECO G W-Multi 2 Way



Still the only 3 way GHP system in Europe, the new M Series ECO G 3 Way offers even more performance and outstanding features when you need simultaneous heating and cooling. Now with capacities available from 16HP to 25HP, SANYO offers the greatest choice and flexibility to solve any power problem or site requirement.

- Simultaneous heating and cooling for total control
- Reduced gas consumption by Miller-cycle engine
- Reduced electrical power consumption by using DC motors
- New use of aluminium engine block reduces weight by 110kg
- Part load efficiencies increased
- Connectability increased to up to 32 indoor units
- Now available in 16, 20 and 25HP
- 200m maximum allowable piping length
- Diversity ratio 50-130%
- Extended pipe runs (total 780m)
- Quiet mode offers a further 2dB(A) reduction
- 10,000 run hours between engine service intervals (equivalent to one maintenance every 3.2 years*)
- Full heating capacity down to -20°C
- No defrost cycle

* Assuming 3120 running hrs per year - 12 hrs x 5 days x 52 weeks

ECO G 3 Way is ideal for the following types of application:

- Office buildings with a diverse range of room temperatures due to differing load profiles e.g. amounts of sunshine.
- Buildings with computer rooms requiring year round cooling.

Additional parts

By taking its power supply from the nearest indoor unit, the SANYO solenoid valve (change-over box) does not require any additional fused spur and at only 150mm high can be easily installed within a 200mm void space.



LPG option

The option of using LPG as a power supply increases flexibility and avoids the problems of potential site restrictions in the future. The purer fuel is also excellent for further reductions in CO₂ emissions - a fact recognised by the government.

ECO G 3 Way Outdoor Unit Specifications

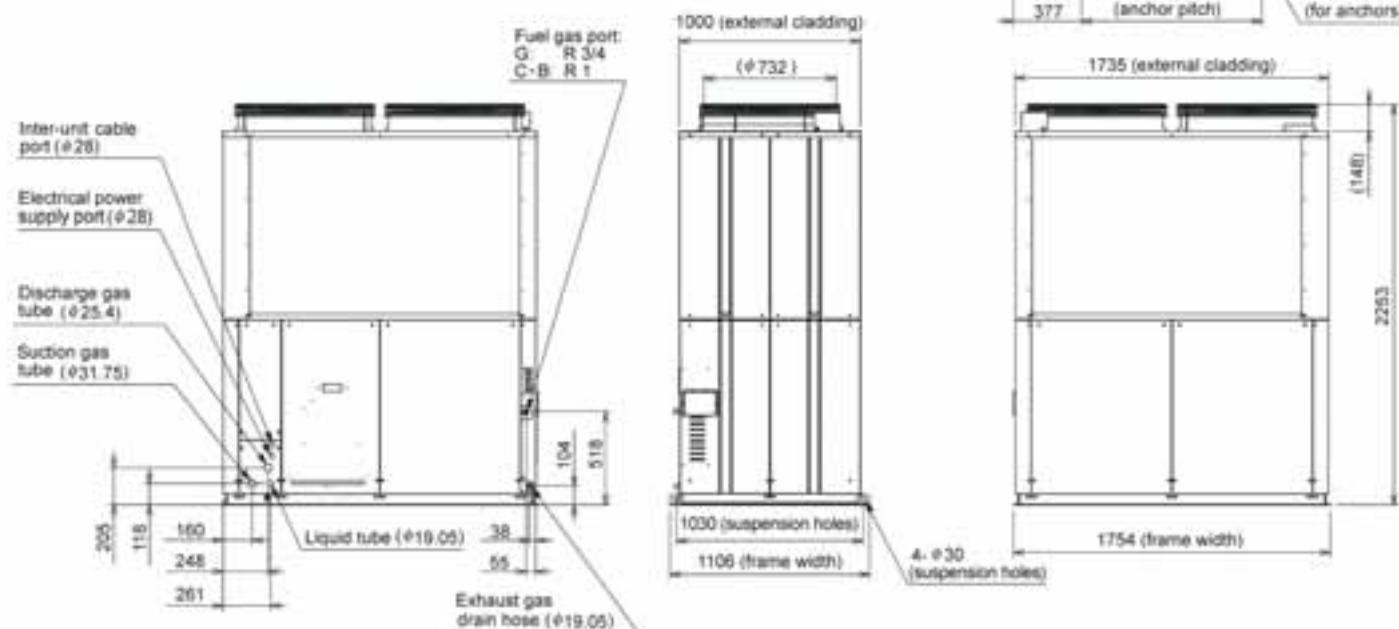
R410A

| HP | | 16 | 20 | 25 |
|------------------------------|-------------------------------|---------------|---------------|--------------------|
| Model name | | SGP-EZ150M2G2 | SGP-EZ190M2G2 | SGP-EZ240M2G2 |
| Capacity | Cooling | kW | 45.0 | 56.0 |
| | Heating | STD kW | 50.0 | 63.0 |
| Electricity | | Low temp* kW | 53.0 | 67.0 |
| | Cooling | kW | 1.35 | 1.35 |
| Gas consumption | Heating | kW | 1.01 | 1.01 |
| | Cooling | kW | 31.6 | 38.3 |
| | Heating STD | kW | 36.1 | 43.0 |
| COP | Heating LOW | kW | 47.3 | 56.4 |
| | Cooling | | 1.37 | 1.41 |
| | Heating | | 1.35 | 1.43 |
| Size | Ave | | 1.36 | 1.42 |
| | Height | mm | | 2,248 |
| | Width | mm | | 1,800 |
| Weight | Depth | mm | | 1,000 (+60) |
| | | | kg | 845 |
| | | | A | 30 |
| Pipe | Gas | | | ø28.58 |
| | Discharge | | ø22.22 | ø25.4 |
| | Liquid | | | ø19.05 |
| | Fuel gas | | | R3/4 (bolt thread) |
| | Exhaust drain | mm | | ø 25 rubber hose |
| Operation sound | | dB(A) | 57 | 58 |
| | Indoor/outdoor capacity ratio | | | 50-200% *1 |
| Number of indoor connections | | | 24 | 28 |
| | | | | 32 |

*Low temp condition: outdoor temperature 2°C

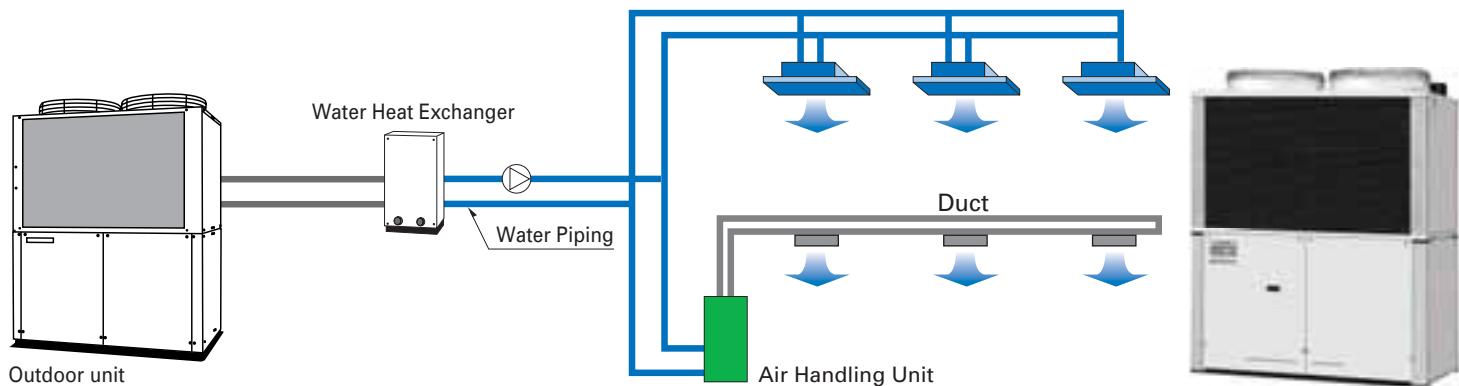
*1 Indoor unit can be connected to up to 16kW model (model size 60)

Provisional dimensions ECO G 3 Way (16-25HP)



Water Heat Exchanger for Chiller and Hot Water Applications

GHP Chiller available with outdoor unit capacities from 20 kW to 56 kW

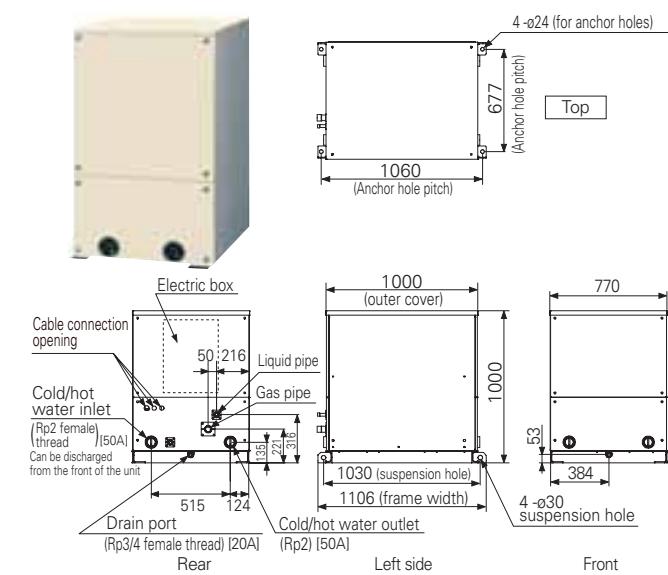


The SANYO ECO G Water Heat Exchanger can provide water at a wide range of temperatures suitable for a wide variety of commercial applications ranging from comfort air conditioning to food processing or the replacement of boilers and other systems.

- New 25 kW and 50 kW capacity models
- In cooling (chiller) mode provides water from -15°C to 15°C
- In heating mode can provide hot water up to 55°C, for example for under floor heating applications
- Includes water flow protection to prevent freezing
- Temperature sensor included, but not connected!
- S-Link communication is connectable with any controllers
- High flexibility
- Lighter and smaller
- Range of new water terminal/fan coil units
- Split system means reduced installation cost and the use of a less powerful circulation pump
- One touch changeover between cooling and heating operation
- The system can accommodate up to 120m (actual length) of piping between the outdoor unit and the water heat exchanger, allowing flexibility of installation location
- The system uses antifreeze coolant, so it can produce cold water even at -15°C, thereby complying with "brine specifications"
- Water Heat Exchanger remote controller is available

| Model No. | Cooling capacity kW | SGP-WE80M1 | SGP-WE170M1 |
|--|------------------------|--------------------------------|-------------|
| SGP-EW120M2G2W | Cooling capacity kW | 25 | 30 |
| | Heating capacity kW | 30 | 35.5 |
| SGP-EW150M2G2W | Cooling capacity kW | 25 | 37.5 |
| | Heating capacity kW | 30 | 45 |
| SGP-EW190M2G2W and SGP-EGW190M2G2W | Cooling capacity kW | 25 | 50 |
| | Heating capacity kW | 30 | 60 |
| SGP-EW240M2G2W | Cooling capacity kW | 25 | 56 |
| | Heating capacity kW | 30 | 67 |
| Electrical rating | Cooling power input kW | 0.01 | 0.01 |
| | Heating power input kW | 0.01 | 0.01 |
| Power supply | | 220/230/240V Single Phase 50Hz | |
| Size | Height mm | 1,000 | |
| | Width mm | 550 | |
| | Depth mm | 965 | |
| Weight kg | 125 | 160 | |
| Standard cold/hot water flow rate m³/h | 4.3 | 8.6 | |
| Hydrostatic loss kPa | 8.5 | 11.3 | |
| Holding water quantity inside the unit m³ | 0.01 | 0.02 | |
| Minimum holding water quantity outside the unit m³ | 0.28 | 0.50 | |
| Piping refrigerant | Gas pipe mm | ø22.22 | ø28.58 |
| | Liquid pipe mm | ø9.52 | ø15.88 |
| Heat exchanger | | hot/cold heat exchanger | |
| Water circuit limit pressure MPa | | 0.686 | |
| Anti-freezing protection system | | Protective thermostat | |

Specifications subject to change without notice



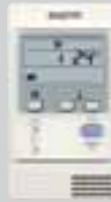
| Operating condition | Cooling | Heating (standard) | Heating (low temperature) |
|--|------------|--------------------|---------------------------|
| Water temperature of water heat exchanger unit | Outlet 7°C | Outlet 45°C | Outlet 45°C |
| Outdoor side intake air temperature | 35°C DB | 7°C DB, 6°C WB | 2°C DB, 1°C WB |

Note: The gas consumption can be 110% of the specification value depending on the operating conditions.

VRF Indoor Unit Range for ECOi and GHP

Wide choice of models depending on the indoor requirements

| | Model size | 7 | 9 | 12 | 16 | 18 | 22 | 25 |
|------|---|--|--|---|--|--|--|--|
| Page | Capacity kW | Cooling 2.2 | Cooling 2.8 | Cooling 3.6 | Cooling 4.5 | Cooling 5.6 | Cooling 6.4 | Cooling 7.3 |
| | | Heating 2.5 | Heating 3.2 | Heating 4.2 | Heating 5.0 | Heating 6.3 | Heating 7.0 | Heating 8.0 |
| | Capacity BTU/h | Cooling 7,500 | Cooling 9,600 | Cooling 12,000 | Cooling 15,000 | Cooling 19,000 | Cooling 22,000 | Cooling 25,000 |
| | Heating 8,500 | Heating 11,000 | Heating 14,000 | Heating 17,000 | Heating 21,000 | Heating 24,000 | Heating 27,000 | |
| 85 | X Type Semi-Concealed Cassette |  | SPW-X075XH Panel PNR-XD484GHAB | SPW-X095XH Panel PNR-XD484GHAB | SPW-X125XH Panel PNR-XD484GHAB | SPW-X165XH Panel PNR-XD484GHAB | SPW-X185XH Panel PNR-XD484GHAB | SPW-X255XH Panel PNR-XD484GHAB |
| 86 | NEW XM Type Semi-Concealed |  | SPW-XM075XH Panel PNR-XM185 | SPW-XM095XH Panel PNR-XM185 | SPW-XM125XH Panel PNR-XM185 | SPW-XM165XH Panel PNR-XM185 | SPW-XM185XH Panel PNR-XM185 | |
| 88 | XMR Type 600 x 600 Semi-Concealed Cassette |  | SPW-XMR74EXH56B Panel PNR-XM184EHA | SPW-XMR94EXH56B Panel PNR-XM184EHA | SPW-XMR124EXH56B Panel PNR-XM184EHA | SPW-XMR164EXH56B Panel PNR-XM184EHA | SPW-XMR184EXH56B Panel PNR-XM184EHA | |
| 89 | ADR Type Semi-Concealed Cassette 1-Way Air Discharge |  | SPW-ADR74GXH56B Panel PNR-AD124GHB | SPW-ADR94GXH56B Panel PNR-AD124GHB | SPW-ADR124GXH56B Panel PNR-AD124GHB | | | |
| 90 | SR Type Semi-Concealed Cassette 2-Way Air Discharge |  | SPW-SR74GXH56B Panel PNR-S124GHB | SR94GXH56B Panel PNR-S124GHB | SR124GXH56B Panel PNR-S124GHB | SR164GXH56B, Panel PNR-S124GHB | SR184GXH56B Panel PNR-S124GHB | SPW-SR254GXH56B Panel PNR-S253GHANB |
| 91 | LDR Type Semi-Concealed Slim Cassette |  | | SPW-LDR94GXH56B Panel PNR-LD254GHAB | SPW-LDR124GXH56B Panel PNR-LD254GHAB | SPW-LDR164GXH56B Panel PNR-LD254GHAB | SPW-LDR184GXH56B Panel PNR-LD254GHAB | SPW-LDR254GXH56B Panel PNR-LD254GHAB |
| 92 | DR Type Concealed Duct |  <i>25,48 type</i> <i>76,96 type</i> | | | | | | SPW-DR254GXH56B |
| 93 | NEW US Type Concealed Duct |  | SPW-US075XH | SPW-US095XH | SPW-US125XH | SPW-US165XH | SPW-US185XH | |
| 94 | U Type Concealed Duct |  | SPW-U075XH | SPW-U095XH | SPW-U125XH | SPW-U165XH | SPW-U185XH | SPW-U255XH |
| 96 | NEW UR Type with filter Concealed Duct |  | SPW-U075SXHT | SPW-U095SXHT | SPW-U125SXHT | SPW-U165SXHT | SPW-U185SXHT | SPW-U255SXHT |
| 98 | FUR Type Floor/Ceiling Slim Concealed Duct |  | SPW-FUR74EXH56B | SPW-FUR94EXH56B | SPW-FUR124EXH56B | SPW-FUR164EXH56B | SPW-FUR184EXH56B | SPW-FUR224EXH56B |
| 99 | UMR Type Concealed Duct |  | SPW-UMR74EXH56B | SPW-UMR94EXH56B | SPW-UMR124EXH56B | SPW-UMR164EXH56B | SPW-UMR184EXH56B | SPW-UMR224EXH56B |
| 100 | FTR Type Floor/Ceiling Mounted Units |  | SPW-FTR74EXH56B | SPW-FTR94EXH56B | SPW-FTR124EXH56B | SPW-FTR164EXH56B | SPW-FTR184EXH56B | SPW-FTR224EXH56B |
| 101 | T Type Ceiling- Mounted Unit |  | | | SPW-T125XH | SPW-T165XH | SPW-T185XH | SPW-T225XH |
| 102 | NEW K Type Wall Mounted Unit |  | SPW-K075XH | SPW-K095XH | SPW-K125XH | | | |
| 104 | KR Type Wall Mounted Unit |  | SPW-KR74GXH56B | SPW-KR94GXH56B | SPW-KR124GXH56B | SPW-KR164GXH56B | SPW-KR184GXH56B | SPW-KR254GXH56B |
| 105 | FR Type Floor Standing Unit |  | SPW-FR74GXH56B | SPW-FR94GXH56B | SPW-FR124GXH56B | SPW-FR164GXH56B | SPW-FR184GXH56B | SPW-FR254GXH56B |
| 106 | FMR Type Concealed Floor Standing Unit |  | SPW-FMR74GXH56B | SPW-FMR94GXH56B | SPW-FMR124GXH56B | SPW-FMR164GXH56B | SPW-FMR184GXH56B | SPW-FMR254GXH56B |
| 107 | GU Type Total Heat Exchanger |  | | SPW-GU055XH | | SPW-GU075XH | SPW-GU105XH | |

| Wider operation  | | | | Self-diagnosing function  | | | Automatic fan operation  | | | Mild dry  | | |
|---|--------------------------------------|--------------------------------------|--------------------------------------|--|--------|---------|---|---|--|---|--|--|
| Comfortable auto-flap control   | | | | Automatic restart function for power failure  | | | Air Sweep  | | | Built-in drain pump   | | |
| | 30 | 36 | 48 | 60 | 76 | 96 | | | | | | |
| | 9.0 | 10.6 | 14.0 | 16.0 | 22.4 | 28.0 | | | | | | |
| | 10.0 | 11.4 | 16.0 | 18.0 | 25.0 | 31.5 | | | | | | |
| | 30,000 | 36,000 | 47,800 | 54,600 | 76,400 | 95,500 | | | | | | |
| | 34,000 | 39,000 | 54,600 | 61,500 | 85,300 | 107,500 | | | | | | |
| | SPW-X365XH Panel PNR-XD484GHAB | SPW-X485XH Panel PNR-XD484GHAB | SPW-X605XH Panel PNR-XD484GHAB | | | | Type with built-in reception part | Type with separately installed reception part | | | | Functions |
| | | | | | | | ● | | | | |                                                            |  |  |  |
| Type, model name | Timer wired remote controller RCS-TM80BG | Wireless remote controller RCS-SH80BG.WL RCS-TH80BG.WL RCS-BH80AG.WL RCS-TRP80BG.WL RCS-SH1BG | Simplified remote controller RCS-KR1AGB | Schedule timer SHA-TM64AGB |
| Number of indoor units which can be controlled | 1 group, 8 units | 1 group, 8 units | 1 group, 8 units | 64 groups, max. 64 units |
| Use limitations | Up to 2 units can be connected per group. | Up to 2 units can be connected per group. | Up to 2 units can be connected per group. | Power supply from the system controller. When there is no system controller, connection is possible to the T10 terminal of an indoor unit. |
| Connectable indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit |
| Function | | | | |
| ON/OFF | ● | ● | ● | - |
| Mode setting | ● | ● | ● | - |
| Fan speed setting | ● | ● | ● | - |
| Temperature setting | ● | ● | ● | - |
| Air flow direction | ● ^{*1} | ● ^{*1} | ● ^{*1} | - |
| Permit/Prohibit switching | - | - | - | - |
| Weekly program | ● | - | - | ● |
| Page | 110 | 110 | 111 | 111 |

*1 Setting is not possible when a remote control unit is present. (Use the remote control for setting.)

For further information see page 110-117

Centralised Control Systems Overview

R410A

| Centralised control systems | | | | |
|--|---|--|--|--|
| | Operation with various function from central station | Only ON/OFF operation from central station | Simplified charge ratio for each tenant | |
| External appearance | | | | |
| Type, model name | System controller SHA-KC64AGB | ON/OFF controller SHA-KC16KAGB | Intelligent controller SHA-KT256EG | Communication adaptor SHA-KA128AGB |
| Number of indoor units which can be controlled | 64 groups, max. 64 units | 16 groups, max. 64 units | 64 units x 4 networks, max. 256 units | 2 systems, max. 128 units |
| Use limitations | Up to 10 units can be connected to one system. Main unit/sub unit (1 main unit + 1 sub unit) connection is possible. Use without remote controller is possible. | Up to 8 units (4 main units + 4 sub units) can be connected to one system. Use without remote controller is impossible. | A communication adaptor (SHA-KA128AGB) must be installed for three or more networks. | Maximum 500 indoor units (128 per communication adaptor) |
| Connectable indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit | 4/5 series indoor unit |
| Function | | | | |
| ON/OFF | • | • | • | • |
| Mode setting | • | - | • | • |
| Fan speed setting | • | - | • | • |
| Temperature setting | • | - | • | • |
| Air flow direction | *1 • | - | • *1 | • *1 |
| Permit/Prohibit switching | • | • | • | • |
| Weekly program | | - | • | • |
| | 112 | 114 | 113 | 113 |





CO₂ WATER HEATERS

CO₂ ECO Water Heater

Energy efficient and environmentally friendly water and space heating with SANYO's new CO₂ ECO

The innovative CO₂ ECO heat pump from SANYO Air Conditioners boasts highly efficient water and space heating. Using the first ever rotary 2-stage compressor, with carbon dioxide (CO₂) gas, as its heat source, the CO₂ ECO offers an environmentally friendly heating solution for everyone wanting to reduce CO₂ emissions and running costs.

SANYO's CO₂ ECO supplies space heating and hot water, reliably, and at a COP rating of 3.75, making it highly efficient when compared with electric heaters, which generally have a COP rating of 1. For its refrigerant, the CO₂ ECO uses heat energy derived from compressed carbon dioxide gas, a non-toxic natural refrigerant which is less harmful to the environment than other refrigerants.

New increased capacity - 9.0kW

The CO₂ ECO heat pump is now available in larger 9.0kW capacity in addition to the 4.5kW model. This gives a wider choice of performance to suit both domestic and larger commercial applications.

Environmentally friendly

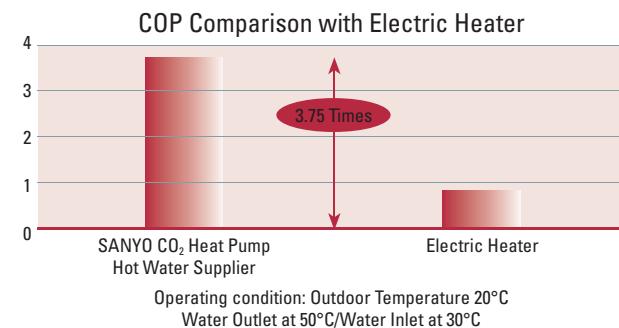
A natural refrigerant (CO₂) heat pump hot water supplier that considers the global environment.

For its refrigerant, SANYO CO₂ ECO uses heat energy derived from compressed CO₂, friendly to the ecosystem and our living environment. CO₂ is an atoxic natural refrigerant with Ozone Depletion Potential "0" and Global Warming Potential "1".



| Characteristics of Natural Refrigerant CO ₂ | | | |
|--|---------------------|-------|------|
| | | ODP* | GWP* |
| CO ₂ | Natural refrigerant | 0 | 1 |
| R410A | HFC | 0 | 1900 |
| R407C | HFC | 0 | 1600 |
| R22 | HCFC | 0.055 | 1700 |

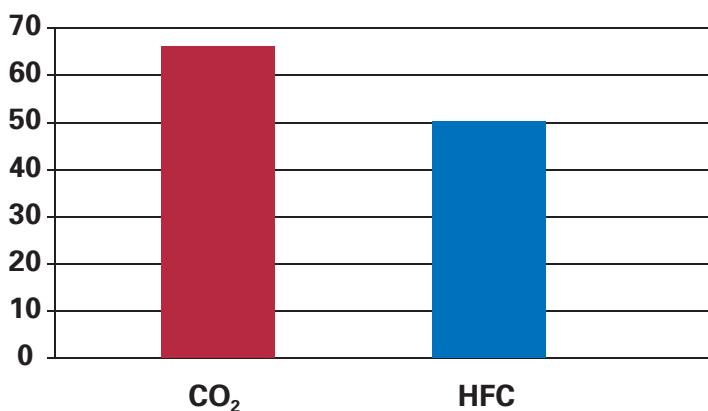
*Ozone Destruction Potential
*Global Warming Potential



Higher working temperature

CO_2 refrigerant allows a higher working temperature compared to HFC heat pumps. Temperatures of 65°C compared to 45-50°C means that there is no need for electric heaters to boost the temperature to kill legionella. Higher temperatures also mean higher storage capacity and more flexibility for different heating applications.

Maximum working temperature



Economical

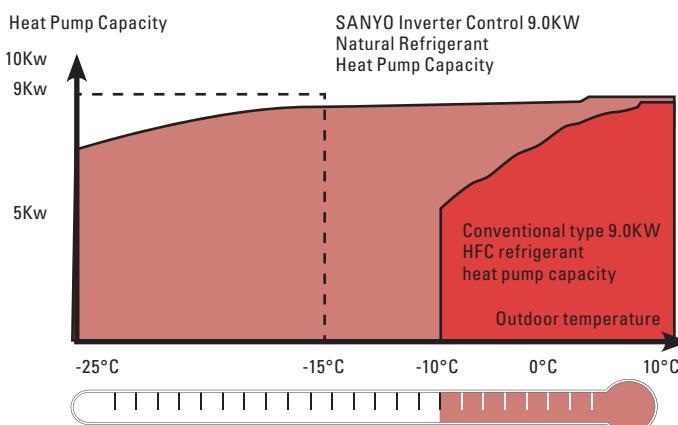
The high-efficiency heat pump method is responsible for its superior energy-conservation capability.

The coefficient of performance (COP) is 3.75 for SANYO "CO₂ ECO" compared to 1 for electric heaters (standard condition).

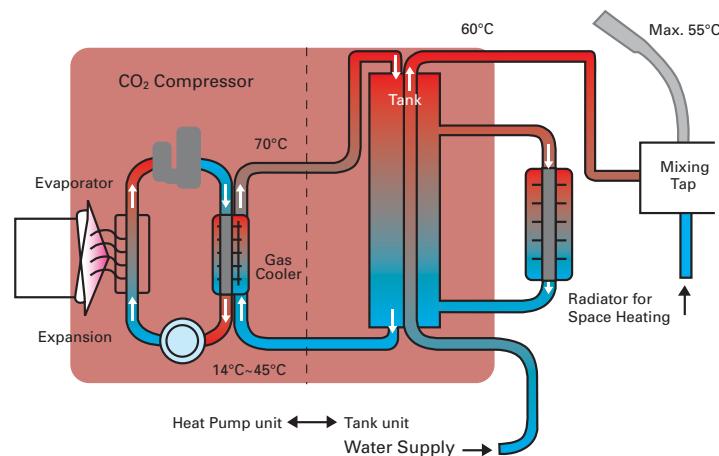
Low ambient operation

With SANYO CO₂ ECO, the heat pump operates continuously in the harsh condition of -25°C, maintaining its performance at no less than 4.0kW for the 4.5kW unit and no less than 8.0kW for the 9.0kW unit. The consistent operation of the heat pump at extremely low temperatures is made possible by the refrigerant circuit technology developed and refined by SANYO.

In many heat pump models using HCFC or HFC the refrigerant can only withstand the ambient temperature down to approximately -10°C. Electric heaters are required for temperatures below this level, resulting in performance that is not high in efficiency.

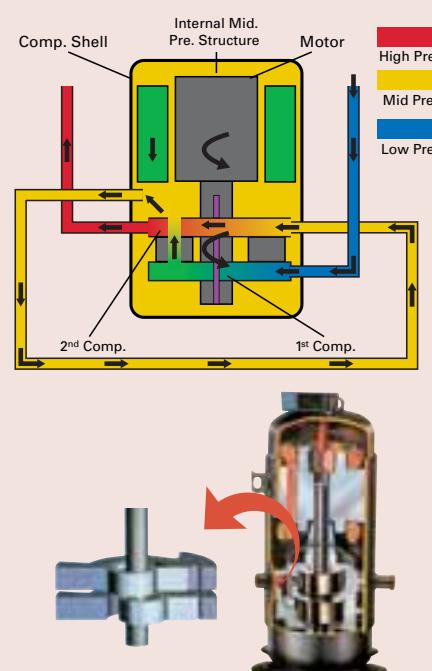


SANYO CO₂ ECO effectively utilises heat in the atmosphere.



The world's first CO₂ rotary 2 stage compressor

Central to the CO₂ ECO's performance is its innovative rotary 2-stage compression system. Developed by SANYO, the technology represents a world first in compressor design. The system is resistant to high working pressure differentials has high reliability through load dispersion, and suffers lower leakage loss, as well as low vibration and noise levels during operation (45 dB(A)). With the compressor weighing in at only 9kg, the compression system is also compact and lightweight aiding installation.



NEW

NEW - now 4.5kW and 9.0kW High Capacity models available

Key features:

- Supplies abundant space heating and hot tap water
- Environmentally friendly with CO₂ natural refrigerant
- Choice of 4.5kW and new high capacity 9.0kW
- COPs of up to 3.8
- Heat pump operation even at low ambient temperatures (down to -25°C)
- High performance DC rotary 2 stage compressor
- Inverter control and 3 phase 400V power supply
- High efficiency split refrigerant cycle
- Reliable and rugged design
- Freeze protection circuit
- The unique construction of water-to-refrigerant heat exchanger ensures improved efficiency



4.5kW Heat Pump Unit

Tank Unit

| MODEL NO. | HP unit | SHP-C45DEN SHP-TH45GDN |
|------------------------------------|------------------|----------------------------------|
| | Tank unit | |
| Performance | | |
| Heating capacity input | | 4,5kW/1,20W |
| COP (Out door temp. 20°C) | | 3,75W/W |
| Heating capacity/input | | 4,5kW/1,45W |
| COP (Out door temp. 7°C) | | 3,10W/W |
| Heating capacity/input | | 4,5kW / 2,48W |
| COP (Out door temp. -15°C) | | 1,81W/W |
| Electrical Ratings | | |
| Power supply | HP unit | 1 phase/230V/50Hz |
| | Tank unit | 3 phase/400V/50Hz |
| Maximum current | HP unit | 1 x 16A |
| | Tank unit | 3 x 25A |
| Tank unit | | |
| Tank volume | | 223L |
| Maximum working pressure | | 2,5bar |
| Maximum working pressur tap water | | 10 bar |
| Auxiliary electric heater capacity | | 9,0kW + 6,0kW |
| Dimensions | Net (H/W/D) | 1,562mm/600mm/624mm |
| | Shipment (H/W/D) | 1736mm/700mm/747mm |
| Weight | Net/shipping | 160.0kg/205kg |
| Heat pump unit | | |
| Refrigerant/amount | | R744 (CO ₂) / 0.86kg |
| Operation noise | | 45,0 dB(A) |
| Compressor | | DC Rotary two stage |
| Dimensions | Net (H/W/D) | 690mm/840mm/290mm |
| | Shipment (H/W/D) | 765mm/943mm/433mm |
| Weight | Net/shipping | 65,0kg/72,0kg |



Heat Pump

Tank Unit



| Tank unit | | SHP-TH90GDN |
|------------------------------------|------------------|-------------------------------|
| Performance | | |
| Heating capacity/input | | 9,0kW/2,9kW |
| COP (Out door temp. 7°C) | | 3.1 |
| Heating capacity/input | | 9,0kW/5,0kW |
| COP (Out door temp. -15°C) | | 1.8 |
| Heating capacity / input | | 8,0kW/5,0kW |
| COP (Out door temp. -20°C) | | 1.6 |
| Electrical ratings | | |
| Power supply | HP unit | 3 phase/400V/50Hz |
| | Tank unit | 3 phase/400V/50Hz |
| Maximum current | HP unit | 3 x 10 A |
| | Tank unit | 3 x 25 A |
| Tank unit | | |
| Tank volume | | 223L |
| Maximum working pressure | | 2,5bar |
| Maximum working pressure tap water | | 10 bar |
| Auxiliary electric heater capacity | | 9,0kW + 6,0kW |
| Dimensions | Net (H/W/D) | 1,562mm/600mm/624mm |
| | Shipment (H/W/D) | 1736mm/700mm/747mm |
| Weight | Net/shipping | 160,0kg/205kg |
| Heat pump unit | | |
| Refrigerant/amount | | R744 (CO ₂)/1,4kg |
| Operation noise | | 49,0 dB(A) |
| Type of compressor | | DC Rotary 2 Stage |
| Dimensions | Net (H/W/D) | 1,235mm/930mm/340mm |
| | Shipment (H/W/D) | 1,330mm/1,044mm/420mm |
| Weight | Net/shipping | 105,0kg/115,0kg |

Various tank options are available to suit different power requirements

| Tank Unit | | | | | | |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| HP Outdoor Unit | SHP-TH45GEN | SHP-TH45GHN | SHP-TH45GDN | SHP-TH90GEN | SHP-TH90GHN | SHP-TH90GDN |
| Performance | Heating | Heating | Heating | Heating | Heating | Heating |
| Capacity HP unit | kW | 4.5 | 4.5 | 4.5 | 9.0 | 9.0 |
| Power supply HP unit | V/Ph/Hz | 230V 1+N 50 | 230V 3+N 50 | 400V 3+N 50 | 230V 1+N 50 | 230V 3+N 50 |
| | | | | | | 400V 3+N 50 |





HYDRONIC PRODUCTS

Water Chillers & Heat Pumps

- New mini-chiller - 2 new sizes to be launched in 2008
- High COP (Coefficient of Performance)
- R410A refrigerant that does not harm the ozone layer
- Incorporated hydronic module that includes circulation pump with expansion tank
- Installation of a buffer tank is not necessary
- Anti-vibration supports included



NEW Air-to-water heat pumps

| Model number | SCP-AR061EH5 | SCP-AR071EH5 | SCP-AR091EH5 | SCP-AR091EH8 | SCP-AR121EH5 | SCP-AR121EH8 | SCP-AR161EH8 | SCP-AR181EH8 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Performance | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Capacity | kW | 5.1 | 6.1 | 5.9 | 7.3 | 7.1 | 9.0 | 8.5 |
| Absorbed power | kW | 2.12 | 2.18 | 2.61 | 2.56 | 3.14 | 3.16 | 3.09 |
| Absorbed current | A | | | 12.2 | 12.8 | 11.4 | 15.0 | 6.1 |
| E.E.R/COP | W/W | 2.41 | 2.80 | 2.26 | 2.85 | 2.26 | 2.33 | 2.92 |
| ESEER | W/W | - | - | na | - | 2.53 | - | na |
| Water flow | l/sec | | | 0.28 | 0.34 | 0.34 | 0.44 | 0.34 |
| Available pump head | kPa | 50 | - | 64 | 57 | 59 | 47 | 47 |
| Main power supply | V/Ph/Hz | | | 230/1+N/50 | | | 400/3+N/50 | 230/1+N/50 |
| Expansion tank volume | l | | | 2 | 2 | 2 | 2 | 2 |
| Hydraulic connection diameter | inch | | | 3/4" Male | | | 1" Male | |
| Sound levels | | | | | | | | |
| Sound power level | dB(A) | | | | 65 | | 67 | 73 |
| Sound pressure level | dB(A) | | | | 37 | | 39 | 45 |
| System water content | | | | | | | | |
| Minimum water content | l | | | 30 | 40 | 40 | 50 | 50 |
| Dimensions & weights | | | | | | | 60 | 60 |
| HxWxD | mm | | | 735x1190x340 | | | 1235x1190x340 | 1235x1190x340 |
| Weight net | kg | 82 | 90 | 98 | 128 | 133 | 138 | |

NEW Water chillers

| Model number | SCP-AR051E5 | SCP-AR081E5 | SCP-AR081E8 | SCP-AR111E8 | SCP-AR151E8 | SCP-AR171E8 |
|-------------------------------|-------------|-------------|------------------|-------------------|-------------------|-------------------|
| Performance | Cooling | Cooling | Cooling | Cooling | Cooling | Cooling |
| Capacity | kW | 5.2 | 8.0 | 8.0 | 11.0 | 13.7 |
| Absorbed power | kW | | 3.63 | | 4.42 | 5.27 |
| Absorbed current | A | - | 15.2 | 7.2 | 10.5 | 11.2 |
| E.E.R/COP | W/W | - | 2.23 | 2.28 | 2.49 | 2.6 |
| ESEER | W/W | - | 2.44 | 2.50 | 2.76 | 2.90 |
| Water flow | l/sec | - | 0.39 | 0.39 | 0.53 | 0.65 |
| Available pump head | kPa | - | 42 | | 55 | 68 |
| Main power supply | V/Ph/Hz | 230/1+N/50 | | | 400/3+N/50 | |
| Expansion tank volume | l | - | 2 | | 2 | |
| Hydraulic connection diameter | inch | - | 3/4" Male | | 1" Male | |
| Sound levels | | | | | | |
| Sound power level | dB(A) | - | | 65 | | 67 |
| Sound pressure level | dB(A) | - | | 37 | | 39 |
| System water content | | | | | | |
| Minimum water content | l | - | 30 | 40 | 50 | 60 |
| Dimensions & weights | | | | | | |
| HxWxD | mm | - | 735 x 1190 x 340 | 1235 x 1190 x 340 | 1235 x 1190 x 340 | 1235 x 1190 x 340 |
| Weight net | kg | 87 | 110 | 122 | 135 | |

ESEER: European Seasonal Energy Efficient Ratio published by Eurovent

Specifications subject to change without notice

na: data not available at the time of publication

| Nominal conditions | Sound pressure level |
|------------------------------|-------------------------------------|
| Outdoor air temperature 35°C | Unit installed outdoor (free field) |
| Inlet water temperature 12°C | Measuring distance 10m |
| Outlet water temp 7°C | Outdoor air temperature 35°C |

- High COP
- R407C refrigerant that does not harm the ozone layer
- Incorporated hydronic module that includes circulation pump with expansion tank
- Installation of a buffer tank is not necessary
- Anti-vibration supports included
- 150 litre buffer tank available as an accessory



Air-to-water heat pumps

| Model number | | SCP-AR241EH8 | | SCP-AR271EH8 | | SCP-AR351EH8 | | SCP-AR401EH8 | |
|-------------------------------|---------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| | | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Performance | | | | | | | | | |
| Capacity | kW | 20.8 | 24.0 | 25.8 | 27.3 | 30.3 | 35.5 | 33.5 | 38.4 |
| Absorbed power | kW | 8.85 | 9.0 | 9.77 | 10.4 | 13.55 | 13.55 | 14.55 | 14.75 |
| Absorbed current | A | 18.6 | 19.9 | 20.0 | 20.9 | 27.3 | 25.0 | 29.3 | 28.7 |
| E.E.R/COP | W/W | 2.35 | 2.67 | 2.66 | 2.63 | 2.24 | 2.62 | 2.30 | 2.60 |
| ESEER | W/W | 2.78 | - | 2.49 | - | 2.45 | - | 2.72 | - |
| Water flow | l/sec | 0.97 | 1.17 | 1.25 | 1.30 | 1.45 | 1.65 | 1.68 | 2.0 |
| Available pump head | kPa | 215 | 185 | 160 | 145 | 200 | 140 | 165 | 95 |
| Main power supply | V/Ph/Hz | | | | | 400/3+N/50 | | | |
| Hydraulic connection diameter | inch | | | | | 1 1/4" Male | | | |
| Sound levels | | | | | | | | | |
| Sound power level | dB(A) | | 79 | | 78 | | 80 | | 82 |
| Sound pressure level | dB(A) | | 51 | | 50 | | 52 | | 54 |
| System water content | | | | | | | | | |
| Minimum water content | l | | 80 | | 90 | | 120 | | 130 |
| Dimensions & weights | | | | | | | | | |
| HxWxD | mm | | 1175x975x1050 | | 1175x975x1050 | | 1175x975x1050 | | 1425x975x1050 |
| Weight net | kg | | 303 | | 305 | | 327 | | 363 |

Water chillers

| Model number | | SCP-AR201E8 | | SCP-AR251E8 | | SCP-AR301E8 | | SCP-AR401E8 | |
|-------------------------------|---------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|
| | | Cooling | | Cooling | | Cooling | | Cooling | |
| Performance | | | | | | | | | |
| Capacity | kW | 20.7 | | 23.8 | | 31.0 | | 39.0 | |
| Absorbed power | kW | 8.3 | | 10.4 | | 13.4 | | 14.8 | |
| Absorbed current | A | 18.0 | | 20.7 | | 24.7 | | 28.3 | |
| E.E.R/COP | W/W | 2.49 | | 2.29 | | 2.31 | | 2.64 | |
| ESEER | W/W | 2.97 | | 2.73 | | 2.62 | | 2.81 | |
| Water flow | l/sec | 0.99 | | 1.16 | | 1.48 | | 1.87 | |
| Available pump head | kPa | 210 | | 170 | | 200 | | 135 | |
| Main power supply | V/Ph/Hz | | | 400/3+N/50 | | | | | |
| Hydraulic connection diameter | inch | | | 1 1/4" Male | | | | | |
| Sound levels | | | | | | | | | |
| Sound power level | dB(A) | | 79 | | 78 | | 80 | | 82 |
| Sound pressure level | dB(A) | | 51 | | 50 | | 52 | | 54 |
| System water content | | | | | | | | | |
| Minimum water content | l | | 70 | | 70 | | 95 | | 120 |
| Dimensions & weights | | | | | | | | | |
| HxWxD | mm | | 1175x975x1050 | | 1175x975x1050 | | 1175x975x1050 | | 1425x975x1050 |
| Weight net | kg | | 292 | | 295 | | 317 | | 353 |

ESEER: European Seasonal Energy Efficient Ratio published by Eurovent

Specifications subject to change without notice

na: data not available at the time of publication

| Nominal conditions | Sound pressure level |
|------------------------------|-------------------------------------|
| Outdoor air temperature 35°C | Unit installed outdoor (free field) |
| Inlet water temperature 12°C | Measuring distance 10m |
| Outlet water temp 7°C | Outdoor air temperature 35°C |

Water Chillers & Heat Pumps continued

- High COP
- R407C refrigerant that does not harm the ozone layer
- Incorporated hydronic module that includes circulation pump with expansion tank
- 300 litre buffer tank is available as an accessory
- Low noise level



Air-to-water heat pumps

| Model number | SCP-AR502EH8 | | SCP-AR602EH8 | | SCP-AR702EH8 | | SCP-AR802EH8 | |
|-------------------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| | Cooling | Heating | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Performance | | | | | | | | |
| Capacity | kW | 40.6 | 49.0 | 52.6 | 54.0 | 60.6 | 69.3 | 76.0 |
| Absorbed power | kW | 17.7 | 17.8 | 21.2 | 19.0 | 27.1 | 27.0 | 29.0 |
| Absorbed current | A | 35.0 | 37.2 | 41.1 | 39.2 | 53.5 | 48.8 | 58.0 |
| EER/COP | W/W | 2.29 | 2.75 | 2.48 | 2.84 | 2.24 | 2.57 | 2.24 |
| ESEER | W/W | 2.76 | - | 2.34 | - | 2.45 | - | 2.66 |
| Water flow | l/sec | 1.94 | 2.34 | 2.51 | 2.58 | 2.90 | 3.31 | 3.06 |
| Available pump head | kPa | 260 | 215 | 200 | 180 | 210 | 150 | 200 |
| Main power supply | V/Ph/Hz | | | | 400/3+N/50 | | | |
| Hydraulic connection diameter | inch | | | | 1"1/2 Male | | | |
| Sound levels | | | | | | | | |
| Sound power level | dB(A) | 78 | | 76 | | 80 | | 85 |
| Sound pressure level | dB(A) | 50 | | 48 | | 52 | | 57 |
| System water content | | | | | | | | |
| Minimum water content | l | 130 | | 150 | | 200 | | 200 |
| Dimensions & weights | | | | | | | | |
| HxWxD | mm | 1175x1955x1050 | | 1175x1955x1050 | | 1175x1955x1050 | | 1425x1955x1050 |
| Weight net | kg | 589 | | 593 | | 627 | | 699 |

Water chillers

| Model number | SCP-AR502E8 | | SCP-AR602E8 | | SCP-AR702E8 | | SCP-AR802E8 | |
|-------------------------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|
| | Cooling | | Cooling | | Cooling | | Cooling | |
| Performance | | | | | | | | |
| Capacity | kW | 47.6 | | 62.0 | | 67.0 | | 78.0 |
| Absorbed power | kW | 20.6 | | 26.4 | | 28.8 | | 29.4 |
| Absorbed current | A | 38.7 | | 47.7 | | 54.0 | | 55.5 |
| EER/COP | W/W | 2.31 | | 2.35 | | 2.33 | | 2.65 |
| ESEER | W/W | 2.74 | | 2.65 | | 2.56 | | 2.94 |
| Water flow | l/sec | 2.28 | | 2.96 | | 3.2 | | 3.73 |
| Available pump head | kPa | 220 | | 160 | | 180 | | 90 |
| Main power supply | V/Ph/Hz | | | 400/3+N/50 | | | | |
| Hydraulic connection diameter | inch | | | 1"1/4 Male | | | | |
| Sound levels | | | | | | | | |
| Sound power level | dB(A) | 78 | | 82 | | | 87 | |
| Sound pressure level | dB(A) | 50 | | 54 | | | 59 | |
| System water content | | | | | | | | |
| Minimum water content | l | 120 | | 160 | | 170 | | 200 |
| Dimensions & weights | | | | | | | | |
| HxWxD | mm | 1175x1955x1050 | | 1175x1955x1050 | | 1175x1955x1050 | | 1425x1955x1050 |
| Weight net | kg | 573 | | 607 | | 629 | | 679 |

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| Nominal conditions | Sound pressure level |
|------------------------------|-------------------------------------|
| Outdoor air temperature 35°C | Unit installed outdoor (free field) |
| Inlet water temperature 12°C | Measuring distance 10m |
| Outlet water temp 7°C | Outdoor air temperature 35°C |

Controls



Remote control

The functions and display are exactly the same as those on built-in controller. The controller is designed to be installed inside sheltered rooms.

The link can be extended up to 100 metres using a twisted pair shielded cable.

- 70250055 for 051-401 models
- 70250057 for 502-802 models



RS485 ModBus Interface

- 70250056

For connection of the electronic control to a BMS system with ModBus standard.

Accessories

Buffer tank

To be used when water content of the system is below the minimum quantity as in the specification table.

- 70600118 capacity of 35lt for 051-181 models
- 70600110 capacity of 150lt with 400W anti-freeze electric heater for 201-401 models
- 70600120 capacity of 300lt with 800W anti-freeze electric heater for 502-802 models

Set of two water hoses

- 70600054 length 1m Ø 3/4" for 051-091 models
- 70600055 length 1m Ø 1" for 111-181 models
- 70600027 length 1m Ø 1" 1/4 for 201-401 models
- 70600034 length 1.5m Ø 1" 1/2 for 502-802 models

Start-up kit

This kit is used to lower the start-up current of the single-phase compressors.

- 70550004 for 051E5, 061EH5, 081E5, 081EH5, 091EH5, 121EH5 models

HP and LP gauges

These elements, mounted on the vertical members of the unit's front face, display the high and low pressure values for each refrigeration circuit.

- 70970006 x1pc for 201-351 models
- 70970007 x1pc for 401 model
- 70970006 x2pcs for 502-702 models
- 70970007 x2pcs for 802 model

Set of anti-vibration pads

To be located under girders.

- Included, 2pcs thickness 12.5mm, for 051-181 models
- 70600035, 4pcs thickness 25mm, for 201-802 models

Condensate tank heating cord

Length 1.5m, to be placed in the bottom of the condensate tank, close to the fin tube exchanger.

- 70200055 for 061-181EH heat pump models

Water Terminals

- Wide model range for 2-pipe and 4-pipe design system (X type size 031 and 051)
- Suitable for any commercial buildings and even for hotels and residential applications
- X, K and FT also available with infrared remote controller
- Quiet operation ensures maximum comfort
- 3-way valve kit features precise temperature control in the room
- Cleanable air filter included as standard

FW-X Type Ceiling Cassette FW-X03 • FW-X05 • FW-X06 • FW-X08 • FW-X10 - 2 pipe

| | | V/Ph/Hz | FW-X031EH5 | FW-X051EH5 | FWX061EH5 | FW-X081EH5 | FW-X101EH5 |
|---------------------------------|---------------|---------|----------------|----------------|----------------|----------------|------------------|
| | | | FW-X032EH5 | FW-X052EH5 | FWX062EH5 | FW-X082EH5 | FW-X102EH5 |
| Main power supply | | | | | | | |
| Total cooling capacity | Max/med/min* | kW | 2.60/2.35/2.15 | 4.70/4.10/3.60 | 6.00/5.00/4.20 | 7.60/6.00/5.00 | 9.92/8.09/6.23 |
| Sensible cooling capacity | Max/med/minn* | kW | 2.31/2.09/1.91 | 3.72/3.21/2.80 | 4.70/3.80/3.20 | 6.00/4.70/3.80 | 7.60/6.22/4.62 |
| Heating capacity | Max/med/min* | kW | 3.49/3.11/2.83 | 5.70/4.85/4.35 | 7.70/6.40/5.40 | 9.00/7.70/6.40 | 13.00/10.60/8.16 |
| Air flow | Max/med/min* | m³/h | 520/400/600 | 750/630/530 | 1300/1060/850 | 1470/1300/1060 | 2300/1700/1200 |
| Absorbed power | Max/med/minn* | W | 60/50/40 | 90/70/50 | 120/90/80 | 150/120/90 | 180/130/110 |
| Water flow | Max/med/min* | l/h | 430/395/360 | 790/690/600 | 1030/860/720 | 1300/1030/860 | 1700/1400/1070 |
| Sound power level (Lw) | Max/med/min* | dB(A) | 46/44/41 | 56/51/48 | 51/44/40 | 55/51/44 | 57/49/43 |
| Sound pressure level (Lp) | Max/med/min* | dB(A) | 37/35/32 | 47/42/39 | 42/35/31 | 46/42/35 | 48/40/34 |
| Water connections | | inch | 1/2" female | | 3/4" female | | |
| Dimensions & Weights | | | | | | | |
| Dimensions (H/W/D) | body | mm | 296x575x575 | 296x575x575 | 310x760x760 | 310x760x1050 | 310x760x1050 |
| | grille panel | mm | 41x730x730 | 41x730x730 | 30x860x860 | 30x860x1150 | 30x860x1150 |
| Weight (with grille panel) | | kg | 21 | 23 | 28 | 32 | 36 |

Also available: FW-031EH5-4 and FW-051EH5-4 - 4 pipe



models
X031, X051
X061
X081, X101
X032, X052
X062
X082, X102

FW-K Type Wall Mounted Units FW-K01 • FW-K02 • FW-K03 • FW-K04 - 2 pipe

| | | V/Ph/Hz | FW-K011EH5 | FW-K021EH5 | FW-K031EH5 | FW-K041EH5 |
|---------------------------------|----------|---------|-------------|-------------|-------------|-------------|
| | | | FW-K012EH5 | FW-K022EH5 | FW-K032EH5 | FW-K042EH5 |
| Main power supply | | | | | | |
| Total cooling capacity | Max/min* | kW | 1.24/0.80 | 1.67/0.96 | 2.90/1.57 | 3.50/2.35 |
| Sensible cooling capacity | Max/min* | kW | 0.94/0.58 | 1.30/0.74 | 2.20/1.20 | 2.70/1.80 |
| Heating capacity | Max/min* | kW | 1.72/1.11 | 2.38/1.49 | 3.90/2.45 | 5.40/3.60 |
| Air flow | Max/min* | m³/h | 220/150 | 270/180 | 585/360 | 720/470 |
| Absorbed power | Max/min* | W | 24/19 | 20/16 | 75/57 | 86/57 |
| Water flow | Max/min* | l/h | 215/135 | 290/165 | 500/274 | 615/415 |
| Sound power level (Lw) | Max/min* | dB(A) | 44/37 | 45/35 | 50/46 | 55/48 |
| Sound pressure level (Lp) | Max/min* | dB(A) | 35/28 | 36/26 | 41/37 | 46/39 |
| Water connections | | inch | 1/2" female | | | |
| Dimensions & Weights | | | | | | |
| Dimensions (H/W/D) | | mm | 270x805x177 | 270x805x177 | 285x995x206 | 285x995x206 |
| Weight | | kg | 8 | 8 | 12 | 12 |



FW-K
Wall Mounted Unit

FW-FT Type Floor/Ceiling Units FW-FT02 • FW-FT03 • FW-FT04 - 2 pipe

| | | V/Ph/Hz | FW-FT021EH5 | FW-FT031EH5 | FW-FT041EH5 |
|---------------------------------|--------------|----------|----------------|----------------|----------------|
| | | | FW-FT022EH5 | FW-FT032EH5 | FW-FT042EH5 |
| Main power supply | | | | | |
| Total cooling capacity | Max/Med/Min* | kW | 2.10/1.20/0.90 | 3.19/2.10/0.90 | 3.90/3.10/1.65 |
| Sensible cooling capacity | Max/Med/Min* | kW | 1.50/1.00/0.70 | 2.47/1.50/0.70 | 3.00/2.50/1.25 |
| Heating capacity | Max/Med/Min* | kW | 3.10/2.00/1.60 | 4.07/3.00/1.60 | 5.00/4.40/2.10 |
| Air flow | Max/Med/Min* | m³/h | 430/300/210 | 520/430/210 | 675/570/327 |
| Absorbed power | Max/Med/Min* | W | 40/30/26 | 46/37/26 | 70/53/35 |
| Water flow | Max/Med/Min* | l/h | 360/206/160 | 550/360/160 | 670/530/285 |
| Sound power level (Lw) | Max/Med/Min* | dB(A) | 48/43/35 | 50/45/35 | 54/51/40 |
| Sound pressure level (Lp) | Max/Med/Min* | dB(A) | 40/35/27 | 42/37/27 | 46/43/32 |
| Water connections | | (inches) | 1/2" female | | |
| Dimensions & Weights | | | | | |
| Dimensions (H/W/D) | | mm | 680x900x190 | | |
| Weight | | kg | 23.5 | | |



FW-FT
Floor/Ceiling Unit

| Nominal conditions | | | |
|----------------------------|---------------------|---|--|
| | Cooling | Heating | Sound pressure level |
| Entering air temperature | 27°C (db) 19°C (wb) | 20°C | At 2m distance in closed environment |
| Entering water temperature | 7°C | 50°C (at same water flow as for cooling) | 100m³ volume with 0.5 sec reverberation time |
| Leaving water temperature | 12°C | 60°C (maximum water entering temperature) | |

Controls & Accessories

Electronic controller with infrared wireless remote control

- Suitable for control of 2-pipe water terminals only
- Functions (manual selection)
 - Cooling
 - Dehumidification
 - Heating
 - Automatic
 - Fan only
- Operating range: from 10°C to 32°C room temperature
- Fan speed selection: manual (High/Med/Low) or automatic
- Automatic flap
- Room temperature sensor on remote control or unit
- Address switches on remote control (up to 4 different addresses)
- Minimum water temperature sensor

- Control of room temperature:
 - Fan ON-OFF
 - Automatic valve ON-OFF (if used)
- 24 hours timer
- Night set-back/energy saving (SLEEP)



NOTE - The control does not allow centralised Heat-Cool changeover, nor automatic changeover by external temperature sensor.

Wired wall mounted controls



RAB 30 - 70250076
For 2&4-pipe systems
with manual Heat-cool
changeover

- Two-positions ON-OFF control
- Fan speed selector - 3 speeds
- Control output 230V AC
- 2-pipe control on fan
- 2-pipe control on valve:
 - permanent ventilation
 - fan and valves operated at the same time
- 4-pipe control on two valves:
 - permanent ventilation
 - fan and valves operated at the same time
- Operating range: 8-30°C
- Switching differential 1K

Dimensions: 100x100x35 mm

Weight: 0.25 kg

IP rating: IP20

CE marking: Yes

RoHS: Yes

WEEE: Yes

REACH: Yes

UL: No

CSA: No

EN 60068-2-27: Yes

EN 60068-2-6: Yes

EN 60068-2-14: Yes

EN 60068-2-32: Yes

EN 60068-2-37: Yes

EN 60068-2-39: Yes

EN 60068-2-42: Yes

EN 60068-2-43: Yes

EN 60068-2-45: Yes

EN 60068-2-46: Yes

EN 60068-2-47: Yes

EN 60068-2-48: Yes

EN 60068-2-49: Yes

EN 60068-2-50: Yes

EN 60068-2-51: Yes

EN 60068-2-52: Yes

EN 60068-2-53: Yes

EN 60068-2-54: Yes

EN 60068-2-55: Yes

EN 60068-2-56: Yes

EN 60068-2-57: Yes

EN 60068-2-58: Yes

EN 60068-2-59: Yes

EN 60068-2-60: Yes

EN 60068-2-61: Yes

EN 60068-2-62: Yes

EN 60068-2-63: Yes

EN 60068-2-64: Yes

EN 60068-2-65: Yes

EN 60068-2-66: Yes

EN 60068-2-67: Yes

EN 60068-2-68: Yes

EN 60068-2-69: Yes

EN 60068-2-70: Yes

EN 60068-2-71: Yes

EN 60068-2-72: Yes

EN 60068-2-73: Yes

EN 60068-2-74: Yes

EN 60068-2-75: Yes

EN 60068-2-76: Yes

EN 60068-2-77: Yes

EN 60068-2-78: Yes

EN 60068-2-79: Yes

EN 60068-2-80: Yes

EN 60068-2-81: Yes

EN 60068-2-82: Yes

EN 60068-2-83: Yes

EN 60068-2-84: Yes

EN 60068-2-85: Yes

EN 60068-2-86: Yes

EN 60068-2-87: Yes

EN 60068-2-88: Yes

EN 60068-2-89: Yes

EN 60068-2-90: Yes

EN 60068-2-91: Yes

EN 60068-2-92: Yes

EN 60068-2-93: Yes

EN 60068-2-94: Yes

EN 60068-2-95: Yes

EN 60068-2-96: Yes

EN 60068-2-97: Yes

EN 60068-2-98: Yes

EN 60068-2-99: Yes

EN 60068-2-100: Yes

EN 60068-2-101: Yes

EN 60068-2-102: Yes

EN 60068-2-103: Yes

EN 60068-2-104: Yes

EN 60068-2-105: Yes

EN 60068-2-106: Yes

EN 60068-2-107: Yes

EN 60068-2-108: Yes

EN 60068-2-109: Yes

EN 60068-2-110: Yes

EN 60068-2-111: Yes

EN 60068-2-112: Yes

EN 60068-2-113: Yes

EN 60068-2-114: Yes

EN 60068-2-115: Yes

EN 60068-2-116: Yes

EN 60068-2-117: Yes

EN 60068-2-118: Yes

EN 60068-2-119: Yes

EN 60068-2-120: Yes

EN 60068-2-121: Yes

EN 60068-2-122: Yes

EN 60068-2-123: Yes

EN 60068-2-124: Yes

EN 60068-2-125: Yes

EN 60068-2-126: Yes

EN 60068-2-127: Yes

EN 60068-2-128: Yes

EN 60068-2-129: Yes

EN 60068-2-130: Yes

EN 60068-2-131: Yes

EN 60068-2-132: Yes

EN 60068-2-133: Yes

EN 60068-2-134: Yes

EN 60068-2-135: Yes

EN 60068-2-136: Yes

EN 60068-2-137: Yes

EN 60068-2-138: Yes

EN 60068-2-139: Yes

EN 60068-2-140: Yes

EN 60068-2-141: Yes

EN 60068-2-142: Yes

EN 60068-2-143: Yes

EN 60068-2-144: Yes

EN 60068-2-145: Yes

EN 60068-2-146: Yes

EN 60068-2-147: Yes

EN 60068-2-148: Yes

EN 60068-2-149: Yes

EN 60068-2-150: Yes

EN 60068-2-151: Yes

EN 60068-2-152: Yes

EN 60068-2-153: Yes

EN 60068-2-154: Yes

EN 60068-2-155: Yes

EN 60068-2-156: Yes

EN 60068-2-157: Yes

EN 60068-2-158: Yes

EN 60068-2-159: Yes

EN 60068-2-160: Yes

EN 60068-2-161: Yes

EN 60068-2-162: Yes

EN 60068-2-163: Yes

EN 60068-2-164: Yes

EN 60068-2-165: Yes

EN 60068-2-166: Yes

EN 60068-2-167: Yes

EN 60068-2-168: Yes

EN 60068-2-169: Yes

EN 60068-2-170: Yes

EN 60068-2-171: Yes

EN 60068-2-172: Yes

EN 60068-2-173: Yes

EN 60068-2-174: Yes

EN 60068-2-175: Yes

EN 60068-2-176: Yes

EN 60068-2-177: Yes

EN 60068-2-178: Yes

EN 60068-2-179: Yes

EN 60068-2-180: Yes

EN 60068-2-181: Yes

EN 60068-2-182: Yes

EN 60068-2-183: Yes

EN 60068-2-185: Yes

EN 60068-2-186: Yes

EN 60068-2-187: Yes

EN 60068-2-188: Yes

EN 60068-2-189: Yes

EN 60068-2-190: Yes

EN 60068-2-191: Yes

EN 60068-2-192: Yes

EN 60068-2-193: Yes

EN 60068-2-194: Yes

EN 60068-2-195: Yes

EN 60068-2-196: Yes

EN 60068-2-197: Yes

EN 60068-2-198: Yes

EN 60068-2-199: Yes

EN 60068-2-200: Yes

EN 60068-2-201: Yes

EN 60068-2-202: Yes

EN 60068-2-203: Yes

EN 60068-2-204: Yes

EN 60068-2-205: Yes

EN 60068-2-206: Yes

EN 60068-2-207: Yes

EN 60068-2-208: Yes

EN 60068-2-209: Yes

EN 60068-2-210: Yes

EN 60068-2-211: Yes

EN 60068-2-212: Yes

EN 60068-2-213: Yes

EN 60068-2-214: Yes

EN 60068-2-215: Yes

EN 60068-2-216: Yes

EN 60068-2-217: Yes

EN 60068-2-218: Yes

EN 60068-2-219: Yes

EN 60068-2-220: Yes

EN 60068-2-221: Yes

EN 60068-2-222: Yes

EN 60068-2-223: Yes

EN 60068-2-224: Yes

EN 60068-2-225: Yes

EN 60068-2-226: Yes

EN 60068-2-227: Yes

EN 60068-2-228: Yes

EN 60068-2-229: Yes

EN 60068-2-230: Yes

EN 60068-2-231: Yes

EN 60068-2-232: Yes

EN 60068-2-233: Yes

EN 60068-2-234: Yes

EN 60068-2-235: Yes

EN 60068-2-236: Yes

EN 60068-2-237: Yes

EN 60068-2-238: Yes

Fan-Coil Units



S-VM
Floor Standing Unit



S-HM
Ceiling Unit



S-VH
Concealed Unit

- Very wide and complete range: centrifugal or Cross Flow Fan, 2-pipe or 4-pipe design
- Stylish units can match any kind of interior decor

- Cleanable air filter included
- Easy to install and very simple to maintain
- Electronic controllers available for unit mounting and remote installation ensure precise control of the room temperature

- Large choice of accessories, either separately supplied or factory mounted

Cross Flow fan S-VMT/HMT/VHT 151-251-351

| Performance | | V/Ph/Hz | 151 | 251 | 351 |
|------------------------------------|-------------------|----------|----------------|----------------|----------------|
| Main power supply | | | 230/1+N/50 | | |
| Total cooling capacity | Max/med/min* | kW | 1.40/1.20/1.04 | 2.40/2.08/1.70 | 3.40/2.80/2.30 |
| Sensible cooling capacity | Max/med/min* | kW | 1.17/0.92/0.78 | 2.02/1.62/1.31 | 2.87/2.30/1.89 |
| Heating capacity (standard coil) | Max/med/min* | kW | 2.08/1.66/1.46 | 3.10/2.70/2.30 | 4.30/3.60/2.90 |
| Heating capacity (add. 1 row coil) | Max/med/min* | kW | 1.65/1.35/1.20 | 2.60/2.25/1.95 | 3.50/3.00/2.45 |
| Air flow | Max/med/min* | m³/h | 300/240/190 | 450/360/290 | 600/480/380 |
| Absorbed power | Max/med/min* | W | 40/30/27 | 50/45/37 | 65/50/42 |
| Water flow cooling | Max/med/min* | litres/h | 240/210/180 | 240/210/180 | 585/485/400 |
| Water pressure drop heating | Max/med/min* | kPa | 4.0/3.2/2.4 | 14.7/11.8/8.5 | 13.2/10.0/7.0 |
| Water flow heating | Max/med/min* | litres/h | 145/120/105 | 225/195/170 | 300/260/210 |
| Water pressure drop heating | Max/med/min* | kPa | 2.5/1.9/1.5 | 8.9/6.9/5.4 | 2.9/2.3/1.7 |
| Sound power level | (Lw) Max/med/min* | dB(A) | 48/40/34 | 47/42/36 | 48/43/39 |
| Sound pressure level | (Lp) Max/med/min* | dB(A) | 39/31/25 | 38/33/27 | 39/34/30 |
| Dimensions & Weights | | | | | |
| Dimensions | (H/W/D) | S-VMT | mm | 530x775x225 | 530x990x225 |
| Dimensions | (H/W/D) | S-HMT | mm | 225x775x530 | 225x990x530 |
| Dimensions | (H/W/D) | S-VHT | mm | 530x567x218 | 530x782x218 |
| Weight | | S-VMT | kg | 18 | 26 |
| Weight | | S-HMT | kg | 18 | 26 |
| Weight | | S-VHT | kg | 17 | 25 |

(*) Fan speed

Centrifugal fan S-VMC/HMC/VHC 151-251-351-401-501-601-701

| Performance | | V/Ph/Hz | 151 | 251 | 351 | 401 | 501 | 601 | 701 |
|------------------------------------|-------------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Main power supply | | | 230/1+N/50 | | | | | | |
| Total cooling capacity | Max/med/min* | kW | 1.50/1.30/1.10 | 2.50/2.15/1.80 | 3.50/2.90/2.47 | 4.00/3.44/2.90 | 4.80/4.15/3.60 | 5.95/5.08/4.30 | 6.60/5.50/4.60 |
| Sensible cooling capacity | Max/med/min* | kW | 1.25/1.00/0.83 | 2.10/1.68/1.39 | 2.95/2.35/1.95 | 3.35/2.68/2.21 | 4.05/3.24/2.67 | 5.00/4.00/3.30 | 5.50/4.40/3.64 |
| Heating capacity (standard coil) | Max/med/min* | kW | 2.06/1.70/1.40 | 3.30/2.70/2.30 | 4.45/3.70/3.00 | 5.20/4.35/3.65 | 6.60/5.50/4.70 | 8.00/6.70/5.50 | 8.80/7.30/6.00 |
| Heating capacity (add. 1 row coil) | Max/med/min* | kW | 1.75/1.35/1.25 | 2.70/2.35/2.05 | 3.60/3.10/2.65 | 3.69/3.31/2.65 | 5.30/4.50/3.90 | 5.50/5.00/4.20 | 5.50/5.00/4.20 |
| Air flow | Max/med/min* | m³/h | 300/240/190 | 450/360/290 | 600/480/380 | 750/600/480 | 1000/800/650 | 1200/950/750 | 1200/950/750 |
| Absorbed power | Max/med/min* | W | 50/37/25 | 60/50/45 | 87/80/60 | 95/80/65 | 130/85/65 | 180/145/120 | 180/145/120 |
| Water flow cooling | Max/med/min* | litres/h | 260/225/190 | 430/370/310 | 600/500/425 | 690/590/500 | 825/715/620 | 1020/875/740 | 1135/950/795 |
| Water pressure drop heating | Max/med/min* | kPa | 5.7/4.3/3.2 | 14.1/10.6/7.9 | 12.3/9.2/7.0 | 17.9/13.5/10.0 | 27.8/20.5/16.8 | 21.1/16.0/12.0 | 4.5/3.3/2.4 |
| Water flow heating | Max/med/min* | litres/h | 150/120/110 | 235/205/180 | 310/270/230 | 315/285/250 | 460/390/340 | 475/435/365 | 475/435/365 |
| Water pressure drop heating | Max/med/min* | kPa | 3.7/2.8/2.2 | 8.6/6.7/5.3 | 2.8/2.3/1.7 | 3.7/2.9/2.3 | 7.3/5.7/4.3 | 6.9/5.8/4.3 | 6.9/5.8/4.3 |
| Sound power level | (Lw) Max/med/min* | dB(A) | 51/45/40 | 54/50/42 | 51/42/37 | 54/48/45 | 59/54/48 | 60/55/48 | 60/55/48 |
| Sound pressure level | (Lp) Max/med/min* | dB(A) | 42/36/31 | 45/41/33 | 42/33/28 | 45/39/36 | 50/45/39 | 51/46/39 | 51/46/39 |
| Dimensions & Weights | | | | | | | | | |
| Dimensions | (H/W/D) | S-VMC mm | 530x775x225 | 530x990x225 | 530x1205x225 | 530x1205x225 | 530x1420x225 | 530x1420x255 | 530x1420x255 |
| Dimensions | (H/W/D) | S-HMC mm | 225x775x530 | 225x990x530 | 225x1205x530 | 225x1205x530 | 225x1420x530 | 255x1420x530 | 255x1420x530 |
| Dimensions | (H/W/D) | S-VHC mm | 530x510x218 | 530x725x218 | 530x940x218 | 530x940x218 | 530x1155x218 | 530x1155x248 | 530x1155x248 |
| Weight | | kg | 17 | 24 | 27 | 28 | 33 | 43 | 48 |
| Weight | | kg | 17 | 24 | 27 | 28 | 33 | 43 | 48 |
| Weight | S-VHC kg | kg | 16 | 23 | 26 | 27 | 31 | 40 | 45 |

(*) Fan speed

| Nominal conditions | | Cooling | Heating additional 1-row coil | Heating standard coil | Sound pressure level |
|----------------------------|--|--------------------|-------------------------------|--|--|
| Entering air temperature | | 27°C(db) 19°C (wb) | 20°C | 20°C | At 2m distance in closed environment |
| Entering water temperature | | 7°C | 70°C | 50°C (at same water flow as for ceiling) | 100m³ volume with 0.5 sec reverberation time |
| Leaving water temperature | | 12°C | 60°C | | |

Controls & Accessories

Fan Coil Unit Controls

Unit Mounted Controls

| MODEL | MV-3V | TMV-M | TMV-T | TMV-C | TMV-AU | TMV-AU-C |
|----------------|----------|----------|-----------------|-----------------|-----------------|-----------------|
| CODE N° | 9060130 | 9060131 | 9060132 | 9060133 | 9060134 | 9060135 |
| Function | | | | | | |
| On/Off | yes | yes | yes | yes | yes | yes |
| Fan speed | 3-manual | 3-manual | 3-manual | 3-manual | 3-auto | 3-auto |
| Thermostat | — | fan only | fan or valve/es | fan or valve/es | fan or valve/es | fan or valve/es |
| S/W Changeover | — | yes | yes | no-remote | yes | no-remote |

Wall Mounted Controls

| MODEL | MO-3V | RAB30 | RCC10 | RCC20 |
|----------------|----------|---------------------|--------------------|---------------------|
| CODE N° | 9060516 | 70250076 | 70250051 | 70250052 |
| Function | | | | |
| On/Off | yes | yes | yes | yes |
| Fan speed | 3-manual | 3-manual | 3-manual | 3-manual |
| Thermostat | — | fan and/or valve/es | fan and/or 1 valve | fan and/or 2 valves |
| S/W Changeover | — | yes | auto or remote | auto or remote |

Control Accessories

| CODE N° | MODEL | Description | Use with |
|----------|----------|--|-----------------------------|
| 3021091 | TME | Minimum water temperature sensor | TMV-T TMV-C TMV-AU TMV-AU-C |
| 9053049 | CH 15-25 | Automatic change over sensor for 2 pipe system | TMV-C TMV-AU-C RCC 10 |
| 70250053 | ASB | Air temperature sensor (bare) | RCC10 RCC20 |
| 70250054 | ASE | Air temperature sensor (with box) | RCC 10 RCC 20 |
| 9060136 | SELV | Speed selector receiver for VMC and VMT units | RAB 30 RCC 10 RCC 20 |
| 9060137 | SEL-O | Speed selector receiver for HMC, HMT, VHC, VHT units | RAB 30 RCC 10 RCC 20 |
| 9060103 | AMU | Terminal block adaptor for remote control | — |

Specifications subject to change without notice

Accessories

Control Accessories

| CODE N° | MODEL | Description | Use with |
|---------|------------|---|-------------------------|
| 9060150 | PAP 1-5 | Feet (pair) for unit size from 151 to 501 | VMC/VMT/VHC/VHT |
| 9060151 | PAP 6-7 | Feet (pair) for unit size from 601 e 701 | VMC/VMT/VHC/VHT |
| 6060400 | BSV | Auxiliary drain pan for vertical units | VMC/VMT/VHC/VHT/HMC/HMT |
| 6060402 | BSO-SX | Auxiliary drain pan for horizontal units left side | HMC/HMT/VHC/VHT |
| 6060403 | BSO-DX | Auxiliary drain pan for horizontal units right side | HMC/HMT/VHC/VHT |
| 6060420 | SCR | Condensate drain with quick coupling | HMC/HMT/VHC/VHT |
| 9060270 | VBPS 1-3 | Kit 3-way valve for unit size 151-251-351 - 1/2°F Kvs 1.6 | all models |
| 9060271 | VBPS 4-7 | Kit 3-way valve for unit size 401-501-601-701 - 1/2°F Kvs 2.5 | all models |
| 9060274 | VBAS 1-7 | Kit 3-way valve for 1-row coil - 1/2°F Kvs 1.6 | all 4-pipes models |
| 9060272 | VBPM 1-3 | Kit 3-way valve for unit size 151-251-351 factory mounted | all models |
| 9060273 | VBPM 4-7 | Kit 3-way valve for unit size 401-501-601-701 factory mtd | all models |
| 9060275 | VBAM 1-7 | Kit 3-way valve for 1-row coil factory mounted | all 4-pipes models |
| 9070140 | PCVL 1 | Back panel for unit size 151 | VMC/VMT/HMC/HMT |
| 9070141 | PCVL 2 | Back panel for unit size 251 | VMC/VMT/HMC/HMT |
| 9070142 | PCVL 3-4 | Back panel for unit size 351 and 451 | VMC/VMT/HMC/HMT |
| 9070143 | PCVL 5-6-7 | Back panel for unit size 501-601-701 | VMC/VMT/HMC/HMT |
| 9060190 | PCO 1 | Back panel for unit size 151 | HMC/HMT |
| 9060191 | PCO 2 | Back panel for unit size 251 | HMC/HMT |
| 9060192 | PCO 3-4 | Back panel for unit size 351 and 451 | HMC/HMT |
| 9060193 | PCO 5 | Back panel for unit size 501 | HMC/HMT |
| 9060194 | PCO 6-7 | Back panel for unit size 601 e 701 | HMC/HMT |
| 9060220 | KAF 1 | Kit front air return for unit size 151 factory mounted | VHC/VHT |
| 9060221 | KAF 2 | Kit front air return for unit size 251 factory mounted | VHC/VHT |
| 9060222 | KAF 3-4 | Kit front air return for unit size 351-451 factory mounted | VHC/VHT |
| 9060223 | KAF 5 | Kit front air return for unit size 501 factory mounted | VHC/VHT |
| 9060224 | KAF 6-7 | Kit front air return for unit size 601-701 factory mounted | VHC/VHT |

Specifications subject to change without notice

Ducted Units



NEW



| Model Number (2 pipe) | | S-HDC 601-2 | S-HDC 801-2 | S-HDC 1001-2 | S-HDC 1301-2 | S-HDC 1601-2 |
|---------------------------------------|-------------------------|----------------|-----------------|-----------------|-------------------|-------------------|
| Performances | | | | | | |
| Main power supply | V/F/Hz | | | 230/1+N/50 | | |
| Total cooling capacity | Max/med/min kW | 5.59/5.06/4.54 | 7.65/7.26/6.79 | 10.50/9.53/8.81 | 12.89/11.67/10.08 | 16.53/15.39/13.49 |
| Sensible cooling capacity | Max/med/minn kW | 4.58/4.07/3.59 | 6.07/5.71/5.28 | 8.36/7.46/6.82 | 10.13/9.03/7.85 | 13.21/12.15/10.45 |
| Heating capacity | Max/med/min kW | 8.13/7.25/6.41 | 10.7/10.11/9.34 | 14.8/13.2/12.0 | 17.91/15.9/13.4 | 23.4/21.54/18.5 |
| Air flow | Max/med/min m³/h | 1180/1005/850 | 1515/1390/1255 | 2130/1825/1615 | 2500/2140/1720 | 3365/3000/2450 |
| External static pressure | Max/med/min Pa | 60/50/35 | 60/50/35 | 60/50/35 | 60/50/35 | 60/50/35 |
| Absorbed power | Max/med/minn W | 205/160/125 | 290/260/240 | 460/390/340 | 580/500/440 | 960/820/680 |
| Water pressure drop | Cooling Max/med/min kPa | 6.2/5.2/4.3 | 12.2/11.2/9.9 | 18.3/15.4/13.3 | 15.3/12.7/9.8 | 13.8/12.0/9.5 |
| Water pressure drop | Heating Max/med/min kPa | 5.3/4.4/3.6 | 10.3/9.4/8.3 | 15.5/13.0/11.3 | 12.9/10.7/8.3 | 11.7/10.2/8.0 |
| Sound power level - outlet | (Lw) Max/med/min dB(A) | 62/57/53 | 66/63/61 | 65/63/59 | 67/64/60 | 72/69/63 |
| Sound power level - inlet+radiated | (Lw) Max/med/minn dB(A) | 63/59/55 | 69/66/63 | 68/65/62 | 69/67/64 | 75/72/67 |
| Sound pressure level - outlet | (Lp) Max/med/min dB(A) | 53/48/44 | 57/54/52 | 56/54/50 | 58/55/51 | 63/60/54 |
| Sound pressure level - inlet+radiated | (Lp) Max/med/min dB(A) | 54/50/46 | 60/57/54 | 59/56/53 | 60/58/55 | 66/63/58 |
| Rows | No | 4 | 4 | 4 | 4 | 4 |
| Coil water content | Lt | 2.6 | 3.7 | 4.6 | 6.0 | 7.1 |
| Water connections | inch | 3/4" male | 1" male | 1" male | 1 1/4" male | 1 1/4" male |
| Dimensions | (HxLxD) | mm | 310x1133x748 | 310x1133x748 | 360x1133x748 | 360x1445x903 |
| Net weight | kg | 47 | 48 | 56 | 78 | 88 |

| Model Number (4 pipe) | | S-HDC 601-4 | S-HDC 801-4 | S-HDC 1001-4 | S-HDC 1301-4 | S-HDC 1601-4 |
|---------------------------------------|-------------------------|----------------|----------------|-----------------|------------------|-------------------|
| Performances | | | | | | |
| Main power supply | V/F/Hz | | | 230/1+N/50 | | |
| Total cooling capacity | Max/med/min kW | 5.42/4.89/4.39 | 7.41/7.02/6.56 | 10.18/9.22/8.52 | 12.48/11.28/9.72 | 16.01/14.89/13.04 |
| Sensible cooling capacity | Max/med/min kW | 4.41/3.91/3.45 | 5.84/5.49/5.08 | 8.05/7.19/6.56 | 9.75/8.69/7.36 | 12.72/11.70/10.05 |
| Heating capacity | Max/med/min kW | 4.75/4.40/3.97 | 6.21/5.92/5.57 | 8.10/7.54/7.02 | 10.36/9.46/8.25 | 13.36/12.72/11.25 |
| Air flow | Max/med/minn m³/h | 1120/955/810 | 1435/1325/1190 | 2023/1735/1535 | 2375/2035/1635 | 3200/2850/2330 |
| External static pressure | Max/med/min Pa | 60/50/35 | 60/50/35 | 60/50/35 | 60/50/35 | 60/50/35 |
| Absorbed power | Max/med/min W | 205/160/125 | 290/260/240 | 460/390/340 | 580/500/440 | 960/820/680 |
| Water pressure drop | Cooling Max/med/min kPa | 5.8/4.8/4.0 | 11.6/10.5/9.3 | 17.4/14.6/12.6 | 14.5/12.1/9.2 | 13.0/11.4/9.0 |
| Water pressure drop | Heating Max/med/min kPa | 11.9/10.3/8.6 | 21.0/19.3/17.3 | 14.9/13.1/11.6 | 25.9/22.1/17.2 | 24.4/22.4/17.9 |
| Sound power level - outlet | (Lw) Max/med/min dB(A) | 62/57/53 | 66/63/61 | 65/63/59 | 67/64/60 | 72/69/63 |
| Sound power level - inlet+radiated | (Lw) Max/med/minn dB(A) | 63/59/55 | 69/66/63 | 68/65/62 | 69/67/64 | 75/72/67 |
| Sound pressure level - outlet | (Lp) Max/med/min dB(A) | 53/48/44 | 57/54/52 | 56/54/50 | 58/55/51 | 63/60/54 |
| Sound pressure level - inlet+radiated | (Lp) Max/med/min dB(A) | 54/50/46 | 60/57/54 | 59/56/53 | 60/58/55 | 66/63/58 |
| Rows - cooling+heating coils | No | 4+1 | 4+1 | 4+1 | 4+1 | 4+1 |
| Coil water content - cooling coil | Lt | 2.6 | 3.7 | 4.6 | 6.0 | 7.1 |
| Coil water content - heating coil | Lt | 0.9 | 1.1 | 1.4 | 2.0 | 2.7 |
| Water connection - cooling coil | inch | 3/4" male | 1" male | 1" male | 1 1/4" male | 1 1/4" male |
| Water connection - heating coil | inch | 3/4" male | 3/4" male | 3/4" male | 1" male | 1" male |
| Dimensions | (HxLxD) | mm | 310x1133x748 | 310x1133x748 | 360x1133x748 | 360x1445x903 |
| Net weight | kg | 50 | 51 | 60 | 83 | 94 |

| Nominal conditions | | Cooling | Heating additional 1-row coil | Heating standard coil | Sound pressure level |
|----------------------------|--------------------|---------|--|--|----------------------|
| Entering air temperature | 27°C(db) 19°C (wb) | 20°C | 20°C | At 2m distance in closed environment | |
| Entering water temperature | 7°C | 70°C | 50°C (at same water flow as for ceiling) | 100m³ volume with 0.5 sec reverberation time | |
| Leaving water temperature | 12°C | 60°C | | | |

| Model Number (2 pipe) | | S-HSC 151-2 | S-HSC 201-2 | S-HSC 301-2 | S-HSC 351-2 | S-HSC 501-2 | S-HSC 601-2 | S-HSC 701-2 | S-HSC 801-2 |
|--|-------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Performances | | | | | | | | | |
| Main power supply | | | | | | | | | |
| V/F/Hz | | | | | | | | | |
| Total cooling capacity | Max/med/min kW | 1.71/1.59/1.46 | 1.98/1.83/1.67 | 3.14/2.87/2.68 | 3.48/3.16/2.95 | 5.10/4.65/4.27 | 5.84/5.28/4.81 | 6.95/6.51/5.81 | 7.81/7.28/6.45 |
| Sensible cooling capacity | Max/med/min kW | 1.32/1.22/1.11 | 1.47/1.35/1.23 | 2.36/2.15/2.00 | 2.57/2.32/2.15 | 3.94/3.56/3.24 | 4.38/3.93/3.55 | 5.26/4.90/4.34 | 5.78/5.36/4.72 |
| Heating capacity | Max/med/min kW | 2.21/2.05/1.87 | 2.46/2.25/2.04 | 3.84/3.49/3.24 | 4.25/3.84/3.55 | 6.39/5.78/5.30 | 7.17/6.43/5.84 | 8.52/8.00/7.07 | 9.43/8.79/7.72 |
| Air flow | Max/med/min m³/h | 315/290/260 | 315/290/260 | 540/480/440 | 540/480/440 | 930/820/730 | 930/820/730 | 1200/1100/950 | 1200/1100/950 |
| External static pressure | Max/med/min Pa | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 |
| Absorbed power | Max/med/min W | 63/55/50 | 63/55/50 | 110/99/92 | 110/99/92 | 190/160/140 | 190/160/140 | 210/195/175 | 210/195/175 |
| Water pressure drop | Cooling | Max/med/min kPa | 10.0/8.8/7.4 | 16.0/13.8/11.6 | 16.2/13.8/12.0 | 12.0/10.2/9.0 | 19.8/16.8/14.4 | 12.0/10.2/8.4 | 16.8/14.4/12.0 |
| Water pressure drop | Heating | Max/med/min kPa | 8.6/7.4/6.2 | 13.7/11.7/9.8 | 13.7/11.4/10.0 | 10.4/9.1/7.8 | 17.6/15.0/13.0 | 10.4/9.1/7.2 | 15.0/13.0/10.4 |
| Sound power level - outlet (Lw) | Max/med/min dB(A) | 51/49/46 | 51/49/46 | 51/49/47 | 51/49/47 | 57/55/51 | 57/55/51 | 58/56/52 | 58/56/52 |
| Sound power level - inlet+radiated (Lw) | Max/med/min dB(A) | 59/56/52 | 59/56/52 | 58/55/53 | 58/55/53 | 63/60/57 | 63/60/57 | 64/61/58 | 64/61/58 |
| Sound pressure level - outlet (Lp) | Max/med/min dB(A) | 42/40/37 | 42/40/37 | 42/40/38 | 42/40/38 | 48/46/42 | 48/46/42 | 49/47/43 | 49/47/43 |
| Sound pressure level - inlet+radiated (Lp) | Max/med/min dB(A) | 50/47/43 | 50/47/43 | 49/46/44 | 49/46/44 | 54/51/48 | 54/51/48 | 55/52/49 | 55/52/49 |
| Rows | No | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 |
| Coil water content | Lt | 1.0 | 1.3 | 1.7 | 2.3 | 2.0 | 2.9 | 3.2 | 4.2 |
| Water connections | inch | | | | 1/2" female | | | | |
| Dimensions (HxLxD) | mm | 218x669x530 | 218x669x530 | 248x884x530 | 248x884x530 | 248x1099x530 | 248x1099x530 | 248x1550x530 | 248x1550x530 |
| Net weight | kg | 16 | 17 | 24 | 26 | 29 | 32 | 45 | 48 |

| Model Number (4 pipe) | | S-HSC 151-4 | S-HSC 301-4 | S-HSC 501-4 | S-HSC 701-4 |
|--|--------------------|-----------------|----------------|----------------|----------------|
| Performances | | | | | |
| Main power supply | | | | | |
| V/F/Hz | | | | | |
| Total cooling capacity | Max/med/min kW | 1.71/1.59/1.46 | 3.14/2.87/2.68 | 5.10/4.65/4.27 | 6.95/6.51/5.81 |
| Sensible cooling capacity | Max/med/min kW | 1.32/1.22/1.11 | 2.36/2.15/2.00 | 3.94/3.56/3.24 | 5.26/4.90/4.34 |
| Heating capacity | Max/med/min kW | 2.00/1.87/1.73 | 3.24/2.98/2.81 | 5.16/4.75/4.38 | 7.09/6.68/6.02 |
| Air flow | Max/med/min m³/h | 315/290/260 | 540/480/440 | 930/820/730 | 1200/1100/950 |
| External static pressure | Max/med/min Pa | 65/50/40 | 65/50/40 | 65/50/40 | 65/50/40 |
| Absorbed power | Max/med/minn W | 63/55/50 | 110/99/92 | 190/160/140 | 210/195/175 |
| Water pressure drop | Cooling | Max/med/min kPa | 10.0/8.8/7.4 | 16.2/13.8/12.0 | 19.8/16.8/14.4 |
| Water pressure drop | Heating | Max/med/min kPa | 8.0/7.0/6.0 | 3.9/3.3/2.8 | 9.0/8.0/7.0 |
| Sound power level - outlet (Lw) | Max/med/minn dB(A) | 51/49/46 | 51/49/47 | 57/55/51 | 58/56/52 |
| Sound power level - inlet+radiated (Lw) | Max/med/min dB(A) | 59/56/52 | 58/55/53 | 63/60/57 | 64/61/58 |
| Sound pressure level - outlet (Lp) | Max/med/min dB(A) | 42/40/37 | 42/40/38 | 48/46/42 | 49/47/43 |
| Sound pressure level - inlet+radiated (Lp) | Max/med/min dB(A) | 50/47/43 | 49/46/44 | 54/51/48 | 55/52/49 |
| Rows - cooling+heating coils | No | 3+1 | 3+1 | 3+1 | 3+1 |
| Coil water content - cooling coil | Lt | 1.0 | 1.7 | 2.0 | 3.2 |
| Coil water content - heating coil | Lt | 0.4 | 0.5 | 0.6 | 0.9 |
| Water connection - cooling coil | inch | 1/2" female | 1/2" female | 1/2" female | 1/2" female |
| Water connection - heating coil | inch | 1/2" female | 1/2" female | 1/2" female | 1/2" female |
| Dimensions (HxLxD) | mm | 218x669x530 | 248x884x530 | 248x1099x530 | 248x1550x530 |
| Net weight | kg | 17.4 | 25.7 | 31.0 | 47.7 |

| Nominal conditions | | Cooling | Heating additional 1-row coil | Heating standard coil | Sound pressure level |
|----------------------------|--|--------------------|-------------------------------|--|--|
| Entering air temperature | | 27°C(db) 19°C (wb) | 20°C | 20°C | At 2m distance in closed environment |
| Entering water temperature | | 7°C | 70°C | 50°C (at same water flow as for ceiling) | 100m³ volume with 0.5 sec reverberation time |
| Leaving water temperature | | 12°C | 60°C | | |



A wide-angle photograph of a beach scene. The foreground shows light-colored sand with some dark debris. The middle ground is filled with the ocean, showing small white-capped waves breaking near the shore. The background features a clear, pale blue sky that meets a darker blue horizon. A single, small white boat is visible on the horizon line.

VIRUS WASHER

Virus Washer Commercial Use Air Purifying System

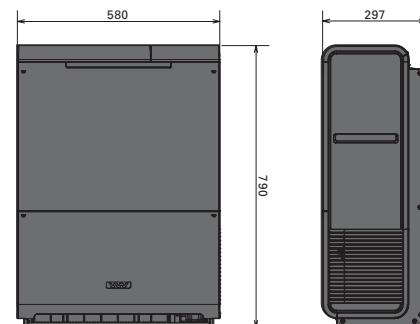
VW-VF10BG

The quality of the air we breathe is important for our well-being and in places where people gather, such as schools, hospitals and other public facilities, airborne germs are often present. Infectious airborne viruses can be rendered harmless from the treated air by SANYO's Electrolysed Water Technology.

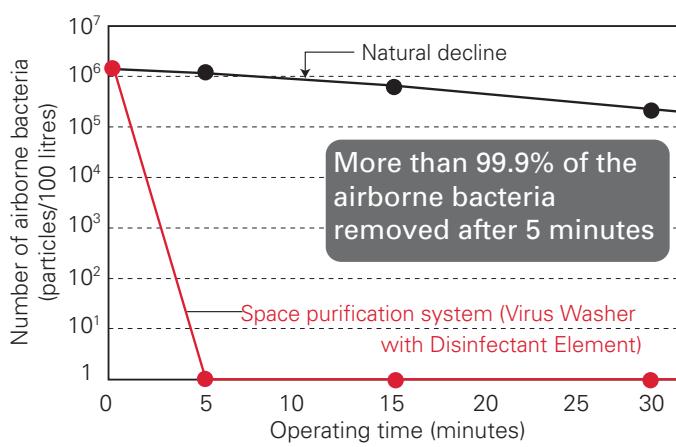
The Virus Washer also reduces airborne bacteria and mould, as well as pollen and dust mite allergens, to provide cleaner air for you, your colleagues and clients.*

- Inactivates more than 99% of airborne viruses and bacteria, and reduces pollen and dust mite allergens from treated air
- Improves air hygiene
- Designed for enclosed spaces up to 100 m² (300 m³) such as within hospitals, offices and other public places
- Humidifies dry air
- Easy to install

* Verification testing methods and results available on request.

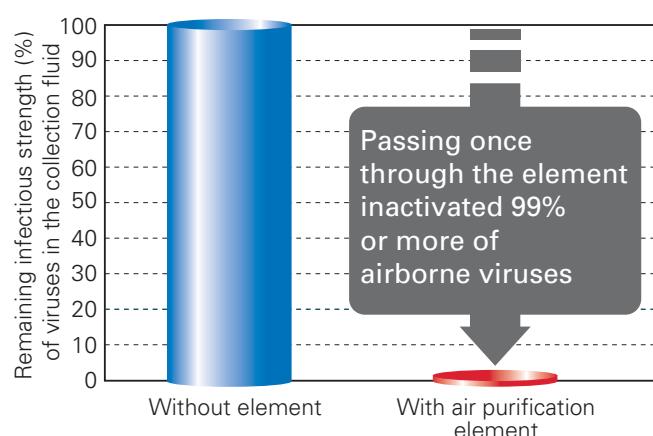


Results of Virus Inactivation Test



(Joint research conducted with the Gunma Prefectural Institute of Public Health and Environmental Sciences)

Airborne bacteria disinfectant test results



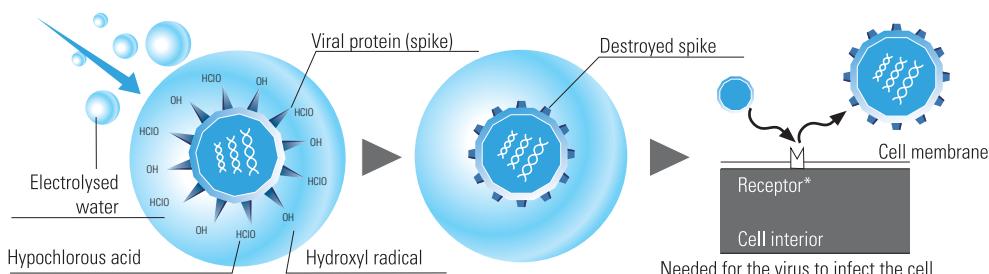
Inactivates airborne viruses with the power of electrolysed water

The Virus Washer uses an Electrolysed Water Disinfecting Element to inactivate viruses and other airborne microbes and particles. Electrolysed water runs over the air purification element in the Virus Washer. Indoor air is then forced to circulate through the element, inactivating airborne viruses which pass through it. Independent verification tests have shown that electrolysed water is effective in suppressing more than 99% of viruses in the air passing through the disinfectant element in a single pass.

Powerful cleaning - can be used in schools, hospitals, offices and other large spaces

To clean the air in large spaces where many people come and go, the fan speed can be set to $480 > 600 \text{ m}^3/\text{h}$ ($8 > 10 \text{ m}^3/\text{min}$). This makes the Virus Washer suitable for use in schools, hospitals and other large spaces where people gather. The powerful cleaning capacity is capable of circulating the air approximately $2.7 > 3.3$ times per hour in a school classroom (approximately 180 m^3).

How a Virus Washer works



(Joint research conducted with the Gunma Prefectural Institute of Public Health and Environmental Sciences)

| Model number | | VWVF10BG |
|---|------------------------------------|--|
| Power source | | AC 220-240 V, 50-60Hz |
| Dimensions mm | | 790 (H) x 580 (W) x 297 (D) |
| Weight | Product weight kg | 33 |
| | Operating weight kg | 39 (when water supply tank is full) |
| Exterior colour (Munsell number) | | Front panel: NW-K11 (VW white), Munsell value: N 8.5 Side panel: NW-K12 (VW grey), Munsell value: N 4.0 |
| Operation | Operating modules | High/Mid/Low |
| | Ambient usage temperature | 5-35°C |
| Electrical characteristics | Water to be used | Top water (potable) ^{*1} Maximum Total Water: 400ppm as CaCO ₃ . Virus Washer Water Filters required above 100ppm TH |
| | Power consumption W | High: 145, Mid: 78, Low: 57 |
| Ventilating device | Current A | High: 2.10, Mid: 1.20, Low: 0.88 |
| | Rated airflow m ³ /min | High: 10, Mid: 5, Low: 2 |
| Continuous operating time ^{*3} | Louvre | Two louvres (with swing function, closing with power OFF) |
| | Airflow direction adjustment range | 0°- 23° (airflow direction position memory) |
| Disinfectant element | Summer Hours | High: 7, Mid: 12, Low: 18 ^{*4} |
| | Winter Hours | High: 8, Mid: 10, Low: 15 ^{*5} |
| Water supply and drainage | | Stationary type |
| Operating noise db(A) | | Water supply tank (capacity approx. 6 litres), drainage tank (capacity approx 2 litres) |
| | | High 49, Mid: 35, Low: 29 ^{*2} |
| Specifications with high-performance micro-particle filter mounted | | |
| Model number | | AFT-HVW10BG |
| Particle trapping efficiency % | | Equivalent to 65% by colorimetric essay method (equivalent to 93% by gravimetric method) |
| Rated airflow m ³ /min | | High: 8, Mid: 4, Low: 2 |
| | | High: 49, Mid: 35, Low: 29 ^{*2} |

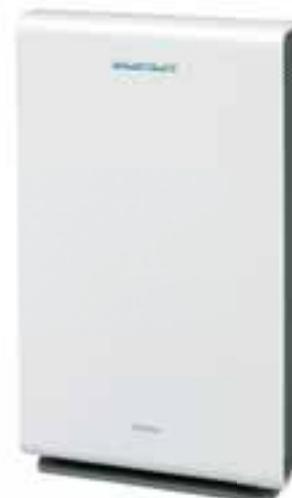
* Use only tap water for this product. The direct use of well water or purified water may cause malfunction. *The consumable parts of this product must be replaced at the required intervals to ensure satisfactory operation over a long period of time. For details, please refer to the operating instructions that come with the product. * The airflow will be reduced when the high-performance micro-particle filter is mounted.

*1: Be sure to use only tap water (drinking water) for this product. The settings of the product may need to be changed to suit the water quality of some regions. Also the tap water of some regions cannot be directly used. For details, please refer to the operating instructions that come with the product. *2: Operating noise was measured in an anechoic chamber, with measurements taken 1 metre from the front of the product, and 1 metre above the product. These values have a tendency to increase when the product is installed, due to surrounding noise and vibration. *3: The continuous operating time was measured with a full water supply tank (6 litres). *4 Approximate times at room temperature of 27°C and 47% humidity. *5: Approximate times at room temperature of 20°C and 30% humidity.

Virus Washer Domestic Use Air Purifying System



ABC-VW24



Each one of us typically breathes in about 15,000 litres (15 cubic metres) of air into our lungs every day. SANYO has developed the Virus Washer function to suppress airborne viruses by using electrolysed water for domestic use.

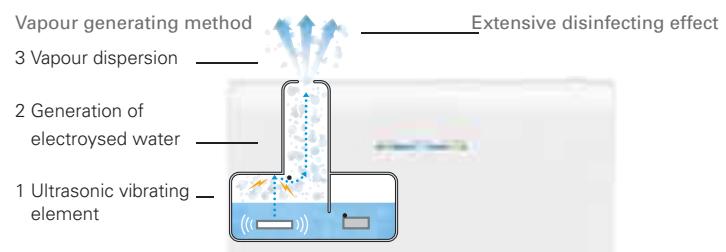
Controls airborne viruses, pollen and allergens

The hydroxyl radicals and hypochlorous acid contained in electrolysed water work together to destroy the spikes on the surface of the virus. This allows it to wrap around, disinfect and deodourise airborne viruses, bacteria and mould, as well as pollen, dust mite faeces and shells and odour molecules.

360° protection of the environment in which we live - germs embed themselves in spaces like these:

- On blinds
- In the hidden places of sofas and cushions
- In carpets and rugs
- In air gaps among furniture

Disinfecting effect of electrolysed water



The collected particles and odours are removed by a 5-layer, high-performance filter



- 1: Pre filter - Removes large particles
- 2: Allergen disinfecting filter - traps bacteria, dust mite faeces, and pollen
- 3: HEPA filter - removes fine particles
- 4: Nanotech carbon odour filter - captures and eliminates odours from smoke, tobacco, and domestic animals
- 5: Catechin disinfecting filter - formulated with an antibacterial agent containing catechin. Deactivates trapped bacteria and viruses

| VIRUS WASHER WITH ELECTROLYTIC TECHNOLOGY | | |
|---|-------------------|-------------------|
| ABC-VW24 | | |
| Advised surface area | m ² | 40 |
| Power consumption (B/M/A) | W | 8-16-57 |
| Fan speed | | 3 |
| Air flowrate (B/M/A) | m ³ /h | 72-168-306 |
| Sound pressure level (B/M/A) | dB(A) | 18-37-52 |
| Particle filter | | HEPA disinfectant |
| Odour filter | | Nanotech carbon |
| Antibacterial treatment | | Catechin |
| Timer | | 1/2/8 hours |
| Dimensions (HxLxD) | mm | 600x340x180 |
| Net weight | kg | 7,1 |
| Power supply | V,Ph,Hz | 230. 1+N. 50 |

ABC Air Cleaner

ABC-HP14



Create a clean atmosphere in your office or home

Triple-layer filter

SANYO's filtering system comprises three different filters that guarantee effective air treatment and simple maintenance. The carbon filter ensures deodourising power for the entire air flow.

Anti-pollen function

An automatic fan speed function guarantees the effective removal of pollen and spores.

Timer

The purifier's shut off may be delayed by 1, 2 or 8 hours, enabling you to enjoy purified and ionised air throughout the night.

HEPA filter

Removes and renders inactive 99% of bacteria, dust and spores, and contaminants by means of an antibacterial coating on the filter's surface.

Activated charcoal filter

By exploiting the properties of activated charcoal, this filter can effectively absorb and retain odours.



Adjustable inclination

The device may be inclined to promote optimal purifying effectiveness.

Negative ion generator

Releases a powerful stream of healthy negative ions to revitalise the air, similar to the freshness of an uncontaminated forest or waterfall.

Large air inlets

Placed on all sides, the large air inlets effectively reach all corners within the environment.

Powerful and quiet airflow

Using the three-speed fan selector, it is possible to select an optimal airflow for your environment and needs.

Low power consumption

At minimum speed, power consumption is below 20W - less than that of a table lamp.



| MODEL NO. | ABC-HP14 | |
|-----------------|-------------------------|---------------------------------------|
| Applied area | m ² | 25 |
| Fan speed | | 3 |
| Air circulation | (H/L) m ³ /h | 180-36 |
| Power input | (H/L) W | 56-19 |
| Dust filter | | HEPA Filter & Deodorant carbon filter |
| Delay timer | | 1 hour/2 hour/8 hour |
| Dimensions | (HxWxD) mm | 430x405x132 |
| Weight | kg | 4.1 |
| Power supply | | 220-240V/1ø 50Hz |





SOLAR AIR CONDITIONING

SANYO Solar Power - the next generation of air conditioning

As a pioneer in photovoltaic (solar cell) technology and heat pump air conditioning systems, SANYO has consistently taken the lead in research and development in both of these fields. As a result, SANYO has brought together, for the first time, 2 key technologies to create a solar-powered air conditioning system with world-leading efficiency.

In line with SANYO's Think GAIA ethos, our solar-powered air conditioning provides an alternative solution that allows you to benefit from the same high level of air conditioning technology and reliability that you would expect from SANYO, as well as using a sustainable energy resource that has no environmental impact and lower running costs.



Harness the sun's energy to reduce running costs and CO₂ emissions

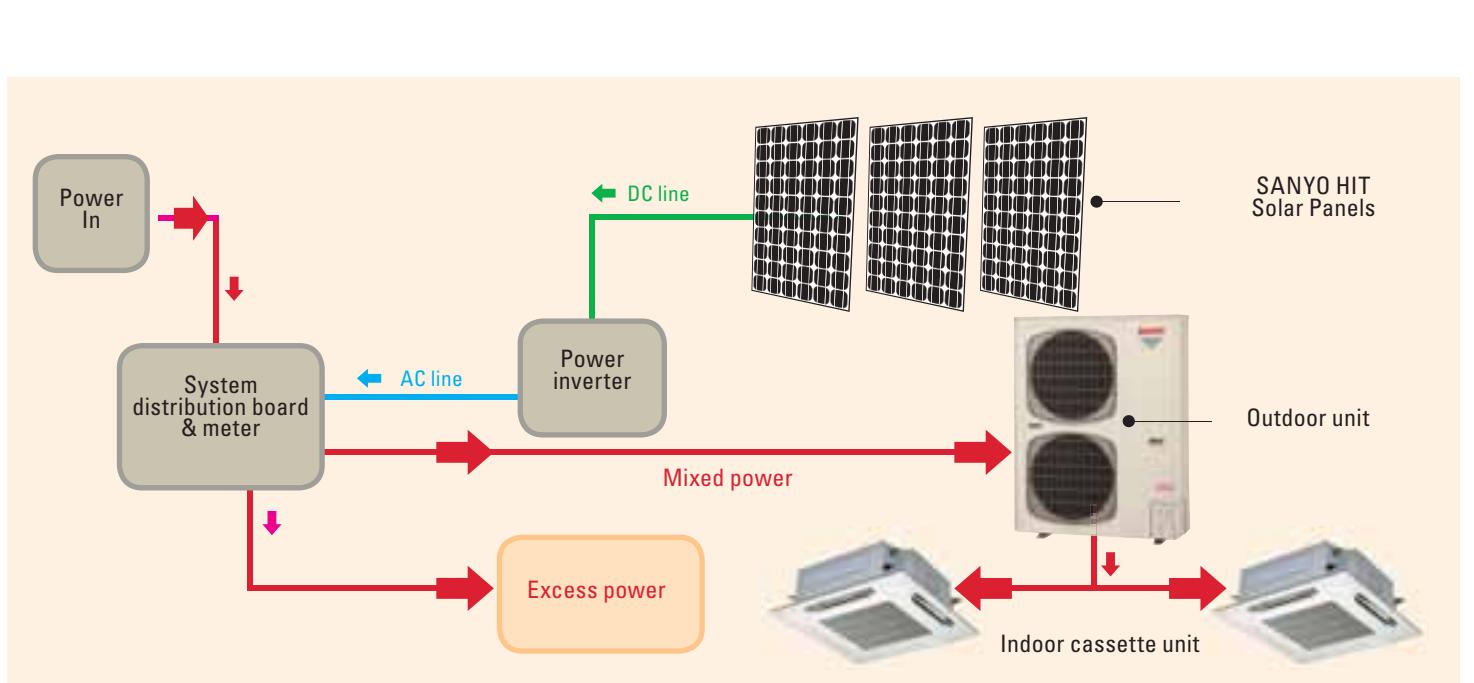
The modular design of the SANYO PV Air Conditioning System means that it can be designed to work with all of our product range, from room air conditioners right through to ECOi VRF. The solar generated electricity combines with normal supply to ensure consistent operation. Also, the solar power can be diverted to other uses so that the energy is not wasted when air conditioning is not being used.



How it works

Photovoltaics, or PV for short, is a solar power technology that uses solar cells to convert energy from the sun into electricity

1. Photons in sunlight hit the solar panel and are absorbed by silicon (a semi-conducting material)
2. Negatively charged electrons are knocked loose from their atoms, allowing them to flow through the material to produce electricity
3. The direct current (DC) electricity enters an inverter
4. The inverter turns DC electricity into the 240-volt AC (alternating current) electricity needed for air conditioning
5. The AC power enters the utility panel and is distributed to the air conditioning system
6. When the air conditioning is not being used the electricity can be diverted to power other facilities or flow into the national grid



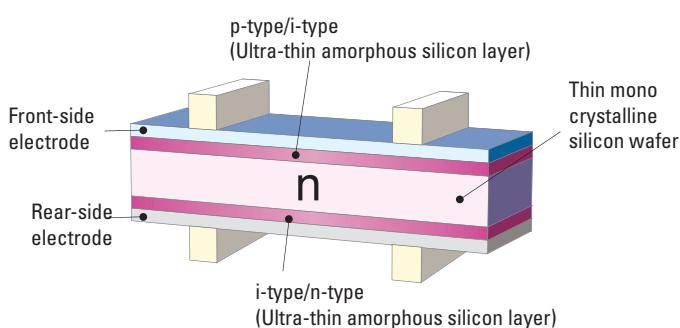
What's so special about SANYO's HIT solar cells?

SANYO's superior HIT (Heterojunction with Intrinsic Thin layer) technology features a thin amorphous layer on top of high quality monocrystalline silicon wafers. SANYO's HIT solar cell is the world's most advanced and energy-efficient mass produced PV solar cell, making them the preferred choice for tracking systems and roof installations all over the world.

Cell efficiency of up to 20% - this is the world's highest level of conversion efficiency in mass production.

More clean energy - HIT can produce more annual power output per unit area than other conventional crystalline silicon solar cells.

HIT solar cell structure



Higher performance in low light - HIT's unique structure provides excellent sensitivity to lower light levels or indirect light. Ideally suited to temperate climates such as Northern Europe.

High performance at high temperatures - even at high temperatures HIT can maintain higher efficiency than conventional crystalline silicon solar cells.

Environmentally friendly - modules are 100% emission-free, have no moving parts and produce no noise.

Space-efficient - very high conversion efficiency allows space-saving installation and achieves maximum output power possible on a given roof area.

Under development

Once just a concept, the first solar air conditioning systems are expected to be installed in some high profile projects in 2008. Solar air conditioning will become more widely available as SANYO continues to invest in new solar PV production.



SANYO's PV production plant in Dorog, Hungary







Indicates conformation
with EC Directives



ISO 9001: 2001
Certificate Number: JQ116B



ISO 14001: 2001
Certificate Number: ECOOJ0303-33

SANYO reserves the right to make any variation in specification to the equipment described or to withdraw or replace products without prior notification or public announcement. All descriptions, illustrations, drawings and specifications in this publication are given in good faith, but are intended to present only general particulars and shall not form any part of the contract. For full installation details, please contact your SANYO distributor.

Rating Conditions

The cooling and heating capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB, Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB, Outdoor Temperature 7°C DB 6°C WB.



Printed using paper produced from 50% recycled material and 50% from sustainable forestry.

www.sanyoaircon.eu

SANYO Air Conditioners. The natural choice.

SANYO