

This information was generated by the HP KEYMARK database on 18 Mar 2022

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Summary of	Ecodan Zubadan 14-200D AA	Reg. No.	037-0023-20
Certificate Holder			
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD		
Address	Nettlehill Road, Houston Industrial Estate	Zip	EH54 5EQ
City	Livingston	Country	United Kingdom
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)		
Subtype title	Ecodan Zubadan 14-200D AA		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.7 kg		
Certification Date	06.10.2020		
Testing basis	HP Keymark scheme rules rev. no. 6		

# Model: PUD-SHWM140VAA(-BS) + E\*SD-\*M\*D

Configure model	
Model name	PUD-SHWM140VAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.55 kW	4.9 kW
COP	4.7	2.45

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## Average Climate

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### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	179 %	134 %
Prated	14 kW	14 kW
SCOP	4.54	3.43
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.76	2.15
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.6 kW	7.5 kW
COP Tj = +2°C	4.3	3.15
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.2 kW	6.3 kW
COP Tj = +7°C	6.27	4.96
Cdh Tj = +7 °C	0.98	0.99

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Pdh Tj = 12°C	5.4 kW	4 kW
COP Tj = 12°C	9	6.9
Cdh Tj = +12 °C	0.98	0.97
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	2.69	1.8
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	1.8
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	6367 kWh	8421 kWh

# Model: PUD-SHWM140VAA(-BS) + E\*SD-M\*D

Configure model	
Model name	PUD-SHWM140VAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

## Heating

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Supplementary Heater: Type of energy input	Electricity	Electricity
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# Model: PUD-SHWM140VAA(-BS) + E\*ST20D-\*M\*D

Configure model	
Model name	PUD-SHWM140VAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.55 kW	4.9 kW
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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	6367 kWh	8421 kWh

## Domestic Hot Water (DHW)

### Average Climate

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<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	145 %
COP	3.41
Heating up time	01:31 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

# Model: PUD-SHWM140VAA(-BS) + E\*ST20D-M\*D

Configure model	
Model name	PUD-SHWM140VAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.55 kW	4.9 kW
COP	4.7	2.45

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## Average Climate

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Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.6 kW	7.5 kW
COP Tj = +2°C	4.3	3.15
Cdh Tj = +2 °C	0.99	0.99
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WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	6367 kWh	8421 kWh

## Domestic Hot Water (DHW)

### Average Climate

This information was generated by the HP KEYMARK database on 18 Mar 2022

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	145 %
COP	3.41
Heating up time	01:31 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

# Model: PUD-SHWM140YAA(-BS) + E\*SD-\*M\*D

## Configure model

Model name	PUD-SHWM140YAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

## General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.55 kW	4.9 kW
COP	4.7	2.45

### EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## Average Climate



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### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	177 %	134 %
Prated	14 kW	14 kW
SCOP	4.51	3.42
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	2.76	2.15
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	7.6 kW	7.5 kW
COP Tj = +2°C	4.3	3.15
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Pdh Tj = +7°C	5.2 kW	6.3 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	1.8
WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	6416 kWh	8455 kWh

# Model: PUD-SHWM140YAA(-BS) + E\*SD-M\*D

Configure model	
Model name	PUD-SHWM140YAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12 kW	12 kW
El input	2.55 kW	4.9 kW
COP	4.7	2.45

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## Average Climate

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### EN 12102-1

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WTOL	60 °C	60 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	6416 kWh	8455 kWh

# Model: PUD-SHWM140YAA(-BS) + E\*ST20D-\*M\*D

Configure model	
Model name	PUD-SHWM140YAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12 kW	12 kW
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Shutting off the heat transfer medium flow	passed
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Starting and operating test	passed

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## Domestic Hot Water (DHW)

### Average Climate



<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	145 %
COP	3.41
Heating up time	01:31 h:min
Standby power input	38 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

# Model: PUD-SHWM140YAA(-BS) + E\*ST20D-M\*D

Configure model	
Model name	PUD-SHWM140YAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
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Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

## Heating

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