Subtype Ecodan Zubadan 10/12-200D AA	
Certificate Holder	Mitsubishi Electric Air Conditioning Systems Europe LTD
Address	Nettlehill Road, Houston Industrial Estate
ZIP	EH54 5EQ
City	Livingston
Country	GB
Certification Body	SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise)
Subtype title	Ecodan Zubadan 10/12-200D AA
Registration number	037-0022-20
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
Testing laboratory	SZU Brno, CZ

Model PUD-SHWM100VAA(-BS) + E*SD-*M*D

Model name	PUD-SHWM100VAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	180 %	136 %
Prated	10 kW	10 kW
SCOP	4.56	3.48
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.46	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW

COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4527 kWh	5938 kWh

Model PUD-SHWM100VAA(-BS) + E*SD-M*D	
Model name	PUD-SHWM100VAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	180 %	136 %
Prated	10 kW	10 kW
SCOP	4.56	3.48
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.46	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW

COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4527 kWh	5938 kWh

Model PUD-SHWM100VAA(-BS) + E*ST20D-*M*D	
Model name	PUD-SHWM100VAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	180 %	136 %
Prated	10 kW	10 kW

SCOP	4.56	3.48
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.46	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4527 kWh	5938 kWh

Model PUD-SHWM100VAA(-BS) + E*ST20D-M*D	
Model name	PUD-SHWM100VAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	180 %	136 %
Prated	10 kW	10 kW

SCOP	4.56	3.48
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.46	3.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4527 kWh	5938 kWh

Model PUD-SHWM100YAA(-BS) + E*SD-*M*D

Model name	PUD-SHWM100YAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	135 %
Prated	10 kW	10 kW
SCOP	4.52	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.45	3.27
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW

COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4571 kWh	5975 kWh

Model PUD-SHWM100YAA(-BS) + E*SD-M*D	
Model name	PUD-SHWM100YAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	178 %	135 %
Prated	10 kW	10 kW
SCOP	4.52	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.45	3.27
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW

COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4571 kWh	5975 kWh

Model PUD-SHWM100YAA(-BS) + E*ST20D-*M*D	
Model name	PUD-SHWM100YAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	178 %	135 %
Prated	10 kW	10 kW

SCOP	4.52	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.45	3.27
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4571 kWh	5975 kWh

Model PUD-SHWM100YAA(-BS) + E*ST20D-M*D	
Model name	PUD-SHWM100YAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating	Low temperature	Medium temperature
Heat output	8 kW	8 kW
El input	1.6 kW	3.08 kW
COP	5	2.6

EN 12102-1 | Average Climate	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate	Low temperature	Medium temperature
ηs	178 %	135 %
Prated	10 kW	10 kW

SCOP	4.52	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.45	3.27
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.4 kW	5.2 kW
COP Tj = +7°C	5.63	4.81
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.5 kW	3.6 kW
COP Tj = 12°C	7.89	7.06
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	10 kW	10 kW
COP Tj = Tbiv	2.92	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10 kW	10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.91
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	4571 kWh	5975 kWh

Model PUD-SHWM120VAA(-BS) + E*SD-*M*D	
Model name	PUD-SHWM120VAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	179 %	135 %
Prated	12 kW	12 kW
SCOP	4.55	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.46	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW

COP Tj = +7°C	5.89	4.82
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5453 kWh	7170 kWh

Model PUD-SHWM120VAA(-BS) + E*SD-M*D	
Model name	PUD-SHWM120VAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	179 %	135 %
Prated	12 kW	12 kW
SCOP	4.55	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.46	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW

COP Tj = +7°C	5.89	4.82
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5453 kWh	7170 kWh

Model PUD-SHWM120VAA(-BS) + E*ST20D-*M*D	
Model name	PUD-SHWM120VAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	179 %	135 %
Prated	12 kW	12 kW

SCOP	4.55	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.46	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.89	4.82
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5453 kWh	7170 kWh

Model PUD-SHWM120VAA(-BS) + E*ST20D-M*D	
Model name	PUD-SHWM120VAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	179 %	135 %
Prated	12 kW	12 kW

SCOP	4.55	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	1	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.46	3.24
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.89	4.82
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5453 kWh	7170 kWh

Model PUD-SHWM120YAA(-BS) + E*SD-*M*D	
Model name	PUD-SHWM120YAA(-BS) + E*SD-*M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	134 %
Prated	12 kW	12 kW
SCOP	4.51	3.44
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.24
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW

COP Tj = +7°C	5.89	4.8
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5496 kWh	7213 kWh

Model PUD-SHWM120YAA(-BS) + E*SD-M*D	
Model name	PUD-SHWM120YAA(-BS) + E*SD-M*D
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	134 %
Prated	12 kW	12 kW
SCOP	4.51	3.44
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.24
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW

COP Tj = +7°C	5.89	4.8
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5496 kWh	7213 kWh

Model PUD-SHWM120YAA(-BS) + E*ST20D-*M*D	
Model name	PUD-SHWM120YAA(-BS) + E*ST20D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	134 %
Prated	12 kW	12 kW

SCOP	4.51	3.44
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.24
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.89	4.8
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5496 kWh	7213 kWh

Model PUD-SHWM120YAA(-BS) + E*ST20D-M*D	
Model name	PUD-SHWM120YAA(-BS) + E*ST20D-M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	148 %
COP	3.49
Heating up time	01:47 h:min
Standby power input	36 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	278 l

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

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	10 kW	10 kW
El input	2.08 kW	3.77 kW
COP	4.8	2.65

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	134 %
Prated	12 kW	12 kW

SCOP	4.51	3.44
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	10.6 kW	10.6 kW
COP Tj = -7°C	2.85	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.45	3.24
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.6 kW	5.3 kW
COP Tj = +7°C	5.89	4.8
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	4.4 kW	4.3 kW
COP Tj = 12°C	8	6.94
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	12 kW	12 kW
COP Tj = Tbiv	2.77	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.87
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	5496 kWh	7213 kWh