

Subtype Ecodan Zubadan 6/8-170D 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 6/8-170D AA
Registration number	037-0018-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.4 kg
Certification Date	30.11.2020
Testing basis	HP Keymark scheme rules rev. no. 6
Testing laboratory	SZU Brno, CZ

Model PUD-SHWM60VAA(-BS) + E*ST17D-*M*BD

Model name	PUD-SHWM60VAA(-BS) + E*ST17D-*M*BD
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	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 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	5 kW	5 kW
El input	1 kW	1.89 kW
COP	4.99	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	55 dB(A)	55 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	134 %
Prated	6 kW	6 kW

SCOP	4.52	3.41
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	5.3 kW	5.3 kW
COP Tj = -7°C	3.29	2.14
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.45	3.23
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	5.67	4.91
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	7.8	6.89
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	6 kW	6 kW
COP Tj = Tbiv	3.21	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6 kW	6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.21	2.02
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	2743 kWh	3631 kWh

Model PUD-SHWM60VAA(-BS) + E*ST17D-*M*D

Model name	PUD-SHWM60VAA(-BS) + E*ST17D-*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	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 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	5 kW	5 kW
El input	1 kW	1.89 kW
COP	4.99	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	55 dB(A)	55 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	178 %	134 %
Prated	6 kW	6 kW

SCOP	4.52	3.41
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	5.3 kW	5.3 kW
COP Tj = -7°C	3.29	2.14
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.45	3.23
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	5.67	4.91
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	7.8	6.89
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	6 kW	6 kW
COP Tj = Tbiv	3.21	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6 kW	6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.21	2.02
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	2743 kWh	3631 kWh

Model PUD-SHWM80VAA(-BS) + E*ST17D-*M*BD

Model name	PUD-SHWM80VAA(-BS) + E*ST17D-*M*BD
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 η_{DHW}	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 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	6 kW	6 kW
El input	1.19 kW	2.26 kW
COP	5.03	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	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	135 %
Prated	8 kW	8 kW

SCOP	4.6	3.45
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	7.1 kW	7.1 kW
COP Tj = -7°C	3.11	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.43	3.23
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	6	4.91
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	8.21	7.05
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	8 kW	8 kW
COP Tj = Tbiv	3.09	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8 kW	8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	1.97
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	3597 kWh	4793 kWh

Model PUD-SHWM80VAA(-BS) + E*ST17D-*M*D

Model name	PUD-SHWM80VAA(-BS) + E*ST17D-*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 η_{DHW}	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 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	6 kW	6 kW
El input	1.19 kW	2.26 kW
COP	5.03	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	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	135 %
Prated	8 kW	8 kW

SCOP	4.6	3.45
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	7.1 kW	7.1 kW
COP Tj = -7°C	3.11	2.14
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.43	3.23
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	6	4.91
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	8.21	7.05
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	8 kW	8 kW
COP Tj = Tbiv	3.09	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8 kW	8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	1.97
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	3597 kWh	4793 kWh

Model PUD-SHWM80YAA(-BS) + E*ST17D-*M*BD

Model name	PUD-SHWM80YAA(-BS) + E*ST17D-*M*BD
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 η_{DHW}	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 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	6 kW	6 kW
El input	1.19 kW	2.26 kW
COP	5.03	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	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	179 %	134 %
Prated	8 kW	8 kW

SCOP	4.55	3.42
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	7.1 kW	7.1 kW
COP Tj = -7°C	3.11	2.14
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.44	3.23
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	6	4.91
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	8.21	7.05
Cdh Tj = +12 °C	0.94	0.95
Pdh Tj = Tbiv	8 kW	8 kW
COP Tj = Tbiv	3.09	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8 kW	8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	1.97
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	3632 kWh	4832 kWh

Model PUD-SHWM80YAA(-BS) + E*ST17D-*M*D

Model name	PUD-SHWM80YAA(-BS) + E*ST17D-*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 η_{DHW}	136 %
COP	3.22
Heating up time	01:38 h:min
Standby power input	37 W
Reference hot water temperature	53.4 °C
Mixed water at 40°C	236 l

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Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6 kW	6 kW
El input	1.19 kW	2.26 kW
COP	5.03	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	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	179 %	134 %
Prated	8 kW	8 kW

SCOP	4.55	3.42
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	7.1 kW	7.1 kW
COP Tj = -7°C	3.11	2.14
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.7 kW	4.3 kW
COP Tj = +2°C	4.44	3.23
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	5.1 kW	5.3 kW
COP Tj = +7°C	6	4.91
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.2 kW	3.1 kW
COP Tj = 12°C	8.21	7.05
Cdh Tj = +12 °C	0.94	0.95
Pdh Tj = Tbiv	8 kW	8 kW
COP Tj = Tbiv	3.09	1.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8 kW	8 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.09	1.97
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	3632 kWh	4832 kWh