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Summary of	Ecodan Zubadan 6/8-170D AA	Reg. No.	037-0018-20
Certificate Holder	Certificate Holder		
Name	Mitsubishi Electric Air Conditioning Systems Europe LTD		
Address	Nettlehill Road, Houston Industrial Estate	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 6/8-170D AA		
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		



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

Configure model		
Model name PUD-SHWM60VAA(-BS) + E*ST17D-*M*BD		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply n/a		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	5 kW	5 kW
El input	1 kW	1.89 kW
СОР	4.99	2.65

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



EN 12102-1		
	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		
	Low temperature	Medium temperature
η_{s}	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o 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

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	136 %	
СОР	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	



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

Configure model		
Model name PUD-SHWM60VAA(-BS) + E*ST17D-*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	5 kW	5 kW
El input	1 kW	1.89 kW
СОР	4.99	2.65

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



EN 12102-1		
	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		
	Low temperature	Medium temperature
η_{s}	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





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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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2743 kWh	3631 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	136 %	
СОР	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	



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

Configure model		
Model name PUD-SHWM80VAA(-BS) + E*ST17D-*M*BD		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data	
Power supply	n/a

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6 kW	6 kW
El input	1.19 kW	2.26 kW
СОР	5.03	2.65

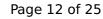
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Average Climate



EN 12102-1		
	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		
	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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o 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

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	136 %	
СОР	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 I	



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

Configure model		
Model name PUD-SHWM80VAA(-BS) + E*ST17D-*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	6 kW	6 kW	
El input	1.19 kW	2.26 kW	
СОР	5.03	2.65	

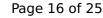
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





EN 12102-1		
	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		
	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





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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
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	3597 kWh	4793 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	L	
Efficiency ηDHW	136 %	
СОР	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	

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

Configure model		
Model name PUD-SHWM80YAA(-BS) + E*ST17D-*M*BD		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone n/a		
Reversibility No		
Cooling mode application (optional)	n/a	

General Data		
Power supply n/a		

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6 kW	6 kW	
El input	1.19 kW	2.26 kW	
СОР	5.03	2.65	

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





EN 12102-1		
	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		
	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 = $+7^{\circ}$ 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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o 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

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	136 %
СОР	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



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

Configure model		
Model name PUD-SHWM80YAA(-BS) + E*ST17D-*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	6 kW	6 kW
El input	1.19 kW	2.26 kW
СОР	5.03	2.65

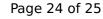
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





EN 12102-1		
	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		
	Low temperature	Medium temperature
η_{s}	179 %	134 %
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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
РТО	22 W	22 W
PSB	22 W	22 W
PCK	o 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

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	136 %
СОР	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 I