

Page 1 of 33

This information was generated by the HP KEYMARK database on 22 Jun 2022

Login

Summary of	Ecodan Zubadan 10/12-300D AA	Reg. No.	037-0027-20
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 10/12-300D 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-SHWM100VAA(-BS) + E*ST30D-*M*D

Configure model		
Model name PUD-SHWM100VAA(-BS) + E*ST30D-*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	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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





	The state of the s	,
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
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	4527 kWh	5938 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



Model: PUD-SHWM100VAA(-BS) + E*ST30D-M*D

Configure model		
Model name PUD-SHWM100VAA(-BS) + E*ST30D-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	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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
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	4527 kWh	5938 kWh

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	XL
Efficiency ηDHW	121 %
СОР	2.93
Heating up time	02:25 h:min
Standby power input	39 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417

Model: PUD-SHWM100YAA(-BS) + E*ST30D-*M*D

Configure model		
Model name PUD-SHWM100YAA(-BS) + E*ST30D-*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	8 kW	8 kW
El input	1.6 kW	3.08 kW
СОР	5	2.6

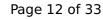
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



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

CEN heat pump KEYMARK

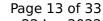
EN 14825		
	Low temperature	Medium temperature
η_{S}	178 %	135 %
Prated	10 kW	10 kW
SCOP	4.52	3.46
Tbiv	-10 °C	-10 °C
TOL	-28 °C	-28 °C
Pdh Tj = -7°C	8.9 kW	8.9 kW
COP Tj = -7°C	3.16	2.18
Cdh Tj = -7 °C	0.99	1
Pdh Tj = +2°C	5.7 kW	5.4 kW
COP Tj = +2°C	4.45	3.27
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	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
РТО	22 W	22 W
PSB	22 W	22 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	4571 kWh	5975 kWh

Domestic Hot Water (DHW)





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417 l	



Model: PUD-SHWM100YAA(-BS) + E*ST30D-M*D

Configure model		
Model name PUD-SHWM100YAA(-BS) + E*ST30D-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	Power supply 3x400V 50Hz		

Heating

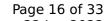
EN 14511-2			
Low temperature Medium temperature			
Heat output	8 kW	8 kW	
El input	1.6 kW	3.08 kW	
СОР	5	2.6	

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	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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
РТО	22 W	22 W
PSB	22 W	22 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	4571 kWh	5975 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



Model: PUD-SHWM120VAA(-BS) + E*ST30D-*M*D

Configure model		
Model name PUD-SHWM120VAA(-BS) + E*ST30D-*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	10 kW	10 kW	
El input	2.08 kW	3.77 kW	
СОР	4.8	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	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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





This information was genera	<u>, </u>	,
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
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	5453 kWh	7170 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



Model: PUD-SHWM120VAA(-BS) + E*ST30D-M*D

Configure model		
Model name PUD-SHWM120VAA(-BS) + E*ST30D-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	10 kW	10 kW	
El input	2.08 kW	3.77 kW	
СОР	4.8	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	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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





This information was genera	<u>, </u>	,
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
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	5453 kWh	7170 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	



Model: PUD-SHWM120YAA(-BS) + E*ST30D-*M*D

Configure model		
Model name PUD-SHWM120YAA(-BS) + E*ST30D-*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	10 kW	10 kW	
El input	2.08 kW	3.77 kW	
СОР	4.8	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	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	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
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	5496 kWh	7213 kWh

Domestic Hot Water (DHW)



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	121 %	
СОР	2.93	
Heating up time	02:25 h:min	
Standby power input	39 W	
Reference hot water temperature	52.5 °C	
Mixed water at 40°C	417	

Model: PUD-SHWM120YAA(-BS) + E*ST30D-M*D

Configure model		
Model name PUD-SHWM120YAA(-BS) + E*ST30D-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	10 kW	10 kW	
El input	2.08 kW	3.77 kW	
СОР	4.8	2.65	

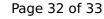
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed





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

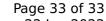
EN 14825			
	Low temperature	Medium temperature	
η_{s}	177 %	134 %	
Prated	12 kW	12 kW	
SCOP	4.51	3.44	
Tbiv	-10 °C	-10 °C	
TOL	-28 °C	-28 °C	
Pdh Tj = -7°C	10.6 kW	10.6 kW	
COP Tj = -7°C	2.85	2.14	
Cdh Tj = -7 °C	0.99	1	
Pdh Tj = +2°C	6.5 kW	6.5 kW	
COP Tj = +2°C	4.45	3.24	
Cdh Tj = +2 °C	0.98	0.99	
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	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	5496 kWh	7213 kWh

Domestic Hot Water (DHW)





EN 16147			
Declared load profile	XL		
Efficiency ηDHW	121 %		
СОР	2.93		
Heating up time	02:25 h:min		
Standby power input	39 W		
Reference hot water temperature	52.5 °C		
Mixed water at 40°C	417		