

Subtype Ecodan Zubadan (TR) 12 + 200F 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 (TR) 12 + 200F AA
Registration number	037-0150-23
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	05.12.2023
Testing basis	HP Keymark scheme rules rev. no. 11
Testing laboratory	SZU Brno, CZ

Model PUZ-SHWM120VAA + ERST20F-*M*E

Model name	PUZ-SHWM120VAA + ERST20F-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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}	137 %
COP	3.25
Heating up time	1:55 h:min
Standby power input	42.1 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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

El input	+7°C/+12°C 3.85 kW	+18°C/+23°C 2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.989	0.992
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.974	0.975
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	70 °C	70 °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	5394 kWh	7074 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.14	5.71
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5

Cdc Tj = 35 °C	0.996	0.994
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.993	0.99
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.987	0.984
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3
Cdc Tj = 20 °C	0.973	0.973
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	1595 kWh	1261 kWh

Model PUZ-SHWM120YAA + ERST20F-*M*E

Model name	PUZ-SHWM120YAA + ERST20F-*M*E
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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}	137 %
COP	3.25
Heating up time	1:55 h:min
Standby power input	42.1 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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

El input	+7°C/+12°C 3.85 kW	+18°C/+23°C 2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_S	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.994	0.996
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.961	0.963
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	70 °C	70 °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	5404 kWh	7083 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.1	5.64
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5

Cdc Tj = 35 °C	0.994	0.992
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.989	0.986
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.981	0.977
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3
Cdc Tj = 20 °C	0.961	0.96
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Annual energy consumption Qce	1610 kWh	1277 kWh

Model PUZ-SHWM120VAA + ERSF-M*E

Model name	PUZ-SHWM120VAA + ERSF-M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.85 kW	2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.989	0.992
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.974	0.975
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	70 °C	70 °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	5394 kWh	7074 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.14	5.71
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5
Cdc Tj = 35 °C	0.996	0.994
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.993	0.99
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.987	0.984
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3

Cdc Tj = 20 °C	0.973	0.973
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	1595 kWh	1261 kWh

Model PUZ-SHWM120YAA + ERSF-M*E

Model name	PUZ-SHWM120YAA + ERSF-M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.85 kW	2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.994	0.996
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.961	0.963
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	70 °C	70 °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	5404 kWh	7083 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.1	5.64
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5
Cdc Tj = 35 °C	0.994	0.992
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.989	0.986
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.981	0.977
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3

Cdc Tj = 20 °C	0.961	0.96
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Annual energy consumption Qce	1610 kWh	1277 kWh

Model PUZ-SHWM120VAA + ERSF-*M*E

Model name	PUZ-SHWM120VAA + ERSF-*M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.85 kW	2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.989	0.992
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.983	0.986
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.974	0.975
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	70 °C	70 °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	5394 kWh	7074 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.14	5.71
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5
Cdc Tj = 35 °C	0.996	0.994
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.993	0.99
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.987	0.984
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3

Cdc Tj = 20 °C	0.973	0.973
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	1595 kWh	1261 kWh

Model PUZ-SHWM120YAA + ERSF-*M*E

Model name	PUZ-SHWM120YAA + ERSF-*M*E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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	7 kW
El input	2.04 kW	2.59 kW
COP	4.9	2.7

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	3.85 kW	2.67 kW
Cooling capacity	11	12
EER	2.86	4.5

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	182 %	138 %
Prated	12.1 kW	12.1 kW
SCOP	4.63	3.53

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.7 kW	10.7 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.994	0.996
Pdh Tj = +2°C	6.5 kW	6.5 kW
COP Tj = +2°C	4.57	3.38
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	5.2 kW	5 kW
COP Tj = +7°C	6.04	4.75
Cdh Tj = +7 °C	0.974	0.979
Pdh Tj = 12°C	4 kW	3.8 kW
COP Tj = 12°C	7.02	6.32
Cdh Tj = +12 °C	0.961	0.963
Pdh Tj = Tbiv	12.1 kW	12.1 kW
COP Tj = Tbiv	2.45	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	70 °C	70 °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	5404 kWh	7083 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11 kW	12 kW
SEER	4.1	5.64
Pdc Tj = 35°C	11 kW	12 kW
EER Tj = 35°C	2.86	4.5
Cdc Tj = 35 °C	0.994	0.992
Pdc Tj = 30°C	8.11 kW	8.84 kW
EER Tj = 30°C	3.99	5.75
Cdc Tj = 30 °C	0.989	0.986
Pdc Tj = 25°C	5.21 kW	5.68 kW
EER Tj = 25°C	4.59	5.99
Cdc Tj = 25 °C	0.981	0.977
Pdc Tj = 20°C	2.5 kW	3.5 kW
EER Tj = 20°C	4.45	6.3

Cdc Tj = 20 °C	0.961	0.96
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Annual energy consumption Qce	1610 kWh	1277 kWh