

## Subtype Ecodan Zubadan (TR) 14 + 300D 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) 14 + 300D AA
Registration number	037-0127-23
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	26.04.2023
Testing basis	HP Keymark scheme rules rev. no. 9
Testing laboratory	SZU Brno, CZ

## Model PUZ-SHWM140VAA + EHST30D-\*M\*D

Model name	PUZ-SHWM140VAA + EHST30D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
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	XL
Efficiency $\eta_{DHW}$	114 %
COP	2.76
Heating up time	2:40 h:min
Standby power input	50 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 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	12 kW	7 kW
El input	2.5 kW	2.59 kW
COP	4.8	2.7

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	kW	kW
Cooling capacity		
EER		

### 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
$\eta_s$	183 %	141 %
Prated	14 kW	14 kW
SCOP	4.65	3.61
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	3	2.18
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.59	3.49
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	6.4 kW	6.3 kW
COP Tj = +7°C	6	4.85
Cdh Tj = +7 °C	0.986	0.988
Pdh Tj = 12°C	4.1 kW	3.9 kW
COP Tj = 12°C	7.19	6.61
Cdh Tj = +12 °C	0.974	0.975
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	2.55	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
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	6227 kWh	8021 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	kW	kW
SEER		
Pdc Tj = 35°C	kW	kW
EER Tj = 35°C		
Cdc Tj = 35 °C		

Pdc Tj = 30°C	kW	kW
EER Tj = 30°C		
Cdc Tj = 30 °C		
Pdc Tj = 25°C	kW	kW
EER Tj = 25°C		
Cdc Tj = 25 °C		
Pdc Tj = 20°C	kW	kW
EER Tj = 20°C		
Cdc Tj = 20 °C		
Poff	W	W
PTO	W	W
PSB	W	W
PCK	W	W
Annual energy consumption Qce	kWh	kWh

## Model PUZ-SHWM140YAA + EHST30D-\*M\*D

Model name	PUZ-SHWM140YAA + EHST30D-*M*D
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Heat Source	Outdoor Air
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	XL
Efficiency $\eta_{DHW}$	114 %
COP	2.76
Heating up time	2:40 h:min
Standby power input	50 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 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	12 kW	7 kW
El input	2.5 kW	2.59 kW
COP	4.8	2.7

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	kW	kW
Cooling capacity		
EER		

## 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
$\eta_s$	182 %	141 %
Prated	14 kW	14 kW
SCOP	4.62	3.59
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	3	2.18
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.59	3.49
Cdh Tj = +2 °C	0.987	0.99
Pdh Tj = +7°C	6.4 kW	6.3 kW
COP Tj = +7°C	6	4.85
Cdh Tj = +7 °C	0.979	0.983
Pdh Tj = 12°C	4.1 kW	3.9 kW
COP Tj = 12°C	7.19	6.61
Cdh Tj = +12 °C	0.961	0.963
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	2.55	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
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	6262 kWh	8055 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	kW	kW
SEER		
Pdc Tj = 35°C	kW	kW
EER Tj = 35°C		
Cdc Tj = 35 °C		

Pdc Tj = 30°C	kW	kW
EER Tj = 30°C		
Cdc Tj = 30 °C		
Pdc Tj = 25°C	kW	kW
EER Tj = 25°C		
Cdc Tj = 25 °C		
Pdc Tj = 20°C	kW	kW
EER Tj = 20°C		
Cdc Tj = 20 °C		
Poff	W	W
PTO	W	W
PSB	W	W
PCK	W	W
Annual energy consumption Qce	kWh	kWh

## Model PUZ-SHWM140VAA + ERST30D-\*M\*D

Model name	PUZ-SHWM140VAA + ERST30D-*M*D
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	XL
Efficiency $\eta_{DHW}$	114 %
COP	2.76
Heating up time	2:40 h:min
Standby power input	50 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 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	12 kW	7 kW
El input	2.5 kW	2.59 kW
COP	4.8	2.7

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.81 kW	3.87 kW
Cooling capacity	12.5	14
EER	2.6	3.62

## 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
$\eta_s$	184 %	142 %
Prated	14 kW	14 kW
SCOP	4.69	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	3	2.18
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.59	3.49
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	6.4 kW	6.3 kW
COP Tj = +7°C	6	4.85
Cdh Tj = +7 °C	0.986	0.988
Pdh Tj = 12°C	4.1 kW	3.9 kW
COP Tj = 12°C	7.19	6.61
Cdh Tj = +12 °C	0.974	0.975
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	2.55	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
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	6172 kWh	7965 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	12.5 kW	14 kW
SEER	3.6	4.88
Pdc Tj = 35°C	12.5 kW	14 kW
EER Tj = 35°C	2.6	3.62

Cdc Tj = 35 °C	0.997	0.996
Pdc Tj = 30°C	9.21 kW	10.32 kW
EER Tj = 30°C	3.47	4.93
Cdc Tj = 30 °C	0.994	0.993
Pdc Tj = 25°C	6 kW	6.63 kW
EER Tj = 25°C	4.2	5.1
Cdc Tj = 25 °C	0.99	0.988
Pdc Tj = 20°C	3.7 kW	4.7 kW
EER Tj = 20°C	3.49	5.4
Cdc Tj = 20 °C	0.986	0.983
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Annual energy consumption Qce	2081 kWh	1720 kWh

## Model PUZ-SHWM140YAA + ERST30D-\*M\*D

Model name	PUZ-SHWM140YAA + ERST30D-*M*D
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	XL
Efficiency $\eta_{DHW}$	114 %
COP	2.76
Heating up time	2:40 h:min
Standby power input	50 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	417 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	12 kW	7 kW
El input	2.5 kW	2.59 kW
COP	4.8	2.7

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.81 kW	3.87 kW
Cooling capacity	12.5	14
EER	2.6	3.62

## 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
$\eta_s$	184 %	142 %
Prated	14 kW	14 kW
SCOP	4.68	3.63
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.4 kW	12.4 kW
COP Tj = -7°C	3	2.18
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	7.5 kW	7.5 kW
COP Tj = +2°C	4.59	3.49
Cdh Tj = +2 °C	0.987	0.99
Pdh Tj = +7°C	6.4 kW	6.3 kW
COP Tj = +7°C	6	4.85
Cdh Tj = +7 °C	0.979	0.983
Pdh Tj = 12°C	4.1 kW	3.9 kW
COP Tj = 12°C	7.19	6.61
Cdh Tj = +12 °C	0.961	0.963
Pdh Tj = Tbiv	14 kW	14 kW
COP Tj = Tbiv	2.55	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14 kW	14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
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	6181 kWh	7974 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	12.5 kW	14 kW
SEER	3.58	4.84
Pdc Tj = 35°C	12.5 kW	14 kW
EER Tj = 35°C	2.6	3.62

Cdc Tj = 35 °C	0.995	0.994
Pdc Tj = 30°C	9.21 kW	10.32 kW
EER Tj = 30°C	3.47	4.93
Cdc Tj = 30 °C	0.992	0.989
Pdc Tj = 25°C	6 kW	6.63 kW
EER Tj = 25°C	4.2	5.1
Cdc Tj = 25 °C	0.985	0.983
Pdc Tj = 20°C	3.7 kW	4.7 kW
EER Tj = 20°C	3.49	5.4
Cdc Tj = 20 °C	0.979	0.975
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Annual energy consumption Qce	2097 kWh	1736 kWh