

Subtype Ecodan Zubadan (TR) 14 + 300F 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 + 300F AA |
| Registration number | 037-0153-23 |
| 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-SHWM140VAA + ERST30F-*M*E

| | |
|-------------------------------------|-------------------------------|
| Model name | PUZ-SHWM140VAA + ERST30F-*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 | XL |
| Efficiency η_{DHW} | 112 % |
| COP | 2.72 |
| Heating up time | 2:37 h:min |
| Standby power input | 44 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 | 2.47 kW | 2.59 kW |
| COP | 4.85 | 2.7 |

EN 14511-2 | Cooling

| | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input | 4.77 kW | 3.73 kW |
| Cooling capacity | 12.5 | 14 |
| EER | 2.62 | 3.75 |

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 | 185 % | 142 % |
| Prated | 14 kW | 14 kW |
| SCOP | 4.7 | 3.64 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 12.4 kW | 12.4 kW |
| COP Tj = -7°C | 3.04 | 2.2 |
| 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 | 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 | 6157 kWh | 7952 kWh |

EN 14825 | Cooling

| | +7°C/+12°C | +18°C/+23°C |
|---------------|------------|-------------|
| Pdesignc | 12.5 kW | 14 kW |
| SEER | 3.61 | 4.9 |
| Pdc Tj = 35°C | 12.5 kW | 14 kW |
| EER Tj = 35°C | 2.62 | 3.75 |

| | | |
|-------------------------------|----------|----------|
| 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 | 2080 kWh | 1714 kWh |

Model PUZ-SHWM140YAA + ERST30F-*M*E

| | |
|-------------------------------------|-------------------------------|
| Model name | PUZ-SHWM140YAA + ERST30F-*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 | XL |
| Efficiency η_{DHW} | 112 % |
| COP | 2.72 |
| Heating up time | 2:37 h:min |
| Standby power input | 44 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 | 2.47 kW | 2.59 kW |
| COP | 4.85 | 2.7 |

EN 14511-2 | Cooling

| | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input | 4.77 kW | 3.73 kW |
| Cooling capacity | 12.5 | 14 |
| EER | 2.62 | 3.75 |

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 | 185 % | 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 | 3.04 | 2.2 |
| 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 | 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 | 6167 kWh | 7961 kWh |

EN 14825 | Cooling

| | +7°C/+12°C | +18°C/+23°C |
|---------------|------------|-------------|
| Pdesignc | 12.5 kW | 14 kW |
| SEER | 3.58 | 4.85 |
| Pdc Tj = 35°C | 12.5 kW | 14 kW |
| EER Tj = 35°C | 2.62 | 3.75 |

| | | |
|-------------------------------|----------|----------|
| 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 | 2095 kWh | 1731 kWh |