

This information was downloaded from the HP KEYMARK database on 25 Sep 2020

| | | | |
|----------------------------|---|----------|----------------|
| Summary of | Ecodan Power Inverter 11-200D Packaged AA | Reg. No. | 037-0034-20 |
| Certificate Holder | | | |
| Name | Mitsubishi Electric Air Conditioning Systems Europe LTD | | |
| Address | Nettlehill Road, Houston Industrial Estate | Zip | EH54 5EQ |
| City | Livingston | Country | United Kingdom |
| Certification Body | SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise) | | |
| Name of testing laboratory | Universität Stuttgart, IGE, Prüfstelle HLK | | |
| Subtype title | Ecodan Power Inverter 11-200D Packaged AA | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | HFC-32 | | |
| Mass Of Refrigerant | 3 kg | | |
| Certification Date | 27.07.2020 | | |
| Testing basis | HP Keymark scheme rules rev. no. 6 | | |

Model: PUZ-WM112VAA(-BS) + ERPT20X-VM*D

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|------------------------|-----------------|--------------------|
| Heat output | 11.20 kW | 10.00 kW |
| El input | 2.38 kW | 3.33 kW |
| COP | 4.70 | 3.00 |
| Indoor water flow rate | 1.93 m³/h | 1.07 m³/h |

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 | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 60 dB(A) | 60 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 195 % | 136 % |
| Prated | 10.00 kW | 10.00 kW |
| SCOP | 4.95 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = -7 °C | 8.80 kW | 8.80 kW |
| COP Tj = -7 °C | 3.31 | 2.23 |
| Cdh | 0.99 | 1.00 |
| Pdh Tj = +2 °C | 5.70 kW | 5.40 kW |
| COP Tj = +2 °C | 4.79 | 3.34 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7 °C | 4.90 kW | 5.20 kW |
| COP Tj = +7 °C | 6.68 | 4.61 |

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| | | |
|--|-------------|-------------|
| Cdh | 0.98 | 0.99 |
| Pdh Tj = 12 °C | 4.60 kW | 4.70 kW |
| COP Tj = 12 °C | 9.10 | 6.35 |
| Cdh | 0.97 | 0.98 |
| Pdh Tj = Tbiv | 8.90 kW | 8.80 kW |
| COP Tj = Tbiv | 3.32 | 2.21 |
| Pdh Tj = TOL | 8.70 kW | 8.70 kW |
| COP Tj = TOL | 1.60 | 1.60 |
| 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 | 1.15 kW | 1.22 kW |
| Annual energy consumption Qhe | 4145 kWh | 5905 kWh |

Warmer Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 60 dB(A) | 60 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| η_s | 220 % | 136 % |
| Prated | 10.00 kW | 10.00 kW |
| SCOP | 5.58 | 3.93 |
| Tbiv | 2 °C | 2 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = +2°C | 10.00 kW | 10.00 kW |
| COP Tj = +2°C | 3.30 | 1.90 |
| Cdh | 1.00 | 1.00 |
| Pdh Tj = +7°C | 6.40 kW | 6.40 kW |
| COP Tj = +7°C | 4.73 | 3.15 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = 12°C | 4.70 kW | 4.40 kW |
| COP Tj = 12°C | 7.12 | 5.66 |

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| | | |
|--|-------------|-------------|
| Cdh | 0.98 | 0.98 |
| Pdh Tj = Tbiv | 10.00 kW | 10.00 kW |
| COP Tj = Tbiv | 3.31 | 1.81 |
| Pdh Tj = TOL | 8.70 kW | 8.70 kW |
| COP Tj = TOL | 1.53 | 1.53 |
| 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 | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2394 kWh | 3401 kWh |

Domestic Hot Water (DHW)

Average Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 148 % |
| COP | 3.49 |
| Heating up time | 2:06 h:min |
| Standby power input | 35.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 278 l |

Warmer Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 161 % |
| COP | 3.80 |
| Heating up time | 1:43 h:min |
| Standby power input | 32.0 W |
| Reference hot water temperature | 52.5 °C |
| Mixed water at 40°C | 278 l |

Model: PUZ-WM112VAA(-BS) + EHPX-VM*D

General Data

| | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
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| Heat output | 11.20 kW | 10.00 kW |
| El input | 2.38 kW | 3.33 kW |
| COP | 4.70 | 3.00 |
| Indoor water flow rate | 1.93 m³/h | 1.07 m³/h |

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 | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 60 dB(A) | 60 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 191 % | 134 % |
| Prated | 10.00 kW | 10.00 kW |
| SCOP | 4.86 | 3.43 |
| Tbiv | -7 °C | -7 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = -7 °C | 8.80 kW | 8.80 kW |
| COP Tj = -7 °C | 3.31 | 2.23 |
| Cdh | 0.99 | 1.00 |
| Pdh Tj = +2 °C | 5.70 kW | 5.40 kW |
| COP Tj = +2 °C | 4.79 | 3.34 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7 °C | 4.90 kW | 5.20 kW |
| COP Tj = +7 °C | 6.68 | 4.61 |

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| Cdh | 0.98 | 0.99 |
| Pdh Tj = 12 °C | 4.60 kW | 4.70 kW |
| COP Tj = 12 °C | 9.10 | 6.35 |
| Cdh | 0.97 | 0.98 |
| Pdh Tj = Tbiv | 8.90 kW | 8.80 kW |
| COP Tj = Tbiv | 3.32 | 2.21 |
| Pdh Tj = TOL | 8.70 kW | 8.70 kW |
| COP Tj = TOL | 1.60 | 1.60 |
| 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 | 1.15 kW | 1.22 kW |
| Annual energy consumption Qhe | 4145 kWh | 5905 kWh |

Warmer Climate

EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 60 dB(A) | 60 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| η_s | 215 % | 134 % |
| Prated | 10.00 kW | 10.00 kW |
| SCOP | 5.46 | 3.87 |
| Tbiv | 2 °C | 2 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = +2°C | 10.00 kW | 10.00 kW |
| COP Tj = +2°C | 3.30 | 1.90 |
| Cdh | 1.00 | 1.00 |
| Pdh Tj = +7°C | 6.40 kW | 6.40 kW |
| COP Tj = +7°C | 4.73 | 3.15 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = 12°C | 4.70 kW | 4.40 kW |
| COP Tj = 12°C | 7.12 | 5.66 |

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|--|-------------|-------------|
| Cdh | 0.98 | 0.98 |
| Pdh Tj = Tbiv | 10.00 kW | 10.00 kW |
| COP Tj = Tbiv | 3.31 | 1.81 |
| Pdh Tj = TOL | 8.70 kW | 8.70 kW |
| COP Tj = TOL | 1.53 | 1.53 |
| 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 | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 2394 kWh | 3401 kWh |