This information was generated by the HP KEYMARK database on 17 Dec 2020

| Summary of | Ecodan Power Inverter 5-170D Packaged | Reg. No. | 037-0030-20 |
|---|---|---|---|
| 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 | SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise) | | |
| Subtype title | Ecodan Power Inverter 5-170D Packaged | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R32 | | |
| Mass Of Refrigerant | 2 kg | | |
| Certification Date | 22.06.2020 | | |
| Testing basis | HP Keymark scheme rules rev. no. 6 | | |

# Model: PUZ-WM50VHA(-BS) + EHPT17X-VM*D

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 5.00 kW | 5.00 kW |
| El input | 1.00 kW | 1.62 kW |
| COP | 5.00 | 3.08 |
| Indoor water flow rate | 0.86 m³/h | 0.54 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 | 61 dB(A) | 61 dB(A) |

## EN 14825

| | Low temperature | Medium temperature |
|---|---|---|
| $\eta_s$ | 183 % | 129 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 4.66 | 3.31 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = -7°C | 4.40 kW | 4.40 kW |
| COP Tj = -7°C | 3.17 | 2.04 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +2°C | 2.70 kW | 2.70 kW |
| COP Tj = +2°C | 4.58 | 3.29 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = +7°C | 1.90 kW | 1.70 kW |
| COP Tj = +7°C | 6.55 | 4.47 |
| Cdh | 0.95 | 0.96 |

| | | |
|---|---|---|
| Pdh Tj = 12°C | 1.80 kW | 1.80 kW |
| COP Tj = 12°C | 8.57 | 6.67 |
| Cdh | 0.93 | 0.94 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 3.17 | 2.04 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.75 | 1.75 |
| 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 | 0.81 kW | 0.81 kW |
| Annual energy consumption Qhe | 2113 kWh | 3014 kWh |

## Warmer Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level indoor | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 61 dB(A) | 61 dB(A) |

## EN 14825

| | Low temperature | Medium temperature |
|---|---|---|
| $\eta_s$ | 226 % | 129 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 5.73 | 4.00 |
| Tbiv | 2 °C | 2 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = +2°C | 5.00 kW | 5.00 kW |
| COP Tj = +2°C | 3.68 | 1.98 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7°C | 3.20 kW | 3.20 kW |
| COP Tj = +7°C | 4.92 | 3.30 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = 12°C | 1.90 kW | 1.80 kW |
| COP Tj = 12°C | 7.92 | 5.81 |
| Cdh | 0.94 | 0.95 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 2.99 | 1.93 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.66 | 1.66 |
| 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 | 1111 kWh | 1616 kWh |

## Domestic Hot Water (DHW)

## Average Climate

| **EN 16147** | |
|---|---|
| | |
| Declared load profile | L |
| Efficiency ηDHW | 120 % |
| COP | 2.84 |
| Heating up time | 2:07 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |

## Warmer Climate

## EN 16147

| | |
|---|---|
| Declared load profile | L |
| Efficiency ηDHW | 135 % |
| COP | 3.19 |
| Heating up time | 2:32 h:min |
| Standby power input | 36.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |

# Model: PUZ-WM50VHA(-BS) + EHPT17X-YM*D

| General Data | |
|---|---|
| Power supply | 3x400V 50Hz |

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 5.00 kW | 5.00 kW |
| El input | 1.00 kW | 1.62 kW |
| COP | 5.00 | 3.08 |
| Indoor water flow rate | 0.86 m³/h | 0.54 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 | 61 dB(A) | 61 dB(A) |

| EN 14825 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 183 % | 129 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 4.66 | 3.31 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = -7°C | 4.40 kW | 4.40 kW |
| COP Tj = -7°C | 3.17 | 2.04 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +2°C | 2.70 kW | 2.70 kW |
| COP Tj = +2°C | 4.58 | 3.29 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = +7°C | 1.90 kW | 1.70 kW |
| COP Tj = +7°C | 6.55 | 4.47 |
| Cdh | 0.95 | 0.96 |

| | | |
|---|---|---|
| Pdh Tj = 12°C | 1.80 kW | 1.80 kW |
| COP Tj = 12°C | 8.57 | 6.67 |
| Cdh | 0.93 | 0.94 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 3.17 | 2.04 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.75 | 1.75 |
| 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 | 0.81 kW | 0.81 kW |
| Annual energy consumption Qhe | 2113 kWh | 3014 kWh |

## Warmer Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level indoor | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 61 dB(A) | 61 dB(A) |

## EN 14825

| | Low temperature | Medium temperature |
|---|---|---|
| $\eta_s$ | 226 % | 129 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 5.73 | 4.00 |
| Tbiv | 2 °C | 2 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = +2°C | 5.00 kW | 5.00 kW |
| COP Tj = +2°C | 3.68 | 1.98 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7°C | 3.20 kW | 3.20 kW |
| COP Tj = +7°C | 4.92 | 3.30 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = 12°C | 1.90 kW | 1.80 kW |
| COP Tj = 12°C | 7.92 | 5.81 |
| Cdh | 0.94 | 0.95 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 2.99 | 1.93 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.66 | 1.66 |
| 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 | 1111 kWh | 1616 kWh |

## Domestic Hot Water (DHW)

## Average Climate

| **EN 16147** | |
|---|---|
| | |
| Declared load profile | L |
| Efficiency ηDHW | 120 % |
| COP | 2.84 |
| Heating up time | 2:07 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |

## Warmer Climate

| EN 16147 | |
|---|---|
| | |
| Declared load profile | L |
| Efficiency ηDHW | 135 % |
| COP | 3.19 |
| Heating up time | 2:32 h:min |
| Standby power input | 36.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |

# Model: PUZ-WM50VHA(-BS) + ERPT17X-VM*D

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 5.00 kW | 5.00 kW |
| El input | 1.00 kW | 1.62 kW |
| COP | 5.00 | 3.08 |
| Indoor water flow rate | 0.86 m³/h | 0.54 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 | 61 dB(A) | 61 dB(A) |

| EN 14825 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 190 % | 133 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 4.83 | 3.40 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = -7°C | 4.40 kW | 4.40 kW |
| COP Tj = -7°C | 3.17 | 2.04 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +2°C | 2.70 kW | 2.70 kW |
| COP Tj = +2°C | 4.58 | 3.29 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = +7°C | 1.90 kW | 1.70 kW |
| COP Tj = +7°C | 6.55 | 4.47 |
| Cdh | 0.95 | 0.96 |

| | | |
|---|---|---|
| Pdh Tj = 12°C | 1.80 kW | 1.80 kW |
| COP Tj = 12°C | 8.57 | 6.67 |
| Cdh | 0.93 | 0.94 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 3.17 | 2.04 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.75 | 1.75 |
| 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 | 0.81 kW | 0.81 kW |
| Annual energy consumption Qhe | 2113 kWh | 3014 kWh |

## Warmer Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level indoor | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor | 61 dB(A) | 61 dB(A) |

## EN 14825

| | Low temperature | Medium temperature |
|---|---|---|
| $\eta_s$ | 237 % | 133 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 6.00 | 4.13 |
| Tbiv | 2 °C | 2 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = +2°C | 5.00 kW | 5.00 kW |
| COP Tj = +2°C | 3.68 | 1.98 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7°C | 3.20 kW | 3.20 kW |
| COP Tj = +7°C | 4.92 | 3.30 |
| Cdh | 0.98 | 0.98 |
| Pdh Tj = 12°C | 1.90 kW | 1.80 kW |
| COP Tj = 12°C | 7.92 | 5.81 |
| Cdh | 0.94 | 0.95 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 2.99 | 1.93 |
| Pdh Tj = TOL | 3.50 kW | 3.50 kW |
| COP Tj = TOL | 1.66 | 1.66 |
| 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 | 1111 kWh | 1616 kWh |

## Domestic Hot Water (DHW)

## Average Climate

| **EN 16147** | |
|---|---|
| | |
| Declared load profile | L |
| Efficiency ηDHW | 120 % |
| COP | 2.84 |
| Heating up time | 2:07 h:min |
| Standby power input | 39.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |

## Warmer Climate

## EN 16147

| | |
|---|---|
| Declared load profile | L |
| Efficiency ηDHW | 135 % |
| COP | 3.19 |
| Heating up time | 2:32 h:min |
| Standby power input | 36.0 W |
| Reference hot water temperature | 55.5 °C |
| Mixed water at 40°C | 236 l |