

This information was generated by the HP KEYMARK database on 22 Jun 2022

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|---------------------|---|----------|----------------|
| 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) | | |
| 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-*M*D

| Configure model | |
|-------------------------------------|---------------------------------|
| Model name | PUZ-WM50VHA(-BS) + EHPT17X-*M*D |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Warmer Climate |
| Reversibility | No |
| Cooling mode application (optional) | n/a |

| 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 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

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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 |
|-----------------|-----------------|--------------------|
| η_s | 226 % | 157 % |
| 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 | 3.70 | 1.98 |
| Cdh Tj = +2 °C | 0.990 | 0.990 |
| Pdh Tj = +7°C | 3.20 kW | 3.20 kW |
| COP Tj = +7°C | 5.10 | 3.40 |
| Cdh Tj = +7 °C | 0.980 | 0.980 |
| Pdh Tj = 12°C | 1.90 kW | 1.80 kW |
| COP Tj = 12°C | 7.98 | 5.81 |
| Cdh Tj = +12 °C | 0.940 | 0.950 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = Tbiv | 5.00 kW | 5.00 kW |
| COP Tj = Tbiv | 3.70 | 1.98 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW | 5.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.70 | 1.98 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | | |
| 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 | 1166 kWh | 1671 kWh |

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 |
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|-----------------|

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| | Low temperature | Medium temperature |
|---|------------------------|---------------------------|
| η_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 Tj = -7 °C | 0.990 | 0.990 |
| Pdh Tj = +2°C | 2.70 kW | 2.70 kW |
| COP Tj = +2°C | 4.47 | 3.23 |
| Cdh Tj = +2 °C | 0.980 | 0.980 |
| Pdh Tj = +7°C | 1.90 kW | 1.70 kW |
| COP Tj = +7°C | 6.55 | 4.47 |
| Cdh Tj = +7 °C | 0.950 | 0.960 |
| Pdh Tj = 12°C | 1.80 kW | 1.80 kW |
| COP Tj = 12°C | 8.57 | 6.67 |
| Cdh Tj = +12 °C | 0.930 | 0.940 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 3.17 | 2.04 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.19 kW | 4.19 kW |

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| | | |
|---|-------------|-------------|
| COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$ | 2.84 | 1.97 |
| Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$ | | |
| 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 | 2216 kWh | 3122 kWh |

Domestic Hot Water (DHW)

Warmer Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 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 |

Average Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 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 |

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

| Configure model | |
|-------------------------------------|---------------------------------|
| Model name | PUZ-WM50VHA(-BS) + ERPT17X-*M*D |
| Application | Heating + DHW + low temp |
| Units | Indoor + Outdoor |
| Climate Zone | Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| 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 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Warmer Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

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 |
|-----------------|-----------------|--------------------|
| η_s | 237 % | 162 % |
| 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 | 3.70 | 1.98 |
| Cdh Tj = +2 °C | 0.990 | 0.990 |
| Pdh Tj = +7°C | 3.20 kW | 3.20 kW |
| COP Tj = +7°C | 4.96 | 3.35 |
| Cdh Tj = +7 °C | 0.980 | 0.980 |
| Pdh Tj = 12°C | 1.90 kW | 1.80 kW |
| COP Tj = 12°C | 8.00 | 5.81 |
| Cdh Tj = +12 °C | 0.940 | 0.950 |

This information was generated by the HP KEYMARK database on 22 Jun 2022

| | | |
|---|-------------|-------------|
| Pdh Tj = Tbiv | 5.00 kW | 5.00 kW |
| COP Tj = Tbiv | 3.70 | 1.98 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW | 5.00 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.70 | 1.98 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | | |
| 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 | 1112 kWh | 1616 kWh |

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 |
|-----------------|
|-----------------|

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| | Low temperature | Medium temperature |
|---|------------------------|---------------------------|
| η_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 Tj = -7 °C | 0.990 | 0.990 |
| Pdh Tj = +2°C | 2.70 kW | 2.70 kW |
| COP Tj = +2°C | 4.56 | 3.29 |
| Cdh Tj = +2 °C | 0.980 | 0.980 |
| Pdh Tj = +7°C | 1.90 kW | 1.70 kW |
| COP Tj = +7°C | 6.55 | 4.47 |
| Cdh Tj = +7 °C | 0.950 | 0.960 |
| Pdh Tj = 12°C | 1.80 kW | 1.80 kW |
| COP Tj = 12°C | 8.57 | 6.67 |
| Cdh Tj = +12 °C | 0.930 | 0.940 |
| Pdh Tj = Tbiv | 4.40 kW | 4.40 kW |
| COP Tj = Tbiv | 3.17 | 2.04 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.19 kW | 4.19 kW |

This information was generated by the HP KEYMARK database on 22 Jun 2022

| | | |
|---|-------------|-------------|
| COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$ | 2.84 | 1.97 |
| Cdh $T_j = TOL$ or Pdh $T_j = T_{designh}$ if $TOL < T_{designh}$ | | |
| 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 | 2139 kWh | 3038 kWh |

Domestic Hot Water (DHW)

Warmer Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 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 |

Average Climate

| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency η_{DHW} | 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 |