

This information was generated by the HP KEYMARK database on 5 Mar 2021

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|---------------------|--|----------|-------------|
| Summary of | Aqua thermal 90kW | Reg. No. | 041-K007-12 |
| Certificate Holder | | | |
| Name | GD Midea Heating & Ventilating Equipment Co., Ltd. | | |
| Address | Penglai Industry Road | Zip | 528311 |
| City | Beijiao, Shunde, Foshan | Country | China |
| Certification Body | BRE Global Limited | | |
| Subtype title | Aqua thermal 90kW | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R32 | | |
| Mass Of Refrigerant | 16 kg | | |
| Certification Date | 27.11.2020 | | |
| Testing basis | HP Keymark Scheme Rules Rev 08 | | |

Model: MC-SU90-RN8L-B

General Data

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

Heating

EN 14511-4

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

EN 14511-2

| | |
|-------------|------------------------|
| | Low temperature |
| Heat output | 90.00 kW |
| El input | 23.30 kW |
| COP | 3.87 |

Average Climate

EN 14825

| | |
|----------|------------------------|
| | Low temperature |
| η_s | 155 % |

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| | |
|---|----------|
| Prated | 77.10 kW |
| SCOP | 3.97 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7°C | 68.21 kW |
| COP Tj = -7°C | 2.49 |
| Cdh | 0.90 |
| Pdh Tj = +2°C | 43.18 kW |
| COP Tj = +2°C | 3.78 |
| Cdh | 0.90 |
| Pdh Tj = +7°C | 27.65 kW |
| COP Tj = +7°C | 5.63 |
| Cdh | 0.90 |
| Pdh Tj = 12°C | 28.53 kW |
| COP Tj = 12°C | 5.70 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 68.21 kW |
| COP Tj = Tbiv | 2.49 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 71.09 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.36 |
| WTOL | 54 °C |

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| | |
|--|-----------|
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 6.01 kW |
| Annual energy consumption Qhe | 40075 kWh |

Warmer Climate

| EN 14825 | |
|-----------------|------------------------|
| | Low temperature |
| η_s | 175 % |
| Prated | 63.87 kW |
| SCOP | 4.46 |
| Tbiv | 7 °C |
| TOL | 2 °C |
| Pdh Tj = +2°C | 63.87 kW |
| COP Tj = +2°C | 2.64 |
| Cdh | 0.90 |
| Pdh Tj = +7°C | 42.10 kW |
| COP Tj = +7°C | 4.36 |

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| | |
|---|-----------|
| Cdh | 0.90 |
| Pdh Tj = 12°C | 28.30 kW |
| COP Tj = 12°C | 5.47 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 42.10 kW |
| COP Tj = Tbiv | 4.36 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 63.87 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.64 |
| WTOL | 54 °C |
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 19137 kWh |

Colder Climate

| EN 14825 | |
|-----------------|------------------------|
| | Low temperature |
| η_s | 121 % |

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| | |
|---|----------|
| Prated | 61.42 kW |
| SCOP | 3.11 |
| Tbiv | -15 °C |
| TOL | -20 °C |
| Pdh Tj = -7°C | 37.64 kW |
| COP Tj = -7°C | 2.92 |
| Cdh | 0.90 |
| Pdh Tj = +2°C | 22.32 kW |
| COP Tj = +2°C | 3.46 |
| Cdh | 0.90 |
| Pdh Tj = +7°C | 25.15 kW |
| COP Tj = +7°C | 4.68 |
| Cdh | 0.90 |
| Pdh Tj = 12°C | 27.59 kW |
| COP Tj = 12°C | 5.41 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 38.35 kW |
| COP Tj = Tbiv | 1.73 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 50.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.09 |
| WTOL | 54 °C |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|--|-----------|
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 61.42 kW |
| Annual energy consumption Qhe | 48714 kWh |
| Pdh Tj = -15°C (if TOL<-20°C) | 50.11 |
| COP Tj = -15°C (if TOL<-20°C) | 2.09 |
| Cdh | 0.90 |

Model: MC-SU90M-RN8L-B

General Data

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

Heating

EN 14511-4

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

EN 14511-2

| | |
|-------------|------------------------|
| | Low temperature |
| Heat output | 90.00 kW |
| El input | 29.52 kW |
| COP | 3.06 |

Average Climate

EN 14825

| | |
|----------|------------------------|
| | Low temperature |
| η_s | 147 % |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|---|----------|
| Prated | 74.30 kW |
| SCOP | 3.77 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7°C | 65.41 kW |
| COP Tj = -7°C | 2.45 |
| Cdh | 0.90 |
| Pdh Tj = +2°C | 43.01 kW |
| COP Tj = +2°C | 3.63 |
| Cdh | 0.90 |
| Pdh Tj = +7°C | 26.42 kW |
| COP Tj = +7°C | 5.08 |
| Cdh | 0.90 |
| Pdh Tj = 12°C | 28.54 kW |
| COP Tj = 12°C | 5.94 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 65.41 kW |
| COP Tj = Tbiv | 2.45 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 71.03 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.32 |
| WTOL | 54 °C |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|--|-----------|
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 3.27 kW |
| Annual energy consumption Q _{he} | 40747 kWh |

Warmer Climate

| EN 14825 | |
|---------------------------------------|------------------------|
| | Low temperature |
| η_s | 114 % |
| Prated | 63.97 kW |
| SCOP | 2.93 |
| T _{biv} | 7 °C |
| TOL | 2 °C |
| P _{dh} T _j = +2°C | 63.97 kW |
| COP T _j = +2°C | 2.17 |
| C _{dh} | 0.90 |
| P _{dh} T _j = +7°C | 40.84 kW |
| COP T _j = +7°C | 2.81 |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|---|-----------|
| Cdh | 0.90 |
| Pdh Tj = 12°C | 28.70 kW |
| COP Tj = 12°C | 3.47 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 40.84 kW |
| COP Tj = Tbiv | 2.81 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 63.97 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.17 |
| WTOL | 54 °C |
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 29169 kWh |

Colder Climate

| EN 14825 | |
|-----------------|------------------------|
| | Low temperature |
| η_s | 99 % |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|---|----------|
| Prated | 58.94 kW |
| SCOP | 2.56 |
| Tbiv | -15 °C |
| TOL | -20 °C |
| Pdh Tj = -7°C | 36.13 kW |
| COP Tj = -7°C | 2.62 |
| Cdh | 0.90 |
| Pdh Tj = +2°C | 22.38 kW |
| COP Tj = +2°C | 2.78 |
| Cdh | 0.90 |
| Pdh Tj = +7°C | 24.41 kW |
| COP Tj = +7°C | 3.02 |
| Cdh | 0.90 |
| Pdh Tj = 12°C | 27.98 kW |
| COP Tj = 12°C | 3.43 |
| Cdh | 0.90 |
| Pdh Tj = Tbiv | 48.08 kW |
| COP Tj = Tbiv | 1.90 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 36.81 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.57 |
| WTOL | 54 °C |

This information was generated by the HP KEYMARK database on 5 Mar 2021

| | |
|--|-----------|
| Poff | 90 W |
| PTO | 700 W |
| PSB | 90 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | electric |
| Supplementary Heater: PSUP | 58.94 kW |
| Annual energy consumption Qhe | 56780 kWh |
| Pdh Tj = -15°C (if TOL<-20°C) | 48.08 |
| COP Tj = -15°C (if TOL<-20°C) | 1.90 |
| Cdh | 0.90 |