Login

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	24.08.2021		
Testing basis	HP Keymark Scheme Rules Rev 08		

Model: MC-SU90-RN8L-B

Configure model	
Model name	MC-SU90-RN8L-B
Application	Heating (low temp)
Units	n/a
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	90.00 kW
El input	23.30 kW
COP	3.87

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

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 Tj = +2 °C	0.90
Pdh Tj = +7°C	42.10 kW
COP Tj = +7°C	4.36
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	28.30 kW
COP Tj = 12°C	5.47
Cdh Tj = +12 °C	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	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	19137 kWh

Colder Climate

EN 14825	
	Low temperature
η_s	121 %
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 Tj = -7 °C	0.900
Pdh Tj = +2°C	22.32 kW
COP Tj = +2°C	3.46

Cdh Tj = +2 °C	0.900
Pdh Tj = +7°C	25.15 kW
COP Tj = +7°C	4.68
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	27.59 kW
COP Tj = 12°C	5.41
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	50.11 kW
COP Tj = Tbiv	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.73
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	
WTOL	54 °C
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
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 Tj = -15 °C	0.900

Average Climate

EN 14825	
	Low temperature
η_s	155 %
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 Tj = -7 °C	0.90
Pdh Tj = +2°C	43.18 kW
COP Tj = +2°C	3.78
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	27.65 kW
COP Tj = +7°C	5.63
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	28.53 kW

COP Tj = 12°C	5.70
Cdh Tj = +12 °C	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
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	6.01 kW
Annual energy consumption Qhe	40075 kWh

Model: MC-SU90M-RN8L-B

Configure model	
Model name	MC-SU90M-RN8L-B
Application	Heating (low temp)
Units	n/a
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	90.00 kW
El input	29.52 kW
COP	3.06

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

EN 14825

	Low temperature
η_s	114 %
Prated	63.97 kW
SCOP	2.93
Tbiv	7 °C
TOL	2 °C
Pdh Tj = +2°C	63.97 kW
COP Tj = +2°C	2.17
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	40.84 kW
COP Tj = +7°C	2.81
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	28.70 kW
COP Tj = 12°C	3.47
Cdh Tj = +12 °C	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	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	29169 kWh

Colder Climate

EN 14825	
	Low temperature
η_s	99 %
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 Tj = -7 °C	0.90
Pdh Tj = +2°C	22.38 kW
COP Tj = +2°C	2.78

Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	24.41 kW
COP Tj = +7°C	3.02
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	27.98 kW
COP Tj = 12°C	3.43
Cdh Tj = +12 °C	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
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
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 Tj = -15 °C	0.90

Average Climate

EN 14825	
	Low temperature
η_s	147 %
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 Tj = -7 °C	0.90
Pdh Tj = +2°C	43.01 kW
COP Tj = +2°C	3.63
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	26.42 kW
COP Tj = +7°C	5.08
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	28.54 kW
COP Tj = 12°C	5.94

Cdh Tj = +12 °C	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
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	3.27 kW
Annual energy consumption Qhe	40747 kWh