

Page 1 of 17

This information was generated by the HP KEYMARK database on 18 Mar 2022

Login

Summary of	M thermal A Series 8 10kW with 190L tank	Reg. No.	041-K007-07	
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	M thermal A Series 8 10kW with 190L tank			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	1.65 kg			
Certification Date	18.12.2020			
Testing basis	Heat Pump Keymark Scheme Rules Rev 08			



Model: MHA-V8W/D2N8-B+HBT-A100/190C****GN8-B

Configure model		
Model name MHA-V8W/D2N8-B+HBT-A100/190C****GN8-B		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility Yes		
Cooling mode application (optional) n/a		

General Data		
Power supply	1x230V 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	

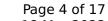
EN 14511-2			
Low temperature Medium temperature			
Heat output	8.30 kW	7.50 kW	
El input	1.60 kW	2.36 kW	
СОР	5.20	3.18	

Average Climate



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	59 dB(A)	59 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	205 %	132 %	
Prated	8.12 kW	6.60 kW	
SCOP	5.21	3.36	
Tbiv	-7 °C	-7 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	7.19 kW	5.84 kW	
COP Tj = -7°C	3.35	2.16	
Cdh Tj = -7 °C	0.90	0.90	
Pdh Tj = $+2^{\circ}$ C	4.65 kW	3.76 kW	
COP Tj = +2°C	5.09	3.30	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = $+7^{\circ}$ C	2.90 kW	2.43 kW	
COP Tj = +7°C	6.82	4.34	
Cdh Tj = +7 °C	0.90	0.90	





This information was generated by the HP KEYMARK database on 18 Mar 202				
Pdh Tj = 12°C	1.63 kW	1.40 kW		
COP Tj = 12°C	8.35	5.33		
Cdh Tj = +12 °C	0.90	0.90		
Pdh Tj = Tbiv	7.19 kW	5.84 kW		
COP Tj = Tbiv	3.35	2.16		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.45 kW	4.91 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	1.84		
WTOL	65 °C	65 °C		
Poff	14 W	14 W		
РТО	24 W	24 W		
PSB	14 W	14 W		
PCK	0 W	0 W		
Supplementary Heater: Type of energy input	Electricity	Electricity		
Supplementary Heater: PSUP	1.68 kW	1.69 kW		

Warmer Climate

Annual energy consumption Qhe

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	59 dB(A)	59 dB(A)	

3223 kWh

4056 kWh





EN 14825

	Low temperature	Medium temperature
η_{s}	273 %	176 %
Prated	8.12 kW	7.56 kW
SCOP	6.99	4.47
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.57 kW	7.55 kW
COP Tj = +2°C	3.98	2.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	5.22 kW	4.86 kW
COP Tj = +7°C	6.26	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.45 kW	2.32 kW
COP Tj = 12°C	9.02	5.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.22 kW	4.86 kW
COP Tj = Tbiv	6.26	3.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.57 kW	7.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.98	2.59
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		





3		
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.01 kW
Annual energy consumption Qhe	1569 kWh	2259 kWh

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	42 dB(A)	42 dB(A)		
Sound power level outdoor	59 dB(A)	59 dB(A)		

EN 14825		
	Low temper	ature Medium temperature
η_{S}	170 %	112 %
Prated	6.98 kW	5.78 kW
SCOP	4.32	2.88
Tbiv	-15 °C	-15 °C





This information was general	- , -	
TOL	-22 °C	-22 °C
Pdh Tj = -7° C	4.46 kW	3.86 kW
$COP Tj = -7^{\circ}C$	3.66	2.48
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	2.70 kW	2.21 kW
COP Tj = +2°C	5.20	3.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.66 kW	1.44 kW
$COP Tj = +7^{\circ}C$	6.53	4.11
Cdh Tj = $+7$ °C	0.90	0.90
Pdh Tj = 12°C	1.66 kW	1.47 kW
COP Tj = 12°C	7.96	5.92
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	5.69 kW	4.71 kW
COP Tj = Tbiv	2.83	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.06 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.95	1.22
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
	!	!



PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.91 kW	2.99 kW
Annual energy consumption Qhe	3978 kWh	4950 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.69	4.71
COP Tj = -15°C (if TOL $<$ -20°C)	2.83	1.90
Cdh Tj = -15 °C	0.90	0.90

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	125 %
СОР	3.02
Heating up time	1:38 h:min
Standby power input	23.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200

Warmer Climate



EN 16147	
Declared load profile	L
Efficiency ηDHW	151 %
СОР	3.66
Heating up time	1:30 h:min
Standby power input	21.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200 I

EN 16147		
Declared load profile	L	
Efficiency ηDHW	107 %	
СОР	2.61	
Heating up time	1:32 h:min	
Standby power input	25.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200 I	



Model: MHA-V10W/D2N8-B+HBT-A100/190C****GN8-B

Configure model		
Model name MHA-V10W/D2N8-B+HBT-A100/190C****GN8-B		
Application Heating + DHW + low temp		
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

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

EN 14511-2		
Low temperature Medium temperature		
Heat output	10.00 kW	9.50 kW
El input	2.00 kW	3.06 kW
СОР	5.00	3.10

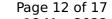
Average Climate



 $$\operatorname{Page}\ 11$$ of 17 This information was generated by the HP KEYMARK database on 18 Mar 2022

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	205 %	137 %
Prated	9.17 kW	7.67 kW
SCOP	5.19	3.49
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.11 kW	6.78 kW
COP Tj = -7°C	3.23	2.24
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.18 kW	4.29 kW
COP Tj = +2°C	5.01	3.42
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.32 kW	2.77 kW
COP Tj = +7°C	7.08	4.52
Cdh Tj = +7 °C	0.90	0.90





This information was gener	ated by the HP KEYMA	RK database on 18 Mar 2022
Pdh Tj = 12° C	1.65 kW	1.58 kW
COP Tj = 12°C	8.58	5.68
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.11 kW	6.78 kW
COP Tj = Tbiv	3.23	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.40 kW	5.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.96	1.83
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.76 kW	2.28 kW
	2017 1 1111	4500 1 1111

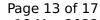
Warmer Climate

Annual energy consumption Qhe

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

3647 kWh

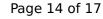
4539 kWh





EN 14825

	Low temperature	Medium temperature
η_{s}	279 %	180 %
Prated	8.58 kW	8.63 kW
SCOP	7.12	4.58
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.44 kW	8.06 kW
$COP Tj = +2^{\circ}C$	3.84	2.59
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.52 kW	5.55 kW
$COPTj = +7^{\circ}C$	6.18	4.10
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.62 kW	2.53 kW
COP Tj = 12°C	9.04	5.82
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	5.52 kW	5.55 kW
COP Tj = Tbiv	6.18	4.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	8.44 kW	8.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.84	2.61
WTOL	65 °C	65 °C

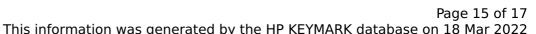




Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.14 kW	0.48 kW
Annual energy consumption Qhe	1628 kWh	2516 kWh

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	170 %	116 %
Prated	7.75 kW	6.71 kW
SCOP	4.32	2.99
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C





This information was gener	ated by the HP KEYM	ARK database on 18 Mar 202
Pdh Tj = -7 °C	4.83 kW	4.27 kW
$COP Tj = -7^{\circ}C$	3.60	2.54
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	2.94 kW	2.57 kW
$COP Tj = +2^{\circ}C$	5.26	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.92 kW	1.66 kW
$COP Tj = +7^{\circ}C$	7.08	4.37
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.66 kW	1.48 kW
COP Tj = 12°C	7.96	5.96
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.32 kW	5.48 kW
COP Tj = Tbiv	2.64	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.63 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.22
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	o w



Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.13 kW	3.91 kW
Annual energy consumption Qhe	4424 kWh	5540 kWh
Pdh Tj = -15°C (if TOL<-20°C)	6.32	5.48
COP Tj = -15°C (if TOL $<$ -20°C)	2.64	2.00
Cdh Tj = -15 °C	0.90	0.90

Domestic Hot Water (DHW)

Average Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	125 %	
СОР	3.02	
Heating up time	1:38 h:min	
Standby power input	23.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200 l	

Warmer Climate



EN 16147	
Declared load profile	L
Efficiency ηDHW	151 %
СОР	3.66
Heating up time	1:30 h:min
Standby power input	21.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200 I

EN 16147	
Declared load profile	L
Efficiency ηDHW	107 %
СОР	2.61
Heating up time	1:31 h:min
Standby power input	25.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200 I