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Summary of	M thermal A Series 4 6kW with 240L tank	Reg. No.	041-K007-05		
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 4 6kW with 240L tank				
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R32				
Mass Of Refrigerant	1.5 kg				
Certification Date	12.06.2020				
Testing basis	Heat Pump Keymark Scheme Rules Rev 08				



# Model: MHA-V4W/D2N8-B+HBT-A100/240C\*\*\*\*GN8-B

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	4.25 kW	4.40 kW	
El input	0.82 kW	1.49 kW	
СОР	5.20	2.95	

### **Average Climate**



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	191 %	130 %
Prated	5.52 kW	4.40 kW
SCOP	4.85	3.31
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.88 kW	3.89 kW
COP Tj = -7°C	3.19	2.17
Cdh	0.90	0.90
Pdh Tj = +2°C	3.06 kW	2.38 kW
$COP Tj = +2^{\circ}C$	4.78	3.30
Cdh	0.90	0.90
Pdh Tj = +7°C	1.93 kW	2.95 kW
COP Tj = +7°C	6.13	4.41
Cdh	0.90	0.90

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Pdh Tj = 12°C	1.48 kW	1.32 kW
COP Tj = 12°C	8.05	5.66
Cdh	0.90	0.90
Pdh Tj = Tbiv	4.88 kW	3.89 kW
COP Tj = Tbiv	3.19	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.42 kW	3.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.91
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	electric	electric
Supplementary Heater: PSUP	1.11 kW	0.98 kW
Annual energy consumption Qhe	2351 kWh	2744 kWh

### Warmer Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	254 %	162 %
Prated	5.54 kW	5.02 kW
SCOP	6.52	4.14
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.35 kW	4.84 kW
COP Tj = +2°C	3.94	2.51
Cdh	0.90	0.90
Pdh Tj = +7°C	3.56 kW	3.23 kW
COP Tj = +7°C	5.92	3.68
Cdh	0.90	0.90
Pdh Tj = 12°C	1.64 kW	1.47 kW
COP Tj = 12°C	7.91	5.15
Cdh	0.90	0.90
Pdh Tj = Tbiv	3.56 kW	3.23 kW
COP Tj = Tbiv	5.92	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.35 kW	4.84 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.51
WTOL	65 °C	65 °C





Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.19 kW	0.18 kW
Annual energy consumption Qhe	1152 kWh	1621 kWh

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	159 %	102 %
Prated	4.57 kW	3.37 kW
SCOP	4.06	2.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	2.76 kW	2.14 kW
COP Tj = -7°C	3.49	2.32
Cdh	0.90	0.90
Pdh Tj = +2°C	1.77 kW	1.28 kW
COP Tj = +2°C	4.95	2.99

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Cdh	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.17 kW	1.01 kW
$COPTj = +7^{\circ}C$	5.53	3.86
Cdh	0.90	0.90
Pdh Tj = 12°C	1.43 kW	1.36 kW
COP Tj = 12°C	7.67	6.28
Cdh	0.90	0.90
Pdh Tj = Tbiv	3.72 kW	2.75 kW
COP Tj = Tbiv	2.57	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.80 kW	1.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.02
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	1.76 kW	1.73 kW
Annual energy consumption Qhe	2770 kWh	3159 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.72	2.75
COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.57	1.74

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Cdh	0.90	0.90
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EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	42 dB(A)	42 dB(A)		
Sound power level outdoor	56 dB(A)	56 dB(A)		

# Domestic Hot Water (DHW)

# **Average Climate**

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	136 %	
СОР	3.34	
Heating up time	2:21 h:min	
Standby power input	22.0 W	
Reference hot water temperature	48.0 °C	
Mixed water at 40°C	275 I	

### Warmer Climate



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	174 %	
СОР	4.24	
Heating up time	2:09 h:min	
Standby power input	22.0 W	
Reference hot water temperature	48.0 °C	
Mixed water at 40°C	275 l	

### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	107 %	
СОР	2.63	
Heating up time	2:38 h:min	
Standby power input	24.0 W	
Reference hot water temperature	48.0 °C	
Mixed water at 40°C	275 I	



# Model: MHA-V6W/D2N8-B+HBT-A100/240C\*\*\*\*GN8-B

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	6.20 kW	6.00 kW	
El input	1.24 kW	2.00 kW	
СОР	5.00	3.00	

### **Average Climate**

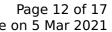


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EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	42 dB(A)	42 dB(A)		
Sound power level outdoor	58 dB(A)	58 dB(A)		

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	195 %	138 %
Prated	6.82 kW	5.70 kW
SCOP	4.95	3.52
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.03 kW	5.05 kW
COP Tj = -7°C	3.09	2.17
Cdh	0.90	0.90
Pdh Tj = $+2^{\circ}$ C	3.88 kW	3.12 kW
COP Tj = +2°C	4.85	3.51
Cdh	0.90	0.90
Pdh Tj = +7°C	2.40 kW	2.09 kW
COP Tj = +7°C	6.63	4.54
Cdh	0.90	0.90

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Pdh Tj = 12°C	1.39 kW	1.28 kW
COP Tj = 12°C	7.83	5.59
Cdh	0.90	0.90
Pdh Tj = Tbiv	6.03 kW	5.05 kW
COP Tj = Tbiv	3.09	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.36 kW	4.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.91
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	electric	electric
Supplementary Heater: PSUP	1.45 kW	1.18 kW

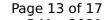
### Warmer Climate

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	58 dB(A)	58 dB(A)

2846 kWh

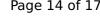
3345 kWh





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	258 %	165 %
Prated	6.12 kW	5.15 kW
SCOP	6.63	4.19
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.94 kW	5.03 kW
$COP Tj = +2^{\circ}C$	3.91	2.48
Cdh	0.90	0.90
Pdh Tj = +7°C	3.93 kW	3.31 kW
$COP Tj = +7^{\circ}C$	5.89	3.67
Cdh	0.90	0.90
Pdh Tj = 12°C	1.80 kW	1.60 kW
COP Tj = 12°C	8.20	5.29
Cdh	0.90	0.90
Pdh Tj = Tbiv	3.93 kW	3.31 kW
COP Tj = Tbiv	5.89	3.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.94 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
WTOL	65 °C	65 °C





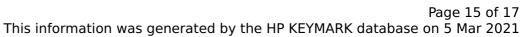
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Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.18 kW	0.12 kW
Annual energy consumption Qhe	1251 kWh	1640 kWh

### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
Low temperature	Medium temperature	
165 %	111 %	
5.63 kW	4.26 kW	
4.21	2.85	
-15 °C	-15 °C	
-22 °C	-22 °C	
	Low temperature  165 %  5.63 kW  4.21  -15 °C	





Pdh Tj = $-7^{\circ}$ C	3.42 kW	2.70 kW
COP Tj = -7°C	3.59	2.46
Cdh	0.90	0.90
Pdh Tj = +2°C	2.06 kW	1.61 kW
COPTj = +2°C	5.21	3.36
Cdh	0.90	0.90
Pdh Tj = +7°C	1.47 kW	1.02 kW
COP Tj = +7°C	6.24	3.94
Cdh	0.90	0.90
Pdh Tj = 12°C	1.44 kW	1.37 kW
COP Tj = 12°C	7.66	6.35
Cdh	0.90	0.90
Pdh Tj = Tbiv	4.60 kW	3.48 kW
COP Tj = Tbiv	2.53	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	2.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.13
WTOL	65 °C	65 °C
Poff	20 W	20 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	o w



Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	2.15 kW	2.16 kW
Annual energy consumption Qhe	3301 kWh	3681 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.60	3.48
COP Tj = -15°C (if TOL $<$ -20°C)	2.53	1.86
Cdh	0.90	0.90

# Domestic Hot Water (DHW)

# **Average Climate**

EN 16147	
Declared load profile	XL
Efficiency ηDHW	136 %
СОР	3.34
Heating up time	2:21 h:min
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Mixed water at 40°C	275 I

### Warmer Climate



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Heating up time	2:09 h:min
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Reference hot water temperature	48.0 °C
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### Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	107 %	
СОР	2.63	
Heating up time	2:38 h:min	
Standby power input	24.0 W	
Reference hot water temperature	48.0 °C	
Mixed water at 40°C	275 I	