

Page 1 of 29

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

#### <u>Login</u>

Summary of	M thermal A series 18 22 26 30 kW	Reg. No.	041-K007-11	
Certificate Holder				
Name	GD Midea Heating & Ventilating Equipmen	GD Midea Heating & Ventilating Equipment Co., Ltd.		
Address	Penglai Industry Road	Zip	528311	
City	Beijiao, Shunde, Foshan	Country	China	
Certification Body	BRE Global Limited	BRE Global Limited		
Subtype title	M thermal A series 18 22 26 30 kW			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	5 kg			
Certification Date	02.12.2020			
Testing basis	HP Keymark Scheme Rules Rev 08			

# Model: MHC-V18W/D2RN8

Configure model		
Model name	MHC-V18W/D2RN8	
Application	Heating (medium temp)	
Units	Outdoor	
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 Medium temperature				
Heat output	18.32 kW	18.10 kW		
El input	3.96 kW	6.63 kW		
СОР	4.63	2.73		

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 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	71 dB(A)	71 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	226 %	157 %
Prated	17.67 kW	18.07 kW
SCOP	5.74	4.00
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	17.67 kW	18.07 kW
COP Tj = +2°C	3.53	2.12
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	11.36 kW	11.62 kW
COP Tj = +7°C	5.16	3.49
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.45 kW	5.35 kW
COP Tj = 12°C	7.01	5.09
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.36 kW	11.62 kW

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5.16	3.49
17.67 kW	18.07 kW
3.53	2.12
60 °C	60 °C
18 W	18 W
96 W	96 W
18 W	18 W
o w	0 W
Electricity	Electricity
0.00 kW	0.00 kW
4116 kWh	6041 kWh
	17.67 kW  3.53  60 °C  18 W  96 W  18 W  0 W  Electricity  0.00 kW

### Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	71 dB(A)	71 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	146 %	97 %





	<u>,                                      </u>	NK database on 22 jun 202
Prated	17.76 kW	18.38 kW
SCOP	3.73	2.50
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	11.21 kW	11.13 kW
COP Tj = -7°C	3.09	1.98
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	6.64 kW	6.65 kW
COP Tj = +2°C	4.50	3.44
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	4.77 kW	4.66 kW
$COP Tj = +7^{\circ}C$	5.85	4.35
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.95 kW	3.74 kW
COP Tj = 12°C	7.18	5.68
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.49 kW	11.13 kW
COP Tj = Tbiv	2.42	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.14 kW	13.56 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.21
WTOL	60 °C	60 °C
	+	





Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.62 kW	18.38 kW
Annual energy consumption Qhe	11740 kWh	18156 kWh
Pdh Tj = -15°C (if TOL<-20°C)	14.49	13.56
COP Tj = -15°C (if TOL $<$ -20°C)	2.42	1.21
Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	71 dB(A)	71 dB(A)

EN 14825		
Low temperature	Medium temperature	
181 %	125 %	
17.99 kW	17.67 kW	
4.60	3.21	
	Low temperature  181 %  17.99 kW	





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Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	15.90 kW	15.61 kW
COP Tj = $-7$ °C	2.85	1.72
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = $+2$ °C	9.66 kW	9.59 kW
COP Tj = +2°C	4.59	3.32
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	6.56 kW	6.37 kW
$COPTj = +7^{\circ}C$	5.99	4.48
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.76 kW	3.57 kW
COP Tj = 12°C	7.08	5.27
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.90 kW	15.61 kW
COP Tj = Tbiv	2.85	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.99 kW	15.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.17
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W



#### Page 8 of 29

РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	2.64 kW
Annual energy consumption Qhe	8086 kWh	11375 kWh



# Model: MHC-V22W/D2RN8

Configure model		
Model name	MHC-V22W/D2RN8	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

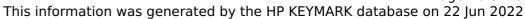
General Data		
Power supply	3x400V 50Hz	

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	22.30 kW	22.10 kW	
El input	5.13 kW	8.33 kW	
СОР	4.35	2.65	

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

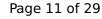




EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	73 dB(A)	73 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	234 %	161 %
Prated	21.90 kW	22.01 kW
SCOP	5.85	4.09
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	21.81 kW	22.01 kW
COP Tj = +2°C	3.31	2.12
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	14.08 kW	14.15 kW
COP Tj = +7°C	5.20	3.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.44 kW	6.38 kW
COP Tj = 12°C	7.50	5.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.08 kW	14.15 kW

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COP Tj = Tbiv	5.20	3.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	21.81 kW	22.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.31	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.09 kW	0.00 kW
Annual energy consumption Qhe	4945 kWh	7180 kWh

### Colder Climate

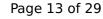
EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	73 dB(A)	73 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	146 %	102 %





This information was generated by the HF KETMAKK database on 22 juli 2022			
Prated	21.40 kW	22.36 kW	
SCOP	3.72	2.62	
Tbiv	-15 °C	-7 °C	
TOL	-22 °C	-15 °C	
Pdh Tj = $-7^{\circ}$ C	13.30 kW	13.53 kW	
$COP Tj = -7^{\circ}C$	3.12	2.07	
Cdh Tj = -7 °C	0.90	0.90	
Pdh Tj = $+2$ °C	8.25 kW	8.61 kW	
$COPTj = +2^{\circ}C$	4.42	3.70	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = $+7^{\circ}$ C	5.45 kW	5.21 kW	
$COPTj = +7^{\circ}C$	5.87	4.49	
Cdh Tj = +7 °C	0.90	0.90	
Pdh Tj = 12°C	3.98 kW	3.74 kW	
COP Tj = 12°C	7.19	5.76	
Cdh Tj = +12 °C	0.90	0.90	
Pdh Tj = Tbiv	17.46 kW	13.53 kW	
COP Tj = Tbiv	2.36	2.07	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.27 kW	13.78 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.69	1.24	
WTOL	60 °C	60 °C	





Poff	20 W	20 W
РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.13 kW	22.36 kW
Annual energy consumption Qhe	14179 kWh	21067 kWh
Pdh Tj = -15°C (if TOL<-20°C)	17.46	13.78
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.24
Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825		
Low temperature	Medium temperature	
178 %	126 %	
22.31 kW	22.43 kW	
4.53	3.22	
	Low temperature  178 %  22.31 kW	





This information was gener	rated by the HP KETMA	ARK database on 22 jun 2022
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.72 kW	19.82 kW
COP Tj = -7°C	2.74	1.74
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	12.03 kW	11.89 kW
COP Tj = +2°C	4.41	3.32
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.00 kW	7.97 kW
$COP Tj = +7^{\circ}C$	6.29	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.79 kW	3.60 kW
COP Tj = 12°C	7.14	5.32
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.72 kW	19.82 kW
COP Tj = Tbiv	2.74	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W



#### Page 15 of 29

PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.97 kW	8.60 kW
Annual energy consumption Qhe	10180 kWh	14390 kWh

# Model: MHC-V26W/D2RN8

Configure model		
Model name	MHC-V26W/D2RN8	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

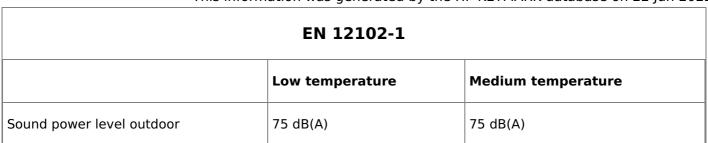
## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	26.30 kW	26.06 kW
El input	6.50 kW	10.72 kW
СОР	4.05	2.43

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

## Warmer Climate





CEN heat pump

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	231 %	168 %
Prated	26.08 kW	26.22 kW
SCOP	5.85	4.26
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	25.50 kW	26.22 kW
$COP Tj = +2^{\circ}C$	3.00	1.99
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	16.77 kW	16.86 kW
$COP Tj = +7^{\circ}C$	5.02	3.47
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	7.65 kW	7.58 kW
COP Tj = 12°C	7.78	5.94
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	16.77 kW	16.86 kW

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COP Tj = Tbiv       5.02       3.47         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       25.50 kW       26.22 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       3.00       1.99         Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       60 °C       60 °C         Poff       18 W       18 W         PTO       96 W       96 W         PSB       18 W       18 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       0.58 kW       0.00 kW         Annual energy consumption Qhe       5959 kWh       8218 kWh			
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh  Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  WTOL  60 °C  60 °C  Poff  18 W  18 W  PTO  96 W  96 W  PSB  18 W  18 W  PCK  0 W  0 W  Supplementary Heater: Type of energy input  Electricity  Electricity  Supplementary Heater: PSUP  0.58 kW  0.00 kW	COP Tj = Tbiv	5.02	3.47
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  WTOL  60 °C  60 °C  70	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25.50 kW	26.22 kW
WTOL  60 °C  60 °C  18 W  18 W  PTO  96 W  96 W  PSB  18 W  18 W  PCK  0 W  0 W  Supplementary Heater: Type of energy input  Electricity  Electricity  Supplementary Heater: PSUP  0.58 kW  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	1.99
Poff 18 W 18 W  PTO 96 W 96 W  PSB 18 W 18 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.58 kW 0.00 kW	Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
PTO 96 W 96 W  PSB 18 W 18 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.58 kW 0.00 kW	WTOL	60 °C	60 °C
PSB 18 W 18 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.58 kW 0.00 kW	Poff	18 W	18 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.58 kW 0.00 kW	РТО	96 W	96 W
Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.58 kW 0.00 kW	PSB	18 W	18 W
Supplementary Heater: PSUP 0.58 kW 0.00 kW	PCK	0 W	0 W
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 5959 kWh 8218 kWh	Supplementary Heater: PSUP	0.58 kW	0.00 kW
	Annual energy consumption Qhe	5959 kWh	8218 kWh

### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	143 %	101 %





.64 12 °C 22 °C 5.91 kW .10 .90 0.10 kW	26.27 kW  2.59  -7 °C  -15 °C  15.90 kW  2.10  0.90  10.17 kW  3.58
12 °C 22 °C 5.91 kW1090 0.10 kW	-7 °C -15 °C 15.90 kW 2.10 0.90 10.17 kW
22 °C 5.91 kW .10 .90 0.10 kW	-15 °C 15.90 kW 2.10 0.90 10.17 kW
5.91 kW .10 .90 0.10 kW	15.90 kW 2.10 0.90 10.17 kW
.10 .90 0.10 kW	2.10 0.90 10.17 kW
.90 0.10 kW .45	0.90 10.17 kW
0.10 kW	10.17 kW
.45	
	3.58
.90	
	0.90
.30 kW	6.52 kW
.06	4.99
.90	0.90
.03 kW	3.63 kW
.13	5.68
.90	0.90
8.97 kW	15.90 kW
.36	2.10
3.07 kW	13.37 kW
.67	1.20
	60 °C
	90 3.97 kW 36 3.07 kW



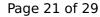


Poff	20 W	20 W
РТО	96 W	96 W
PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.68 kW	26.27 kW
Annual energy consumption Qhe	17421 kWh	24967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.95	13.37
COP Tj = -15°C (if TOL $<$ -20°C)	2.27	1.20
Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
Low temperature	Medium temperature	
177 %	123 %	
25.04 kW	26.15 kW	
4.50	3.14	
	Low temperature  177 %  25.04 kW	





This information was gener	rated by the HP KETMA	ARK database on 22 Jun 202.
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	22.12 kW	20.64 kW
COP Tj = -7°C	2.57	1.69
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	13.76 kW	14.26 kW
COP Tj = +2°C	4.44	3.12
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.36 kW	9.29 kW
$COPTj = +7^{\circ}C$	6.52	4.74
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.09 kW	3.89 kW
COP Tj = 12°C	7.35	5.48
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	22.12 kW	22.11 kW
COP Tj = Tbiv	2.57	1.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W
	!	!



### Page 22 of 29

PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.68 kW	12.28 kW
Annual energy consumption Qhe	11489 kWh	17204 kWh

# Model: MHC-V30W/D2RN8

Configure model		
Model name	MHC-V30W/D2RN8	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

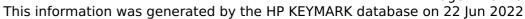
General Data		
Power supply 3x400V 50Hz		

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	29.93 kW	29.68 kW
El input	8.02 kW	12.97 kW
СОР	3.73	2.29

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 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	213 %	163 %
Prated	30.44 kW	29.73 kW
SCOP	5.39	4.15
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	26.29 kW	26.41 kW
COP Tj = +2°C	2.94	1.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	19.57 kW	19.11 kW
COP Tj = +7°C	4.75	3.37
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	8.90 kW	8.92 kW
COP Tj = 12°C	7.53	6.09
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.57 kW	19.11 kW
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COP Tj = Tbiv	4.75	3.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	26.29 kW	26.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	1.99
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.15 kW	3.32 kW
Annual energy consumption Qhe	7540 kWh	9580 kWh

### Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	77 dB(A)	77 dB(A)	

	EN 14825		
Low temperature	Medium temperature		
138 %	100 %		
29.13 kW	30.41 kW		
_	138 %		





SCOP	3.52	2.56
Tbiv	-10 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	18.49 kW	18.40 kW
$COP Tj = -7^{\circ}C$	3.07	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	11.88 kW	11.22 kW
$COP Tj = +2^{\circ}C$	4.42	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	7.53 kW	7.42 kW
$COP Tj = +7^{\circ}C$	6.15	5.18
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.11 kW	3.64 kW
COP Tj = 12°C	6.87	5.73
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.93 kW	18.40 kW
COP Tj = Tbiv	2.44	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.17 kW	13.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.18
WTOL	60 °C	60 °C
Poff	18 W	18 W





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PTO	96 W	96 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	15.96 kW	30.41 kW
Annual energy consumption Qhe	20390 kWh	29238 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.61	13.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.24	1.18
Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	77 dB(A)	77 dB(A)	

	EN 14825		
Low temperature	Medium temperature		
165 %	123 %		
29.18 kW	29.69 kW		
4.19	3.14		
-5 °C	-5 °C		
	165 % 29.18 kW 4.19		





This information was generated by the HP KEYMARK database on 22 Jun 2022			
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	21.90 kW	20.11 kW	
COP Tj = -7°C	2.54	1.63	
Cdh Tj = -7 °C	0.90	0.90	
Pdh Tj = +2°C	16.16 kW	16.49 kW	
COP Tj = +2°C	4.16	3.09	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = +7°C	10.64 kW	10.50 kW	
$COP Tj = +7^{\circ}C$	6.38	4.75	
Cdh Tj = +7 °C	0.90	0.90	
Pdh Tj = 12°C	4.54 kW	4.64 kW	
COP Tj = 12°C	7.72	5.91	
Cdh Tj = +12 °C	0.90	0.90	
Pdh Tj = Tbiv	23.51 kW	23.97 kW	
COP Tj = Tbiv	2.71	2.02	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.37 kW	13.82 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.07	
WTOL	60 °C	60 °C	
Poff	18 W	18 W	
РТО	96 W	96 W	
PSB	18 W	18 W	



Page 29 of 29

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.75 kW	15.86 kW
Annual energy consumption Qhe	14165 kWh	19316.17 kWh