

This information was generated by the HP KEYMARK database on 25 Feb 2023

	M thermal P series 12 14 16 kW	Reg. No.	041-K007-15
Certificate Holder			
	GD Midea Heating & Ventilating Equipment Co., Ltd.		
	Penglai Industry Road		528311
	Beijiao, Shunde, Foshan		China
Certification Body	BRE Global Limited		
Subtype title	M thermal P series 12 14 16 kW		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.8 kg		
Certification Date	14.12.2021		
Testing basis	Heat Pump Keymark Scheme Rules Rev 09		

Model: MHC-V12WD2N8-C

Configure model	
Model name	MHC-V12WD2N8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	262.3 %	179 %
Prated	12.1 kW	12 kW
SCOP	6.63	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.1 kW	12 kW
COP Tj = +2°C	3.53	2.39
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	7.78 kW	7.73 kW
COP Tj = +7°C	5.82	3.86
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.64 kW	3.59 kW
COP Tj = 12°C	8.31	5.88
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	7.78 kW	7.73 kW

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COP $T_j = T_{biv}$	5.82	3.86
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.1 kW	12 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.53	2.39
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Q_{he}	2437 kWh	3524 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	168.8 %	126 %
Prated	12.5 kW	11.3 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.3	3.23
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.08 kW	7.09 kW
COP Tj = -7°C	3.64	2.75
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	4.93 kW	4.44 kW
COP Tj = +2°C	5.34	3.88
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.17 kW	3 kW
COP Tj = +7°C	5.28	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.69 kW	3.6 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.17 kW	9.21 kW
COP Tj = Tbiv	2.66	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.72 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.38
WTOL	65 °C	65 °C
Poff	13 W	13 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	20 W	20 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	4.3 kW
Annual energy consumption Q _{he}	7153 kWh	8628 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	10.17	9.21
COP T _j = -15°C (if TOL<-20°C)	2.66	1.92
C _{dh} T _j = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	200.1 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.85 kW	11.06 kW
COP Tj = -7°C	3.11	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.79 kW	6.91 kW
COP Tj = +2°C	4.86	3.59
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.79 kW	4.64 kW
COP Tj = +7°C	6.98	5.07
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.85 kW	11.06 kW
COP Tj = Tbiv	3.11	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.3 kW	10.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.8	1.98
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Q _{he}	5004 kWh	7148 kWh

Model: MHC-V14WD2N8-C

Configure model	
Model name	MHC-V14WD2N8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	14.10 kW	14.00 kW
El input	3.00 kW	4.75 kW
COP	4.70	2.95

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	260.5 %	184.6 %
Prated	13.20 kW	14.20 kW
SCOP	6.59	4.69
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.94 kW	13.01 kW
COP Tj = +2°C	3.51	2.37
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.51 kW	9.12 kW
COP Tj = +7°C	5.72	3.95
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.96 kW	4.26 kW
COP Tj = 12°C	8.51	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.51 kW	9.12 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

COP $T_j = T_{biv}$	5.72	3.95
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.94 kW	13.01 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.51	2.37
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.26 kW	1.18 kW
Annual energy consumption Q_{he}	2684 kWh	4040 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	171.3 %	126.6 %
Prated	14.31 kW	12.49 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.36	3.24
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	8.74 kW	7.80 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.52 kW	4.64 kW
COP Tj = +2°C	5.35	3.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.70 kW	3.00 kW
COP Tj = +7°C	7.06	4.88
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.69 kW	3.61 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	11.67 kW	10.19 kW
COP Tj = Tbiv	2.58	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	7.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.02	1.35
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.17 kW	5.21 kW
Annual energy consumption Q _{he}	8095 kWh	9496 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	11.67	10.19
COP T _j = -15°C (if TOL<-20°C)	2.58	1.91
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	192.5 %	141.8 %
Prated	14.15 kW	14.15 kW
SCOP	4.89	3.62
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.52 kW	12.52 kW
COP Tj = -7°C	2.97	2.20
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.98 kW	7.71 kW
COP Tj = +2°C	4.56	3.58
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.04 kW	5.07 kW
COP Tj = +7°C	7.01	5.06
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.52 kW	12.52 kW
COP Tj = Tbiv	2.97	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.41 kW	11.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.96
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.75 kW	2.65 kW
Annual energy consumption Q _{he}	5984 kWh	8079 kWh

Model: MHC-V16WD2N8-C

Configure model	
Model name	MHC-V16WD2N8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.56 kW	5.61 kW
COP	4.50	2.85

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	255.4 %	184 %
Prated	14.20 kW	14.50 kW
SCOP	6.46	4.68
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.20 kW	13.62 kW
COP Tj = +2°C	3.22	2.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.15 kW	9.35 kW
COP Tj = +7°C	5.41	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.24 kW	4.26 kW
COP Tj = 12°C	8.56	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.15 kW	9.35 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

COP Tj = Tbiv	5.41	3.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.20 kW	13.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.22	2.35
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Qhe	2937 kWh	4154 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	170.9 %	124.3 %
Prated	15.10 kW	13.52 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.35	3.18
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	9.26 kW	8.43 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.76 kW	5.20 kW
COP Tj = +2°C	5.35	3.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.76 kW	3.53 kW
COP Tj = +7°C	7.04	5.19
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.72 kW	3.61 kW
COP Tj = 12°C	8.78	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.30 kW	11.03 kW
COP Tj = Tbiv	2.58	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	7.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.30
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.67 kW	6.00 kW
Annual energy consumption Q _{he}	8546 kWh	10473 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	12.30	11.03
COP T _j = -15°C (if TOL<-20°C)	2.58	1.85
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η _s	190.5 %	140.6 %
Prated	15.23 kW	14.70 kW
SCOP	4.84	3.59
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.49 kW	13.03 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.59 kW	8.50 kW
COP Tj = +2°C	4.53	3.55
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.55 kW	5.27 kW
COP Tj = +7°C	7.01	5.05
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	13.49 kW	13.03 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.05 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.94
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.18 kW	2.63 kW
Annual energy consumption Q _{he}	6510 kWh	8471 kWh

Model: MHC-V12WD2RN8-C

Configure model	
Model name	MHC-V12WD2RN8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	262.5 %	179 %
Prated	12.1 kW	12 kW
SCOP	6.64	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.1 kW	12 kW
COP Tj = +2°C	3.53	2.39
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	7.78 kW	7.73 kW
COP Tj = +7°C	5.82	3.86
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.64 kW	3.59 kW
COP Tj = 12°C	8.31	5.88
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	7.78 kW	7.73 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

COP $T_j = T_{biv}$	5.82	3.86
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.1 kW	12 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.53	2.39
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Q_{he}	2435 kWh	3523 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	168.8 %	126 %
Prated	12.5 kW	11.3 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.3	3.23
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.08 kW	7.09 kW
COP Tj = -7°C	3.64	2.75
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	4.93 kW	4.44 kW
COP Tj = +2°C	5.34	3.88
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.17 kW	3 kW
COP Tj = +7°C	5.28	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.69 kW	3.6 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.17 kW	9.21 kW
COP Tj = Tbiv	2.66	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.72 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.38
WTOL	65 °C	65 °C
Poff	6 W	6 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	4.3 kW
Annual energy consumption Q _{he}	7153 kWh	8628 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	10.17	9.21
COP T _j = -15°C (if TOL<-20°C)	2.66	1.92
C _{dh} T _j = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	200.2 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.85 kW	11.06 kW
COP Tj = -7°C	3.11	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.79 kW	6.91 kW
COP Tj = +2°C	4.86	3.59
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.79 kW	4.64 kW
COP Tj = +7°C	6.98	5.07
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.85 kW	11.06 kW
COP Tj = Tbiv	3.11	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.3 kW	10.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.8	1.98
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Q _{he}	5003 kWh	7148 kWh

Model: MHC-V14WD2RN8-C

Configure model	
Model name	MHC-V14WD2RN8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	14.10 kW	14.00 kW
El input	3.00 kW	4.75 kW
COP	4.70	2.95

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	260.6 %	184.6 %
Prated	13.20 kW	14.20 kW
SCOP	6.59	4.69
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.94 kW	13.01 kW
COP Tj = +2°C	3.51	2.37
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.51 kW	9.12 kW
COP Tj = +7°C	5.72	3.95
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.96 kW	4.26 kW
COP Tj = 12°C	8.51	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.51 kW	9.12 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

COP $T_j = T_{biv}$	5.72	3.95
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.94 kW	13.01 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.51	2.37
WTOL	65.00 °C	65.00 °C
P _{off}	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.26 kW	1.18 kW
Annual energy consumption Q _{he}	2683 kWh	4039 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	171.3 %	126.6 %
Prated	14.30 kW	12.50 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.36	3.24
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	8.74 kW	7.80 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.52 kW	4.64 kW
COP Tj = +2°C	5.35	3.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.70 kW	3.00 kW
COP Tj = +7°C	7.06	4.88
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.69 kW	3.61 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	11.67 kW	10.19 kW
COP Tj = Tbiv	2.58	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	7.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.02	1.35
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.16 kW	5.22 kW
Annual energy consumption Q _{he}	8095 kWh	9496 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	11.67	10.19
COP T _j = -15°C (if TOL<-20°C)	2.58	1.91
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	192.5 %	141.8 %
Prated	14.20 kW	14.20 kW
SCOP	4.89	3.62
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.52 kW	12.52 kW
COP Tj = -7°C	2.97	2.20
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.98 kW	7.71 kW
COP Tj = +2°C	4.56	3.58
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.04 kW	5.07 kW
COP Tj = +7°C	7.01	5.06
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.52 kW	12.52 kW
COP Tj = Tbiv	2.97	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.41 kW	11.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.96
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.80 kW	2.69 kW
Annual energy consumption Q _{he}	5984 kWh	8079 kWh

Model: MHC-V16WD2RN8-C

Configure model	
Model name	MHC-V16WD2RN8-C
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	16.00 kW
El input	3.56 kW	5.61 kW
COP	4.50	2.85

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

This information was generated by the HP KEYMARK database on 25 Feb 2023

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	255.5 %	184 %
Prated	14.20 kW	14.50 kW
SCOP	6.46	4.68
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.20 kW	13.62 kW
COP Tj = +2°C	3.22	2.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.15 kW	9.35 kW
COP Tj = +7°C	5.41	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.24 kW	4.26 kW
COP Tj = 12°C	8.56	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.15 kW	9.35 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

COP $T_j = T_{biv}$	5.41	3.94
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	14.20 kW	13.62 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.22	2.35
WTOL	65.00 °C	65.00 °C
P _{off}	6.00 W	13.00 W
PTO	18.00 W	20.00 W
PSB	6.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Q _{he}	2935 kWh	4153 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	170.9 %	124.3 %
Prated	15.10 kW	13.50 kW

This information was generated by the HP KEYMARK database on 25 Feb 2023

SCOP	4.35	3.18
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	9.26 kW	8.43 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.76 kW	5.20 kW
COP Tj = +2°C	5.35	3.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.76 kW	3.53 kW
COP Tj = +7°C	7.04	5.19
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.72 kW	3.61 kW
COP Tj = 12°C	8.78	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.30 kW	11.03 kW
COP Tj = Tbiv	2.58	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	7.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.30
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.67 kW	5.98 kW
Annual energy consumption Q _{he}	8546 kWh	10473 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	12.30	11.03
COP T _j = -15°C (if TOL<-20°C)	2.58	1.85
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190.5 %	140.7 %
Prated	15.20 kW	14.70 kW
SCOP	4.84	3.59
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 25 Feb 2023

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.49 kW	13.03 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.59 kW	8.50 kW
COP Tj = +2°C	4.53	3.55
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.55 kW	5.27 kW
COP Tj = +7°C	7.01	5.05
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	13.49 kW	13.03 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.05 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.94
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W

This information was generated by the HP KEYMARK database on 25 Feb 2023

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.15 kW	2.63 kW
Annual energy consumption Q _{he}	6509 kWh	8460 kWh