

## Subtype M thermal A series 8 10 kW

Certificate Holder	GD Midea Heating & Ventilating Equipment Co., Ltd.
Address	Penglai Industry Road
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City	Beijiao, Shunde, Foshan
Country	CN
Certification Body	BRE Global Limited
Subtype title	M thermal A series 8 10 kW
Registration number	041-K007-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.65 kg
Certification Date	02.12.2020
Testing basis	HP Keymark Scheme Rules Rev 08

## Model MHA-V8W/D2N8-B+HB-A100/C\*\*\*\*GN8-B

Model name	MHA-V8W/D2N8-B+HB-A100/C****GN8-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	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°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°C	2.90 kW	2.43 kW
COP Tj = +7°C	6.82	4.34
Cdh Tj = +7 °C	0.90	0.90
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 $T_j = T_{biv}$	3.35	2.16
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.45 kW	4.91 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.04	1.84
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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
Annual energy consumption Q <sub>he</sub>	3223 kWh	4056 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	170 %	112 %
Prated	6.98 kW	5.78 kW
SCOP	4.32	2.88
$T_{biv}$	-15 °C	-15 °C
TOL	-22 °C	-22 °C
$P_{dh} T_j = -7^\circ\text{C}$	4.46 kW	3.86 kW
COP $T_j = -7^\circ\text{C}$	3.66	2.48
$C_{dh} T_j = -7^\circ\text{C}$	0.90	0.90
$P_{dh} T_j = +2^\circ\text{C}$	2.70 kW	2.21 kW
COP $T_j = +2^\circ\text{C}$	5.20	3.35
$C_{dh} T_j = +2^\circ\text{C}$	0.90	0.90
$P_{dh} T_j = +7^\circ\text{C}$	1.66 kW	1.44 kW
COP $T_j = +7^\circ\text{C}$	6.53	4.11
$C_{dh} T_j = +7^\circ\text{C}$	0.90	0.90
$P_{dh} T_j = 12^\circ\text{C}$	1.66 kW	1.47 kW
COP $T_j = 12^\circ\text{C}$	7.96	5.92
$C_{dh} T_j = +12^\circ\text{C}$	0.90	0.90
$P_{dh} T_j = T_{biv}$	5.69 kW	4.71 kW
COP $T_j = T_{biv}$	2.83	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.06 kW	2.80 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	1.95	1.22
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W

PTO	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	2.91 kW	2.99 kW
Annual energy consumption Q <sub>he</sub>	3978 kWh	4950 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.69	4.71
COP T <sub>j</sub> = -15°C (if TOL	2.83	1.90
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.90	0.90

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	273 %	177 %
Prated	8.12 kW	8.37 kW
SCOP	6.99	4.50
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.57 kW	7.55 kW
COP T <sub>j</sub> = +2°C	3.98	2.59
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.22 kW	5.38 kW
COP T <sub>j</sub> = +7°C	6.26	4.01
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.45 kW	2.32 kW
COP T <sub>j</sub> = 12°C	9.02	5.55
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.22 kW	5.38 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.26	4.01
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.57 kW	7.55 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.98	2.59
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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	0.55 kW	0.82 kW
Annual energy consumption Q <sub>he</sub>	1569 kWh	2485 kWh

## Model MHA-V10W/D2N8-B+HB-A100/C\*\*\*\*GN8-B

Model name	MHA-V10W/D2N8-B+HB-A100/C****GN8-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	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
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 $T_j = T_{biv}$	3.23	2.24
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	7.40 kW	5.39 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.96	1.83
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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
Annual energy consumption Q <sub>he</sub>	3647 kWh	4539 kWh

#### EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	170 %	116 %
Prated	7.75 kW	6.71 kW
SCOP	4.32	2.99
$T_{biv}$	-15 °C	-15 °C
TOL	-22 °C	-22 °C
$P_{dh} T_j = -7^{\circ}C$	4.83 kW	4.27 kW
COP $T_j = -7^{\circ}C$	3.60	2.54
$C_{dh} T_j = -7^{\circ}C$	0.90	0.90
$P_{dh} T_j = +2^{\circ}C$	2.94 kW	2.57 kW
COP $T_j = +2^{\circ}C$	5.26	3.51
$C_{dh} T_j = +2^{\circ}C$	0.90	0.90
$P_{dh} T_j = +7^{\circ}C$	1.92 kW	1.66 kW
COP $T_j = +7^{\circ}C$	7.08	4.37
$C_{dh} T_j = +7^{\circ}C$	0.90	0.90
$P_{dh} T_j = 12^{\circ}C$	1.66 kW	1.48 kW
COP $T_j = 12^{\circ}C$	7.96	5.96
$C_{dh} T_j = +12^{\circ}C$	0.90	0.90
$P_{dh} T_j = T_{biv}$	6.32 kW	5.48 kW
COP $T_j = T_{biv}$	2.64	2.00
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	4.63 kW	2.80 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	1.97	1.22
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W

PTO	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	3.13 kW	3.91 kW
Annual energy consumption Q <sub>he</sub>	4424 kWh	5540 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.32	5.48
COP T <sub>j</sub> = -15°C (if TOL	2.64	2.00
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.90	0.90

#### EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	279 %	180 %
Prated	8.58 kW	8.63 kW
SCOP	7.12	4.58
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.44 kW	8.06 kW
COP T <sub>j</sub> = +2°C	3.84	2.59
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.52 kW	5.55 kW
COP T <sub>j</sub> = +7°C	6.18	4.10
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.62 kW	2.53 kW
COP T <sub>j</sub> = 12°C	9.04	5.82
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.52 kW	5.55 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.18	4.10
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.44 kW	8.16 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.84	2.61
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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	0.14 kW	0.48 kW
Annual energy consumption Q <sub>he</sub>	1628 kWh	2516 kWh



## Model MHC-V8W/D2N8-B\*\*\*\*

Model name	MHC-V8W/D2N8-B****
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	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°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°C	2.90 kW	2.43 kW
COP Tj = +7°C	6.82	4.34
Cdh Tj = +7 °C	0.90	0.90
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
PTO	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
Annual energy consumption Qhe	3223 kWh	4056 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	112 %
Prated	6.98 kW	5.78 kW
SCOP	4.32	2.88
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.46 kW	3.86 kW
COP Tj = -7°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°C	1.66 kW	1.44 kW
COP Tj = +7°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	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.91 kW	2.99 kW
Annual energy consumption Q <sub>he</sub>	3978 kWh	4950 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.69	4.71
COP T <sub>j</sub> = -15°C (if TOL	2.83	1.90
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.90	0.90

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	273 %	177 %
Prated	8.12 kW	8.37 kW
SCOP	6.99	4.50
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.57 kW	7.55 kW
COP T <sub>j</sub> = +2°C	3.98	2.59
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.22 kW	5.38 kW
COP T <sub>j</sub> = +7°C	6.26	4.01
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.45 kW	2.32 kW
COP T <sub>j</sub> = 12°C	9.02	5.55
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.22 kW	5.38 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.26	4.01
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	7.57 kW	7.55 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.98	2.59
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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	0.55 kW	0.82 kW
Annual energy consumption Q <sub>he</sub>	1569 kWh	2485 kWh

## Model MHC-V10W/D2N8-B\*\*\*\*

Model name	MHC-V10W/D2N8-B****
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	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
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
PTO	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
Annual energy consumption Qhe	3647 kWh	4539 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	7.75 kW	6.71 kW
SCOP	4.32	2.99
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.83 kW	4.27 kW
COP Tj = -7°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°C	5.26	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	1.92 kW	1.66 kW
COP Tj = +7°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
PTO	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	3.13 kW	3.91 kW
Annual energy consumption Q <sub>he</sub>	4424 kWh	5540 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.32	5.48
COP T <sub>j</sub> = -15°C (if TOL	2.64	2.00
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.90	0.90

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	279 %	180 %
Prated	8.58 kW	8.63 kW
SCOP	7.12	4.58
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.44 kW	8.06 kW
COP T <sub>j</sub> = +2°C	3.84	2.59
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.52 kW	5.55 kW
COP T <sub>j</sub> = +7°C	6.18	4.10
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.62 kW	2.53 kW
COP T <sub>j</sub> = 12°C	9.04	5.82
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.52 kW	5.55 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.18	4.10
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.44 kW	8.16 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.84	2.61
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	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	0.14 kW	0.48 kW
Annual energy consumption Q <sub>he</sub>	1628 kWh	2516 kWh