

Subtype ThermaX Mono 12/14/16KW

Certificate Holder	GD Shenling Thermal Tech Co., Ltd
Address	No.29 Shunye East Rd.
ZIP	528325
City	Foshan
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ThermaX Mono 12/14/16KW
Registration number	011-1W0637
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.78 kg
Certification Date	05.06.2023
Testing basis	HP KEYMARK certification scheme rules V12

Model HPM-V120W/R2

Model name	HPM-V120W/R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.20 kW	12.00 kW
El input	2.49 kW	4.00 kW
COP	4.90	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	203 %	145 %
Prated	12.20 kW	12.50 kW
SCOP	5.15	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.83 kW	11.24 kW
COP Tj = -7°C	3.18	2.23
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	6.62 kW	6.74 kW
COP Tj = +2°C	4.78	3.52
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.27 kW	4.27 kW

COP Tj = +7°C	7.46	4.96
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.68 kW	3.58 kW
COP Tj = 12°C	9.78	7.49
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	10.83 kW	11.24 kW
COP Tj = Tbiv	3.18	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.62 kW	10.56 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.03	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.998
WTOL	63 °C	63 °C
Poff	12 W	12 W
PTO	13 W	13 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.60 kW	1.90 kW
Annual energy consumption Qhe	4891 kWh	6977 kWh

Model HPM-V140W/R2

Model name	HPM-V140W/R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14.20 kW	14.00 kW
El input	3.02 kW	4.73 kW
COP	4.70	2.96

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	195 %	145 %
Prated	14.00 kW	14.10 kW
SCOP	4.96	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.55 kW	12.62 kW
COP Tj = -7°C	3.03	2.19
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.57 kW	7.63 kW
COP Tj = +2°C	4.61	3.52
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.79 kW	4.55 kW

COP Tj = +7°C	7.03	5.01
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.68 kW	3.58 kW
COP Tj = 12°C	9.78	7.49
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	12.55 kW	12.62 kW
COP Tj = Tbiv	3.03	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.47 kW	11.76 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	63 °C	63 °C
Poff	12 W	12 W
PTO	13 W	13 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.50 kW	2.30 kW
Annual energy consumption Qhe	5836 kWh	7878 kWh

Model HPM-V160W/R2

Model name	HPM-V160W/R2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.40 kW
El input	3.56 kW	5.73 kW
COP	4.50	2.86

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	143 %
Prated	15.20 kW	14.70 kW
SCOP	4.85	3.64
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.61 kW	13.44 kW
COP Tj = -7°C	2.92	2.15
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	8.08 kW	8.06 kW
COP Tj = +2°C	4.49	3.44
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.05 kW	4.97 kW

COP Tj = +7°C	7.03	5.03
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.68 kW	3.58 kW
COP Tj = 12°C	9.78	7.49
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	13.61 kW	13.44 kW
COP Tj = Tbiv	2.92	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.94 kW	12.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	1.98
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	63 °C	63 °C
Poff	12 W	12 W
PTO	13 W	13 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.30 kW	2.40 kW
Annual energy consumption Qhe	6472 kWh	8333 kWh

Model HPM-V120W/SR2

Model name	HPM-V120W/SR2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	12.20 kW	12.00 kW
El input	2.49 kW	4.00 kW
COP	4.90	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	201 %	143 %
Prated	12.20 kW	12.50 kW
SCOP	5.11	3.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.87 kW	11.20 kW
COP Tj = -7°C	3.22	2.25
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	6.58 kW	6.65 kW
COP Tj = +2°C	4.88	3.50
Cdh Tj = +2 °C	0.992	0.994
Pdh Tj = +7°C	4.11 kW	4.14 kW

COP Tj = +7°C	6.75	4.75
Cdh Tj = +7 °C	0.982	0.987
Pdh Tj = 12°C	3.71 kW	3.65 kW
COP Tj = 12°C	9.28	7.21
Cdh Tj = +12 °C	0.972	0.978
Pdh Tj = Tbiv	10.87 kW	11.20 kW
COP Tj = Tbiv	3.22	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.79 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	63 °C	63 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.60 kW
Annual energy consumption Qhe	4933 kWh	7063 kWh

Model HPM-V140W/SR2

Model name	HPM-V140W/SR2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14.20 kW	14.00 kW
El input	3.02 kW	4.73 kW
COP	4.70	2.96

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	144 %
Prated	14.00 kW	14.10 kW
SCOP	4.93	3.69
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.43 kW	12.51 kW
COP Tj = -7°C	3.06	2.28
Cdh Tj = -7 °C	0.997	0.998
Pdh Tj = +2°C	7.38 kW	7.62 kW
COP Tj = +2°C	4.59	3.52
Cdh Tj = +2 °C	0.993	0.995
Pdh Tj = +7°C	4.71 kW	4.65 kW

COP Tj = +7°C	6.90	4.81
Cdh Tj = +7 °C	0.984	0.989
Pdh Tj = 12°C	3.73 kW	3.66 kW
COP Tj = 12°C	9.48	7.32
Cdh Tj = +12 °C	0.972	0.978
Pdh Tj = Tbiv	12.43 kW	12.51 kW
COP Tj = Tbiv	3.06	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.73 kW	11.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.91	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.997	0.998
WTOL	63 °C	63 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.60 kW
Annual energy consumption Qhe	5867 kWh	7903 kWh

Model HPM-V160W/SR2

Model name	HPM-V160W/SR2
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.00 kW	16.40 kW
El input	3.56 kW	5.73 kW
COP	4.50	2.86

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	194 %	144 %
Prated	15.20 kW	14.70 kW
SCOP	4.93	3.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.47 kW	13.05 kW
COP Tj = -7°C	3.01	2.23
Cdh Tj = -7 °C	0.998	0.998
Pdh Tj = +2°C	7.96 kW	7.98 kW
COP Tj = +2°C	4.53	3.43
Cdh Tj = +2 °C	0.994	0.995
Pdh Tj = +7°C	5.04 kW	5.25 kW

COP Tj = +7°C	7.24	5.03
Cdh Tj = +7 °C	0.984	0.989
Pdh Tj = 12°C	3.73 kW	3.66 kW
COP Tj = 12°C	9.48	7.32
Cdh Tj = +12 °C	0.972	0.978
Pdh Tj = Tbiv	13.47 kW	13.05 kW
COP Tj = Tbiv	3.01	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.73 kW	12.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.998	0.998
WTOL	63 °C	63 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.50 kW	2.20 kW
Annual energy consumption Qhe	6366 kWh	8295 kWh