Subtype SHP M PRO 12 14 16 kW	
Certificate Holder	Fonderie Sime S.p.A.
Address	Via Garbo, 27
ZIP	37045
City	Legnago (VR)
Country	IT
Certification Body	BRE Global Limited
Subtype title	SHP M PRO 12 14 16 kW
Registration number	041-K031-02
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	07.10.2022
Testing basis	Heat Pump Keymark Scheme Rules Rev 09
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model SHP M PRO 012	
Model name	SHP M PRO 012
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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

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

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	200.1 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C
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
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Qhe	5004 kWh	7148 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	168.8 %	126 %
Prated	12.5 kW	11.3 kW
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
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 Qhe	7153 kWh	8628 kWh
Pdh Tj = -15°C (if TOL	10.17	9.21
COP Tj = -15°C (if TOL	2.66	1.92
Cdh Tj = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = Tbiv	5.82	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Qhe	2437 kWh	3524 kWh

Model SHP M PRO 014	
Model name	SHP M PRO 014
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 14511-2 | Heating		
	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 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192.5 %	141.8 %
Prated	14.15 kW	14.15 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C
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
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 Qhe	5984 kWh	8079 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	171.3 %	126.6 %
Prated	14.31 kW	12.49 kW
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
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 Qhe	8095 kWh	9496 kWh
Pdh Tj = -15°C (if TOL	11.67	10.19
COP Tj = -15°C (if TOL	2.58	1.91
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = Tbiv	5.72	3.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.94 kW	13.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Qhe	2684 kWh	4040 kWh

Model SHP M PRO 016	
Model name	SHP M PRO 016
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 14511-2 | Heating		
	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 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	190.5 %	140.6 %
Prated	15.23 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C
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
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 Qhe	6510 kWh	8471 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170.9 %	124.3 %
Prated	15.10 kW	13.52 kW
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
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 Qhe	8546 kWh	10473 kWh
Pdh Tj = -15°C (if TOL	12.30	11.03
COP Tj = -15°C (if TOL	2.58	1.85
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
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

Model SHP M PRO 012T	
Model name	SHP M PRO 012T
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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

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

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	200.2 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C
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
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Qhe	5003 kWh	7148 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	168.8 %	126 %
Prated	12.5 kW	11.3 kW
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
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 Qhe	7153 kWh	8628 kWh
Pdh Tj = -15°C (if TOL	10.17	9.21
COP Tj = -15°C (if TOL	2.66	1.92
Cdh Tj = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = Tbiv	5.82	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Qhe	2435 kWh	3523 kWh

Model SHP M PRO 014T	
Model name	SHP M PRO 014T
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 14511-2 | Heating		
	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 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192.5 %	141.8 %
Prated	14.20 kW	14.20 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C
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
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 Qhe	5984 kWh	8079 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	171.3 %	126.6 %
Prated	14.30 kW	12.50 kW
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
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 Qhe	8095 kWh	9496 kWh
Pdh Tj = -15°C (if TOL	11.67	10.19
COP Tj = -15°C (if TOL	2.58	1.91
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
COP Tj = Tbiv	5.72	3.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.94 kW	13.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.37
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

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 Qhe	2683 kWh	4039 kWh

Model SHP M PRO 016T	
Model name	SHP M PRO 016T
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 14511-2 | Heating		
	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 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	190.5 %	140.7 %
Prated	15.20 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C
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
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 Qhe	6509 kWh	8460 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170.9 %	124.3 %
Prated	15.10 kW	13.50 kW
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
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 Qhe	8546 kWh	10473 kWh
Pdh Tj = -15°C (if TOL	12.30	11.03
COP Tj = -15°C (if TOL	2.58	1.85
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	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
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	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 Qhe	2935 kWh	4153 kWh