

Subtype TRI-THERMAL SPLIT THF-D/HBpO-B SERIES 08 10KW**

Certificate Holder	GD TCL Intelligent Heating & Ventilating Equipment Co., Ltd.
Address	No. 7 Yuanlin Road,
ZIP	
City	Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	TRI-THERMAL SPLIT THF-**D/HBpO-B SERIES 08 10KW
Registration number	041-K051-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.65 kg
Certification Date	14.09.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 12
Testing laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch, CN

Model Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10D/3HBp-B

Model name	Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10D/3HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10D/3HBp-B

Model name	Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10D/3HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
El input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKL-10D/HBp-B

Model name	Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKL-10D/HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
EI input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10S/6HBp-B

Model name	Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10S/6HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10S/9HBp-B

Model name	Outdoor unit: THF-8D/HBpO-B, Indoor unit: SMKLd-10S/9HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKL-10D/HBp-B

Model name	Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKL-10D/HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
EI input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10S/6HBp-B

Model name	Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10S/6HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
EI input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10S/9HBp-B

Model name	Outdoor unit: THF-10D/HBpO-B, Indoor unit: SMKLD-10S/9HBp-B
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
El input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10D/3HBp-C

Model name	Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10D/3HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKL-10D/HBp-C

Model name	Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKL-10D/HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKL-10D/HBp-C

Model name	Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKL-10D/HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
EI input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10D/3HBp-C

Model name	Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10D/3HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
EI input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10S/6HBp-C

Model name	Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10S/6HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10S/9HBp-C

Model name	Outdoor unit: THF-8D/HBpO-C, Indoor unit: SMKLD-10S/9HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	8.00 kW	7.40 kW
El input	1.60 kW	2.38 kW
COP	5.00	3.11

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
η_s	200 %	136 %
Prated	8.00 kW	7.00 kW
SCOP	5.07	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	5.80 kW
COP Tj = -7°C	3.12	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	3.70 kW
COP Tj = +2°C	4.99	3.37

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.00 kW	2.40 kW
COP Tj = +7°C	6.81	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.70 kW	1.60 kW
COP Tj = 12°C	8.00	5.87
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	5.80 kW
COP Tj = Tbiv	3.12	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.50 kW	5.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.50 kW	2.00 kW
Annual energy consumption Qhe	3276 kWh	3937 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
ηs	167 %	115 %
Prated	7.00 kW	6.00 kW
SCOP	4.26	2.96
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.40 kW	3.80 kW
COP Tj = -7°C	3.59	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.60 kW	2.20 kW
COP Tj = +2°C	5.31	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.40 kW
COP Tj = +7°C	5.98	4.08
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.50 kW

COP Tj = 12°C	8.42	6.02
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.61	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.00 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.93	1.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.00 kW	2.80 kW
Annual energy consumption Qhe	4044 kWh	4891 kWh
Pdh Tj = -15°C (if TOL)	5.70	4.80
COP Tj = -15°C (if TOL)	2.61	1.87
Cdh Tj = -15 °C	0.900	0.900

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
ηs	278 %	171 %
Prated	8.00 kW	8.00 kW
SCOP	7.02	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.70 kW	7.40 kW
COP Tj = +2°C	3.82	2.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	6.12	3.60
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.60 kW	2.20 kW
COP Tj = 12°C	9.16	5.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.00 kW	4.90 kW
COP Tj = Tbiv	6.12	3.60

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.70 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.82	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.30 kW	0.60 kW
Annual energy consumption Qhe	1492 kWh	2347 kWh

Model Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10S/6HBp-C

Model name	Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10S/6HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
EI input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh

Model Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10S/9HBp-C

Model name	Outdoor unit: THF-10D/HBpO-C, Indoor unit: SMKLD-10S/9HBp-C
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, 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	9.50 kW	9.00 kW
El input	1.98 kW	3.00 kW
COP	4.80	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	199 %	138 %
Prated	9.00 kW	8.00 kW
SCOP	5.05	3.51
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	6.80 kW
COP Tj = -7°C	2.99	2.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.00 kW	4.20 kW
COP Tj = +2°C	4.97	3.44

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.10 kW	2.60 kW
COP Tj = +7°C	6.78	4.74
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.00 kW	1.80 kW
COP Tj = 12°C	9.11	6.22
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.00 kW	6.80 kW
COP Tj = Tbiv	2.99	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.30 kW	5.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	1.70 kW	2.80 kW
Annual energy consumption Qhe	3702 kWh	4537 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	170 %	116 %
Prated	8.00 kW	7.00 kW
SCOP	4.33	2.97
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.70 kW	4.10 kW
COP Tj = -7°C	3.50	2.53
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.00 kW	2.60 kW
COP Tj = +2°C	5.52	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.70 kW
COP Tj = +7°C	6.63	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.70 kW

COP Tj = 12°C	8.58	6.52
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.30 kW	5.50 kW
COP Tj = Tbiv	2.56	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.60 kW	2.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	3.40 kW	4.20 kW
Annual energy consumption Qhe	4417 kWh	5613 kWh
Pdh Tj = -15°C (if TOL)	6.30	5.50
COP Tj = -15°C (if TOL)	2.56	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	268 %	179 %
Prated	9.00 kW	8.00 kW
SCOP	6.78	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.40 kW	7.60 kW
COP Tj = +2°C	3.67	2.27
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.50 kW	5.20 kW
COP Tj = +7°C	6.00	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.50 kW
COP Tj = 12°C	8.74	6.17
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.50 kW	5.20 kW
COP Tj = Tbiv	6.00	3.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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	0.60 kW	0.40 kW
Annual energy consumption Qhe	1694 kWh	2353 kWh