

Subtype Tri-Thermal Split series 8 10 kW

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 series 8 10 kW
Registration number	041-K051-01
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.65 kg
Certification Date	09.05.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 11
Testing laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch, CN

Model Outdoor unit: THF-10D/HBpO-A, Indoor unit: SMKLd-10D/HBp-A

Model name	Outdoor unit: THF-10D/HBpO-A, Indoor unit: SMKLd-10D/HBp-A
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	9.5 kW	9 kW
EI input	1.98 kW	3 kW
COP	4.8	3

#### 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
$\eta_s$	192 %	133 %
Prated	9.00 kW	8.00 kW
SCOP	4.87	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.90 kW	7.10 kW
COP Tj = -7°C	3.02	2.12
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	4.20 kW
COP Tj = +2°C	4.62	3.22

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.30 kW	2.70 kW
COP Tj = +7°C	6.68	4.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.86
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.10 kW
COP Tj = Tbiv	3.02	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.90 kW
Annual energy consumption Qhe	3791 kWh	4895 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	160 %	110 %
Prated	8.00 kW	7.00 kW
SCOP	4.07	2.82
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.20 kW	4.30 kW
COP Tj = -7°C	3.48	2.47
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.10 kW	2.60 kW
COP Tj = +2°C	4.99	3.26
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.10 kW	1.90 kW
COP Tj = +7°C	6.19	4.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	7.64	5.73
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.40 kW	5.80 kW
COP Tj = Tbiv	2.57	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.90 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.49	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.10 kW	4.30 kW
Annual energy consumption Qhe	4748 kWh	6270 kWh
Pdh Tj = -15°C (if TOL)	6.40	5.80
COP Tj = -15°C (if TOL)	2.57	1.84
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	256 %	174 %
Prated	9.00 kW	8.00 kW
SCOP	6.48	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.50 kW	7.80 kW
COP Tj = +2°C	3.73	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	5.10 kW
COP Tj = +7°C	5.81	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.93	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.50 kW	7.80 kW
COP Tj = Tbiv	3.73	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1756 kWh	2386 kWh

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

Model name	Outdoor unit: THF-10D/HBpO-A, Indoor unit: SMKL-10D/HBp-A
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, 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	9.5 kW	9 kW
El input	1.98 kW	3 kW
COP	4.8	3

#### 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
$\eta_s$	192 %	133 %
Prated	9.00 kW	8.00 kW
SCOP	4.87	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.90 kW	7.10 kW
COP Tj = -7°C	3.02	2.12
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	4.20 kW
COP Tj = +2°C	4.62	3.22

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.30 kW	2.70 kW
COP Tj = +7°C	6.68	4.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.86
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.10 kW
COP Tj = Tbiv	3.02	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.90 kW
Annual energy consumption Qhe	3791 kWh	4895 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	160 %	110 %
Prated	8.00 kW	7.00 kW
SCOP	4.07	2.82
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.20 kW	4.30 kW
COP Tj = -7°C	3.48	2.47
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.10 kW	2.60 kW
COP Tj = +2°C	4.99	3.26
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.10 kW	1.90 kW
COP Tj = +7°C	6.19	4.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	7.64	5.73
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.40 kW	5.80 kW
COP Tj = Tbiv	2.57	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.90 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.49	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.10 kW	4.30 kW
Annual energy consumption Qhe	4748 kWh	6270 kWh
Pdh Tj = -15°C (if TOL)	6.40	5.80
COP Tj = -15°C (if TOL)	2.57	1.84
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	256 %	174 %
Prated	9.00 kW	8.00 kW
SCOP	6.48	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.50 kW	7.80 kW
COP Tj = +2°C	3.73	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	5.10 kW
COP Tj = +7°C	5.81	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.93	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.50 kW	7.80 kW
COP Tj = Tbiv	3.73	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1756 kWh	2386 kWh

Model Outdoor unit: THF-10D/HBpO-A, Indoor unit: SMKLd-10S/HBp-A

Model name	Outdoor unit: THF-10D/HBpO-A, Indoor unit: SMKLd-10S/HBp-A
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	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	9.5 kW	9 kW
EI input	1.98 kW	3 kW
COP	4.8	3

#### 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
$\eta_s$	192 %	133 %
Prated	9.00 kW	8.00 kW
SCOP	4.87	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.90 kW	7.10 kW
COP Tj = -7°C	3.02	2.12
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.70 kW	4.20 kW
COP Tj = +2°C	4.62	3.22

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.30 kW	2.70 kW
COP Tj = +7°C	6.68	4.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.86
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.10 kW
COP Tj = Tbiv	3.02	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.90 kW
Annual energy consumption Qhe	3791 kWh	4895 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	160 %	110 %
Prated	8.00 kW	7.00 kW
SCOP	4.07	2.82
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.20 kW	4.30 kW
COP Tj = -7°C	3.48	2.47
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.10 kW	2.60 kW
COP Tj = +2°C	4.99	3.26
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.10 kW	1.90 kW
COP Tj = +7°C	6.19	4.18
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	7.64	5.73
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.40 kW	5.80 kW
COP Tj = Tbiv	2.57	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.90 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.49	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.10 kW	4.30 kW
Annual energy consumption Qhe	4748 kWh	6270 kWh
Pdh Tj = -15°C (if TOL)	6.40	5.80
COP Tj = -15°C (if TOL)	2.57	1.84
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	256 %	174 %
Prated	9.00 kW	8.00 kW
SCOP	6.48	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.50 kW	7.80 kW
COP Tj = +2°C	3.73	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	5.10 kW
COP Tj = +7°C	5.81	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.93	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.50 kW	7.80 kW
COP Tj = Tbiv	3.73	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.73	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1756 kWh	2386 kWh

Model Outdoor unit: THF-8D/HBpO-A, Indoor unit: SMKLD-8D/HBp-A

Model name	Outdoor unit: THF-8D/HBpO-A, Indoor unit: SMKLD-8D/HBp-A
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 kW	7.4 kW
El input	1.6 kW	2.38 kW
COP	5	3.11

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	135 %
Prated	8.00 kW	7.00 kW
SCOP	4.89	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	6.10 kW
COP Tj = -7°C	3.07	2.07
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.40 kW	3.80 kW
COP Tj = +2°C	4.62	3.33

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.90 kW	2.50 kW
COP Tj = +7°C	6.70	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.85
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	3.07	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.40 kW	0.90 kW
Annual energy consumption Qhe	3404 kWh	4205 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	159 %	111 %
Prated	7.00 kW	6.00 kW
SCOP	4.04	2.84
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.80 kW
COP Tj = -7°C	3.58	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.70 kW	2.20 kW
COP Tj = +2°C	4.88	3.42
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.90 kW
COP Tj = +7°C	5.61	4.22
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	6.82	6.18
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.68	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.40 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.65	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.60 kW	3.30 kW
Annual energy consumption Qhe	4328 kWh	5197 kWh
Pdh Tj = -15°C (if TOL	5.70	4.80
COP Tj = -15°C (if TOL	2.68	1.84
Cdh Tj = -15 °C	0.900	0.900

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	253 %	174 %
Prated	8.00 kW	8.00 kW
SCOP	6.41	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.90 kW	7.80 kW
COP Tj = +2°C	3.68	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.10 kW	5.10 kW
COP Tj = +7°C	5.86	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.71	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.80 kW
COP Tj = Tbiv	3.68	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.90 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1658 kWh	2386 kWh

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

Model name	Outdoor unit: THF-8D/HBpO-A, Indoor unit: SMKL-8D/HBp-A
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 kW	7.4 kW
El input	1.6 kW	2.38 kW
COP	5	3.11

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	135 %
Prated	8.00 kW	7.00 kW
SCOP	4.89	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	6.10 kW
COP Tj = -7°C	3.07	2.07
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.40 kW	3.80 kW
COP Tj = +2°C	4.62	3.33

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.90 kW	2.50 kW
COP Tj = +7°C	6.70	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.85
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	3.07	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.40 kW	0.90 kW
Annual energy consumption Qhe	3404 kWh	4205 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	159 %	111 %
Prated	7.00 kW	6.00 kW
SCOP	4.04	2.84
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.80 kW
COP Tj = -7°C	3.58	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.70 kW	2.20 kW
COP Tj = +2°C	4.88	3.42
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.90 kW
COP Tj = +7°C	5.61	4.22
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	6.82	6.18
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.68	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.40 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.65	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.60 kW	3.30 kW
Annual energy consumption Qhe	4328 kWh	5197 kWh
Pdh Tj = -15°C (if TOL	5.70	4.80
COP Tj = -15°C (if TOL	2.68	1.84
Cdh Tj = -15 °C	0.900	0.900

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	253 %	174 %
Prated	8.00 kW	8.00 kW
SCOP	6.41	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.90 kW	7.80 kW
COP Tj = +2°C	3.68	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.10 kW	5.10 kW
COP Tj = +7°C	5.86	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.71	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.80 kW
COP Tj = Tbiv	3.68	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.90 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1658 kWh	2386 kWh

Model Outdoor unit: THF-8D/HBpO-A, Indoor unit: SMKld-8S/HBp-A

Model name	Outdoor unit: THF-8D/HBpO-A, Indoor unit: SMKld-8S/HBp-A
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	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	8 kW	7.4 kW
El input	1.6 kW	2.38 kW
COP	5	3.11

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	193 %	135 %
Prated	8.00 kW	7.00 kW
SCOP	4.89	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.10 kW	6.10 kW
COP Tj = -7°C	3.07	2.07
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.40 kW	3.80 kW
COP Tj = +2°C	4.62	3.33

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.90 kW	2.50 kW
COP Tj = +7°C	6.70	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.30 kW	2.30 kW
COP Tj = 12°C	8.97	6.85
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.10 kW	6.10 kW
COP Tj = Tbiv	3.07	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.40 kW	0.90 kW
Annual energy consumption Qhe	3404 kWh	4205 kWh

**EN 12102-1 | Colder Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	159 %	111 %
Prated	7.00 kW	6.00 kW
SCOP	4.04	2.84
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.80 kW
COP Tj = -7°C	3.58	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.70 kW	2.20 kW
COP Tj = +2°C	4.88	3.42
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.00 kW	1.90 kW
COP Tj = +7°C	5.61	4.22
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.30 kW

COP Tj = 12°C	6.82	6.18
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.70 kW	4.80 kW
COP Tj = Tbiv	2.68	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.40 kW	2.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.65	1.18
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.60 kW	3.30 kW
Annual energy consumption Qhe	4328 kWh	5197 kWh
Pdh Tj = -15°C (if TOL	5.70	4.80
COP Tj = -15°C (if TOL	2.68	1.84
Cdh Tj = -15 °C	0.900	0.900

**EN 12102-1 | Warmer Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	253 %	174 %
Prated	8.00 kW	8.00 kW
SCOP	6.41	4.42
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.90 kW	7.80 kW
COP Tj = +2°C	3.68	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.10 kW	5.10 kW
COP Tj = +7°C	5.86	3.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.40 kW	2.20 kW
COP Tj = 12°C	7.71	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.90 kW	7.80 kW
COP Tj = Tbiv	3.68	2.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.90 kW	7.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	15 W	15 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1658 kWh	2386 kWh