

Subtype S-Therm Ontario SMH5-80 100

Certificate Holder	SINCLAIR Global Group s.r.o.
Address	Purkyňova 45
ZIP	61200
City	Brno
Country	CZ
Certification Body	BRE Global Limited
Subtype title	S-Therm Ontario SMH5-80 100
Registration number	041-K037-22
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.6 kg
Certification Date	03.03.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 11
Testing laboratory	Bureau Veritas Consumer Products Services (Guangzhou) Co., Ltd, Science City Branch

Model SMH5-80B*/SMH-80IRBC

Model name	SMH5-80B*/SMH-80IRBC
Application	Heating + DHW + low temp
Units	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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:04 h:min
Standby power input	58.5 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	101 %
COP	2.41
Heating up time	2:30 h:min
Standby power input	72.9 W
Reference hot water temperature	48.0 °C
Mixed water at 40°C	325 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:07 h:min
Standby power input	58.6 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

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	8.20 kW	7.81 kW
El input	1.54 kW	2.44 kW
COP	5.32	3.20

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	145 %
Prated	8.00 kW	9.00 kW
SCOP	4.50	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.40 kW	8.30 kW
COP Tj = -7°C	3.12	2.33
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.40 kW	5.20 kW
COP Tj = +2°C	4.44	3.57
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	3.00 kW	3.30 kW
COP Tj = +7°C	5.31	4.96
Cdh Tj = +7 °C	0.950	0.970
Pdh Tj = 12°C	3.20 kW	3.00 kW
COP Tj = 12°C	7.69	6.56
Cdh Tj = +12 °C	0.940	0.960
Pdh Tj = Tbiv	7.40 kW	8.30 kW
COP Tj = Tbiv	3.12	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.80 kW	8.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.30 kW
Annual energy consumption Q _{he}	3827 kWh	5206 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	165 %	125 %
Prated	9.00 kW	8.00 kW
SCOP	4.20	3.20
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.70 kW	5.20 kW
COP T _j = -7°C	3.45	2.83
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	3.50 kW	2.90 kW
COP T _j = +2°C	5.16	3.73
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	2.60 kW	2.40 kW
COP T _j = +7°C	6.69	4.44
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.00 kW	3.00 kW
COP T _j = 12°C	7.53	7.10
C _{dh} T _j = +12 °C	0.950	0.960
P _{dh} T _j = T _{biv}	7.40 kW	6.70 kW
COP T _j = T _{biv}	2.70	2.09
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	6.10 kW	4.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.87	1.06
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.90 kW	3.90 kW
Annual energy consumption Q _{he}	5303 kWh	6322 kWh
P _{dh} T _j = -15°C (if TOL	7.40	6.70
COP T _j = -15°C (if TOL	2.70	2.10
C _{dh} T _j = -15 °C	0.990	0.990

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	257 %	190 %
Prated	9.00 kW	9.00 kW
SCOP	6.50	4.83
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.40 kW	8.60 kW
COP Tj = +2°C	3.85	2.59
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.10 kW	6.30 kW
COP Tj = +7°C	6.07	4.21
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.20 kW	3.00 kW
COP Tj = 12°C	7.83	6.32
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	9.40 kW	8.60 kW
COP Tj = Tbiv	3.85	2.59
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.40 kW	8.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.85	2.58
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1942 kWh	2372 kWh

Model SMH5-80B*-3/SMH-80IRBC-3

Model name	SMH5-80B*-3/SMH-80IRBC-3
Application	Heating + DHW + low temp
Units	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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:04 h:min
Standby power input	58.5 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	101 %
COP	2.41
Heating up time	2:30 h:min
Standby power input	72.9 W
Reference hot water temperature	48.0 °C
Mixed water at 40°C	325 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:07 h:min
Standby power input	58.6 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

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	8.20 kW	7.81 kW
El input	1.62 kW	2.55 kW
COP	5.06	3.06

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	135 %
Prated	8.00 kW	9.00 kW
SCOP	4.48	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.40 kW	7.80 kW
COP Tj = -7°C	3.12	2.14
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.20 kW	5.00 kW
COP Tj = +2°C	4.17	3.36
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.84 kW	3.30 kW
COP Tj = +7°C	5.92	4.53
Cdh Tj = +7 °C	0.950	0.970
Pdh Tj = 12°C	3.20 kW	3.00 kW
COP Tj = 12°C	7.18	5.44
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.40 kW	7.80 kW
COP Tj = Tbiv	3.12	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.00 kW	8.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	2.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.40 kW
Annual energy consumption Q _{he}	3882 kWh	5261 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	142 %	120 %
Prated	9.00 kW	8.00 kW
SCOP	3.63	3.08
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.40 kW	5.10 kW
COP T _j = -7°C	2.75	2.75
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	3.20 kW	3.00 kW
COP T _j = +2°C	4.52	3.40
C _{dh} T _j = +2 °C	0.980	0.970
P _{dh} T _j = +7°C	2.60 kW	3.20 kW
COP T _j = +7°C	5.63	4.61
C _{dh} T _j = +7 °C	0.940	0.960
P _{dh} T _j = 12°C	3.20 kW	3.00 kW
COP T _j = 12°C	7.01	5.79
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	7.20 kW	6.80 kW
COP T _j = T _{biv}	2.63	2.20
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	6.10 kW	4.40 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.87	1.22
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.90 kW	3.60 kW
Annual energy consumption Q _{he}	5935 kWh	6706 kWh
P _{dh} T _j = -15°C (if TOL	7.20	6.80
COP T _j = -15°C (if TOL	2.63	2.20
C _{dh} T _j = -15 °C	0.990	0.990

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	226 %	168 %
Prated	9.00 kW	9.00 kW
SCOP	5.73	4.28
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.60 kW	8.90 kW
COP Tj = +2°C	2.93	2.12
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.40 kW	6.30 kW
COP Tj = +7°C	5.40	3.99
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	3.00 kW	3.00 kW
COP Tj = 12°C	7.04	5.29
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	8.60 kW	8.90 kW
COP Tj = Tbiv	2.93	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.60 kW	8.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2001 kWh	2751 kWh

Model SMH5-100B*/SMH-100IRBC2

Model name	SMH5-100B*/SMH-100IRBC2
Application	Heating + DHW + low temp
Units	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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:04 h:min
Standby power input	58.5 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	101 %
COP	2.41
Heating up time	2:30 h:min
Standby power input	72.9 W
Reference hot water temperature	48.0 °C
Mixed water at 40°C	325 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:07 h:min
Standby power input	58.6 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

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	10.20 kW	10.30 kW
El input	2.02 kW	3.30 kW
COP	5.05	3.12

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	176 %	135 %
Prated	9.00 kW	10.00 kW
SCOP	4.48	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	9.00 kW
COP Tj = -7°C	2.90	2.18
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.60 kW	5.20 kW
COP Tj = +2°C	4.41	3.44
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.80 kW	3.60 kW
COP Tj = +7°C	5.89	4.39
Cdh Tj = +7 °C	0.950	0.970
Pdh Tj = 12°C	3.20 kW	2.90 kW
COP Tj = 12°C	6.97	5.19
Cdh Tj = +12 °C	0.940	0.960
Pdh Tj = Tbiv	8.00 kW	9.00 kW
COP Tj = Tbiv	2.90	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	9.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.50 kW
Annual energy consumption Q _{he}	4163 kWh	6076 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	152 %	119 %
Prated	10.00 kW	9.00 kW
SCOP	3.88	3.05
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	6.10 kW	5.50 kW
COP T _j = -7°C	3.23	2.77
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	3.40 kW	3.10 kW
COP T _j = +2°C	4.72	3.48
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	2.70 kW	3.00 kW
COP T _j = +7°C	5.59	4.17
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.20 kW	3.10 kW
COP T _j = 12°C	6.85	5.42
C _{dh} T _j = +12 °C	0.950	0.960
P _{dh} T _j = T _{biv}	8.00 kW	7.50 kW
COP T _j = T _{biv}	2.50	2.10
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	6.00 kW	5.20 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.86	1.22
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	3.80 kW
Annual energy consumption Q _{he}	6262 kWh	7415 kWh
P _{dh} T _j = -15°C (if TOL	8.00	7.50
COP T _j = -15°C (if TOL	2.50	2.10
C _{dh} T _j = -15 °C	0.990	0.990

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	223 %	169 %
Prated	10.00 kW	10.00 kW
SCOP	5.65	4.30
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.60 kW	10.10 kW
COP Tj = +2°C	3.47	2.55
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.90 kW	6.50 kW
COP Tj = +7°C	5.45	3.90
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.00 kW	2.90 kW
COP Tj = 12°C	6.55	5.19
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	9.60 kW	10.10 kW
COP Tj = Tbiv	3.47	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.60 kW	10.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2266 kWh	3157 kWh

Model SMH5-100B*-3/SMH-100IRBC2-3

Model name	SMH5-100B*-3/SMH-100IRBC2-3
Application	Heating + DHW + low temp
Units	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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:04 h:min
Standby power input	58.5 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	101 %
COP	2.41
Heating up time	2:30 h:min
Standby power input	72.9 W
Reference hot water temperature	48.0 °C
Mixed water at 40°C	325 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	123 %
COP	2.93
Heating up time	2:07 h:min
Standby power input	58.6 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	325 l

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	10.20 kW	10.30 kW
El input	2.06 kW	3.38 kW
COP	4.95	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	189 %	140 %
Prated	9.00 kW	10.00 kW
SCOP	4.80	3.58
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.30 kW	9.00 kW
COP Tj = -7°C	3.15	2.45
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.60 kW	5.20 kW
COP Tj = +2°C	4.32	3.44
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	3.30 kW	3.50 kW
COP Tj = +7°C	7.46	4.63
Cdh Tj = +7 °C	0.950	0.970
Pdh Tj = 12°C	3.20 kW	2.90 kW
COP Tj = 12°C	7.44	5.21
Cdh Tj = +12 °C	0.940	0.960
Pdh Tj = Tbiv	8.30 kW	9.00 kW
COP Tj = Tbiv	3.15	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.30 kW	9.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.74	2.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.70 kW	0.40 kW
Annual energy consumption Q _{he}	4069 kWh	5907 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	150 %	124 %
Prated	10.00 kW	9.00 kW
SCOP	3.83	3.18
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.70 kW	5.80 kW
COP T _j = -7°C	2.95	2.95
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	3.40 kW	3.50 kW
COP T _j = +2°C	4.71	3.50
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	2.80 kW	2.70 kW
COP T _j = +7°C	6.23	4.83
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	3.20 kW	3.40 kW
COP T _j = 12°C	6.85	6.08
C _{dh} T _j = +12 °C	0.950	0.960
P _{dh} T _j = T _{biv}	7.80 kW	7.60 kW
COP T _j = T _{biv}	2.73	2.20
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	6.00 kW	4.10 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.86	1.06
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.00 kW	4.90 kW
Annual energy consumption Q _{he}	6194 kWh	7206 kWh
P _{dh} T _j = -15°C (if TOL	7.80	7.60
COP T _j = -15°C (if TOL	2.73	2.20
C _{dh} T _j = -15 °C	0.990	0.990

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	223 %	165 %
Prated	10.00 kW	10.00 kW
SCOP	5.65	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.10 kW	10.10 kW
COP Tj = +2°C	3.70	2.55
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	6.00 kW	6.00 kW
COP Tj = +7°C	5.63	3.63
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.00 kW	3.30 kW
COP Tj = 12°C	6.22	5.30
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	10.10 kW	10.10 kW
COP Tj = Tbiv	3.70	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.10 kW	10.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.70	2.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2399 kWh	3236 kWh