

Subtype ECOGEO B/C 1 5-22kW

Certificate Holder	Ecoforest Geotermia S.L.
Address	Rúa das Pontes, 25
ZIP	36350
City	Nigrán (Pontevedra)
Country	ES
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ECOGEO B/C 1 5-22kW
Registration number	011-1W0328
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	1.4 kg
Certification Date	28.05.2019
Testing laboratory	Austrian Institute of Technology (AIT)

Model ecoGEO C2T 5-22kW

Model name	ecoGEO C2T 5-22kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 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		
Heat output	Low temperature	Medium temperature
8.60 kW	7.91 kW	
EI input	1.76 kW	2.62 kW
COP	4.88	3.02
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature	Medium temperature
42 dB(A)	42 dB(A)	
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	186 %	161 %
P _{rated}	23.00 kW	20.00 kW
SCOP	4.86	4.22
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh T _j = -7°C	13.83 kW	11.90 kW
COP T _j = -7°C	4.39	3.71
Cdh T _j = -7 °C	0.990	0.990
Pdh T _j = +2°C	8.55 kW	7.38 kW
COP T _j = +2°C	5.18	4.66
Cdh T _j = +2 °C	0.990	0.990
Pdh T _j = +7°C	5.62 kW	4.80 kW
COP T _j = +7°C	5.38	5.24
Cdh T _j = +7 °C	0.990	0.990
Pdh T _j = 12°C	3.57 kW	3.55 kW
COP T _j = 12°C	4.94	5.55
Cdh T _j = +12 °C	0.990	0.990
Pdh T _j = T _{biv}	24.76 kW	19.09 kW
COP T _j = T _{biv}	3.77	2.90
Pdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP T _j = TOL or COP T _j = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh T _j = -15°C (if TOL)	18.78	16.54
COP T _j = -15°C (if TOL)	4.06	3.09
Cdh T _j = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO C1T 5-22kW

Model name	ecoGEO C1T 5-22kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency ηDHW	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency ηDHW	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency ηDHW	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 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		
Heat output	Low temperature	Medium temperature
8.60 kW	7.91 kW	
EI input	1.76 kW	2.62 kW
COP	4.88	3.02
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature	Medium temperature
42 dB(A)	42 dB(A)	
EN 14825 Average Climate		
ηs	Low temperature	Medium temperature
181 %	142 %	
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	186 %	161 %
P _{rated}	23.00 kW	20.00 kW
SCOP	4.86	4.22
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh T _j = -7°C	13.83 kW	11.90 kW
COP T _j = -7°C	4.39	3.71
Cdh T _j = -7 °C	0.990	0.990
Pdh T _j = +2°C	8.55 kW	7.38 kW
COP T _j = +2°C	5.18	4.66
Cdh T _j = +2 °C	0.990	0.990
Pdh T _j = +7°C	5.62 kW	4.80 kW
COP T _j = +7°C	5.38	5.24
Cdh T _j = +7 °C	0.990	0.990
Pdh T _j = 12°C	3.57 kW	3.55 kW
COP T _j = 12°C	4.94	5.55
Cdh T _j = +12 °C	0.990	0.990
Pdh T _j = T _{biv}	24.76 kW	19.09 kW
COP T _j = T _{biv}	3.77	2.90
Pdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP T _j = TOL or COP T _j = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh T _j = -15°C (if TOL)	18.78	16.54
COP T _j = -15°C (if TOL)	4.06	3.09
Cdh T _j = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO C1 5-22kW

Model name	ecoGEO C1 5-22kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

Brine/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 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		
Heat output	Low temperature	Medium temperature
8.60 kW	7.91 kW	
EI input	1.76 kW	2.62 kW
COP	4.88	3.02
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature	Medium temperature
42 dB(A)	42 dB(A)	
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	186 %	161 %
P _{rated}	23.00 kW	20.00 kW
SCOP	4.86	4.22
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh T _j = -7°C	13.83 kW	11.90 kW
COP T _j = -7°C	4.39	3.71
Cdh T _j = -7 °C	0.990	0.990
Pdh T _j = +2°C	8.55 kW	7.38 kW
COP T _j = +2°C	5.18	4.66
Cdh T _j = +2 °C	0.990	0.990
Pdh T _j = +7°C	5.62 kW	4.80 kW
COP T _j = +7°C	5.38	5.24
Cdh T _j = +7 °C	0.990	0.990
Pdh T _j = 12°C	3.57 kW	3.55 kW
COP T _j = 12°C	4.94	5.55
Cdh T _j = +12 °C	0.990	0.990
Pdh T _j = T _{biv}	24.76 kW	19.09 kW
COP T _j = T _{biv}	3.77	2.90
Pdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP T _j = TOL or COP T _j = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh T _j = TOL or Pdh T _j = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh T _j = -15°C (if TOL)	18.78	16.54
COP T _j = -15°C (if TOL)	4.06	3.09
Cdh T _j = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO C2 5-22kW

Model name	ecoGEO C2 5-22kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

Brine/Water**EN 16147 | Average Climate**

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Colder Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

EN 16147 | Warmer Climate

Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 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		
Heat output	Low temperature	Medium temperature
8.60 kW	7.91 kW	
EI input	1.76 kW	2.62 kW
COP	4.88	3.02
EN 12102-1 Average Climate		
Sound power level indoor	Low temperature	Medium temperature
42 dB(A)	42 dB(A)	
EN 14825 Average Climate		
ηs	Low temperature	Medium temperature
181 %	142 %	
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	186 %	161 %
P _{rated}	23.00 kW	20.00 kW
SCOP	4.86	4.22
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	13.83 kW	11.90 kW
COP T _j = -7°C	4.39	3.71
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	8.55 kW	7.38 kW
COP T _j = +2°C	5.18	4.66
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.62 kW	4.80 kW
COP T _j = +7°C	5.38	5.24
C _{dh} T _j = +7 °C	0.990	0.990
P _{dh} T _j = 12°C	3.57 kW	3.55 kW
COP T _j = 12°C	4.94	5.55
C _{dh} T _j = +12 °C	0.990	0.990
P _{dh} T _j = T _{biv}	24.76 kW	19.09 kW
COP T _j = T _{biv}	3.77	2.90
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	24.76 kW	19.09 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.77	2.90
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	60 °C	60 °C
P _{off}	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
P _{dh} T _j = -15°C (if TOL)	18.78	16.54
COP T _j = -15°C (if TOL)	4.06	3.09
C _{dh} T _j = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO B1T 5-22kW

Model name	ecoGEO B1T 5-22kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/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	8.60 kW	7.91 kW
EI input	1.76 kW	2.62 kW
COP	4.88	3.02

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2 °C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99

Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	186 %	161 %
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL)	18.78	16.54
COP Tj = -15°C (if TOL)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO B2T 5-22kW

Model name	ecoGEO B2T 5-22kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/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	8.60 kW	7.91 kW
EI input	1.76 kW	2.62 kW
COP	4.88	3.02

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2 °C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99

Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	186 %	161 %
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL)	18.78	16.54
COP Tj = -15°C (if TOL)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO B1 5-22kW

Model name	ecoGEO B1 5-22kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

Brine/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	8.60 kW	7.91 kW
EI input	1.76 kW	2.62 kW
COP	4.88	3.02

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99

Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	186 %	161 %
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL)	18.78	16.54
COP Tj = -15°C (if TOL)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Model ecoGEO B2 5-22kW

Model name	ecoGEO B2 5-22kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

Brine/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	8.60 kW	7.91 kW
EI input	1.76 kW	2.62 kW
COP	4.88	3.02

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	142 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99

Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	186 %	161 %
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL)	18.78	16.54
COP Tj = -15°C (if TOL)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh