

Subtype ecoGEO+ B/C1 2-10 PRO	
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/C1 2-10 PRO
Registration number	011-1W0911
Heat Pump Type	Brine/Water
Refrigerant	R290
Mass of Refrigerant	0.6 kg
Certification Date	14.10.2024
Testing basis	European KEYMARK Scheme for Heat Pumps V.14 (2024-04)

**Model ecoGEO+ C1 230 2-10 PRO HTR EH**

Model name	ecoGEO+ C1 230 2-10 PRO HTR EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ C1 230 2-10 PRO HTR

Model name	ecoGEO+ C1 230 2-10 PRO HTR
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

## EN 16147 | Warmer Climate

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Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
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P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C1 230 2-10 PRO EH**

Model name	ecoGEO+ C1 230 2-10 PRO EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C1 230 2-10 PRO**

Model name	ecoGEO+ C1 230 2-10 PRO
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 230 2-10 PRO HTR EH**

Model name	ecoGEO+ C2 230 2-10 PRO HTR EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 230 2-10 PRO HTR**

Model name	ecoGEO+ C2 230 2-10 PRO HTR
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 230 2-10 PRO EH**

Model name	ecoGEO+ C2 230 2-10 PRO EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

Model ecoGEO+ C2 230 2-10 PRO	
Model name	ecoGEO+ C2 230 2-10 PRO
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Colder Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Warmer Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

### Model ecoGEO+ C1 400 2-10 PRO HTR EH

Model name	ecoGEO+ C1 400 2-10 PRO HTR EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

#### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

#### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C1 400 2-10 PRO HTR**

Model name	ecoGEO+ C1 400 2-10 PRO HTR
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ C1 400 2-10 PRO EH

Model name	ecoGEO+ C1 400 2-10 PRO EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

## EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

## EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

Model ecoGEO+ C1 400 2-10 PRO	
Model name	ecoGEO+ C1 400 2-10 PRO
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Colder Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Warmer Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 400 2-10 PRO HTR EH**

Model name	ecoGEO+ C2 400 2-10 PRO HTR EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 400 2-10 PRO HTR**

Model name	ecoGEO+ C2 400 2-10 PRO HTR
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

**Model ecoGEO+ C2 400 2-10 PRO EH**

Model name	ecoGEO+ C2 400 2-10 PRO EH
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

Model ecoGEO+ C2 400 2-10 PRO	
Model name	ecoGEO+ C2 400 2-10 PRO
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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 $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Colder Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 l
EN 16147   Warmer Climate	
Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:48 h:min
Standby power input	80 W
Reference hot water temperature	52.9 °C
Mixed water at 40°C	200 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	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.41 kW	3.32 kW
COP T <sub>j</sub> = +7°C	5.33	4.30
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.73 kW
COP T <sub>j</sub> = 12°C	5.43	4.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	4326 kWh	5022 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
P <sub>designh</sub>	10.00 kW	9.00 kW
η <sub>s</sub>	189 %	146 %
P <sub>rated</sub>	10.00 kW	9.00 kW
SCOP	4.98	3.86
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.81 kW	5.23 kW
COP T <sub>j</sub> = -7°C	4.89	3.52
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.41 kW	3.63 kW
COP T <sub>j</sub> = +2°C	5.33	4.21
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.84 kW	2.71 kW
COP T <sub>j</sub> = +7°C	5.37	4.67
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.80 kW	2.75 kW
COP T <sub>j</sub> = 12°C	5.43	5.10
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.65	2.69
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	10.06 kW	8.97 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.65	2.69
WTOL	60 °C	60 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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 Q <sub>he</sub>	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 230 2-10 PRO HTR EH

Model name	ecoGEO+ B1 230 2-10 PRO HTR EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 230 2-10 PRO HTR

Model name	ecoGEO+ B1 230 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
$\eta_s$	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 230 2-10 PRO EH

Model name	ecoGEO+ B1 230 2-10 PRO EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 230 2-10 PRO

Model name	ecoGEO+ B1 230 2-10 PRO
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 230 2-10 PRO HTR EH

Model name	ecoGEO+ B2 230 2-10 PRO HTR EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 230 2-10 PRO HTR

Model name	ecoGEO+ B2 230 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 230 2-10 PRO EH

Model name	ecoGEO+ B2 230 2-10 PRO EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 230 2-10 PRO

Model name	ecoGEO+ B2 230 2-10 PRO
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 400 2-10 PRO HTR EH

Model name	ecoGEO+ B1 400 2-10 PRO HTR EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 400 2-10 PRO HTR

Model name	ecoGEO+ B1 400 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 400 2-10 PRO EH

Model name	ecoGEO+ B1 400 2-10 PRO EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B1 400 2-10 PRO

Model name	ecoGEO+ B1 400 2-10 PRO
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 400 2-10 PRO HTR EH

Model name	ecoGEO+ B2 400 2-10 PRO HTR EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 400 2-10 PRO HTR

Model name	ecoGEO+ B2 400 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 400 2-10 PRO EH

Model name	ecoGEO+ B2 400 2-10 PRO EH
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh

## Model ecoGEO+ B2 400 2-10 PRO

Model name	ecoGEO+ B2 400 2-10 PRO
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
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	4.35 kW	4.27 kW
El input	0.99 kW	1.54 kW
COP	4.38	2.78

## 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
P <sub>designh</sub>	10.00 kW	10.00 kW
η <sub>s</sub>	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T <sub>biv</sub>	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.45 kW	7.51 kW
COP T <sub>j</sub> = -7°C	4.15	2.90
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.08 kW	4.74 kW
COP T <sub>j</sub> = +2°C	4.97	3.71
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900

Pdh Tj = +7°C	3.41 kW	3.32 kW
COP Tj = +7°C	5.33	4.30
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.73 kW
COP Tj = 12°C	5.43	4.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	4326 kWh	5022 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	189 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.98	3.86
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.81 kW	5.23 kW
COP Tj = -7°C	4.89	3.52
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.41 kW	3.63 kW
COP Tj = +2°C	5.33	4.21
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.84 kW	2.71 kW
COP Tj = +7°C	5.37	4.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.80 kW	2.75 kW
COP Tj = 12°C	5.43	5.10
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	5014 kWh	5778 kWh

## 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
Pdesignh	10.00 kW	9.00 kW
$\eta_s$	180 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.96	3.80
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.06 kW	8.97 kW
COP Tj = Tbiv	3.65	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.65	2.69
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 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	2850 kWh	3238 kWh