

Subtype ecoGEO+ B/C3 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/C3 2-10 PRO
Registration number	011-1W0913
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+ C3 230 2-10 PRO HTR EH

Model name	ecoGEO+ C3 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η_s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	10.06 kW	8.97 kW
COP T _j = +2°C	3.65	2.69
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	6.22 kW	5.72 kW
COP T _j = +7°C	4.73	3.35
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	3.10 kW	2.80 kW
COP T _j = 12°C	5.38	4.46
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C3 230 2-10 PRO HTR

Model name	ecoGEO+ C3 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh Tj = +2°C}	10.06 kW	8.97 kW
COP _{Tj = +2°C}	3.65	2.69
C _{dh Tj = +2 °C}	0.900	0.900
P _{dh Tj = +7°C}	6.22 kW	5.72 kW
COP _{Tj = +7°C}	4.73	3.35
C _{dh Tj = +7 °C}	0.900	0.900
P _{dh Tj = 12°C}	3.10 kW	2.80 kW
COP _{Tj = 12°C}	5.38	4.46
C _{dh Tj = +12 °C}	0.900	0.900
P _{dh Tj = T_{biv}}	10.06 kW	8.97 kW
COP _{Tj = T_{biv}}	3.65	2.69
P _{dh Tj = TOL or P_{dh Tj = T_{designh} if TOL < T_{designh}}}	10.06 kW	8.97 kW
COP _{Tj = TOL or COP_{Tj = T_{designh} if TOL < T_{designh}}}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C4 230 2-10 PRO HTR EH

Model name	ecoGEO+ C4 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	10.06 kW	8.97 kW
COP T _j = +2°C	3.65	2.69
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	6.22 kW	5.72 kW
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C _{dh} T _j = +7 °C	0.900	0.900
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COP T _j = 12°C	5.38	4.46
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COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

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Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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
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Declared load profile	L
Efficiency η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
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COP T _j = -7°C	4.15	2.90
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COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	10.06 kW	8.97 kW
COP T _j = +2°C	3.65	2.69
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	6.22 kW	5.72 kW
COP T _j = +7°C	4.73	3.35
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	3.10 kW	2.80 kW
COP T _j = 12°C	5.38	4.46
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C3 400 2-10 PRO HTR EH

Model name	ecoGEO+ C3 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh Tj = +2°C}	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
C _{dh Tj = +2 °C}	0.900	0.900
P _{dh Tj = +7°C}	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
C _{dh Tj = +7 °C}	0.900	0.900
P _{dh Tj = 12°C}	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
C _{dh Tj = +12 °C}	0.900	0.900
P _{dh Tj = T_{biv}}	10.06 kW	8.97 kW
COP Tj = T _{biv}	3.65	2.69
P _{dh Tj = TOL or P_{dh Tj = T_{designh} if TOL < T_{designh}}}	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C3 400 2-10 PRO HTR

Model name	ecoGEO+ C3 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh Tj = +2°C}	10.06 kW	8.97 kW
COP Tj = +2°C	3.65	2.69
C _{dh Tj = +2 °C}	0.900	0.900
P _{dh Tj = +7°C}	6.22 kW	5.72 kW
COP Tj = +7°C	4.73	3.35
C _{dh Tj = +7 °C}	0.900	0.900
P _{dh Tj = 12°C}	3.10 kW	2.80 kW
COP Tj = 12°C	5.38	4.46
C _{dh Tj = +12 °C}	0.900	0.900
P _{dh Tj = T_{biv}}	10.06 kW	8.97 kW
COP Tj = T _{biv}	3.65	2.69
P _{dh Tj = TOL or P_{dh Tj = T_{designh} if TOL < T_{designh}}}	10.06 kW	8.97 kW
COP Tj = TOL or COP Tj = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C4 400 2-10 PRO HTR EH

Model name	ecoGEO+ C4 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	10.06 kW	8.97 kW
COP T _j = +2°C	3.65	2.69
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	6.22 kW	5.72 kW
COP T _j = +7°C	4.73	3.35
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	3.10 kW	2.80 kW
COP T _j = 12°C	5.38	4.46
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ C4 400 2-10 PRO HTR

Model name	ecoGEO+ C4 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
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	Yes

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

Declared load profile	L
Efficiency η_{DHW}	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 η_{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 η_{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

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 _{designh}	10.00 kW	10.00 kW
η_s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.41 kW	3.32 kW
COP T _j = +7°C	5.33	4.30
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.73 kW
COP T _j = 12°C	5.43	4.90
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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 _{designh}	10.00 kW	9.00 kW
η _s	189 %	146 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.98	3.86
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.81 kW	5.23 kW
COP T _j = -7°C	4.89	3.52
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	3.41 kW	3.63 kW
COP T _j = +2°C	5.33	4.21
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	3.84 kW	2.71 kW
COP T _j = +7°C	5.37	4.67
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	2.80 kW	2.75 kW
COP T _j = 12°C	5.43	5.10
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	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
P _{designh}	10.00 kW	9.00 kW
η _s	180 %	141 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.96	3.80
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	10.06 kW	8.97 kW
COP T _j = +2°C	3.65	2.69
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	6.22 kW	5.72 kW
COP T _j = +7°C	4.73	3.35
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	3.10 kW	2.80 kW
COP T _j = 12°C	5.38	4.46
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	10.06 kW	8.97 kW
COP T _j = T _{biv}	3.65	2.69
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.06 kW	8.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	3.65	2.69
WTOL	60 °C	60 °C
P _{off}	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 _{he}	2850 kWh	3238 kWh

Model ecoGEO+ B3 230 2-10 PRO HTR EH

Model name	ecoGEO+ B3 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
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
P _{rated}	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B3 230 2-10 PRO HTR

Model name	ecoGEO+ B3 230 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B4 230 2-10 PRO HTR EH

Model name	ecoGEO+ B4 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
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B4 230 2-10 PRO HTR

Model name	ecoGEO+ B4 230 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B3 400 2-10 PRO HTR EH

Model name	ecoGEO+ B3 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
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B3 400 2-10 PRO HTR

Model name	ecoGEO+ B3 400 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B4 400 2-10 PRO HTR EH

Model name	ecoGEO+ B4 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
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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+ B4 400 2-10 PRO HTR

Model name	ecoGEO+ B4 400 2-10 PRO HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Reversibility	Yes
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 _{designh}	10.00 kW	10.00 kW
η _s	183 %	140 %
Prated	10.00 kW	9.00 kW
SCOP	4.78	3.75
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	8.45 kW	7.51 kW
COP T _j = -7°C	4.15	2.90
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	5.08 kW	4.74 kW
COP T _j = +2°C	4.97	3.71

Cdh Tj = +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
η_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
η_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