

## Subtype ECOGEO B/C 1 3-12kW

Certificate Holder	Ecoforest Geotermia S.L.
Address	Rúa das Pontes, 25
ZIP	36350
City	Nigrán (Pontevedra)
Country	ES
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ECOGEO B/C 1 3-12kW
Registration number	011-1W0327
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	1 kg
Certification Date	28.05.2019
Testing laboratory	Austrian Institute of Technology (AIT)

## Model ecoGEO C1T 3-12kW

Model name	ecoGEO C1T 3-12kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Starting and operating test                      passed

## EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7 °C	9.89 kW	9.46 kW
COP T <sub>j</sub> = -7 °C	4.56	3.73
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2 °C	6.04 kW	5.90 kW
COP T <sub>j</sub> = +2 °C	5.34	4.78
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7 °C	3.86 kW	3.50 kW
COP T <sub>j</sub> = +7 °C	5.54	5.64
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = 12 °C	1.97 kW	1.99 kW
COP T <sub>j</sub> = 12 °C	4.64	5.99
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.970	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	15.16 kW	13.95 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.63	2.56
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>	15.16 kW	13.95 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.63	2.56
C <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>		
WTOL	60 °C	60 °C
P <sub>off</sub>	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	7564 kWh	8397 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	13.30	12.58
COP T <sub>j</sub> = -15 °C (if TOL	4.16	3.14
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)
EN 14825   Warmer Climate		
	Low temperature	Medium temperature
$\eta_s$	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO C2T 3-12kW

Model name	ecoGEO C2T 3-12kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
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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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
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Cdh Tj = -7 °C	0.990	0.990
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Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
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Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
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Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7 °C	9.89 kW	9.46 kW
COP T <sub>j</sub> = -7 °C	4.56	3.73
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2 °C	6.04 kW	5.90 kW
COP T <sub>j</sub> = +2 °C	5.34	4.78
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7 °C	3.86 kW	3.50 kW
COP T <sub>j</sub> = +7 °C	5.54	5.64
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = 12 °C	1.97 kW	1.99 kW
COP T <sub>j</sub> = 12 °C	4.64	5.99
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.970	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	15.16 kW	13.95 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.63	2.56
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C <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>		
WTOL	60 °C	60 °C
P <sub>off</sub>	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	7564 kWh	8397 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	13.30	12.58
COP T <sub>j</sub> = -15 °C (if TOL	4.16	3.14
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate



	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

# EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO C1 3-12kW

Model name	ecoGEO C1 3-12kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
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Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Starting and operating test                      passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
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Pdh Tj = -7°C	12.42 kW	11.87 kW
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Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
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Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
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TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7 °C	9.89 kW	9.46 kW
COP T <sub>j</sub> = -7 °C	4.56	3.73
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P <sub>dh</sub> T <sub>j</sub> = +2 °C	6.04 kW	5.90 kW
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P <sub>dh</sub> T <sub>j</sub> = +7 °C	3.86 kW	3.50 kW
COP T <sub>j</sub> = +7 °C	5.54	5.64
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = 12 °C	1.97 kW	1.99 kW
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C <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>		
WTOL	60 °C	60 °C
P <sub>off</sub>	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	7564 kWh	8397 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	13.30	12.58
COP T <sub>j</sub> = -15 °C (if TOL	4.16	3.14
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

# EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
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COP Tj = +2°C	3.63	2.58
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO C2 3-12kW

Model name	ecoGEO C2 3-12kW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 16147 | Average Climate

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Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	81 %
COP	2.00
Heating up time	1:18:30 h:min
Standby power input	102.2 W
Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Starting and operating test                      passed

#### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7 °C	9.89 kW	9.46 kW
COP T <sub>j</sub> = -7 °C	4.56	3.73
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2 °C	6.04 kW	5.90 kW
COP T <sub>j</sub> = +2 °C	5.34	4.78
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.980	0.990
P <sub>dh</sub> T <sub>j</sub> = +7 °C	3.86 kW	3.50 kW
COP T <sub>j</sub> = +7 °C	5.54	5.64
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = 12 °C	1.97 kW	1.99 kW
COP T <sub>j</sub> = 12 °C	4.64	5.99
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.970	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	15.16 kW	13.95 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.63	2.56
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>	15.16 kW	13.95 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.63	2.56
C <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>		
WTOL	60 °C	60 °C
P <sub>off</sub>	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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>	7564 kWh	8397 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	13.30	12.58
COP T <sub>j</sub> = -15 °C (if TOL	4.16	3.14
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate



	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

# EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO B1T 3-12kW

Model name	ecoGEO B1T 3-12kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29

Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.89 kW	9.46 kW
COP Tj = -7°C	4.56	3.73
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.04 kW	5.90 kW
COP Tj = +2°C	5.34	4.78
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.86 kW	3.50 kW
COP Tj = +7°C	5.54	5.64
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	1.97 kW	1.99 kW
COP Tj = 12°C	4.64	5.99
Cdh Tj = +12 °C	0.970	0.960
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	7564 kWh	8397 kWh
Pdh Tj = -15°C (if TOL	13.30	12.58
COP Tj = -15°C (if TOL	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO B2T 3-12kW

Model name	ecoGEO B2T 3-12kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29

Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.89 kW	9.46 kW
COP Tj = -7°C	4.56	3.73
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.04 kW	5.90 kW
COP Tj = +2°C	5.34	4.78
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.86 kW	3.50 kW
COP Tj = +7°C	5.54	5.64
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	1.97 kW	1.99 kW
COP Tj = 12°C	4.64	5.99
Cdh Tj = +12 °C	0.970	0.960
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	7564 kWh	8397 kWh
Pdh Tj = -15°C (if TOL	13.30	12.58
COP Tj = -15°C (if TOL	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		



WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO B1 3-12kW

Model name	ecoGEO B1 3-12kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29

Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.89 kW	9.46 kW
COP Tj = -7°C	4.56	3.73
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.04 kW	5.90 kW
COP Tj = +2°C	5.34	4.78
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.86 kW	3.50 kW
COP Tj = +7°C	5.54	5.64
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	1.97 kW	1.99 kW
COP Tj = 12°C	4.64	5.99
Cdh Tj = +12 °C	0.970	0.960
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	7564 kWh	8397 kWh
Pdh Tj = -15°C (if TOL	13.30	12.58
COP Tj = -15°C (if TOL	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh

## Model ecoGEO B2 3-12kW

Model name	ecoGEO B2 3-12kW
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	Yes

## Brine/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	138 %
Prated	15.00 kW	14.55 kW
SCOP	4.95	3.65
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.42 kW	11.87 kW
COP Tj = -7°C	4.05	2.81
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
COP Tj = +2°C	5.01	3.62
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.34 kW	5.56 kW
COP Tj = +7°C	5.61	4.29

Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.45 kW	2.47 kW
COP Tj = 12°C	5.18	4.38
Cdh Tj = +12 °C	0.970	0.970
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	6266 kWh	8231 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	188 %	163 %
Prated	15.00 kW	14.55 kW
SCOP	4.89	4.27
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.89 kW	9.46 kW
COP Tj = -7°C	4.56	3.73
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.04 kW	5.90 kW
COP Tj = +2°C	5.34	4.78
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.86 kW	3.50 kW
COP Tj = +7°C	5.54	5.64
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	1.97 kW	1.99 kW
COP Tj = 12°C	4.64	5.99
Cdh Tj = +12 °C	0.970	0.960
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	7564 kWh	8397 kWh
Pdh Tj = -15°C (if TOL	13.30	12.58
COP Tj = -15°C (if TOL	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	183 %	140 %
Prated	15.00 kW	14.55 kW
SCOP	4.78	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.16 kW	13.36 kW
COP Tj = +2°C	3.63	2.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	10.48 kW	9.98 kW
COP Tj = +7°C	4.38	3.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.67 kW	4.61 kW
COP Tj = 12°C	5.50	4.48
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	15.16 kW	13.95 kW
COP Tj = Tbiv	3.63	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.16 kW	13.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.63	2.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		



WTOL	60 °C	60 °C
Poff	11 W	11 W
PTO	11 W	11 W
PSB	11 W	11 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	4192 kWh	5256 kWh