

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	ECOGEO B/C 3 5-22kW	Reg. No.	011-1W0331
Certificate Holder			
Name	Ecoforest Geotermia S.L.		
Address	Rúa das Pontes, 25	Zip	36350
City	Nigrán (Pontevedra)	Country	Spain
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	AIT Austrian Institute of Technology GmbH		
Subtype title	ECOGEO B/C 3 5-22kW		
Heat Pump Type	Brine/Water		
Refrigerant	R410a		
Mass Of Refrigerant	1.5 kg		
Certification Date	28.05.2019		

Model: ECOGEO C3 T 5-22kW

General Data

Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
COP	4.88	3.02
Indoor water flow rate	1.48 m ³ /h	0.83 m ³ /h

EN 14511-4

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

Average Climate

EN 12102-1

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

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EN 14825		
	Low temperature	Medium temperature
η_s	188 %	150 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh	0.99	0.99
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh	0.99	0.99
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh	0.99	0.99
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

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Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	187 %	148 %
Prated	23.00 kW	20.00 kW
SCOP	4.68	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90

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Cdh	0.99	0.99
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh	0.99	0.99
Pdh Tj = 12°C	6.56 kW	5.72 kW
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PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6572 kWh	7117 kWh

Colder Climate

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EN 14825

	Low temperature	Medium temperature
η_s	193 %	129 %
Prated	23.00 kW	20.00 kW
SCOP	4.82	3.22
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh	0.99	0.99
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
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PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh	0.99	0.99

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Warmer Climate

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Efficiency η_{DHW}	100 %
COP	1.68
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Model: ECOGEO C4 T 5-22kW

General Data

Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
COP	4.88	3.02
Indoor water flow rate	1.48 m ³ /h	0.83 m ³ /h

EN 14511-4

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

Average Climate

EN 12102-1

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

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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

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Model: ECOGEO B3 T 5-22kW

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

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Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
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Complete power supply failure	passed
Starting and operating test	passed

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	Low temperature	Medium temperature
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

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Annual energy consumption Qhe	6572 kWh	7117 kWh

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
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Model: ECOGEO B4 5-22kW

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
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El input	1.76 kW	2.62 kW
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EN 14511-4

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Complete power supply failure	passed
Starting and operating test	passed

Average Climate

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Sound power level indoor	42 dB(A)	42 dB(A)

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Off-peak product	Yes

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Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	187 %	148 %
Prated	23.00 kW	20.00 kW
SCOP	4.68	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Cdh	0.99	0.99
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh	0.99	0.99
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6572 kWh	7117 kWh

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825

	Low temperature	Medium temperature
η_s	193 %	129 %
Prated	23.00 kW	20.00 kW
SCOP	4.82	3.22
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh	0.99	0.99
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh	0.99	0.99
Pdh Tj = Tbiv	15.54 kW	13.79 kW
COP Tj = Tbiv	4.96	3.75

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh	0.99	0.99

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Model: ECOGEO C4 5-22kW

General Data

Power supply	1x230V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
COP	4.88	3.02
Indoor water flow rate	1.48 m ³ /h	0.83 m ³ /h

EN 14511-4

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

Average Climate

EN 12102-1

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

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	150 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh	0.99	0.99
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh	0.99	0.99
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh	0.99	0.99
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	187 %	148 %
Prated	23.00 kW	20.00 kW
SCOP	4.68	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Cdh	0.99	0.99
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh	0.99	0.99
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6572 kWh	7117 kWh

Colder Climate

EN 14825

	Low temperature	Medium temperature
η_s	193 %	129 %
Prated	23.00 kW	20.00 kW
SCOP	4.82	3.22
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh	0.99	0.99
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh	0.99	0.99
Pdh Tj = Tbiv	15.54 kW	13.79 kW
COP Tj = Tbiv	4.96	3.75

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh	0.99	0.99

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	100 %
COP	1.68
Heating up time	00:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 l

Model: ECOGEO B3 5-22kW

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
COP	4.88	3.02
Indoor water flow rate	1.48 m ³ /h	0.83 m ³ /h

EN 14511-4

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

Average Climate

EN 12102-1

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

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825

	Low temperature	Medium temperature
η_s	188 %	150 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh	0.99	0.99
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh	0.99	0.99
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh	0.99	0.99
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	187 %	148 %
Prated	23.00 kW	20.00 kW
SCOP	4.68	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Cdh	0.99	0.99
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh	0.99	0.99
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6572 kWh	7117 kWh

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825

	Low temperature	Medium temperature
η_s	193 %	129 %
Prated	23.00 kW	20.00 kW
SCOP	4.82	3.22
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh	0.99	0.99
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh	0.99	0.99
Pdh Tj = Tbiv	15.54 kW	13.79 kW
COP Tj = Tbiv	4.96	3.75

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh	0.99	0.99

Model: ECOGEOB4 5-22kW

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
COP	4.88	3.02
Indoor water flow rate	1.48 m ³ /h	0.83 m ³ /h

EN 14511-4

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

Average Climate

EN 12102-1

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

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825

	Low temperature	Medium temperature
η_s	188 %	150 %
Prated	23.00 kW	20.00 kW
SCOP	4.71	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh	0.99	0.99
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh	0.99	0.99
Pdh Tj = +7°C	8.50 kW	7.08 kW
COP Tj = +7°C	5.52	4.99
Cdh	0.99	0.99
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	10084 kWh	10840 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	187 %	148 %
Prated	23.00 kW	20.00 kW
SCOP	4.68	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Cdh	0.99	0.99
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh	0.99	0.99
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh	0.99	0.99
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6572 kWh	7117 kWh

Colder Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 14825

	Low temperature	Medium temperature
η_s	193 %	129 %
Prated	23.00 kW	20.00 kW
SCOP	4.82	3.22
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7°C	4.39	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh	0.99	0.99
Pdh Tj = +7°C	5.62 kW	4.80 kW
COP Tj = +7°C	5.38	5.24
Cdh	0.99	0.99
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh	0.99	0.99
Pdh Tj = Tbiv	15.54 kW	13.79 kW
COP Tj = Tbiv	4.96	3.75

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = TOL	24.76 kW	19.09 kW
COP Tj = TOL	3.77	2.90
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	11764 kWh	15103 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh	0.99	0.99