

Page 1 of 61

This information was generated by the HP KEYMARK database on 23 Jun 2022

Login

Summary of	ECOGEO B/C 1 5-22kW	Reg. No.	011-1W0328		
Certificate Holder	Certificate Holder				
Name	Ecoforest Geotermia S.L.	Ecoforest Geotermia S.L.			
Address	Rúa das Pontes, 25	Zip	36350		
City	Nigrán (Pontevedra)	Country	Spain		
Certification Body	DIN CERTCO Gesellschaft für Ko	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH			
Subtype title	ECOGEO B/C 1 5-22kW	ECOGEO B/C 1 5-22kW			
Heat Pump Type	Brine/Water	Brine/Water			
Refrigerant	R410A				
Mass of Refrigerant	1.4 kg	1.4 kg			
Certification Date	28.05.2019				

Model: ecoGEO C2T 5-22kW

Configure model		
Model name	ecoGEO C2T 5-22kW	
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

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	
СОР	4.88	3.02	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com

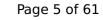




COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	186 %	161 %





	,	The database on 23 Juli 202
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
$COP Tj = -7^{\circ}C$	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COPTj = +7^{\circ}C$	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
	+	!





WTOL 60 °C 60 °C Poff 7 W 7 W PTO 7 W 7 W 6 W **PSB** 6 W **PCK** 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 11672 kWh 11679 kWh Pdh Tj = -15°C (if TOL<-20°C) 18.78 16.54 4.06 3.09 COP Tj = -15°C (if TOL<-20°C) 0.99 0.99 Cdh Tj = -15 $^{\circ}$ C

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	181 %	142 %
Prated	23.00 kW	20.00 kW
		I.





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
$COP Tj = -7^{\circ}C$	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7$ °C	8.50 kW	7.08 kW
$COPTj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C



Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	



EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	

Model: ecoGEO C1T 5-22kW

Configure model		
Model name ecoGEO C1T 5-22kW		
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

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
СОР	4.88	3.02

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

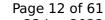
Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com

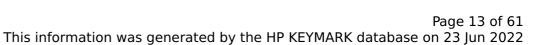




	-	_
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

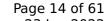
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	186 %	161 %





23.00 kW	20.00 kW
4.86	4.22
-22 °C	-22 °C
-22 °C	-22 °C
13.83 kW	11.90 kW
4.39	3.71
0.990	0.990
8.55 kW	7.38 kW
5.18	4.66
0.990	0.990
5.62 kW	4.80 kW
5.38	5.24
0.990	0.990
3.57 kW	3.55 kW
4.94	5.55
0.990	0.990
24.76 kW	19.09 kW
3.77	2.90
24.76 kW	19.09 kW
3.77	2.90
	4.86 -22 °C -22 °C 13.83 kW 4.39 0.990 8.55 kW 5.18 0.990 5.62 kW 5.38 0.990 3.57 kW 4.94 0.990 24.76 kW 3.77 24.76 kW

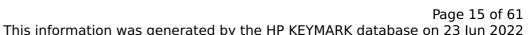




WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL $<$ -20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	181 %	142 %
Prated	23.00 kW	20.00 kW
		I.





This information was gene	rated by the HP KEYN	1ARK database on 23 Jun 202
SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	8.50 kW	7.08 kW
$COP Tj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh		
WTOL	60 °C	60 °C



	-	
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

10085 kWh

10970 kWh

Domestic Hot Water (DHW)

Annual energy consumption Qhe

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233	



EN 16147	
Declared load profile	L
Efficiency ηDHW	100 %
СОР	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 I

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	



Model: ecoGEO C1 5-22kW

Configure model		
Model name ecoGEO C1 5-22kW		
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

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	
СОР	4.88	3.02	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





	-	_
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

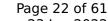
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	186 %	161 %
	I	ı





This information was generated by the HP KEYMARK database on 23 Jun 2022			
Prated	23.00 kW	20.00 kW	
SCOP	4.86	4.22	
Tbiv	-22 °C	-22 °C	
TOL	-22 °C	-22 °C	
Pdh Tj = -7°C	13.83 kW	11.90 kW	
$COP Tj = -7^{\circ}C$	4.39	3.71	
Cdh Tj = -7 °C	0.990	0.990	
Pdh Tj = +2°C	8.55 kW	7.38 kW	
$COP Tj = +2^{\circ}C$	5.18	4.66	
Cdh Tj = +2 °C	0.990	0.990	
Pdh Tj = +7°C	5.62 kW	4.80 kW	
$COP Tj = +7^{\circ}C$	5.38	5.24	
Cdh Tj = +7 °C	0.990	0.990	
Pdh Tj = 12°C	3.57 kW	3.55 kW	
COP Tj = 12°C	4.94	5.55	
Cdh Tj = +12 °C	0.990	0.990	
Pdh Tj = Tbiv	24.76 kW	19.09 kW	
COP Tj = Tbiv	3.77	2.90	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh			





WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL $<$ -20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	181 %	142 %
Prated	23.00 kW	20.00 kW
		I.





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
$COP Tj = -7^{\circ}C$	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7$ °C	8.50 kW	7.08 kW
$COPTj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C



<u> </u>		
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	L	
Deciared load profile		
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233	



EN 16147	
Declared load profile	L
Efficiency ηDHW	100 %
СОР	1.68
Heating up time	0:56:51 h:min
Standby power input	162.8 W
Reference hot water temperature	57.5 °C
Mixed water at 40°C	233 I

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	

Model: ecoGEO C2 5-22kW

Configure model		
Model name ecoGEO C2 5-22kW		
Application	Heating + DHW + low temp	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

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
СОР	4.88	3.02

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

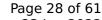
Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com

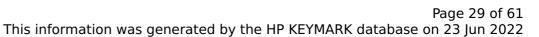




COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	186 %	161 %





Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7° C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
$COP Tj = +2^{\circ}C$	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COP Tj = +7^{\circ}C$	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

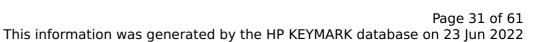




WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL<-20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

Low temperature	Medium temperature
181 %	142 %
23.00 kW	20.00 kW
	181 %





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	12.97 kW	10.69 kW
$COP Tj = +2^{\circ}C$	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	8.50 kW	7.08 kW
$COPTj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh		
WTOL	60 °C	60 °C



This information was generated by the HP KEYMARK database on 23 Jun 2022			
	7 W	7 W	

Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	



EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	100 %	
СОР	1.68	
Heating up time	0:56:51 h:min	
Standby power input	162.8 W	
Reference hot water temperature	57.5 °C	
Mixed water at 40°C	233 I	

Model: ecoGEO B1T 5-22kW

Configure model			
Model name ecoGEO B1T 5-22kW			
Application	Heating (medium temp)		
Units	Indoor		
Climate Zone	Colder Climate + Warmer Climate		
Reversibility	No		
Cooling mode application (optional)	n/a		

General Data			
Power supply 3x400V 50Hz			

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	8.60 kW	7.91 kW		
El input	1.76 kW	2.62 kW		
СОР	4.88	3.02		

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

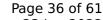
Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com

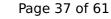




COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

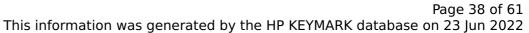
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	186 %	161 %
	I	ı





1110 1110 1110 1110 110 110 110 110 110		NR database on 23 juli 202
Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
$COP Tj = -7^{\circ}C$	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COPTj = +7^{\circ}C$	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
	•	•

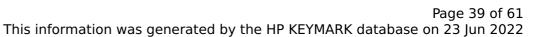




WTOL 60 °C 60 °C Poff 7 W 7 W PTO 7 W 7 W 6 W **PSB** 6 W **PCK** 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 11672 kWh 11679 kWh Pdh Tj = -15°C (if TOL<-20°C) 18.78 16.54 4.06 3.09 COP Tj = -15°C (if TOL<-20°C) 0.99 0.99 Cdh Tj = -15 $^{\circ}$ C

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

Low temperature	Medium temperature
181 %	142 %
23.00 kW	20.00 kW
	181 %





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
$COP Tj = -7^{\circ}C$	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.50 kW	7.08 kW
$COP Tj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh		
WTOL	60 °C	60 °C



Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh



Model: ecoGEO B2T 5-22kW

Configure model		
Model name	ecoGEO B2T 5-22kW	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.60 kW	7.91 kW	
El input	1.76 kW	2.62 kW	
СОР	4.88	3.02	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

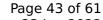
Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com



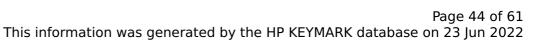


3.77	2.90
24.76 kW	19.09 kW
3.77	2.90
60 °C	60 °C
7 W	7 W
7 W	7 W
6 W	6 W
o w	0 W
Electricity	Electricity
0.00 kW	0.00 kW
6574 kWh	7228 kWh
	24.76 kW 3.77 60 °C 7 W 7 W 6 W 0 W Electricity 0.00 kW

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	186 %	161 %
	I	ı





Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7 °C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	8.55 kW	7.38 kW
$COP Tj = +2^{\circ}C$	5.18	4.66
Cdh Tj = $+2$ °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COP Tj = +7^{\circ}C$	5.38	5.24
Cdh Tj = $+7$ °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		





WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL $<$ -20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

Low temperature	Medium temperature
181 %	142 %
23.00 kW	20.00 kW
	181 %





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7$ °C	8.50 kW	7.08 kW
$COP Tj = +7^{\circ}C$	5.52	4.99
Cdh Tj = $+7$ °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh		
WTOL	60 °C	60 °C



Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh



Model: ecoGEO B1 5-22kW

Configure model		
Model name	ecoGEO B1 5-22kW	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.60 kW	7.91 kW
El input	1.76 kW	2.62 kW
СОР	4.88	3.02

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





COP Tj = Tbiv3.77 2.90 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 24.76 kW 19.09 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 3.77 2.90 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh WTOL 60 °C 60 °C 7 W 7 W Poff PTO 7 W 7 W

6 W

0 W

Electricity

0.00 kW

6574 kWh

6 W

0 W

Electricity

0.00 kW

7228 kWh

Colder Climate

Supplementary Heater: PSUP

Annual energy consumption Qhe

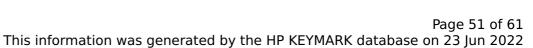
Supplementary Heater: Type of energy input

PSB

PCK

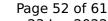
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	186 %	161 %
	·	





Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
$COPTj = -7^{\circ}C$	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COPTj = +7^{\circ}C$	5.38	5.24
Cdh Tj = $+7$ °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
		•

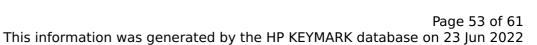




WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL $<$ -20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	

Low temperature	Medium temperature
181 %	142 %
23.00 kW	20.00 kW
	181 %





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	20.07 kW	17.41 kW
$COP Tj = -7^{\circ}C$	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	8.50 kW	7.08 kW
$COPTj = +7^{\circ}C$	5.52	4.99
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C



Page 54 of 61

Poff	7 W	7 W
PTO	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh

Model: ecoGEO B2 5-22kW

Configure model		
Model name	ecoGEO B2 5-22kW	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	8.60 kW	7.91 kW		
El input	1.76 kW	2.62 kW		
СОР	4.88	3.02		

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

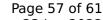
Warmer Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	179 %	140 %
Prated	23.00 kW	20.00 kW
SCOP	4.67	3.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.76 kW	19.09 kW
COP Tj = +2°C	3.77	2.90
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	14.91 kW	12.89 kW
COP Tj = +7°C	4.20	3.21
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.56 kW	5.72 kW
COP Tj = 12°C	5.33	4.36
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
	I	

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6574 kWh	7228 kWh

Colder Climate

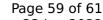
EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	42 dB(A)	42 dB(A)		

EN 14825		
	Low temperature	Medium temperature
η_{s}	186 %	161 %





Prated	23.00 kW	20.00 kW
SCOP	4.86	4.22
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.83 kW	11.90 kW
COP Tj = -7° C	4.39	3.71
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.55 kW	7.38 kW
COP Tj = +2°C	5.18	4.66
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	5.62 kW	4.80 kW
$COP Tj = +7^{\circ}C$	5.38	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.57 kW	3.55 kW
COP Tj = 12°C	4.94	5.55
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		

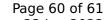




WTOL	60 °C	60 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11672 kWh	11679 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.78	16.54
COP Tj = -15°C (if TOL $<$ -20°C)	4.06	3.09
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	181 %	142 %
Prated	23.00 kW	20.00 kW
		I.





SCOP	4.71	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	20.07 kW	17.41 kW
COP Tj = -7°C	3.27	2.67
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = $+2$ °C	12.97 kW	10.69 kW
COP Tj = +2°C	4.86	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = $+7$ °C	8.50 kW	7.08 kW
$COP Tj = +7^{\circ}C$	5.52	4.99
Cdh Tj = $+7$ °C	0.990	0.990
Pdh Tj = 12°C	3.79 kW	3.76 kW
COP Tj = 12°C	5.19	4.38
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	24.76 kW	19.09 kW
COP Tj = Tbiv	3.77	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.76 kW	19.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.77	2.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh		
WTOL	60 °C	60 °C



Page 61 of 61

Poff	7 W	7 W
РТО	7 W	7 W
PSB	6 W	6 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10085 kWh	10970 kWh