

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

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Summary of	ECOGEO B/C 1 3-12kW	Reg. No.	011-1W0327
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		
Subtype title	ECOGEO B/C 1 3-12kW		
Heat Pump Type	Brine/Water		
Refrigerant	R410A		
Mass of Refrigerant	1 kg		
Certification Date	28.05.2019		

Model: ecoGEO C1T 3-12kW

Configure model	
Model name	ecoGEO C1T 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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

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

EN 12102-1

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

EN 14825

	Low temperature	Medium temperature
η_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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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

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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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<-20°C)	13.30	12.58
COP Tj = -15°C (if TOL<-20°C)	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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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
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WTOL	60 °C	60 °C

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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 _{he}	6266 kWh	8231 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Average Climate

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COP	2.00
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Standby power input	102.2 W
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Mixed water at 40°C	233 l

Model: ecoGEO C2T 3-12kW

Configure model

Model name	ecoGEO C2T 3-12kW
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	7.30 kW	6.65 kW
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EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
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Pdh Tj = Tbiv	15.16 kW	13.95 kW

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COP $T_j = T_{biv}$	3.63	2.56
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	15.16 kW	13.95 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.63	2.56
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$		
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_{he}	4192 kWh	5256 kWh

Colder Climate

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COP Tj = -7°C	4.56	3.73
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COP Tj = +7°C	5.54	5.64
Cdh Tj = +7 °C	0.980	0.980
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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
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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<-20°C)	13.30	12.58
COP Tj = -15°C (if TOL<-20°C)	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	8.47 kW	8.48 kW
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Cdh Tj = +2 °C	0.990	0.990
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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
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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 _{he}	6266 kWh	8231 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Colder Climate

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Reference hot water temperature	58.1 °C
Mixed water at 40°C	233 l

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Model: ecoGEO C1 3-12kW

Configure model

Model name	ecoGEO C1 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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	54 dB(A)	54 dB(A)

EN 14825

	Low temperature	Medium temperature
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TOL	2 °C	2 °C
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COP Tj = +7°C	4.38	3.24
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Pdh Tj = 12°C	4.67 kW	4.61 kW
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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

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
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EN 14825		
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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
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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
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Cdh Tj = -15 °C	0.99	0.99

Average Climate

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	Low temperature	Medium temperature
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Pdh Tj = 12°C	2.45 kW	2.47 kW
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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
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WTOL	60 °C	60 °C

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Poff	11 W	11 W
PTO	11 W	11 W
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	6266 kWh	8231 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	81 %
COP	2.00
Heating up time	1:18:30 h:min
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Model: ecoGEO C2 3-12kW

Configure model	
Model name	ecoGEO C2 3-12kW
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

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Heat output	7.30 kW	6.65 kW
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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q_{he}	4192 kWh	5256 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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

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 _{he}	7564 kWh	8397 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	13.30	12.58
COP T _j = -15°C (if TOL<-20°C)	4.16	3.14
C _{dh} T _j = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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

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

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

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 _{he}	6266 kWh	8231 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Colder Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Average Climate

EN 16147	
Declared load profile	L
Efficiency η_{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

Model: ecoGEO B1T 3-12kW

Configure model	
Model name	ecoGEO B1T 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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	54 dB(A)	54 dB(A)

EN 14825

	Low temperature	Medium temperature
η_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

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

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

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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

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<-20°C)	13.30	12.58
COP Tj = -15°C (if TOL<-20°C)	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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

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

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

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

Model: ecoGEO B2T 3-12kW

Configure model	
Model name	ecoGEO B2T 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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	54 dB(A)	54 dB(A)

EN 14825

	Low temperature	Medium temperature
η_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

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

COP $T_j = T_{biv}$	3.63	2.56
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	15.16 kW	13.95 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.63	2.56
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$		
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_{he}	4192 kWh	5256 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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

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<-20°C)	13.30	12.58
COP Tj = -15°C (if TOL<-20°C)	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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

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

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

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

Model: ecoGEO B1 3-12kW

Configure model	
Model name	ecoGEO B1 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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	54 dB(A)	54 dB(A)

EN 14825

	Low temperature	Medium temperature
η_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

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

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

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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

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 _{he}	7564 kWh	8397 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	13.30	12.58
COP T _j = -15°C (if TOL<-20°C)	4.16	3.14
C _{dh} T _j = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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

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

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

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

Model: ecoGEO B2 3-12kW

Configure model	
Model name	ecoGEO B2 3-12kW
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	7.30 kW	6.65 kW
El input	1.60 kW	2.28 kW
COP	4.55	2.91

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

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

EN 12102-1

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

EN 14825

	Low temperature	Medium temperature
η_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

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

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

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	188 %	163 %

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

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		

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

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<-20°C)	13.30	12.58
COP Tj = -15°C (if TOL<-20°C)	4.16	3.14
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	54 dB(A)	54 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	190 %	138 %
Prated	15.00 kW	14.55 kW

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

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

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

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