Subtype ecoGEO+ HP1 400 12-45	
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+ HP1 400 12-45
Registration number	011-1W0915
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	4.4 kg
Certification Date	19.11.2024
Testing basis	HP KEYMARK certification scheme rules rev. 14

Model ecoGEO+ HP1 400 12-45	
Model name	ecoGEO+ HP1 400 12-45
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

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	16.83 kW	17.64 kW
El input	3.85 kW	7.07 kW
COP	4.37	2.50

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	187 %	140 %
Prated	42.00 kW	35.00 kW
SCOP	4.88	3.71
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	36.95 kW	30.60 kW
COP Tj = -7°C	3.84	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	22.63 kW	18.50 kW
COP Tj = +2°C	4.83	3.70
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	14.48 kW	13.68 kW
COP Tj = +7°C	5.63	4.41
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	11.43 kW	11.25 kW
COP Tj = 12°C	6.29	5.28
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	17764 kWh	19503 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	196 %	141 %
Prated	42.00 kW	35.00 kW
SCOP	5.10	3.73
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	25.20 kW	21.29 kW
COP Tj = -7°C	4.71	3.41
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	15.81 kW	15.36 kW
COP Tj = +2°C	5.59	4.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	13.66 kW	15.59 kW
COP Tj = +7°C	6.03	4.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	13.69 kW	15.77 kW
COP Tj = 12°C	6.23	5.42

Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	20313 kWh	23108 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	189 %	141 %
Prated	42.00 kW	35.00 kW
SCOP	4.93	3.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	40.49 kW	34.87 kW
COP Tj = +2°C	3.64	2.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	25.56 kW	21.15 kW
COP Tj = +7°C	4.58	3.25
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	15.85 kW	11.13 kW
COP Tj = 12°C	5.76	4.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W

PSB	20 W	20 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	11386 kWh	12568 kWh

Model ecoGEO+ HP1 400 12-45 HTR	
Model name	ecoGEO+ HP1 400 12-45 HTR
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Heat Source	Brine
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

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	16.83 kW	17.64 kW
El input	3.85 kW	7.07 kW
COP	4.37	2.50

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	187 %	140 %
Prated	42.00 kW	35.00 kW
SCOP	4.88	3.71
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	36.95 kW	30.60 kW
COP Tj = -7°C	3.84	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	22.63 kW	18.50 kW
COP Tj = +2°C	4.83	3.70
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	14.48 kW	13.68 kW
COP Tj = +7°C	5.63	4.41
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	11.43 kW	11.25 kW
COP Tj = 12°C	6.29	5.28
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	17764 kWh	19503 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	196 %	141 %
Prated	42.00 kW	35.00 kW
SCOP	5.10	3.73
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	25.20 kW	21.29 kW
COP Tj = -7°C	4.71	3.41
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	15.81 kW	15.36 kW
COP Tj = +2°C	5.59	4.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	13.66 kW	15.59 kW
COP Tj = +7°C	6.03	4.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	13.69 kW	15.77 kW
COP Tj = 12°C	6.23	5.42
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	20313 kWh	23108 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	42.00 kW	35.00 kW
ηs	189 %	141 %
Prated	42.00 kW	35.00 kW
SCOP	4.93	3.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	40.49 kW	34.87 kW
COP Tj = +2°C	3.64	2.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	25.56 kW	21.15 kW
COP Tj = +7°C	4.58	3.25
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	15.85 kW	11.13 kW
COP Tj = 12°C	5.76	4.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	40.49 kW	34.87 kW
COP Tj = Tbiv	3.64	2.45
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.49 kW	34.87 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.64	2.45
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 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	11386 kWh	12568 kWh