Subtype ecoGEO+ HP1 400 20-85	
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 20-85
Registration number	011-1W0917
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	10 kg
Certification Date	19.11.2024
Testing basis	HP KEYMARK certification scheme rules rev. 14

Model ecoGEO+ HP1 400 20-85	
Model name	ecoGEO+ HP1 400 20-85
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	33.91 kW	39.67 kW
El input	7.46 kW	14.17 kW
COP	4.55	2.80

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	193 %	142 %
Prated	85.00 kW	81.00 kW
SCOP	5.05	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.74 kW	70.27 kW
COP Tj = -7°C	4.17	2.79
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	45.21 kW	42.92 kW
COP Tj = +2°C	4.99	3.70
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	29.18 kW	28.20 kW
COP Tj = +7°C	5.60	4.36
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	21.54 kW	21.11 kW
COP Tj = 12°C	6.14	5.10
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	34876 kWh	44671 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	201 %	148 %
Prated	85.00 kW	81.00 kW
SCOP	5.24	3.91
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	51.22 kW	48.94 kW
COP Tj = -7°C	4.91	3.49
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	30.92 kW	29.75 kW
COP Tj = +2°C	5.59	4.24
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	21.47 kW	20.96 kW
COP Tj = +7°C	5.94	4.82
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	21.54 kW	21.26 kW
COP Tj = 12°C	6.14	5.42
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	40012 kWh	51098 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	198 %	145 %
Prated	85.00 kW	81.00 kW
SCOP	5.18	3.84
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.79 kW	81.32 kW
COP Tj = +2°C	4.00	2.78
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	54.43 kW	51.65 kW
COP Tj = +7°C	4.74	3.32
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	24.03 kW	23.35 kW
COP Tj = 12°C	5.78	4.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	22041 kWh	28257 kWh

Model ecoGEO+ HP1 400 20-85 HTR	
Model name	ecoGEO+ HP1 400 20-85 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	33.91 kW	39.67 kW
El input	7.46 kW	14.17 kW
COP	4.55	2.80

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	193 %	142 %
Prated	85.00 kW	81.00 kW
SCOP	5.05	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.74 kW	70.27 kW
COP Tj = -7°C	4.17	2.79
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	45.21 kW	42.92 kW
COP Tj = +2°C	4.99	3.70
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	29.18 kW	28.20 kW
COP Tj = +7°C	5.60	4.36
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	21.54 kW	21.11 kW
COP Tj = 12°C	6.14	5.10
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	34876 kWh	44671 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	201 %	148 %
Prated	85.00 kW	81.00 kW
SCOP	5.24	3.91
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	51.22 kW	48.94 kW
COP Tj = -7°C	4.91	3.49
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	30.92 kW	29.75 kW
COP Tj = +2°C	5.59	4.24
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	21.47 kW	20.96 kW
COP Tj = +7°C	5.94	4.82
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	21.54 kW	21.26 kW
COP Tj = 12°C	6.14	5.42
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	40012 kWh	51098 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	85.00 kW	81.00 kW
ηs	198 %	145 %
Prated	85.00 kW	81.00 kW
SCOP	5.18	3.84
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.79 kW	81.32 kW
COP Tj = +2°C	4.00	2.78
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	54.43 kW	51.65 kW
COP Tj = +7°C	4.74	3.32
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	24.03 kW	23.35 kW
COP Tj = 12°C	5.78	4.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	84.79 kW	81.32 kW
COP Tj = Tbiv	4.00	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.79 kW	81.32 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.00	2.78
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	22041 kWh	28257 kWh