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Summary of	ecoAIR 1-9 PRO	Reg. No.	011-1W0469
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	ecoAIR 1-9 PRO		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R290		
Mass of Refrigerant	0.85 kg		
Certification Date	03.06.2021		
Testing basis	HP KEYMARK certification scheme rules rev. 8		

Model: ecoAIR 1-9 PRO

Configure model	
Model name	ecoAIR 1-9 PRO
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	180 %	142 %
Prated	5.00 kW	5.00 kW
SCOP	4.57	3.63
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.32 kW	4.40 kW

COP Tj = -7°C	3.27	2.35
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	3.18 kW	3.41 kW
COP Tj = +2°C	4.49	3.58
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.07 kW	3.85 kW
COP Tj = +7°C	5.87	4.81
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	5.11 kW	4.79 kW
COP Tj = 12°C	6.96	6.11
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	5.03 kW	4.40 kW
COP Tj = Tbiv	3.01	2.35
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.03 kW	4.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.01	2.19
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	9 W	9 W
PSB	8 W	8 W
PCK	9 W	9 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.48 kW
Annual energy consumption Qhe	2258 kWh	2844 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	171 %
Prated	6.50 kW	6.00 kW
SCOP	5.53	4.35
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.47 kW	5.96 kW
COP Tj = +2°C	3.39	2.49
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.12 kW	3.92 kW

COP Tj = +7°C	5.38	3.88
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.92 kW	4.59 kW
COP Tj = 12°C	6.66	5.67
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	6.47 kW	5.96 kW
COP Tj = Tbiv	3.39	2.49
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.47 kW	5.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.39	2.49
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	9 W	9 W
PSB	8 W	8 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1570 kWh	1844 kWh

Colder Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	148 %	125 %
Prated	4.50 kW	4.50 kW
SCOP	3.78	3.20
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	2.75 kW	2.48 kW
COP Tj = -7°C	3.80	2.88
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.12 kW	3.42 kW
COP Tj = +2°C	4.80	4.07
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.18 kW	4.06 kW
COP Tj = +7°C	6.13	5.26
Cdh Tj = +7 °C	0.990	0.990

Pdh Tj = 12°C	2.26 kW	4.81 kW
COP Tj = 12°C	5.29	6.38
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	3.64 kW	3.71 kW
COP Tj = Tbiv	2.92	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.64 kW	3.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.92	2.24
WTOL	70 °C	70 °C
Poff	0 W	0 W
PTO	9 W	9 W
PSB	8 W	8 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.72 kW	0.77 kW
Annual energy consumption Qhe	2936 kWh	3472 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.64	3.71
COP Tj = -15°C (if TOL<-20°C)	2.92	2.24
Cdh Tj = -15 °C	0.990	0.990

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.20 kW	4.10 kW
El input	0.84 kW	1.30 kW
COP	4.98	3.15