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Summary of	ecoAIR 3-18 PRO	Reg. No.	011-1W0442		
Certificate Holder	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 3-18 PRO				
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R290				
Mass of Refrigerant	1.37 kg				
Certification Date	22.11.2021				
Testing basis	Europäisches Zertifizierungsprogramm Wärmepumpen KEYMARK Version8 (Stand: 2020-09)				



Model: ecoAIR T 3-18 PRO

Configure model			
Model name ecoAIR T 3-18 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	3x400V 50Hz	

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	7.53 kW	8.48 kW
El input	1.50 kW	2.53 kW
СОР	5.02	3.35

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}	175 %	138 %	
Prated	10.60 kW	10.50 kW	
SCOP	4.46	3.53	
Tbiv	-10 °C	-10 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	9.44 kW	9.26 kW	
COP Tj = -7°C	3.30	2.40	
Cdh Tj = -7 °C	1.000	1.000	
Pdh Tj = $+2$ °C	5.76 kW	5.63 kW	
COP Tj = +2°C	3.97	3.13	
Cdh Tj = +2 °C	0.990	0.990	
Pdh Tj = $+7^{\circ}$ C	6.56 kW	6.18 kW	
COP Tj = +7°C	6.27	5.18	
Cdh Tj = +7 °C	0.990	0.990	





Pdh Tj = 12°C	4.25 kW	6.14 kW
COP Tj = 12°C	7.00	6.65
Cdh Tj = +12 °C	0.980	0.990
Pdh Tj = Tbiv	10.55 kW	10.47 kW
COP Tj = Tbiv	3.14	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.55 kW	10.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.14	2.22
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	0 W	0 W
РТО	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	0.05 kW	0.03 kW
Annual energy consumption Qhe	4914 kWh	6144 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}	236 %	188 %	
Prated	11.70 kW	11.00 kW	
SCOP	5.98	4.77	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	11.69 kW	10.96 kW	
COP Tj = +2°C	3.04	2.19	
Cdh Tj = +2 °C	1.000	1.000	
Pdh Tj = +7°C	8.22 kW	7.47 kW	
$COP Tj = +7^{\circ}C$	5.70	4.25	
Cdh Tj = +7 °C	0.990	0.990	
Pdh Tj = 12°C	6.99 kW	7.27 kW	
COP Tj = 12°C	7.27	6.27	
Cdh Tj = +12 °C	0.990	0.990	





Pdh Tj = Tbiv	11.69 kW	10.96 kW
COP Tj = Tbiv	3.04	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.96 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	2.19
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	o w	0 W
РТО	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	0.05 kW	0.05 kW
Annual energy consumption Qhe	2613 kWh	3079 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





This information was general	Low temperature	Medium temperature
η_{s}	145 %	124 %
Prated	10.00 kW	10.00 kW
SCOP	3.70	3.16
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7 °C	5.95 kW	6.04 kW
COP Tj = -7° C	3.73	3.16
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = $+2$ °C	4.47 kW	4.64 kW
$COP Tj = +2^{\circ}C$	4.26	3.47
Cdh Tj = $+2$ °C	0.990	0.990
Pdh Tj = $+7^{\circ}$ C	7.64 kW	6.48 kW
$COP Tj = +7^{\circ}C$	6.50	5.65
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.80 kW	6.46 kW
COP Tj = 12°C	7.22	6.96
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.16 kW	8.15 kW
COP Tj = Tbiv	3.11	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.16 kW	8.15 kW



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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.11	2.40
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	o w	o w
РТО	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	10.00 kW	10.00 kW
Annual energy consumption Qhe	6661 kWh	7795 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		



Model: ecoAIR 3-18 PRO

Configure model		
Model name	ecoAIR 3-18 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	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	7.53 kW	8.48 kW
El input	1.50 kW	2.53 kW
СОР	5.02	3.35

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

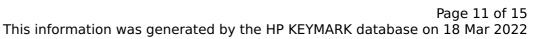
Average Climate





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}	175 %	138 %
Prated	10.60 kW	10.50 kW
SCOP	4.46	3.53
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.44 kW	9.26 kW
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Pdh Tj = +7°C	6.56 kW	6.18 kW
COP Tj = +7°C	6.27	5.18
Cdh Tj = +7 °C	0.990	0.990



	CEN heat pump
5	KEYMARK

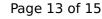
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7.00	6.65
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10.55 kW	10.47 kW
3.14	2.22
10.55 kW	10.47 kW
3.14	2.22
1.000	1.000
70 °C	70 °C
0 W	0 W
9 W	9 W
8 W	8 W
9 W	9 W
Electricity	Electricity
0.05 kW	0.03 kW
4914 kWh	6144 kWh
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Warmer 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}	236 %	188 %
Prated	11.70 kW	11.00 kW
SCOP	5.98	4.77
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.69 kW	10.96 kW
COP Tj = +2°C	3.04	2.19
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	8.22 kW	7.47 kW
$COP Tj = +7^{\circ}C$	5.70	4.25
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	6.99 kW	7.27 kW
COP Tj = 12°C	7.27	6.27
Cdh Tj = +12 °C	0.990	0.990



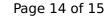


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WTOL	70 °C	70 °C
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PSB	8 W	8 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.04 kW
Annual energy consumption Qhe	2613 kWh	3079 kWh

Colder Climate

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	Low temperature	Medium temperature		
Sound power level indoor	0 dB(A)	0 dB(A)		
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EN 14825





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Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	4.47 kW	4.64 kW
$COP Tj = +2^{\circ}C$	4.26	3.47
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	7.64 kW	6.48 kW
$COP Tj = +7^{\circ}C$	6.50	5.65
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.80 kW	6.46 kW
COP Tj = 12°C	7.22	6.96
Cdh Tj = +12 °C	0.990	0.990
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	70 °C	70 °C
Poff	o w	o w
РТО	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	10.00 kW	10.00 kW
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Cdh Tj = -15 °C		