

## Subtype ecoAIR EVI 4-20 kW

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	ecoAIR EVI 4-20 kW
Registration number	011-1W0196
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	3.5 kg
Certification Date	06.01.2020

## Model ECOAIR EVI 4-20kW

Model name	ECOAIR EVI 4-20kW
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/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	9.22 kW	9.37 kW
El input	1.85 kW	2.82 kW
COP	4.97	3.33

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	179 %	151 %
Prated	12.00 kW	13.88 kW
SCOP	4.54	3.84
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.26 kW	11.95 kW
COP Tj = -7°C	3.34	2.66
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	7.62 kW	7.85 kW
COP Tj = +2°C	4.79	4.06
Cdh Tj = +2 °C	0.980	0.990

Pdh Tj = +7°C	5.38 kW	5.32 kW
COP Tj = +7°C	5.14	4.16
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.50 kW	4.56 kW
COP Tj = 12°C	7.57	7.09
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	11.97 kW	13.88 kW
COP Tj = Tbiv	2.64	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.97 kW	13.88 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	28 W	25 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5463 kWh	7465 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	167 %	157 %
Prated	12.00 kW	12.50 kW
SCOP	4.25	4.00
Tbiv	-15 °C	-15 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	7.19 kW	7.67 kW
COP Tj = -7°C	4.15	3.33
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.66 kW	4.29 kW
COP Tj = +2°C	5.86	5.94
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	4.15 kW	4.07 kW
COP Tj = +7°C	7.39	8.27
Cdh Tj = +7 °C	0.960	0.950
Pdh Tj = 12°C	4.54 kW	4.58 kW
COP Tj = 12°C	9.85	12.83

Cdh Tj = +12 °C	0.950	0.930
Pdh Tj = Tbiv	10.21 kW	10.05 kW
COP Tj = Tbiv	2.63	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.21 kW	10.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	2.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	28 W	25 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.00 kW	12.50 kW
Annual energy consumption Qhe	6963 kWh	7705 kWh
Pdh Tj = -15°C (if TOL	10.21	10.05
COP Tj = -15°C (if TOL	2.63	2.15
Cdh Tj = -15 °C	0.990	0.990

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	0 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	207 %	159 %
Prated	13.70 kW	15.16 kW
SCOP	5.24	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	13.70 kW	15.16 kW
COP Tj = +2°C	3.11	2.42
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	9.67 kW	10.03 kW
COP Tj = +7°C	5.11	3.78
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.57 kW	4.65 kW
COP Tj = 12°C	6.78	5.18
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	13.70 kW	15.16 kW
COP Tj = Tbiv	3.11	2.42
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.70 kW	15.16 kW

COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.11	2.42
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.990	1.000
WTOL	60 °C	60 °C
P <sub>off</sub>	28 W	25 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	3493 kWh	4994 kWh

## Model ECOAIR EVI T 4-20kW

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Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

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

## Outdoor Air/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	9.22 kW	9.37 kW
El input	1.85 kW	2.82 kW
COP	4.97	3.33

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WTOL	60 °C	60 °C
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5463 kWh	7465 kWh

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Cdh Tj = +7 °C	0.960	0.950
Pdh Tj = 12°C	4.54 kW	4.58 kW
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.00 kW	12.50 kW
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COP Tj = -15°C (if TOL	2.63	2.15
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Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	13.70 kW	15.16 kW
COP Tj = +2°C	3.11	2.42
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	9.67 kW	10.03 kW
COP Tj = +7°C	5.11	3.78
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	4.57 kW	4.65 kW
COP Tj = 12°C	6.78	5.18
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	13.70 kW	15.16 kW
COP Tj = Tbiv	3.11	2.42
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.70 kW	15.16 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.11	2.42
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	60 °C	60 °C
Poff	28 W	25 W
PTO	24 W	24 W
PSB	24 W	24 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 Qhe	3493 kWh	4994 kWh