

## Subtype DC Inverter Air to Water Heat Pump Unit-12

Certificate Holder	Ecochi GmbH
Address	Böhmerwaldstrasse 13
ZIP	85570
City	Markt Schwaben
Country	DE
Certification Body	BRE Global Limited
Subtype title	DC Inverter Air to Water Heat Pump Unit-12
Registration number	041-K067-02
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.9 kg
Certification Date	25.08.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12

Model Indoor unit: CBHA-IG1V04- 12, Outdoor unit: CBHA-OG1V03-12

Model name	Indoor unit: CBHA-IG1V04- 12, Outdoor unit: CBHA-OG1V03-12
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)
Sound power level outdoor	56 dB(A)	61 dB(A)

##### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	188 %	139 %
Prated	8.97 kW	8.21 kW
SCOP	4.76	3.56
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.93 kW	7.26 kW
COP Tj = -7°C	2.87	2.25
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.06 kW	4.52 kW
COP Tj = +2°C	4.71	3.50
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.51 kW	4.01 kW
COP Tj = +7°C	6.83	4.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.23 kW	4.62 kW
COP Tj = 12°C	8.40	6.39
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	7.93 kW	7.26 kW
COP Tj = Tbiv	2.87	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.22 kW	6.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.99
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	67 °C	67 °C
Poff	20 W	20 W
PTO	23 W	23 W
PSB	20 W	20 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.75 kW	1.70 kW
Annual energy consumption Qhe	3889 kWh	4766 kWh