

## Subtype DC Inverter Air to Water Heat Pump Unit-15

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-15
Registration number	041-K067-03
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.5 kg
Certification Date	25.08.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12

Model Indoor unit: CBHA-IG4V04- 15, Outdoor unit: CBHA-OG4V03-15

Model name	Indoor unit: CBHA-IG4V04- 15, Outdoor unit: CBHA-OG4V03-15
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	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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	36 dB(A)
Sound power level outdoor	56 dB(A)	60 dB(A)

##### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	137 %
Prated	12.55 kW	11.01 kW
SCOP	4.74	3.50
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	11.11 kW	9.74 kW
COP Tj = -7°C	3.05	2.28
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.53 kW	5.99 kW
COP Tj = +2°C	4.89	3.55
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.87 kW	5.15 kW
COP Tj = +7°C	6.05	4.38
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.83 kW	6.58 kW
COP Tj = 12°C	7.94	6.30
Cdh Tj = +12 °C	0.900	0.900

Pdh Tj = Tbiv	11.11 kW	9.74 kW
COP Tj = Tbiv	3.05	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.21 kW	9.15 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	20 W	20 W
PTO	28 W	28 W
PSB	20 W	20 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.35 kW	1.87 kW
Annual energy consumption Qhe	5475 kWh	6505 kWh