Subtype DC Inverter Heat Pump R290-12

Certificate Holder	ECO Engineering 2050 GmbH
Address	Gewerbepark 1,
ZIP	4133
City	Niederkappel
Country	AT
Certification Body	BRE Global Limited
Subtype title	DC Inverter Heat Pump R290-12
Registration number	041-K082-03
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.15 kg
Certification Date	20.02.2024
Testing basis	Heat Pump KEYMARK Scheme Rules Rev 13
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model Easypell EPA12	
Model name	Easypell EPA12
Application	Heating (medium temp)
Units	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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8.93 kW	9.04 kW
El input	1.77 kW	3.02 kW
COP	5.04	3.00

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	183 %	132 %
Prated	9.95 kW	9.23 kW
SCOP	4.65	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.16 kW
COP Tj = -7°C	3.37	2.21
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.44 kW	4.99 kW
COP Tj = +2°C	4.59	3.24
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.15 kW	5.58 kW

COP Tj = +7°C	5.80	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.94 kW	6.44 kW
COP Tj = 12°C	7.97	6.49
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.80 kW	8.16 kW
COP Tj = Tbiv	3.37	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.93 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	24 W	24 W
PSB	7 W	7 W
PCK	42 W	42 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.02 kW	0.00 kW
Annual energy consumption Qhe	4421 kWh	5655 kWh

Model Easypell EPA12T	
Model name	Easypell EPA12T
Application	Heating (medium temp)
Units	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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8.72 kW	8.97 kW
El input	2.04 kW	3.14 kW
COP	4.27	2.85

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	181 %	135 %
Prated	10.27 kW	12.17 kW
SCOP	4.60	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.08 kW	10.77 kW
COP Tj = -7°C	3.23	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.54 kW	6.69 kW
COP Tj = +2°C	4.52	3.33
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.73 kW	5.52 kW

COP Tj = +7°C	6.16	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.85 kW	6.58 kW
COP Tj = 12°C	8.09	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.08 kW	10.77 kW
COP Tj = Tbiv	3.23	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.14 kW	8.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	24 W	24 W
PSB	7 W	7 W
PCK	43 W	43 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	3.44 kW
Annual energy consumption Qhe	4614 kWh	7302 kWh