

**Subtype Air Source Heat Pump R290-12**

Certificate Holder	SolarEast Heat Pump Ltd.
Address	No.73 Defu Road
ZIP	528325
City	Guangdong Province,
Country	CN
Certification Body	BRE Global Limited
Subtype title	Air Source Heat Pump R290-12
Registration number	041-K042-08
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.05 kg
Certification Date	17.05.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 11
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

**Model BLN-012TC1**

Model name	BLN-012TC1
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	12.38 kW	12.40 kW
El input	2.66 kW	4.18 kW
COP	4.66	2.97

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	67 dB(A)	68 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	188 %	148 %
Prated	9.90 kW	10.22 kW
SCOP	4.77	3.77
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.76 kW	9.04 kW
COP Tj = -7°C	3.15	2.28
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.50 kW	5.51 kW
COP Tj = +2°C	4.57	3.64
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.75 kW	3.57 kW

COP Tj = +7°C	6.20	5.11
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.27 kW	4.09 kW
COP Tj = 12°C	9.06	7.09
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.76 kW	9.04 kW
COP Tj = Tbiv	3.15	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.94 kW	9.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.74	2.05
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	64 °C	64 °C
Poff	13 W	13 W
PTO	38 W	38 W
PSB	13 W	13 W
PCK	83 W	83 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.23 kW
Annual energy consumption Qhe	4286 kWh	5608 kWh

**Model BLN-012TC3**

Model name	BLN-012TC3
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	12.09 kW	12.49 kW
El input	2.67 kW	4.26 kW
COP	4.53	2.93

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level outdoor	67 dB(A)	68 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	187 %	145 %
Prated	9.88 kW	9.93 kW
SCOP	4.74	3.70
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.74 kW	8.79 kW
COP Tj = -7°C	3.18	2.35
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.54 kW	5.38 kW
COP Tj = +2°C	4.60	3.61
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.50 kW	3.45 kW

COP Tj = +7°C	6.10	4.83
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.10 kW	3.94 kW
COP Tj = 12°C	8.18	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.74 kW	8.79 kW
COP Tj = Tbiv	3.18	2.35
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.83 kW	9.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	2.03
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	38 W	38 W
PSB	13 W	13 W
PCK	83 W	83 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.05 kW	0.01 kW
Annual energy consumption Qhe	4300 kWh	5547 kWh