Subtype Intelligent Inverter Heat Pump R290- U60+U60S

Certificate Holder	Guangdong PHNIX Eco-Energy Solution Ltd.
Address	No. 3 Tianyuan Road Dagang Town
ZIP	511470
City	Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	Intelligent Inverter Heat Pump R290- U60+U60S
Registration number	041-K020-17
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.4 kg
Certification Date	15.03.2024
Testing basis	Heat Pump Keymark Scheme Rules Rev 13
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model U60	
Model name	U60
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	17.01 kW	17.30 kW
El input	3.73 kW	5.64 kW
COP	4.57	3.07

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192 %	141 %
Prated	14.71 kW	14.85 kW
SCOP	4.87	3.61
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	13.01 kW	13.14 kW
COP Tj = -7°C	3.13	2.31
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.97 kW	8.11 kW
COP Tj = +2°C	4.83	3.53
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.17 kW	5.25 kW

COP Tj = +7°C	6.12	4.57
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.81 kW	5.60 kW
COP Tj = 12°C	8.32	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.01 kW	13.14 kW
COP Tj = Tbiv	3.13	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.39 kW	14.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	15 W	15 W
PSB	13 W	13 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.32 kW	0.06 kW
Annual energy consumption Qhe	6244 kWh	8502 kWh

Model U60S	
Model name	U60S
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	17.21 kW	16.47 kW
El input	3.65 kW	5.28 kW
COP	4.71	3.12

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	64 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	193 %	143 %
Prated	14.55 kW	14.72 kW
SCOP	4.90	3.65
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	12.87 kW	13.02 kW
COP Tj = -7°C	2.99	2.29
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.85 kW	7.93 kW
COP Tj = +2°C	4.81	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.67 kW	5.84 kW

COP Tj = +7°C	6.80	4.78
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	7.57 kW	7.14 kW
COP Tj = 12°C	8.58	6.70
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.87 kW	13.02 kW
COP Tj = Tbiv	2.99	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.42 kW	14.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	1.93
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	10 W	10 W
PTO	11 W	11 W
PSB	10 W	10 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.16 kW
Annual energy consumption Qhe	6136 kWh	8323 kWh