Subtype Intelligent Inverter Heat Pump R290- G40+G40S

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- G40+G40S
Registration number	041-K020-12
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1 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 G40	
Model name	G40
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	10.48 kW	9.17 kW
El input	2.30 kW	3.21 kW
COP	4.56	2.86

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	184 %	143 %
Prated	11.62 kW	11.83 kW
SCOP	4.67	3.66
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.28 kW	10.47 kW
COP Tj = -7°C	2.97	2.31
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.30 kW	6.43 kW
COP Tj = +2°C	4.48	3.49
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.58 kW	4.33 kW

COP Tj = +7°C	6.50	5.09
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.33 kW	5.16 kW
COP Tj = 12°C	8.31	6.65
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.28 kW	10.47 kW
COP Tj = Tbiv	2.97	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.79 kW	9.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	2.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	11 W	11 W
PTO	12 W	12 W
PSB	11 W	11 W
PCK	83 W	83 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.83 kW	1.85 kW
Annual energy consumption Qhe	5144 kWh	6679 kWh

Model G40S	
Model name	G40S
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	9.72 kW	9.67 kW
El input	2.13 kW	3.12 kW
COP	4.57	3.10

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	185 %	141 %
Prated	11.63 kW	11.71 kW
SCOP	4.71	3.60
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	10.29 kW	10.36 kW
COP Tj = -7°C	2.99	2.28
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.30 kW	6.45 kW
COP Tj = +2°C	4.54	3.45
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.25 kW

COP Tj = +7°C	6.37	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.87 kW	5.03 kW
COP Tj = 12°C	8.09	6.40
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.29 kW	10.36 kW
COP Tj = Tbiv	2.99	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.71 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.68	2.05
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	12 W	12 W
PSB	10 W	10 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.92 kW	1.82 kW
Annual energy consumption Qhe	5105 kWh	6718 kWh