

Subtype Intelligent Inverter Heat Pump R290- G40+G40S

Certificate Holder	Guangdong PHNIX Eco-Energy Solutions 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

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
η_s	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
η_s	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