

Subtype Intelligent Inverter Heat Pump R290- EI40+EI40S

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- EI40+EI40S
Registration number	041-K020-19
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.1 kg
Certification Date	02.08.2024
Testing basis	HP KEYMARK certification scheme rules rev. no.14
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model EI40

Model name	EI40
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	9.98 kW	10.10 kW
EI input	2.05 kW	3.29 kW
COP	4.88	3.07

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
η_s	194 %	145 %
Prated	12.03 kW	12.31 kW
SCOP	4.93	3.69
Tbiv	-7 °C	-7 °C
TOL	-27 °C	-27 °C
Pdh Tj = -7°C	10.64 kW	10.89 kW
COP Tj = -7°C	2.94	2.30
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.53 kW	6.66 kW
COP Tj = +2°C	4.74	3.53
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.30 kW	4.50 kW

COP Tj = +7°C	6.74	4.87
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.33 kW	4.05 kW
COP Tj = 12°C	9.68	7.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.64 kW	10.89 kW
COP Tj = Tbiv	2.94	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.67 kW	11.85 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	2.06
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	10 W	10 W
PSB	10 W	10 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.36 kW	0.45 kW
Annual energy consumption Qhe	5041 kWh	6881 kWh

Model EI40S

Model name	EI40S
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	10.06 kW	10.12 kW
EI input	2.15 kW	3.31 kW
COP	4.67	3.06

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	192 %	144 %
Prated	11.61 kW	11.56 kW
SCOP	4.88	3.67
Tbiv	-7 °C	-7 °C
TOL	-27 °C	-27 °C
Pdh Tj = -7°C	10.27 kW	10.22 kW
COP Tj = -7°C	3.14	2.36
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.35 kW	6.23 kW
COP Tj = +2°C	4.62	3.52
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.13 kW	4.17 kW

COP Tj = +7°C	6.51	4.77
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.37 kW	4.07 kW
COP Tj = 12°C	9.37	6.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.27 kW	10.22 kW
COP Tj = Tbiv	3.14	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.01 kW	11.61 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	2.09
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	10 W	10 W
PSB	10 W	10 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4915 kWh	6502 kWh