

Subtype DC Inverter Heat Pump R290-50

Certificate Holder	Power World Machinery Equipment Co. Ltd
Address	No.24, The Fourth Industrial Zone, HouTing Street
ZIP	
City	Shenzhen
Country	CN
Certification Body	BRE Global Limited
Subtype title	DC Inverter Heat Pump R290-50
Registration number	041-K032-09
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.15 kg
Certification Date	30.06.2023
Testing basis	Heat Pump Keymark Scheme Rules Rev 12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model PW050-DKZLRS-E/S

Model name	PW050-DKZLRS-E/S
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	8.93 kW	9.04 kW
El input	1.77 kW	3.02 kW
COP	5.04	3.00

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	183 %	132 %
Prated	9.95 kW	9.23 kW
SCOP	4.65	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.16 kW
COP Tj = -7°C	3.37	2.21
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.44 kW	4.99 kW
COP Tj = +2°C	4.59	3.24
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.15 kW	5.58 kW

COP Tj = +7°C	5.80	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.94 kW	6.44 kW
COP Tj = 12°C	7.97	6.49
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.80 kW	8.16 kW
COP Tj = Tbiv	3.37	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.93 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	24 W	24 W
PSB	7 W	7 W
PCK	42 W	42 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.02 kW	0.00 kW
Annual energy consumption Qhe	4421 kWh	5655 kWh

Model PW050-DKZLRS-E

Model name	PW050-DKZLRS-E
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	8.72 kW	8.97 kW
El input	2.04 kW	3.14 kW
COP	4.27	2.85

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	135 %
Prated	10.27 kW	12.17 kW
SCOP	4.60	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.08 kW	10.77 kW
COP Tj = -7°C	3.23	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.54 kW	6.69 kW
COP Tj = +2°C	4.52	3.33
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.73 kW	5.52 kW

COP Tj = +7°C	6.16	4.53
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.85 kW	6.58 kW
COP Tj = 12°C	8.09	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.08 kW	10.77 kW
COP Tj = Tbiv	3.23	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.14 kW	8.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.73	1.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	7 W	7 W
PTO	24 W	24 W
PSB	7 W	7 W
PCK	43 W	43 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	3.44 kW
Annual energy consumption Qhe	4614 kWh	7302 kWh