Subtype Ultimate series R290 11kW

Certificate Holder	Guangdong Luckingstar New Energy CO., LTD.
Address	No.255 Hexiang East Rd, C area, Heshan Industrial Zone, Heshan City
ZIP	
City	Guangdong
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Ultimate series R290 11kW
Registration number	011-1W0852
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.2 kg
Certification Date	06.08.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model LWH-F11HVLZPN9	
Model name	LWH-F11HVLZPN9
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	11.00 kW	11.00 kW
El input	2.44 kW	3.66 kW
COP	4.50	3.00

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192 %	141 %
Prated	11.00 kW	11.00 kW
SCOP	4.87	3.60
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.08 kW	9.85 kW
COP Tj = -7°C	3.16	2.43
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	6.40 kW	6.27 kW
COP Tj = +2°C	4.72	3.39
Cdh Tj = +2 °C	0.987	0.991
Pdh Tj = +7°C	5.96 kW	5.76 kW

COP Tj = +7°C	6.37	4.90
Cdh Tj = +7 °C	0.982	0.986
Pdh Tj = 12°C	7.05 kW	6.28 kW
COP Tj = 12°C	8.72	6.21
Cdh Tj = +12 °C	0.979	0.983
Pdh Tj = Tbiv	10.08 kW	9.85 kW
COP Tj = Tbiv	3.16	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.40 kW	7.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.996
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	17 W	17 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.60 kW	3.50 kW
Annual energy consumption Qhe	4666 kWh	6305 kWh

Model LWH-F11HVZPN9	
Model name	LWH-F11HVZPN9
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	11.00 kW	11.00 kW
El input	2.44 kW	3.66 kW
COP	4.50	3.00

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192 %	142 %
Prated	11.00 kW	11.00 kW
SCOP	4.87	3.61
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.28 kW	9.85 kW
COP Tj = -7°C	3.20	2.48
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	6.13 kW	6.00 kW
COP Tj = +2°C	4.66	3.40
Cdh Tj = +2 °C	0.990	0.993
Pdh Tj = +7°C	6.01 kW	5.78 kW

COP Tj = +7°C	6.40	4.89
Cdh Tj = +7 °C	0.986	0.989
Pdh Tj = 12°C	7.20 kW	6.18 kW
COP Tj = 12°C	8.94	6.21
Cdh Tj = +12 °C	0.984	0.987
Pdh Tj = Tbiv	10.28 kW	9.85 kW
COP Tj = Tbiv	3.20	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.28 kW	6.84 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.84	1.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	75 °C	75 °C
Poff	12 W	12 W
PTO	13 W	13 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.70 kW	4.20 kW
Annual energy consumption Qhe	4668 kWh	6288 kWh