

Subtype Inverter Air Source Heat Pump- R290- 12

Certificate Holder	Guangzhou Dentwiton Manufacture Co., Ltd.
Address	No.3, No. 9, Huasheng Beiroad, Xicheng industry zone, Renhe town, Baiyun district,
ZIP	
City	Guangzhou
Country	CN
Certification Body	BRE Global Limited
Subtype title	Inverter Air Source Heat Pump- R290- 12
Registration number	041-K077-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.8 kg
Certification Date	24.11.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model HS12V-QPNNW

Model name	HS12V-QPNNW
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	9.87 kW	8.80 kW
El input	2.06 kW	2.58 kW
COP	4.78	3.42

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	184 %	144 %
Prated	8.32 kW	8.79 kW
SCOP	4.68	3.68
Tbiv	-7 °C	-7 °C
TOL	-25 °C	-25 °C
Pdh Tj = -7°C	7.36 kW	7.78 kW
COP Tj = -7°C	3.31	2.48
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.56 kW	4.77 kW
COP Tj = +2°C	4.60	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.29 kW	4.40 kW

COP Tj = +7°C	6.05	4.93
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.72 kW	4.99 kW
COP Tj = 12°C	7.60	6.35
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.36 kW	7.78 kW
COP Tj = Tbiv	3.31	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.47 kW	7.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.02	2.17
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	70 °C	70 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.85 kW	1.62 kW
Annual energy consumption Qhe	3677 kWh	4935 kWh