

Subtype Monobloc Heat Pump R290 10 kW

Certificate Holder	Zhejiang Zhongguang Electrical Co., Ltd.
Address	No. 96 Yunjing Road Shuige Industry Area, Lishui
ZIP	323000
City	Zhejiang
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Monobloc Heat Pump R290 10 kW
Registration number	011-1W0783
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.25 kg
Certification Date	29.04.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model AHb10VR9HP

Model name	AHb10VR9HP
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	10.02 kW	10.33 kW
El input	1.99 kW	3.15 kW
COP	5.03	3.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	192 %	147 %
Prated	10.10 kW	10.19 kW
SCOP	4.87	3.75
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.94 kW	9.02 kW
COP Tj = -7°C	3.01	2.20
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	5.55 kW	5.73 kW
COP Tj = +2°C	4.68	3.60
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.67 kW	5.47 kW

COP Tj = +7°C	6.62	5.28
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	6.62 kW	6.51 kW
COP Tj = 12°C	9.04	7.37
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	8.94 kW	9.02 kW
COP Tj = Tbiv	3.01	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	8.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.81	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	75 °C	75 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.60 kW	2.01 kW
Annual energy consumption Qhe	4289 kWh	5608 kWh

Model AHb10VR9XP

Model name	AHb10VR9XP
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	10.02 kW	10.33 kW
El input	1.99 kW	3.15 kW
COP	5.03	3.27

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	196 %	148 %
Prated	10.15 kW	10.30 kW
SCOP	4.98	3.77
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.98 kW	9.11 kW
COP Tj = -7°C	2.95	2.12
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	5.54 kW	5.66 kW
COP Tj = +2°C	4.89	3.75
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.66 kW	5.32 kW

COP Tj = +7°C	6.76	4.94
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	6.36 kW	6.49 kW
COP Tj = 12°C	9.05	7.44
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	8.98 kW	9.11 kW
COP Tj = Tbiv	2.95	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.37 kW	8.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.93
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	75 °C	75 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.78 kW	1.49 kW
Annual energy consumption Qhe	4210 kWh	5648 kWh