Subtype Monobloc Heat Pump R290 10 12 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 12 kW
Registration number	011-1W0784
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.15 kg
Certification Date	29.04.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model AHb12VR9XP	
Model name	AHb12VR9XP
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	12.30 kW	12.50 kW
El input	2.37 kW	3.70 kW
COP	5.18	3.38

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
ηs	197 %	149 %
Prated	12.00 kW	12.00 kW
SCOP	5.01	3.80
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	3.18	2.34
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	6.60 kW	6.65 kW
COP Tj = +2°C	4.74	3.61
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	4.98 kW	4.79 kW

COP Tj = +7°C	6.85	5.14
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	5.86 kW	5.84 kW
COP Tj = 12°C	9.84	7.78
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	3.18	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.44 kW	9.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	75 °C	75 °C
Poff	20 W	20 W
PTO	21 W	21 W
PSB	20 W	20 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	2.82 kW
Annual energy consumption Qhe	4953 kWh	6534 kWh

Model AHb12VR9HP	
Model name	AHb12VR9HP
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	12.30 kW	12.50 kW
El input	2.37 kW	3.70 kW
COP	5.18	3.38

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
ηs	197 %	149 %
Prated	12.00 kW	12.00 kW
SCOP	5.01	3.80
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.62 kW	10.62 kW
COP Tj = -7°C	3.18	2.34
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	6.60 kW	6.65 kW
COP Tj = +2°C	4.74	3.61
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	4.98 kW	4.79 kW

COP Tj = +7°C	6.85	5.14
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	5.86 kW	5.84 kW
COP Tj = 12°C	9.84	7.78
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	10.62 kW	10.62 kW
COP Tj = Tbiv	3.18	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.44 kW	9.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	75 °C	75 °C
Poff	20 W	20 W
PTO	21 W	21 W
PSB	20 W	20 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.56 kW	2.82 kW
Annual energy consumption Qhe	4953 kWh	6534 kWh

Model AHb10VR9XP Ⅱ	
Model name	AHb10VR9XP Ⅱ
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	10.00 kW	10.00 kW
El input	1.90 kW	2.90 kW
COP	5.26	3.45

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	208 %	158 %
Prated	10.06 kW	10.20 kW
SCOP	5.26	4.03
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	9.04 kW
COP Tj = -7°C	3.39	2.53
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	5.56 kW	5.72 kW
COP Tj = +2°C	5.13	3.83
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	5.73 kW	5.46 kW

COP Tj = +7°C	6.95	5.46
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	6.69 kW	6.50 kW
COP Tj = 12°C	9.39	7.89
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	8.90 kW	9.04 kW
COP Tj = Tbiv	3.38	2.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.12 kW	8.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	75 °C	75 °C
Poff	20 W	20 W
PTO	21 W	21 W
PSB	20 W	20 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.94 kW	1.91 kW
Annual energy consumption Qhe	3949 kWh	5245 kWh

Model AHb10VR9HP Ⅱ	
Model name	AHb10VR9HP Ⅱ
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	10.00 kW	10.00 kW
El input	1.90 kW	2.90 kW
COP	5.26	3.45

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	208 %	158 %
Prated	10.06 kW	10.20 kW
SCOP	5.26	4.03
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	9.04 kW
COP Tj = -7°C	3.39	2.53
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	5.56 kW	5.72 kW
COP Tj = +2°C	5.13	3.83
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	5.73 kW	5.46 kW

COP Tj = +7°C	6.95	5.46
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	6.69 kW	6.50 kW
COP Tj = 12°C	9.39	7.89
Cdh Tj = +12 °C	0.970	0.980
Pdh Tj = Tbiv	8.90 kW	9.04 kW
COP Tj = Tbiv	3.38	2.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.12 kW	8.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.31
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WTOL	75 °C	75 °C
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PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.94 kW	1.91 kW
Annual energy consumption Qhe	3949 kWh	5245 kWh