

## Subtype Monoblock Heat Pump 8 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	Monoblock Heat Pump 8 10 kW
Registration number	011-1W0671
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.35 kg
Certification Date	23.08.2023
Testing basis	HP KEYMARK certification scheme rules V12

## Model AHb08VR3HP

Model name	AHb08VR3HP
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 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
$\eta_s$	196 %	137 %
Prated	8.20 kW	7.00 kW
SCOP	4.98	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.26 kW	6.22 kW
COP Tj = -7°C	3.26	2.04
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.49 kW	4.06 kW
COP Tj = +2°C	4.83	3.45
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.80 kW	2.97 kW
COP Tj = +7°C	6.28	4.56
Cdh Tj = +7 °C	0.950	0.970
Pdh Tj = 12°C	3.26 kW	3.21 kW
COP Tj = 12°C	10.77	7.65
Cdh Tj = +12 °C	0.930	0.950
Pdh Tj = Tbiv	7.26 kW	6.22 kW
COP Tj = Tbiv	3.26	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.63 kW	5.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	21 W	21 W
PSB	15 W	15 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.57 kW	1.36 kW
Annual energy consumption Qhe	3401 kWh	4126 kWh

## Model AHb10VR3HP

Model name	AHb10VR3HP
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 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
$\eta_s$	196 %	135 %
Prated	10.10 kW	8.00 kW
SCOP	4.97	3.45
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.96 kW	7.11 kW
COP Tj = -7°C	2.96	2.00
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	5.58 kW	4.74 kW
COP Tj = +2°C	4.70	3.33
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.69 kW	2.96 kW
COP Tj = +7°C	6.94	4.60
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	3.26 kW	3.20 kW
COP Tj = 12°C	10.81	7.78
Cdh Tj = +12 °C	0.930	0.950
Pdh Tj = Tbiv	8.96 kW	7.11 kW
COP Tj = Tbiv	2.96	2.00

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.94 kW	6.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	1.000
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	21 W	21 W
PSB	15 W	15 W
PCK	48 W	48 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.16 kW	1.73 kW
Annual energy consumption Qhe	4203 kWh	4797 kWh