

## Subtype Monobloc ACHP-H series 04/06

Certificate Holder	Ningbo AUX Electric Co., Ltd
Address	1166 Mingguang North Road
ZIP	315191
City	Ningbo Zhejiang
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Monobloc ACHP-H series 04/06
Registration number	011-1W0739
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.55 kg
Certification Date	27.11.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Version 12 (2023-03)

## Model ACHP-H04/4R2HA-M

Model name	ACHP-H04/4R2HA-M
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer
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	4.50 kW	4.60 kW
El input	0.87 kW	1.44 kW
COP	5.15	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	195 %	151 %
Prated	5.50 kW	5.50 kW
SCOP	4.95	3.85
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.87 kW	4.87 kW
COP Tj = -7°C	2.96	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.96 kW	2.96 kW
COP Tj = +2°C	4.84	3.75
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.90 kW	1.90 kW

COP Tj = +7°C	6.46	5.26
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.02 kW	2.16 kW
COP Tj = 12°C	11.71	7.91
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.87 kW	4.87 kW
COP Tj = Tbiv	2.96	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.34 kW	5.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.16 kW	0.00 kW
Annual energy consumption Qhe	2295 kWh	2950 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	252 %	161 %
Prated	5.50 kW	5.00 kW
SCOP	6.37	4.10
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.37 kW	4.87 kW
COP Tj = +2°C	3.94	2.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.54 kW	3.21 kW
COP Tj = +7°C	5.82	3.62
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.57 kW	1.94 kW
COP Tj = 12°C	7.91	5.35
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.21 kW
COP Tj = Tbiv	5.82	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.37 kW	4.87 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe	1151 kWh	1627 kWh

## Model ACHP-H06/4R2HA-M

Model name	ACHP-H06/4R2HA-M
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer
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	6.35 kW	6.40 kW
El input	1.27 kW	1.97 kW
COP	5.00	3.25

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	194 %	151 %
Prated	6.80 kW	6.30 kW
SCOP	4.92	3.85
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.02 kW	5.57 kW
COP Tj = -7°C	2.85	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.66 kW	3.39 kW
COP Tj = +2°C	4.98	3.72
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.35 kW	2.18 kW

COP Tj = +7°C	6.38	5.26
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.17 kW	2.07 kW
COP Tj = 12°C	9.67	7.91
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.02 kW	5.57 kW
COP Tj = Tbiv	2.85	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.42 kW	6.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	0.30 kW
Annual energy consumption Qhe	2818 kWh	3381 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	256 %	162 %
Prated	6.10 kW	5.10 kW
SCOP	6.47	4.12
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.85 kW	4.85 kW
COP Tj = +2°C	3.91	2.48
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.92 kW	3.28 kW
COP Tj = +7°C	5.89	3.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.93 kW	1.69 kW
COP Tj = 12°C	8.31	5.42
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.92 kW	3.28 kW
COP Tj = Tbiv	5.89	3.61
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.85 kW	4.85 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.25 kW	0.25 kW
Annual energy consumption Qhe	1258 kWh	1652 kWh

## Model ACHP-H04/4R2HA-M(NE)

Model name	ACHP-H04/4R2HA-M(NE)
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer
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	4.50 kW	4.60 kW
El input	0.87 kW	1.44 kW
COP	5.15	3.20

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	195 %	151 %
Prated	5.50 kW	5.50 kW
SCOP	4.95	3.85
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.87 kW	4.87 kW
COP Tj = -7°C	2.96	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.96 kW	2.96 kW
COP Tj = +2°C	4.84	3.75
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.90 kW	1.90 kW



COP Tj = +7°C	6.46	5.26
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.02 kW	2.16 kW
COP Tj = 12°C	11.71	7.91
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.87 kW	4.87 kW
COP Tj = Tbiv	2.96	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.34 kW	5.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.16 kW	0.00 kW
Annual energy consumption Qhe	2295 kWh	2950 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	252 %	161 %
Prated	5.50 kW	5.00 kW
SCOP	6.37	4.10
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.37 kW	4.87 kW
COP Tj = +2°C	3.94	2.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.54 kW	3.21 kW
COP Tj = +7°C	5.82	3.62
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.57 kW	1.94 kW
COP Tj = 12°C	7.91	5.35
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Pdh Tj = Tbiv	3.54 kW	3.21 kW
COP Tj = Tbiv	5.82	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.37 kW	4.87 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.13 kW	0.13 kW
Annual energy consumption Qhe	1151 kWh	1627 kWh

## Model ACHP-H06/4R2HA-M(NE)

Model name	ACHP-H06/4R2HA-M(NE)
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer
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	6.35 kW	6.40 kW
El input	1.27 kW	1.97 kW
COP	5.00	3.25

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	194 %	151 %
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COP Tj = -7°C	2.85	2.40
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.66 kW	3.39 kW
COP Tj = +2°C	4.98	3.72
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.35 kW	2.18 kW

COP Tj = +7°C	6.38	5.26
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.17 kW	2.07 kW
COP Tj = 12°C	9.67	7.91
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.02 kW	5.57 kW
COP Tj = Tbiv	2.85	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.42 kW	6.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.06
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	0.30 kW
Annual energy consumption Qhe	2818 kWh	3381 kWh

#### EN 12102-1 | Warmer Climate

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#### EN 14825 | Warmer Climate

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SCOP	6.47	4.12
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.85 kW	4.85 kW
COP Tj = +2°C	3.91	2.48
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.92 kW	3.28 kW
COP Tj = +7°C	5.89	3.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.93 kW	1.69 kW
COP Tj = 12°C	8.31	5.42
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.92 kW	3.28 kW
COP Tj = Tbiv	5.89	3.61
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.85 kW	4.85 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	2 W	2 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.25 kW	0.25 kW
Annual energy consumption Qhe	1258 kWh	1652 kWh