

Subtype Monobloc ACHP-H series 04/06

Certificate Holder	Ningbo AUX Electric Co., Ltd
Address	1166 Mingguang North Road
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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
ηs	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
ηs	252 %	161 %
Prated	5.50 kW	5.00 kW
SCOP	6.37	4.10
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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
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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)

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$\eta_s$	194 %	151 %
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COP Tj = -7°C	2.85	2.40
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COP Tj = +2°C	4.98	3.72
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Pdh Tj = +7°C	2.35 kW	2.18 kW

COP Tj = +7°C	6.38	5.26
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Pdh Tj = 12°C	2.17 kW	2.07 kW
COP Tj = 12°C	9.67	7.91
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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

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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