Subtype ACHP-H series 04/06

Certificate Holder	Ningbo AUX Electric Co., Ltd
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ZIP	315191
City	Ningbo Zhejiang
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ACHP-H series 04/06
Registration number	011-1W0544
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.1 kg
Certification Date	15.08.2022
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 10 (as of 2022-06)

Model Indoor unit ACHP-H04/4R3HA-I and outdoor unit ACHP-H04/4R3HA-O	
Model name	Indoor unit ACHP-H04/4R3HA-I and outdoor unit ACHP-H04/4R3HA-O
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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	4.30 kW	4.36 kW
El input	0.83 kW	1.47 kW
COP	5.18	2.97

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	190 %	131 %
Prated	5.50 kW	5.50 kW
SCOP	4.83	3.34
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.87 kW	4.87 kW
COP Tj = -7°C	3.23	1.96
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.96 kW	2.96 kW
COP Tj = +2°C	4.84	3.48

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.90 kW	1.90 kW
COP Tj = +7°C	6.46	4.28
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	0.85 kW	0.85 kW
COP Tj = 12°C	9.62	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.87 kW	4.87 kW
COP Tj = Tbiv	3.23	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.34 kW	3.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.83
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.16 kW	2.08 kW
Annual energy consumption Qhe	2355 kWh	3399 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	236 %	156 %
Prated	5.50 kW	5.00 kW
SCOP	5.98	3.97
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	5.92	3.68
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.57 kW	1.43 kW
COP Tj = 12°C	7.91	5.15
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.54 kW	3.21 kW

COP Tj = Tbiv	5.92	3.68
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	60 °C	60 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 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	1229 kWh	1684 kWh

Model Indoor unit ACHP-H06/4R3HA-I and outdoor unit ACHP-H06/4R3HA-O	
Model name	Indoor unit ACHP-H06/4R3HA-I and outdoor unit ACHP-H06/4R3HA-O
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer, Warmer Climate
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	6.25 kW	6.40 kW
El input	1.30 kW	2.13 kW
COP	4.81	3.00

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	194 %	134 %
Prated	6.80 kW	6.30 kW
SCOP	4.92	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.00 kW	5.58 kW
COP Tj = -7°C	3.24	2.20
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.77 kW	3.40 kW
COP Tj = +2°C	4.98	3.42

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.42 kW	2.19 kW
COP Tj = +7°C	6.38	4.36
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.02 kW	1.73 kW
COP Tj = 12°C	9.67	6.89
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.00 kW	5.58 kW
COP Tj = Tbiv	3.24	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.42 kW	4.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	2.30 kW
Annual energy consumption Qhe	2853 kWh	3812 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	254 %	157 %
Prated	6.10 kW	5.10 kW
SCOP	6.41	3.99
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	3.93 kW	3.31 kW
COP Tj = +7°C	5.89	3.67
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.79 kW	1.59 kW
COP Tj = 12°C	8.20	5.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.92 kW	3.28 kW

COP Tj = Tbiv	5.89	3.67
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	60 °C	60 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 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	1270 kWh	1708 kWh