

Subtype ACHP-H series H12/H14/H16

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	ACHP-H series H12/H14/H16
Registration number	011-1W0872
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.84 kg
Certification Date	13.08.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model Indoor unit ACHP-H12/4R3HB3-SI and outdoor unit ACHP-H12/4R3HB-SO

Model name	Indoor unit ACHP-H12/4R3HB3-SI and outdoor unit ACHP-H12/4R3HB-SO
Application	Heating (medium temp)
Units	Indoor, 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	12.20 kW	12.20 kW
El input	2.44 kW	3.91 kW
COP	5.00	3.12

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	137 %
Prated	12.20 kW	12.20 kW
SCOP	4.85	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.50 kW	10.50 kW
COP Tj = -7°C	2.95	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.40 kW
COP Tj = +2°C	4.75	3.40

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.20 kW	4.15 kW
COP Tj = +7°C	6.20	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.88 kW	1.85 kW
COP Tj = 12°C	9.38	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.50 kW	10.50 kW
COP Tj = Tbiv	2.95	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	2.68
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	2.20 kW	2.84 kW
Annual energy consumption Qhe	5193 kWh	7199 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	246 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.22	4.48
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.97 kW	13.67 kW
COP Tj = +2°C	3.35	2.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.42 kW	8.87 kW
COP Tj = +7°C	5.31	3.80
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.94 kW
COP Tj = 12°C	8.11	5.88
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.42 kW	8.87 kW

COP $T_j = T_{biv}$	5.31	3.80
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.97 kW	13.67 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.35	2.25
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.900	0.900
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	2812 kWh	4118 kWh

Model Indoor unit ACHP-H14/4R3HB3-SI and outdoor unit ACHP-H14/4R3HB-SO

Model name	Indoor unit ACHP-H14/4R3HB3-SI and outdoor unit ACHP-H14/4R3HB-SO
Application	Heating (medium temp)
Units	Indoor, 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	14.50 kW	14.00 kW
El input	3.05 kW	4.64 kW
COP	4.75	3.02

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	137 %
Prated	12.20 kW	12.20 kW
SCOP	4.85	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.50 kW	10.50 kW
COP Tj = -7°C	2.95	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.40 kW
COP Tj = +2°C	4.75	3.40

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.20 kW	4.15 kW
COP Tj = +7°C	6.20	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.88 kW	1.85 kW
COP Tj = 12°C	9.38	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.50 kW	10.50 kW
COP Tj = Tbiv	2.95	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	2.68
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	2.20 kW	2.84 kW
Annual energy consumption Qhe	5193 kWh	7199 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	246 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.22	4.48
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.97 kW	13.67 kW
COP Tj = +2°C	3.35	2.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.42 kW	8.87 kW
COP Tj = +7°C	5.31	3.80
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.94 kW
COP Tj = 12°C	8.11	5.88
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.42 kW	8.87 kW

COP $T_j = T_{biv}$	5.31	3.80
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	12.97 kW	13.67 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.35	2.25
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.900	0.900
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	2812 kWh	4118 kWh

Model Indoor unit ACHP-H16/4R3HB3-SI and outdoor unit ACHP-H16/4R3HB-SO

Model name	Indoor unit ACHP-H16/4R3HB3-SI and outdoor unit ACHP-H16/4R3HB-SO
Application	Heating (medium temp)
Units	Indoor, 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	16.10 kW	16.10 kW
El input	3.46 kW	5.31 kW
COP	4.60	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	191 %	137 %
Prated	12.20 kW	12.20 kW
SCOP	4.85	3.50
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.50 kW	10.50 kW
COP Tj = -7°C	2.95	2.00
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.40 kW
COP Tj = +2°C	4.75	3.40

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.20 kW	4.15 kW
COP Tj = +7°C	6.20	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.88 kW	1.85 kW
COP Tj = 12°C	9.38	6.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.50 kW	10.50 kW
COP Tj = Tbiv	2.95	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.60	2.68
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	2.20 kW	2.84 kW
Annual energy consumption Qhe	5193 kWh	7199 kWh

EN 12102-1 | Warmer Climate

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EN 14825 | Warmer Climate

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COP Tj = +2°C	3.35	2.25
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.42 kW	8.87 kW
COP Tj = +7°C	5.31	3.80
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Pdh Tj = 12°C	3.74 kW	3.94 kW
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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 Q_{he}	2812 kWh	4118 kWh