

Subtype ACHP-H series 08/H10

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 08/H10
Registration number	011-1W0545
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.45 kg
Certification Date	15.08.2022
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 11

Model Indoor unit ACHP-H08/4R3HA-I and outdoor unit ACHP-H08/4R3HA-O

Model name	Indoor unit ACHP-H08/4R3HA-I and outdoor unit ACHP-H08/4R3HA-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	8.40 kW	8.30 kW
El input	1.62 kW	2.60 kW
COP	5.20	3.19

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	132 %
Prated	8.10 kW	6.60 kW
SCOP	5.08	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.17 kW	5.84 kW
COP Tj = -7°C	3.35	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.36 kW	3.55 kW
COP Tj = +2°C	5.09	3.30

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.80 kW	2.28 kW
COP Tj = +7°C	6.82	4.34
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.25 kW	1.02 kW
COP Tj = 12°C	8.35	5.33
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.17 kW	5.84 kW
COP Tj = Tbiv	3.35	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.44 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	1.84
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	1.66 kW	1.70 kW
Annual energy consumption Qhe	3294 kWh	4035 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	270 %	169 %
Prated	8.10 kW	7.60 kW
SCOP	6.82	4.29
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.80 kW	7.30 kW
COP Tj = +2°C	3.98	2.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.21 kW	4.89 kW
COP Tj = +7°C	6.26	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.31 kW	2.17 kW
COP Tj = 12°C	9.23	5.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.21 kW	4.89 kW

COP $T_j = T_{biv}$	6.26	3.92
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	7.80 kW	7.30 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.98	2.59
$C_{dh} T_j = TOL$ 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	0.30 kW	0.30 kW
Annual energy consumption Q _{he}	1587 kWh	2368 kWh

Model Indoor unit ACHP-H10/5R3HA-I and outdoor unit ACHP-H10/4R3HA-O

Model name	Indoor unit ACHP-H10/5R3HA-I and outdoor unit ACHP-H10/4R3HA-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	10.00 kW	10.00 kW
El input	2.00 kW	3.23 kW
COP	5.00	3.10

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	198 %	135 %
Prated	9.20 kW	7.70 kW
SCOP	5.07	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.14 kW	6.81 kW
COP Tj = -7°C	3.17	2.03
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.95 kW	4.15 kW
COP Tj = +2°C	5.02	3.46

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.18 kW	2.67 kW
COP Tj = +7°C	6.60	4.71
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.42 kW	1.18 kW
COP Tj = 12°C	8.33	7.01
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.14 kW	6.81 kW
COP Tj = Tbiv	3.17	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.40 kW	5.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.63
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	1.80 kW	2.47 kW
Annual energy consumption Qhe	3752 kWh	4618 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	266 %	176 %
Prated	8.60 kW	8.60 kW
SCOP	6.72	4.48
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.20 kW	8.20 kW
COP Tj = +2°C	3.84	2.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.53 kW	5.53 kW
COP Tj = +7°C	6.18	4.10
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.46 kW	2.53 kW
COP Tj = 12°C	9.04	5.82
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.53 kW	5.53 kW

COP $T_j = T_{biv}$	6.18	4.10
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	8.20 kW	8.20 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.84	2.59
$C_{dh} T_j = TOL$ 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	0.40 kW	0.40 kW
Annual energy consumption Q _{he}	1709 kWh	2567 kWh

Model Indoor unit ACHP-H08/4R3HB-I and outdoor unit ACHP-H08/4R3HA-O

Model name	Indoor unit ACHP-H08/4R3HB-I and outdoor unit ACHP-H08/4R3HA-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	8.40 kW	8.30 kW
El input	1.62 kW	2.60 kW
COP	5.20	3.19

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	132 %
Prated	8.10 kW	6.60 kW
SCOP	5.08	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.17 kW	5.84 kW
COP Tj = -7°C	3.35	2.16
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.36 kW	3.55 kW
COP Tj = +2°C	5.09	3.30

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.80 kW	2.28 kW
COP Tj = +7°C	6.82	4.34
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.25 kW	1.02 kW
COP Tj = 12°C	8.35	5.33
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.17 kW	5.84 kW
COP Tj = Tbiv	3.35	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.44 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	1.84
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	1.66 kW	1.70 kW
Annual energy consumption Qhe	3294 kWh	4035 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	270 %	169 %
Prated	8.10 kW	7.60 kW
SCOP	6.82	4.29
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.80 kW	7.30 kW
COP Tj = +2°C	3.98	2.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.21 kW	4.89 kW
COP Tj = +7°C	6.26	3.92
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.31 kW	2.17 kW
COP Tj = 12°C	9.23	5.55
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.21 kW	4.89 kW

COP $T_j = T_{biv}$	6.26	3.92
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	7.80 kW	7.30 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.98	2.59
$C_{dh} T_j = TOL$ 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	0.30 kW	0.30 kW
Annual energy consumption Q _{he}	1587 kWh	2368 kWh

Model Indoor unit ACHP-H10/4R3HA-I and outdoor unit ACHP-H10/4R3HA-O

Model name	Indoor unit ACHP-H10/4R3HA-I and outdoor unit ACHP-H10/4R3HA-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	10.00 kW	10.00 kW
El input	2.00 kW	3.23 kW
COP	5.00	3.10

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	198 %	135 %
Prated	9.20 kW	7.70 kW
SCOP	5.07	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.14 kW	6.81 kW
COP Tj = -7°C	3.17	2.03
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.95 kW	4.15 kW
COP Tj = +2°C	5.02	3.46

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.18 kW	2.67 kW
COP Tj = +7°C	6.60	4.71
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.42 kW	1.18 kW
COP Tj = 12°C	8.33	7.01
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.14 kW	6.81 kW
COP Tj = Tbiv	3.17	2.03
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.40 kW	5.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.63
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	1.80 kW	2.47 kW
Annual energy consumption Qhe	3752 kWh	4618 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	266 %	176 %
Prated	8.60 kW	8.60 kW
SCOP	6.72	4.48
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.20 kW	8.20 kW
COP Tj = +2°C	3.84	2.59
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.53 kW	5.53 kW
COP Tj = +7°C	6.18	4.10
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.46 kW	2.53 kW
COP Tj = 12°C	9.04	5.82
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.53 kW	5.53 kW

COP $T_j = T_{biv}$	6.18	4.10
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	8.20 kW	8.20 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.84	2.59
$C_{dh} T_j = TOL$ 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	0.40 kW	0.40 kW
Annual energy consumption Q _{he}	1709 kWh	2567 kWh