

## Product Fiche

Technical parameters							
Model(s):		Outdoor unit: ACHP-H 12/5R3HA-O Indoor unit: ACHP-H12/5R3HA-I					
Air-to-water heat ump:		yes					
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
Low-temperature heat pump:		no					
Equipped with a supplementary heater:		no					
Heat pump combination heater:		no					
Declared climate condition		Warmer					
Declared temperature application		Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	11.1	kW	Seasonal space heating energy efficiency	Hs	<b>245</b>	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	<b>10.90</b>	kW	Tj = +2°C	COPd	3.59	-
Tj = +7°C	Pdh	7.14	kW	Tj = +7°C	COPd	5.87	-
Tj = +12°C	Pdh	<b>3.17</b>	kW	Tj = +12°C	COPd	7.94	-
Tj = bivalent temperature	Pdh	7.14	kW	Tj = bivalent temperature	COPd	5.87	-
Tj = operation limit temperature	Pdh	<b>10.90</b>	kW	Tj = operation limit temperature	COPd	3.59	-
For air-to-water heat pumps: Tj = -15°C (ifTOL<-20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sup>OFF</sup>	0.020	kW	Rated heat output (*)	Psup	0.20	kW
Thermostat-off mode	P <sup>TO</sup>	0.030	kW				
Standby mode	P <sup>SB</sup>	0.020	kW				
Crankcase heater mode	P <sup>CK</sup>	0.000	kW				
Type of energy input							
Electricity							
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	QHE	<b>2391</b>	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	Hwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9							

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Technical parameters										
Model(s):		Outdoor unit: ACHP-H12/5R3HA-O Indoor unit: ACHP-H12/5R3HA-I								
Air-to-water heat ump:		yes								
Water-to-water heat pump:		no								
Brine-to-water heat pump:		no								
Low-temperature heat pump:		no								
Equipped with a supplementary heater:		no								
Heat pump combination heater:		no								
Declared climate condition		Warmer								
Declared temperature application		Medium								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output(*)	Prated	14.1	kW	Seasonal space heating energy efficiency	%	<b>171</b>	%			
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-			
Tj = +2°C	Pdh	<b>13.96</b>	kW	Tj = +2°C	COPd	2.61	-			
Tj = +7°C	Pdh	9.25	kW	Tj = +7°C	COPd	3.65	-			
Tj = +12°C	Pdh	<b>4.19</b>	kW	Tj = +12°C	COPd	5.86	-			
Tj = bivalent temperature	Pdh	9.25	kW	Tj = bivalent temperature	COPd	3.65	-			
Tj = operation limit temperature	Pdh	<b>14.96</b>	kW	Tj = operation limit temperature	COPd	2.61	-			
For air-to-water heat pumps: Tj = -15°C (ifTOL<-20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	COPd	-	-			
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	POFF	0.020	kW	Rated heat output (*)	Psup	0.20	kW			
Thermostat-off mode	PTO	0.030	kW							
Standby mode	PSB	0.020	kW					Type of energy input	Electricity	
Crankcase heater mode	PCK	0.000	kW							
Other items										
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m³/h			
Sound power level, indoors/outdoors	LWA	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	<b>3831</b>	kWh							
For heat pump combination heater										
Declaed load profile	-			Water heating energy efficiency	Hwh	-	%			
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfbel	-	kWh			
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh =0.9										

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Technical parameters							
Model (s):	Outdoor unit: ACHP-H12/5R3HA-O Indoor unit: ACHP-H12/5R3HA-I						
Air-to-water heat ump:	yes						
Water-to-water heat pump:	no						
Brine-to-water heat pump:	no						
Low-temperature heat pump:	no						
Equipped with a supplementary heater:	no						
Heat pump combination heater:	no						
Declared climate condition	Average						
Declared temperature application	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	12.2	kW	Seasonal space heating energy efficiency	Is	<b>190</b>	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	10.79	kW	Tj = -7°C	COPd	3.02	-
Tj = +2°C	Pdh	6.57	kW	Tj = +2°C	COPd	4.83	-
Tj = +7°C	Pdh	4.22	kW	Tj = +7°C	COPd	6.27	-
Tj = +12°C	Pdh	1.88	kW	Tj = +12°C	COPd	9.38	-
Tj = bivalent temperature	Pdh	10.79	kW	Tj = bivalent temperature	COPd	3.02	-
Tj = operation limit temperature	Pdh	<b>10.1</b>	kW	Tj = operation limit temperature	COPd	2.61	-
For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	<b>TOL</b>	-10	°C
Cycling interval capacity for heating	Peych	-	kW	Cycling interval efficiency	COPeyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	POFF	0.020	kW	Rated heat output (*)	Psup	2.10	kW
Thermostat-off mode	PTO	0.030	kW				
Standby mode	PSB	0.020	kW				
Crankcase heater mode	PK	0.000	kW				
Type of energy input							
Electricity							
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	QHE	5230	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	Hwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9							

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Technical parameters							
Model(s):	Outdoor unit: ACHP-H12/5R3HA-O Indoor unit: ACHP-H12/5R3HA-I						
Air-to-water heat pump:	yes						
Water-to-water heat pump:	no						
Brine-to-water heat pump:	no						
Low-temperature heat pump:	no						
Equipped with a supplementary heater:	no						
Heat pump combination heater:	no						
Declared climate condition	Average						
Declared temperature application	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	14.1	kW	Seasonal space heating energy efficiency	Hs	171	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	13.96	kW	Tj = +2°C	COPd	2.61	-
Tj = +7°C	Pdh	9.25	kW	Tj = +7°C	COPd	3.65	-
Tj = +12°C	Pdh	4.19	kW	Tj = +12°C	COPd	5.86	-
Tj = bivalent temperature	Pdh	9.25	kW	Tj = bivalent temperature	COPd	3.65	-
Tj = operation limit temperature	Pdh	14.96	kW	Tj = operation limit temperature	COPd	2.61	-
For air-to-water heat pumps: Tj = -15°C (ifTOL<-20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (ifTOL<-20°C)	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P OFF	0.020	kW	Rated heat output (*)	Psup	2.84	kW
Thermostat-off mode	P <sup>TO</sup>	0.030	kW	Type of energy input	Electricity		
Standby mode	P SB	0.020	kW				
Crankcase heater mode	P <sup>CK</sup>	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	43/64	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	QHE	4327	kWh				
For heat pump combination heater							
Declared load profile	-			Water heating energy efficiency	Owh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9							

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Technical parameters							
Model(s):		Outdoor unit: ACHP-H12/5R3HA-O Indoor unit: ACHP-H12/5R3HA-I					
Air-to-water heat pump:		yes					
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
Low-temperature heat pump:		no					
Equipped with a supplementary heater:		no					
Heat pump combination heater:		no					
Declared climate condition		Colder					
Declared temperature application		Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output $Q_{prated}$	Prated	11.4	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	7.05	kW	Tj = -7°C	COPd	3.48	-
Tj = +2°C	Pdh	4.67	kW	Tj = +2°C	COPd	4.96	-
Tj = +7°C	Pdh	3.14	kW	Tj = +7°C	COPd	6.10	-
Tj = +12°C	Pdh	3.57	kW	Tj = +12°C	COPd	7.87	-
Tj = bivalent temperature	Pdh	9.28	kW	Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature	Pdh	7.01	kW	Tj = operation limit temperature	COPd	1.98	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>psych</sub>	-	kW	Cycling interval efficiency	COP <sub>psych</sub>	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	52	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.020	kW	Rated heat output (*)	P <sub>sup</sub>	4.39	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Type of energy input	Electricity		
Standby mode	P <sub>SB</sub>	0.020	kW				
Crankcase heater mode	P <sub>(DK)</sub>	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	6926	kWh				
For heat pump combination heater							
Declared load profile	-			Water heating energy efficiency	H <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9							

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Technical parameters							
Model(s):		Outdoor unit: ACHP-H 12/5R3HA-O Indoor unit: ACHP-H 12/5R3HA-I					
Air-to-water heat ump:		yes					
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
Low-temperature heat pump:		no					
Equipped with a supplementary heater:		no					
Heat pump combination heater:		no					
Declared climate condition		Colder					
Declared temperature application		Medium					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	10.3	kW	Seasonal space heating energy efficiency	Os	117	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.63	kW	Tj = -7°C	COPd	2.63	-
Tj = +2°C	Pdh	4.06	kW	Tj = +2°C	COPd	3.60	-
Tj = +7°C	Pdh	2.78	kW	Tj = +7°C	COPd	4.54	-
Tj = +12°C	Pdh	3.33	kW	Tj = +12°C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.41	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature	Pdh	4.19	kW	Tj = operation limit temperature	COPd	1.13	-
For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C(ifTOL<-20°C)	COPd	-	-
Bivalent temperature	<b>Tbiv</b>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	<b>Peych</b>	-	kW	Cycling interval efficiency	COPeyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	52	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P OFF	0.020	kW	Rated heat output (*)	Psup	6.11	kW
Thermostat-off mode	<sup>P</sup> TO	0.030	kW	Type of energy input	Electricity		
Standby mode	P SB	0.020	kW				
Crankcase heater mode	<sup>P</sup> CK	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	QHE	8453	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	Owh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Contact details	AUX Co., Ltd 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9							