



Technical Data Manual

For R290 A-theramal Mono ATW Heat Pump Unit

- For your convenience, please read this statement carefully, in accordance with the specification steps.
- Please safely keeping this manual to inspection.

Model	Temperature type	Energy efficiency class	sound power	Warmer climate			Average climate			Colder climate		
				Rated heat output	Seasonal space heating energy efficiency	Annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	Annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	Annual energy consumption
		-	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh
ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)	Low	A+++	56	5.5	252	1151	5.5	195	2295	4.6	157	2833
	Medium	A+++	56	5.0	161	1627	5.5	151	2950	3.4	101	3233
ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)	Low	A+++	56	6.1	256	1258	6.8	194	2818	5.6	164	3314
	Medium	A+++	56	5.1	162	1652	6.3	151	3381	4.3	111	3760
ACHP-H08/4R2HA-M ACHP-H08/5R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M(NE)	Low	A+++	57	8.1	272	1573	8.1	198	3246	7.0	168	4036
	Medium	A+++	57	7.6	173	2304	6.6	152	3510	5.8	111	5014
ACHP-H10/4R2HA-M ACHP-H10/5R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M(NE)	Low	A+++	57	8.6	267	1701	9.2	203	3690	7.7	168	4439
	Medium	A+++	57	8.6	177	2545	7.7	154	4055	6.7	116	5574
ACHP-H12/4R2HA-M ACHP-H12/5R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M(NE)	Low	A+++	58	11.1	254	2308	12.2	186	5314	11.4	159	6926
	Medium	A+++	58	12.5	174	3775	12.0	150	6477	10.3	117	8453
ACHP-H14/4R2HA-M ACHP-H14/5R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M(NE)	Low	A+++	59	12.1	259	2463	14.5	186	6317	12.6	159	7685
	Medium	A+++	59	13.7	178	4037	14.0	150	7563	11.0	118	8937
ACHP-H16/4R2HA-M ACHP-H16/5R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M(NE)	Low	A+++	60	13.1	246	2812	15.5	188	6604	13.7	157	8438
	Medium	A+++	60	13.8	176	4118	14.0	150	7563	11.8	121	9362

Technical parameters							
Model(s):		ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)					
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	5.5	kW	Seasonal space heating energy efficiency	ηs	252	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	5.37	kW	Tj = +2℃	COPd	3.94	-
Tj = +7℃	Pdh	3.54	kW	Tj = +7℃	COPd	5.82	-
Tj = +12℃	Pdh	1.57	kW	Tj = +12℃	COPd	7.91	-
Tj = bivalent temperature	Pdh	3.54	kW	Tj = bivalent temperature	COPd	5.82	-
Tj = operation limit temperature	Pdh	5.37	kW	Tj = operation limit temperature	COPd	3.94	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	Tbiv	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	Psup	0.13	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	1151	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η _{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):		ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)					
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	5	kW	Seasonal space heating energy efficiency	η_s	161	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	4.87	kW	Tj = +2℃	COPd	2.51	-
Tj = +7℃	Pdh	3.21	kW	Tj = +7℃	COPd	3.62	-
Tj = +12℃	Pdh	1.94	kW	Tj = +12℃	COPd	5.35	-
Tj = bivalent temperature	Pdh	3.21	kW	Tj = bivalent temperature	COPd	3.62	-
Tj = operation limit temperature	Pdh	4.87	kW	Tj = operation limit temperature	COPd	2.51	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.13	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	1627	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)						
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	5.5	kW	Seasonal space heating energy efficiency	η_s	195	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	4.87	kW	Tj = -7℃	COPd	2.96	-
Tj = +2℃	Pdh	2.90	kW	Tj = +2℃	COPd	4.84	-
Tj = +7℃	Pdh	1.90	kW	Tj = +7℃	COPd	6.46	-
Tj = +12℃	Pdh	2.02	kW	Tj = +12℃	COPd	11.71	-
Tj = bivalent temperature	Pdh	4.87	kW	Tj = bivalent temperature	COPd	2.96	-
Tj = operation limit temperature	Pdh	4.34	kW	Tj = operation limit temperature	COPd	2.86	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.16	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2295	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):		ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)					
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		Medium					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.5	kW	Seasonal space heating energy efficiency	η_s	151	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	4.87	kW	Tj = -7℃	COPd	2.40	-
Tj = +2℃	Pdh	2.96	kW	Tj = +2℃	COPd	3.75	-
Tj = +7℃	Pdh	1.90	kW	Tj = +7℃	COPd	5.26	-
Tj = +12℃	Pdh	2.16	kW	Tj = +12℃	COPd	7.91	-
Tj = bivalent temperature	Pdh	4.87	kW	Tj = bivalent temperature	COPd	2.40	-
Tj = operation limit temperature	Pdh	5.50	kW	Tj = operation limit temperature	COPd	2.06	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.00	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	56	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2950	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):		ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)					
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		Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	4.6	kW	Seasonal space heating energy efficiency	η_s	157	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	2.75	kW	Tj = -7℃	COPd	3.50	-
Tj = +2℃	Pdh	1.77	kW	Tj = +2℃	COPd	4.95	-
Tj = +7℃	Pdh	1.17	kW	Tj = +7℃	COPd	5.53	-
Tj = +12℃	Pdh	1.43	kW	Tj = +12℃	COPd	7.67	-
Tj = bivalent temperature	Pdh	3.72	kW	Tj = bivalent temperature	COPd	2.57	-
Tj = operation limit temperature	Pdh	2.80	kW	Tj = operation limit temperature	COPd	1.97	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.80	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2833	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H04/4R2HA-M ACHP-H04/4R2HA-M(NE)						
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	3.4	kW	Seasonal space heating energy efficiency	η_s	101	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	2.14	kW	Tj = -7℃	COPd	2.32	-
Tj = +2℃	Pdh	1.28	kW	Tj = +2℃	COPd	2.99	-
Tj = +7℃	Pdh	1.02	kW	Tj = +7℃	COPd	3.86	-
Tj = +12℃	Pdh	1.37	kW	Tj = +12℃	COPd	6.28	-
Tj = bivalent temperature	Pdh	2.74	kW	Tj = bivalent temperature	COPd	1.74	-
Tj = operation limit temperature	Pdh	1.64	kW	Tj = operation limit temperature	COPd	1.02	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.76	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3233	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)						
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	6.1	kW	Seasonal space heating energy efficiency	η_s	256	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	5.85	kW	Tj = +2℃	COPd	3.91	-
Tj = +7℃	Pdh	3.92	kW	Tj = +7℃	COPd	5.89	-
Tj = +12℃	Pdh	1.93	kW	Tj = +12℃	COPd	8.31	-
Tj = bivalent temperature	Pdh	3.92	kW	Tj = bivalent temperature	COPd	5.89	-
Tj = operation limit temperature	Pdh	5.85	kW	Tj = operation limit temperature	COPd	3.91	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.25	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	1258	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)						
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	5.1	kW	Seasonal space heating energy efficiency	η_s	162	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	4.85	kW	Tj = +2℃	COPd	2.48	-
Tj = +7℃	Pdh	3.28	kW	Tj = +7℃	COPd	3.61	-
Tj = +12℃	Pdh	1.69	kW	Tj = +12℃	COPd	5.42	-
Tj = bivalent temperature	Pdh	3.28	kW	Tj = bivalent temperature	COPd	3.61	-
Tj = operation limit temperature	Pdh	4.85	kW	Tj = operation limit temperature	COPd	2.48	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.25	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	1652	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)						
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	6.8	kW	Seasonal space heating energy efficiency	η_s	194	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	6.02	kW	Tj = -7℃	COPd	2.85	-
Tj = +2℃	Pdh	3.66	kW	Tj = +2℃	COPd	4.98	-
Tj = +7℃	Pdh	2.35	kW	Tj = +7℃	COPd	6.38	-
Tj = +12℃	Pdh	2.17	kW	Tj = +12℃	COPd	9.67	-
Tj = bivalent temperature	Pdh	6.02	kW	Tj = bivalent temperature	COPd	2.85	-
Tj = operation limit temperature	Pdh	5.42	kW	Tj = operation limit temperature	COPd	2.90	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.38	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2818	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):		ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)					
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		Medium					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	6.3	kW	Seasonal space heating energy efficiency	η_s	151	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	5.57	kW	Tj = -7℃	COPd	2.40	-
Tj = +2℃	Pdh	3.39	kW	Tj = +2℃	COPd	3.72	-
Tj = +7℃	Pdh	2.18	kW	Tj = +7℃	COPd	5.26	-
Tj = +12℃	Pdh	2.07	kW	Tj = +12℃	COPd	7.91	-
Tj = bivalent temperature	Pdh	5.57	kW	Tj = bivalent temperature	COPd	2.40	-
Tj = operation limit temperature	Pdh	6.00	kW	Tj = operation limit temperature	COPd	2.06	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.30	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m³/h
Sound power level	L _{WA}	56	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	3381	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):		ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)					
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		Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.6	kW	Seasonal space heating energy efficiency	η_s	164	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	3.42	kW	Tj = -7℃	COPd	3.59	-
Tj = +2℃	Pdh	2.06	kW	Tj = +2℃	COPd	5.21	-
Tj = +7℃	Pdh	1.46	kW	Tj = +7℃	COPd	6.24	-
Tj = +12℃	Pdh	1.44	kW	Tj = +12℃	COPd	7.66	-
Tj = bivalent temperature	Pdh	4.59	kW	Tj = bivalent temperature	COPd	2.53	-
Tj = operation limit temperature	Pdh	3.48	kW	Tj = operation limit temperature	COPd	1.96	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.12	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3314	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H06/4R2HA-M ACHP-H06/4R2HA-M(NE)						
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	4.3	kW	Seasonal space heating energy efficiency	η_s	111	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	2.69	kW	Tj = -7℃	COPd	2.46	-
Tj = +2℃	Pdh	1.60	kW	Tj = +2℃	COPd	3.36	-
Tj = +7℃	Pdh	1.02	kW	Tj = +7℃	COPd	3.94	-
Tj = +12℃	Pdh	1.37	kW	Tj = +12℃	COPd	6.35	-
Tj = bivalent temperature	Pdh	3.47	kW	Tj = bivalent temperature	COPd	1.86	-
Tj = operation limit temperature	Pdh	2.09	kW	Tj = operation limit temperature	COPd	1.13	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.2	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3760	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	8.1	kW	Seasonal space heating energy efficiency	η_s	272	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	7.80	kW	Tj = +2℃	COPd	3.98	-
Tj = +7℃	Pdh	5.21	kW	Tj = +7℃	COPd	5.88	-
Tj = +12℃	Pdh	2.63	kW	Tj = +12℃	COPd	9.36	-
Tj = bivalent temperature	Pdh	5.21	kW	Tj = bivalent temperature	COPd	5.88	-
Tj = operation limit temperature	Pdh	7.80	kW	Tj = operation limit temperature	COPd	3.98	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.3	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	1573	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	7.6	kW	Seasonal space heating energy efficiency	η_s	173	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	7.30	kW	Tj = +2℃	COPd	2.59	-
Tj = +7℃	Pdh	4.89	kW	Tj = +7℃	COPd	3.90	-
Tj = +12℃	Pdh	2.17	kW	Tj = +12℃	COPd	5.55	-
Tj = bivalent temperature	Pdh	4.89	kW	Tj = bivalent temperature	COPd	3.90	-
Tj = operation limit temperature	Pdh	7.30	kW	Tj = operation limit temperature	COPd	2.59	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.3	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2304	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	8.1	kW	Seasonal space heating energy efficiency	η_s	198	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	7.17	kW	Tj = -7℃	COPd	3.23	-
Tj = +2℃	Pdh	4.36	kW	Tj = +2℃	COPd	4.93	-
Tj = +7℃	Pdh	2.80	kW	Tj = +7℃	COPd	6.81	-
Tj = +12℃	Pdh	3.15	kW	Tj = +12℃	COPd	10.10	-
Tj = bivalent temperature	Pdh	7.17	kW	Tj = bivalent temperature	COPd	3.23	-
Tj = operation limit temperature	Pdh	6.44	kW	Tj = operation limit temperature	COPd	3.23	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.66	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3246	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	6.6	kW	Seasonal space heating energy efficiency	η _s	152	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature T _j			
T _j = -7℃	P _{dh}	5.84	kW	T _j = -7℃	COP _d	2.43	-
T _j = +2℃	P _{dh}	3.55	kW	T _j = +2℃	COP _d	3.83	-
T _j = +7℃	P _{dh}	2.28	kW	T _j = +7℃	COP _d	4.98	-
T _j = +12℃	P _{dh}	2.99	kW	T _j = +12℃	COP _d	7.66	-
T _j = bivalent temperature	P _{dh}	5.84	kW	T _j = bivalent temperature	COP _d	2.43	-
T _j = operation limit temperature	P _{dh}	4.90	kW	T _j = operation limit temperature	COP _d	2.43	-
For air-to-water heat pumps: T _j = -15℃ (if TOL < -20℃)	P _{dh}	-	kW	For air-to-water heat pumps: T _j = -15℃ (if TOL < -20℃)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	C _{dh}	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.7	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	57	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3510	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η _{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	7.0	kW	Seasonal space heating energy efficiency	η_s	168	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	4.46	kW	Tj = -7℃	COPd	3.66	-
Tj = +2℃	Pdh	2.69	kW	Tj = +2℃	COPd	5.20	-
Tj = +7℃	Pdh	1.65	kW	Tj = +7℃	COPd	6.53	-
Tj = +12℃	Pdh	1.65	kW	Tj = +12℃	COPd	7.96	-
Tj = bivalent temperature	Pdh	5.69	kW	Tj = bivalent temperature	COPd	2.83	-
Tj = operation limit temperature	Pdh	4.06	kW	Tj = operation limit temperature	COPd	1.95	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.94	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4036	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H08/4R2HA-M ACHP-H08/4R2HA-M(NE) ACHP-H08/5R2HA-M ACHP-H08/5R2HA-M(NE)						
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	5.8	kW	Seasonal space heating energy efficiency	η_s	111	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	3.86	kW	Tj = -7℃	COPd	2.48	-
Tj = +2℃	Pdh	2.21	kW	Tj = +2℃	COPd	3.35	-
Tj = +7℃	Pdh	1.44	kW	Tj = +7℃	COPd	4.11	-
Tj = +12℃	Pdh	1.47	kW	Tj = +12℃	COPd	5.92	-
Tj = bivalent temperature	Pdh	4.71	kW	Tj = bivalent temperature	COPd	1.90	-
Tj = operation limit temperature	Pdh	2.80	kW	Tj = operation limit temperature	COPd	1.22	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.0	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	5014	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	8.6	kW	Seasonal space heating energy efficiency	η_s	267	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	8.20	kW	Tj = +2℃	COPd	3.84	-
Tj = +7℃	Pdh	5.53	kW	Tj = +7℃	COPd	5.85	-
Tj = +12℃	Pdh	2.76	kW	Tj = +12℃	COPd	9.14	-
Tj = bivalent temperature	Pdh	5.53	kW	Tj = bivalent temperature	COPd	5.85	-
Tj = operation limit temperature	Pdh	8.20	kW	Tj = operation limit temperature	COPd	3.84	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.40	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	1701	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	8.6	kW	Seasonal space heating energy efficiency	η_s	177	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	8.20	kW	Tj = +2℃	COPd	2.59	-
Tj = +7℃	Pdh	5.53	kW	Tj = +7℃	COPd	3.93	-
Tj = +12℃	Pdh	2.46	kW	Tj = +12℃	COPd	5.82	-
Tj = bivalent temperature	Pdh	5.53	kW	Tj = bivalent temperature	COPd	3.93	-
Tj = operation limit temperature	Pdh	8.20	kW	Tj = operation limit temperature	COPd	2.59	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.40	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2545	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	9.2	kW	Seasonal space heating energy efficiency	η_s	203	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	8.14	kW	Tj = -7℃	COPd	3.10	-
Tj = +2℃	Pdh	4.95	kW	Tj = +2℃	COPd	5.10	-
Tj = +7℃	Pdh	3.18	kW	Tj = +7℃	COPd	6.50	-
Tj = +12℃	Pdh	2.76	kW	Tj = +12℃	COPd	10.55	-
Tj = bivalent temperature	Pdh	8.14	kW	Tj = bivalent temperature	COPd	3.10	-
Tj = operation limit temperature	Pdh	7.40	kW	Tj = operation limit temperature	COPd	3.10	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	1.8	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	3690	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η_s	154	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	6.81	kW	Tj = -7℃	COPd	2.43	-
Tj = +2℃	Pdh	4.15	kW	Tj = +2℃	COPd	3.82	-
Tj = +7℃	Pdh	2.67	kW	Tj = +7℃	COPd	5.00	-
Tj = +12℃	Pdh	3.39	kW	Tj = +12℃	COPd	7.60	-
Tj = bivalent temperature	Pdh	6.81	kW	Tj = bivalent temperature	COPd	2.43	-
Tj = operation limit temperature	Pdh	5.23	kW	Tj = operation limit temperature	COPd	2.43	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.47	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	57	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4055	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η_s	168	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	4.83	kW	Tj = -7℃	COPd	3.60	-
Tj = +2℃	Pdh	2.94	kW	Tj = +2℃	COPd	5.26	-
Tj = +7℃	Pdh	1.92	kW	Tj = +7℃	COPd	7.08	-
Tj = +12℃	Pdh	1.65	kW	Tj = +12℃	COPd	7.96	-
Tj = bivalent temperature	Pdh	6.32	kW	Tj = bivalent temperature	COPd	2.64	-
Tj = operation limit temperature	Pdh	4.62	kW	Tj = operation limit temperature	COPd	1.97	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.08	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4439	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H10/4R2HA-M ACHP-H10/4R2HA-M(NE) ACHP-H10/5R2HA-M ACHP-H10/5R2HA-M(NE)						
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	6.7	kW	Seasonal space heating energy efficiency	η_s	116	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	4.27	kW	Tj = -7℃	COPd	2.54	-
Tj = +2℃	Pdh	2.57	kW	Tj = +2℃	COPd	3.51	-
Tj = +7℃	Pdh	1.65	kW	Tj = +7℃	COPd	4.37	-
Tj = +12℃	Pdh	1.48	kW	Tj = +12℃	COPd	5.96	-
Tj = bivalent temperature	Pdh	5.47	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature	Pdh	2.80	kW	Tj = operation limit temperature	COPd	1.22	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.9	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	5574	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	η_s	254	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	10.90	kW	Tj = +2℃	COPd	3.59	-
Tj = +7℃	Pdh	7.14	kW	Tj = +7℃	COPd	5.82	-
Tj = +12℃	Pdh	4.61	kW	Tj = +12℃	COPd	8.30	-
Tj = bivalent temperature	Pdh	7.14	kW	Tj = bivalent temperature	COPd	5.82	-
Tj = operation limit temperature	Pdh	10.90	kW	Tj = operation limit temperature	COPd	3.59	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.20	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2308	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	12.5	kW	Seasonal space heating energy efficiency	η_s	174	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	12.30	kW	Tj = +2℃	COPd	2.31	-
Tj = +7℃	Pdh	8.04	kW	Tj = +7℃	COPd	3.82	-
Tj = +12℃	Pdh	3.57	kW	Tj = +12℃	COPd	5.70	-
Tj = bivalent temperature	Pdh	8.04	kW	Tj = bivalent temperature	COPd	3.82	-
Tj = operation limit temperature	Pdh	12.30	kW	Tj = operation limit temperature	COPd	2.31	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.20	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3775	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	η_s	186	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	10.79	kW	Tj = -7℃	COPd	3.02	-
Tj = +2℃	Pdh	6.57	kW	Tj = +2℃	COPd	4.50	-
Tj = +7℃	Pdh	4.22	kW	Tj = +7℃	COPd	6.60	-
Tj = +12℃	Pdh	4.69	kW	Tj = +12℃	COPd	9.38	-
Tj = bivalent temperature	Pdh	10.79	kW	Tj = bivalent temperature	COPd	3.02	-
Tj = operation limit temperature	Pdh	10.10	kW	Tj = operation limit temperature	COPd	2.61	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.10	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	5314	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	12	kW	Seasonal space heating energy efficiency	η_s	150	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	10.62	kW	Tj = -7℃	COPd	2.40	-
Tj = +2℃	Pdh	6.46	kW	Tj = +2℃	COPd	3.67	-
Tj = +7℃	Pdh	4.15	kW	Tj = +7℃	COPd	5.18	-
Tj = +12℃	Pdh	4.12	kW	Tj = +12℃	COPd	7.60	-
Tj = bivalent temperature	Pdh	10.62	kW	Tj = bivalent temperature	COPd	2.40	-
Tj = operation limit temperature	Pdh	9.16	kW	Tj = operation limit temperature	COPd	2.15	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.84	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	58	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	6477	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	11.4	kW	Seasonal space heating energy efficiency	η_s	159	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	7.05	kW	Tj = -7℃	COPd	3.48	-
Tj = +2℃	Pdh	4.67	kW	Tj = +2℃	COPd	4.96	-
Tj = +7℃	Pdh	3.14	kW	Tj = +7℃	COPd	6.10	-
Tj = +12℃	Pdh	3.57	kW	Tj = +12℃	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℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	4.39	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	6926	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H12/4R2HA-M ACHP-H12/4R2HA-M(NE) ACHP-H12/5R2HA-M ACHP-H12/5R2HA-M(NE)						
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	η_s	117	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	6.63	kW	Tj = -7℃	COPd	2.63	-
Tj = +2℃	Pdh	4.06	kW	Tj = +2℃	COPd	3.60	-
Tj = +7℃	Pdh	2.78	kW	Tj = +7℃	COPd	4.54	-
Tj = +12℃	Pdh	3.33	kW	Tj = +12℃	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℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	6.11	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	8453	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	12.1	kW	Seasonal space heating energy efficiency	η_s	259	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	12.00	kW	Tj = +2℃	COPd	3.44	-
Tj = +7℃	Pdh	7.78	kW	Tj = +7℃	COPd	5.84	-
Tj = +12℃	Pdh	4.23	kW	Tj = +12℃	COPd	8.43	-
Tj = bivalent temperature	Pdh	7.78	kW	Tj = bivalent temperature	COPd	5.84	-
Tj = operation limit temperature	Pdh	12.00	kW	Tj = operation limit temperature	COPd	3.44	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.10	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	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	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	2463	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	13.7	kW	Seasonal space heating energy efficiency	η_s	178	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	13.60	kW	Tj = +2℃	COPd	2.18	-
Tj = +7℃	Pdh	8.83	kW	Tj = +7℃	COPd	3.91	-
Tj = +12℃	Pdh	4.08	kW	Tj = +12℃	COPd	5.90	-
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-
Tj = operation limit temperature	Pdh	13.60	kW	Tj = operation limit temperature	COPd	2.18	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.10	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4037	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	14.5	kW	Seasonal space heating energy efficiency	η_s	186	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	12.83	kW	Tj = -7℃	COPd	3.00	-
Tj = +2℃	Pdh	7.81	kW	Tj = +2℃	COPd	4.52	-
Tj = +7℃	Pdh	5.02	kW	Tj = +7℃	COPd	6.40	-
Tj = +12℃	Pdh	4.68	kW	Tj = +12℃	COPd	10.00	-
Tj = bivalent temperature	Pdh	12.83	kW	Tj = bivalent temperature	COPd	3.00	-
Tj = operation limit temperature	Pdh	11.46	kW	Tj = operation limit temperature	COPd	2.73	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.04	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	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	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	6317	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	150	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	12.38	kW	Tj = -7℃	COPd	2.40	-
Tj = +2℃	Pdh	7.54	kW	Tj = +2℃	COPd	3.66	-
Tj = +7℃	Pdh	4.85	kW	Tj = +7℃	COPd	5.18	-
Tj = +12℃	Pdh	2.15	kW	Tj = +12℃	COPd	7.60	-
Tj = bivalent temperature	Pdh	12.38	kW	Tj = bivalent temperature	COPd	2.39	-
Tj = operation limit temperature	Pdh	10.50	kW	Tj = operation limit temperature	COPd	2.13	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.5	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	59	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	7563	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	12.6	kW	Seasonal space heating energy efficiency	η_s	159	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	7.96	kW	Tj = -7℃	COPd	3.44	-
Tj = +2℃	Pdh	5.05	kW	Tj = +2℃	COPd	4.92	-
Tj = +7℃	Pdh	3.15	kW	Tj = +7℃	COPd	6.11	-
Tj = +12℃	Pdh	3.57	kW	Tj = +12℃	COPd	7.82	-
Tj = bivalent temperature	Pdh	10.31	kW	Tj = bivalent temperature	COPd	2.53	-
Tj = operation limit temperature	Pdh	7.57	kW	Tj = operation limit temperature	COPd	1.92	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	5.03	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	7685	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H14/4R2HA-M ACHP-H14/4R2HA-M(NE) ACHP-H14/5R2HA-M ACHP-H14/5R2HA-M(NE)						
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	11.0	kW	Seasonal space heating energy efficiency	η_s	118	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	6.89	kW	Tj = -7℃	COPd	2.66	-
Tj = +2℃	Pdh	4.32	kW	Tj = +2℃	COPd	3.66	-
Tj = +7℃	Pdh	3.06	kW	Tj = +7℃	COPd	4.72	-
Tj = +12℃	Pdh	3.33	kW	Tj = +12℃	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.94	kW	Tj = bivalent temperature	COPd	1.79	-
Tj = operation limit temperature	Pdh	4.20	kW	Tj = operation limit temperature	COPd	1.13	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	6.80	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	8937	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H16/4R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M ACHP-H16/5R2HA-M(NE)						
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	13.1	kW	Seasonal space heating energy efficiency	η_s	246	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	12.97	kW	Tj = +2℃	COPd	3.35	-
Tj = +7℃	Pdh	8.42	kW	Tj = +7℃	COPd	5.31	-
Tj = +12℃	Pdh	4.29	kW	Tj = +12℃	COPd	8.23	-
Tj = bivalent temperature	Pdh	8.42	kW	Tj = bivalent temperature	COPd	5.31	-
Tj = operation limit temperature	Pdh	12.97	kW	Tj = operation limit temperature	COPd	3.35	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.13	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2812	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H16/4R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M ACHP-H16/5R2HA-M(NE)						
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	13.8	kW	Seasonal space heating energy efficiency	η_s	176	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW	Tj = -7℃	COPd	-	-
Tj = +2℃	Pdh	13.67	kW	Tj = +2℃	COPd	2.25	-
Tj = +7℃	Pdh	8.87	kW	Tj = +7℃	COPd	3.80	-
Tj = +12℃	Pdh	3.94	kW	Tj = +12℃	COPd	5.88	-
Tj = bivalent temperature	Pdh	8.87	kW	Tj = bivalent temperature	COPd	3.80	-
Tj = operation limit temperature	Pdh	13.67	kW	Tj = operation limit temperature	COPd	2.25	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	0.13	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4118	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H16/4R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M ACHP-H16/5R2HA-M(NE)						
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	15.5	kW	Seasonal space heating energy efficiency	η_s	188	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	13.71	kW	Tj = -7℃	COPd	3.01	-
Tj = +2℃	Pdh	8.35	kW	Tj = +2℃	COPd	4.48	-
Tj = +7℃	Pdh	5.37	kW	Tj = +7℃	COPd	6.73	-
Tj = +12℃	Pdh	2.38	kW	Tj = +12℃	COPd	10.05	-
Tj = bivalent temperature	Pdh	13.71	kW	Tj = bivalent temperature	COPd	3.01	-
Tj = operation limit temperature	Pdh	13.42	kW	Tj = operation limit temperature	COPd	2.78	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	2.08	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	6604	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

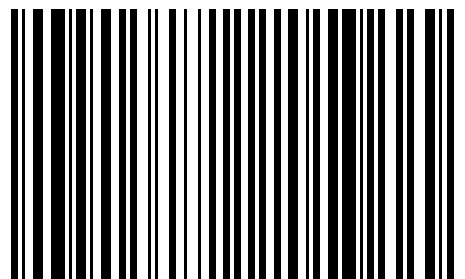
Technical parameters							
Model(s):	ACHP-H16/4R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M ACHP-H16/5R2HA-M(NE)						
Air-to-water heat ump:	yes						
Water-to-water heat pump:	no						
Brine-to-water heat pump:	no						
Low-temperature heat pump:	no						
Equipped with a supplementary heater:	no						
Heat pump combination heater:	no						
Declared climate condition	Average						
Declared temperature application	Medium						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	150	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	12.38	kW	Tj = -7℃	COPd	2.27	-
Tj = +2℃	Pdh	7.54	kW	Tj = +2℃	COPd	3.66	-
Tj = +7℃	Pdh	4.85	kW	Tj = +7℃	COPd	5.18	-
Tj = +12℃	Pdh	4.43	kW	Tj = +12℃	COPd	8.75	-
Tj = bivalent temperature	Pdh	12.38	kW	Tj = bivalent temperature	COPd	2.27	-
Tj = operation limit temperature	Pdh	10.50	kW	Tj = operation limit temperature	COPd	2.13	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	3.5	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level	L _{WA}	60	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	7563	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H16/4R2HA-M ACHP-H16/4R2HA-M(NE) ACHP-H16/5R2HA-M ACHP-H16/5R2HA-M(NE)						
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	Low						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η_s	157	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	8.31	kW	Tj = -7℃	COPd	3.37	-
Tj = +2℃	Pdh	5.26	kW	Tj = +2℃	COPd	4.86	-
Tj = +7℃	Pdh	3.62	kW	Tj = +7℃	COPd	6.49	-
Tj = +12℃	Pdh	3.34	kW	Tj = +12℃	COPd	7.40	-
Tj = bivalent temperature	Pdh	11.22	kW	Tj = bivalent temperature	COPd	2.43	-
Tj = operation limit temperature	Pdh	8.88	kW	Tj = operation limit temperature	COPd	1.97	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	4.82	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	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	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	8438	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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							

Technical parameters							
Model(s):	ACHP-H16/4R2HA-M		ACHP-H16/4R2HA-M(NE)				
	ACHP-H16/5R2HA-M		ACHP-H16/5R2HA-M(NE)				
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	11.8	kW	Seasonal space heating energy efficiency	η_s	121	%
Declared capacity for heating for part load at indoor temperature 20℃ and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20℃ and outdoor temperature Tj			
Tj = -7℃	Pdh	7.64	kW	Tj = -7℃	COPd	2.65	-
Tj = +2℃	Pdh	4.42	kW	Tj = +2℃	COPd	3.79	-
Tj = +7℃	Pdh	2.97	kW	Tj = +7℃	COPd	4.81	-
Tj = +12℃	Pdh	3.43	kW	Tj = +12℃	COPd	6.29	-
Tj = bivalent temperature	Pdh	9.61	kW	Tj = bivalent temperature	COPd	1.86	-
Tj = operation limit temperature	Pdh	5.21	kW	Tj = operation limit temperature	COPd	1.23	-
For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃ (if TOL < -20℃)	COPd	-	-
Bivalent temperature	T _{biv}	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	℃
Power consumption in modes other than active mode				Supplemantary heater			
Off mode	P _{OFF}	0.002	kW	Rated heat output (*)	P _{sup}	6.59	kW
Thermostat-off mode	P _{TO}	0.030	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0.002	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m³/h
Sound power level	L _{WA}	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	9362	kWh				
For heat pump combination heater							
Declaed load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	Ningbo AUX Electric 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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