

## 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.

		i i			Warmer climate	ate		Average climate	ate		Colder climate	ę p
Model	Temperature type	Energy efficiency class	sound	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
ACMHC-H12B/P24R2DI-C	Low	+++∀	99	5.5	252	1151	5.5	195	2295	4.6	157	2833
ACMHC-H12B/P24R2D-D	Medium	+++∀	99	5.0	161	1627	5.5	151	2950	3.4	101	3233
ACMHC-H24A/P24R2DI-C	Low	A+++	56	6.1	256	1258	6.8	194	2818	5.6	164	3314
ACMHC-H24B/P24R2D-D	Medium	A+++	99	5.1	162	1652	6.3	151	3381	4.3	111	3760
ACMHC-H30A/P60R2DI-C.	Low	+++∀	25	8.1	272	1573	8.1	198	3246	0.7	168	4036
ACMHC-H30A5/P60R2D15-C ACMHC-H30A/P60R2D-D	Medium	A+++	25	7.6	173	2304	9.9	152	3510	5.8	111	5014
ACMHC-H36A/P60R2DI-C.	Low	+++	29	8.6	267	1701	9.2	203	3690	2.7	168	4439
ACMHC-H36A5/P60K2D15-C ACMHC-H36A/P60R2D-D	Medium	+++ <b>∀</b>	25	8.6	177	2545	7.7	154	4055	2'9	116	5574
ACMHC-H42A/P60R2DI-C、 ACMHC-H42A5/P60R2DI5-C	Low	A+++	58	11.1	254	2308	12.2	186	5314	11.4	159	6926
ACMHC-H42A/P60R2D-D ACMHC-H42A5/P60R2D5-D	Medium	A+++	58	12.5	174	3775	12.0	150	6477	10.3	117	8453
ACMHC-H48A/P60R2DI-C.	Low	A+++	59	12.1	259	2463	14.5	186	6317	12.6	159	7685
ACMHC-H48A/P60R2D-D ACMHC-H48A5/P60R2D5-D	Medium	A+++	29	13.7	178	4037	14.0	150	7563	11.0	118	8937
ACMHC-H60A/P60R2DI-C、 ACMHC-H60A5/P60R2DI5-C	Low	A+++	09	13.1	246	2812	15.5	188	6604	13.7	157	8438
ACMHC-H60A/P60R2D-D ACMHC-H60A5/P60R2D5-D	Medium	A+++	09	13.8	176	4118	14.0	150	7563	11.8	121	9362

		Те	chnica	I parameters			
Model(s):		АСМНО	C-H12B	S/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme					
Declared temperature application		Low					
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	252	%
Declared capacity for heating for temperature 20°C and outdoor te			r	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	5.37	kW	Tj = +2°C	COPd	3.94	-
Tj = +7°C	Pdh	3.54	kW	Tj = +7°C	COPd	5.82	-
Tj = +12°C	Pdh	1.57	kW	Tj = +12°C	COPd	7.91	-
T <sub>j</sub> = bivalent temperature	Pdh	3.54	kW	T <sub>j</sub> = bivalent temperature	COPd	5.82	-
T <sub>j</sub> = operation limit temperature	Pdh	5.37	kW	T <sub>j</sub> = operation limit temperature	COPd	3.94	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mo	de	Supplemantary heater	-		
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.13	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW				
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	Рск	0.000	kW				
Other items							
Capacity control	V	′ariab <b>l</b> e	•	For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	1151	kWh	rate, outdoor heat exchanger			
For heat pump combination heat	er						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A			o., Ltd. Road, Jiangshan Yinzhou District,	-	15191 Zh	nejiang,
	China			Road, Jiangshan Yinzhou District, tion heaters, the rated heat output			

<sup>(\*)</sup> 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  $\sup(T_j)$ .

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНО	C-H12B	/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme	r				
Declared temperature application		Medium					
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	161	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	4.87	kW	Tj = +2°C	COPd	2.51	_
Tj = +7°C	Pdh	3.21	kW	Tj = +7°C	COPd	3.62	-
Tj = +12°C	Pdh	1.94	kW	Tj = +12°C	COPd	5.35	-
T <sub>i</sub> = bivalent temperature	Pdh	3.21	kW	T <sub>i</sub> = bivalent temperature	COPd	3.62	-
T <sub>i</sub> = operation limit temperature	Pdh	4.87	kW	$T_i$ = operation limit temperature	COPd	2.51	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes otl	ner than a	ctive mod	de	Supplemantary heater			
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.13	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	, ,	<u> </u>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,	
Other items	- OK						
Capacity control	\	/ariable	<u>l</u>	For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	1627	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	•		•	•		-
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·			

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters			
Model(s):		АСМНО	-H12B	/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Average					
Declared temperature application	า	Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	195	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	4.87	kW	Tj = -7°C	COPd	2.96	-
Tj = +2°C	Pdh	2.90	kW	Tj = +2°C	COPd	4.84	-
Tj = +7°C	Pdh	1.90	kW	Tj = +7°C	COPd	6.46	-
Tj = +12°C	Pdh	2.02	kW	Tj = +12°C	COPd	11.71	-
T <sub>i</sub> = bivalent temperature	Pdh	4.87	kW	T <sub>i</sub> = bivalent temperature	COPd	2.96	-
T <sub>i</sub> = operation limit temperature	Pdh	4.34	kW	T <sub>i</sub> = operation limit temperature	COPd	2.86	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes otl	ner than a	ctive mod	de	Supplemantary heater			
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.16	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	, ,	<del>                                     </del>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	,	Electricity	,
Crankcase heater mode	Рск	0.000	kW	1		,	
Other items	- OK						
Capacity control	V	rariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	2295	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er			•		<u> </u>	
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A		ctric Co				

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНО	-H12B	/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Average					
Declared temperature application		Medium					
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	151	%
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	4.87	kW	Tj = -7°C	COPd	2.40	-
Tj = +2°C	Pdh	2.96	kW	Tj = +2°C	COPd	3.75	-
Tj = +7°C	Pdh	1.90	kW	Tj = +7°C	COPd	5.26	-
Tj = +12°C	Pdh	2.16	kW	Tj = +12°C	COPd	7.91	-
T <sub>i</sub> = bivalent temperature	Pdh	4.87	kW	T <sub>i</sub> = bivalent temperature	COPd	2.40	-
T <sub>i</sub> = operation limit temperature	Pdh	5.50	kW	T <sub>i</sub> = operation limit temperature	COPd	2.06	_
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.00	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,	
Other items							
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	56	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	2950	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	-					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A					15191 Zh	ejiang,

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters			
Model(s):		АСМНО	-H12B	/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Colder					
Declared temperature application	<u> </u>	Low					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	4.6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	157	%
Declared capacity for heating for temperature 20°C and outdoor te	•			Declared coeffient of performance for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	2.75	kW	Tj = -7°C	COPd	3.50	-
Tj = +2°C	Pdh	1.77	kW	Tj = +2°C	COPd	4.95	-
Tj = +7°C	Pdh	1.17	kW	Tj = +7°C	COPd	5.53	_
Tj = +12°C	Pdh	1.43	kW	Tj = +12°C	COPd	7.67	_
T <sub>j</sub> = bivalent temperature	Pdh	3.72	kW	T <sub>j</sub> = bivalent temperature	COPd	2.57	_
T <sub>j</sub> = operation limit temperature	Pdh	2.80	kW	T <sub>j</sub> = operation limit temperature	COPd	1.97	_
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater			
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.80	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	r
Crankcase heater mode	Рск	0.000	kW	1			
Other items							
Capacity control	\	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	2833	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	•		,		<u> </u>	
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A			o., Ltd. Road, Jiangshan Yinzhou District,		15191 Zh	ejiang,
(*) For heat pump space heaters	and heat	pump co	mbinat	ion heaters, the rated heat output I	Prated is	equal to the	 ne

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНО	-H12B	/P24R2DI-C 、ACMHC-H12B/P2	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Colder					
Declared temperature application		Medium	<u> </u>				
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	3.4	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	101	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	2.14	kW	Tj = -7°C	COPd	2.32	-
Tj = +2°C	Pdh	1.28	kW	Tj = +2°C	COPd	2.99	_
Tj = +7°C	Pdh	1.02	kW	Tj = +7°C	COPd	3.86	-
Tj = +12°C	Pdh	1.37	kW	Tj = +12°C	COPd	6.28	-
T <sub>i</sub> = bivalent temperature	Pdh	2.74	kW	T <sub>i</sub> = bivalent temperature	COPd	1.74	-
T <sub>i</sub> = operation limit temperature	Pdh	1.64	kW	$T_i$ = operation limit temperature	COPd	1.02	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater	·	<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.76	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1			
Other items	- OK						
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	3233	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	•		•	•		-
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·			

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНС	-H24A	/P24R2DI-C 、ACMHC-H24B/P24	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme	r				
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 <sub>s</sub>	256	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	5.85	kW	Tj = +2°C	COPd	3.91	_
Tj = +7°C	Pdh	3.92	kW	Tj = +7°C	COPd	5.89	-
Tj = +12°C	Pdh	1.93	kW	Tj = +12°C	COPd	8.31	-
T <sub>i</sub> = bivalent temperature	Pdh	3.92	kW	T <sub>i</sub> = bivalent temperature	COPd	5.89	-
$T_i$ = operation limit temperature	Pdh	5.85	kW	$T_i$ = operation limit temperature	COPd	3.91	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	СОРсус	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other	ner than a	ctive mod	de	Supplemantary heater	•	<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.25	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<del>                                     </del>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	1	Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1			
Other items	- OK						
Capacity control	V	rariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h
Annual energy consumption	Q <sub>HE</sub>	1258	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er			•	• •		
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНС	-H24A	/P24R2DI-C 、ACMHC-H24B/P24	4R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme	r				
Declared temperature application		Medium					
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	5.1	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	162	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	4.85	kW	Tj = +2°C	COPd	2.48	-
Tj = +7°C	Pdh	3.28	kW	Tj = +7°C	COPd	3.61	-
Tj = +12°C	Pdh	1.69	kW	Tj = +12°C	COPd	5.42	-
T <sub>i</sub> = bivalent temperature	Pdh	3.28	kW	T <sub>i</sub> = bivalent temperature	COPd	3.61	-
T <sub>i</sub> = operation limit temperature	Pdh	4.85	kW	$T_i$ = operation limit temperature	COPd	2.48	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater	·	<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.25	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	. , ,			<u> </u>
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,	
Other items							
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h
Annual energy consumption	Q <sub>HE</sub>	1652	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	•		•		<u> </u>	
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·	•	15191 Zh	ejiang,

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):		АСМНО	-H24A	/P24R2DI-C 、ACMHC-H24B/P24	4R2DI-D		
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 h	neater:	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 <sub>s</sub>	194	%
Declared capacity for heating for temperature 20°C and outdoor te	•			Declared coeffient of performanc for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	6.02	kW	Tj = -7°C	COPd	2.85	-
Tj = +2°C	Pdh	3.66	kW	Tj = +2°C	COPd	4.98	-
Tj = +7°C	Pdh	2.35	kW	Tj = +7°C	COPd	6.38	-
Tj = +12°C	Pdh	2.17	kW	Tj = +12°C	COPd	9.67	-
T <sub>i</sub> = bivalent temperature	Pdh	6.02	kW	T <sub>i</sub> = bivalent temperature	COPd	2.85	-
T <sub>i</sub> = operation limit temperature	Pdh	5.42	kW	T <sub>i</sub> = operation limit temperature	COPd	2.90	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.38	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<del></del>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	Рск	0.000	kW	1		,	
Other items							
Capacity control	V	ı ⁄ariab <b>l</b> e		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat pumps:Rated brine or water flow	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	2818	kWh	rate, outdoor heat exchanger			
For heat pump combination heat	er						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A			o., Ltd. Road, Jiangshan Yinzhou District,	-	15191 Zh	ejiang,

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters			
Model(s):		АСМНС	-H24A	/P24R2DI-C 、ACMHC-H24B/P24	1R2DI-D		
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 h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Average					
Declared temperature application	 າ	Medium					
Item	Symbol		Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	6.3	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	151	%
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•		
Tj = -7°C	Pdh	5.57	kW	Tj = -7°C	COPd	2.40	-
Tj = +2°C	Pdh	3.39	kW	Tj = +2°C	COPd	3.72	_
Tj = +7°C	Pdh	2.18	kW	Tj = +7°C	COPd	5.26	-
Tj = +12°C	Pdh	2.07	kW	Tj = +12°C	COPd	7.91	-
T <sub>j</sub> = bivalent temperature	Pdh	5.57	kW	T <sub>j</sub> = bivalent temperature	COPd	2.40	-
T <sub>j</sub> = operation limit temperature	Pdh	6.00	kW	T <sub>j</sub> = operation limit temperature	COPd	2.06	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.30	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW				
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	Рск	0.000	kW	1		,	
Other items	- OK						
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	56	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	3381	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er	•		•	•		
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A					15191 Zh	ejiang,

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Те	chnica	l parameters								
Model(s):		АСМНО	-H24A	/P24R2DI-C 、ACMHC-H24B/P24	4R2DI-D							
Air-to-water heat ump:		yes	res									
Water-to-water heat pump:		no	10									
Brine-to-water heat pump:		no										
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	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 <sub>s</sub>	164	%					
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj								
Tj = -7°C	Pdh	3.42	kW	Tj = -7°C	COPd	3.59	-					
Tj = +2°C	Pdh	2.06	kW	Tj = +2°C	COPd	5.21	_					
Tj = +7°C	Pdh	1.46	kW	Tj = +7°C	COPd	6.24	-					
Tj = +12°C	Pdh	1.44	kW	Tj = +12°C	COPd	7.66	-					
T <sub>i</sub> = bivalent temperature	Pdh	4.59	kW	T <sub>i</sub> = bivalent temperature	COPd	2.53	-					
$T_i$ = operation limit temperature	Pdh	3.48	kW	T <sub>i</sub> = operation limit temperature	COPd	1.96	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.12	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	Рск	0.000	kW	1								
Other items												
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat pumps:Rated brine or water flow	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	3314	kWh	rate, outdoor heat exchanger								
For heat pump combination heat	er											
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A					15191 Zh	ıejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):		АСМНС	ACMHC-H24A/P24R2DI-C 、ACMHC-H24B/P24R2DI-D								
Air-to-water heat ump:		yes	res								
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application	 1	Medium	<u> </u>								
Item	Symbol		Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	4.3	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	111	%				
Declared capacity for heating for temperature 20°C and outdoor te	•		•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	2.69	kW	Tj = -7°C	COPd	2.46	-				
Tj = +2°C	Pdh	1.60	kW	Tj = +2°C	COPd	3.36	_				
Tj = +7°C	Pdh	1.02	kW	Tj = +7°C	COPd	3.94	-				
Tj = +12°C	Pdh	1.37	kW	Tj = +12°C	COPd	6.35	-				
T <sub>i</sub> = bivalent temperature	Pdh	3.47	kW	T <sub>i</sub> = bivalent temperature	COPd	1.86	-				
$T_i$ = operation limit temperature	Pdh	2.09	kW	T <sub>i</sub> = operation limit temperature	COPd	1.13	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.2	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	,	<del>-                                    </del>		1				
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2800	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	3760	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•	•		-				
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters							
Model(s):				HC-H30A/P60R2DI-C 、ACMHC-H30A HC-H30A/P60R2DI-D 、ACMHC-H30A							
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00R2DI-D \ ACIVITIC-1130A	NOTE OUT ADD	10-D					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Warme	r								
Declared temperature application	า	Low									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	8.1	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	272	%				
Declared capacity for heating for temperature 20°C and outdoor te	•			Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-				
Tj = +2°C	Pdh	7.80	kW	Tj = +2°C	COPd	3.98	_				
Tj = +7°C	Pdh	5.21	kW	Tj = +7°C	COPd	5.88	-				
Tj = +12°C	Pdh	2.63	kW	Tj = +12°C	COPd	9.36	-				
T <sub>j</sub> = bivalent temperature	Pdh	5.21	kW	$T_j$ = bivalent temperature	COPd	5.88	-				
T <sub>j</sub> = operation limit temperature	Pdh	7.80	kW	T <sub>j</sub> = operation limit temperature	COPd	3.98	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.3	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	1				
Crankcase heater mode	Рск	0.000	kW	1							
Other items											
Capacity control	\ \	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	1573	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er			•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	nejiang,				

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H30A/P60R2DI-C 、ACMHC-H30A HC-H30A/P60R2DI-D 、ACMHC-H30A							
Air-to-water heat ump:		yes	ACIVII	HC-H30A/F00K2DI-D \ ACMITC-H30A	NOTE OUT ADD	10-D					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Warme	r								
Declared temperature application	า	Medium	1								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	7.6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	173	%				
Declared capacity for heating for temperature 20°C and outdoor te	•			Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•	, ,,					
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-				
Tj = +2°C	Pdh	7.30	kW	Tj = +2°C	COPd	2.59	_				
Tj = +7°C	Pdh	4.89	kW	Tj = +7°C	COPd	3.90	-				
Tj = +12°C	Pdh	2.17	kW	Tj = +12°C	COPd	5.55	-				
T <sub>j</sub> = bivalent temperature	Pdh	4.89	kW	$T_j$ = bivalent temperature	COPd	3.90	-				
T <sub>j</sub> = operation limit temperature	Pdh	7.30	kW	$T_j$ = operation limit temperature	COPd	2.59	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.3	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	′				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	7							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	2304	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters							
Model(s):			ACMHC-H30A/P60R2DI-C 、ACMHC-H30A5/P60R2DI5-C ACMHC-H30A/P60R2DI-D 、ACMHC-H30A5/P60R2DI5-D								
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00R2DI-D \ ACIVITIC-1130A	NOTE OUT ADD	10-D					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Average	<del></del>								
Declared temperature application	า	Low									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	8.1	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	198	%				
Declared capacity for heating for temperature 20°C and outdoor te	•			Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	7.17	kW	Tj = -7°C	COPd	3.23	-				
Tj = +2°C	Pdh	4.36	kW	Tj = +2°C	COPd	4.93	_				
Tj = +7°C	Pdh	2.80	kW	Tj = +7°C	COPd	6.81	-				
Tj = +12°C	Pdh	3.15	kW	Tj = +12°C	COPd	10.10	-				
T <sub>j</sub> = bivalent temperature	Pdh	7.17	kW	T <sub>j</sub> = bivalent temperature	COPd	3.23	-				
T <sub>j</sub> = operation limit temperature	Pdh	6.44	kW	T <sub>j</sub> = operation limit temperature	COPd	3.23	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes other	ner than a	ctive mod	de	Supplemantary heater	·	<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.66	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\ \	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	3246	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er			•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):			ACMHC-H30A/P60R2DI-C 、ACMHC-H30A5/P60R2DI5-C ACMHC-H30A/P60R2DI-D 、ACMHC-H30A5/P60R2DI5-D								
Air-to-water heat ump:		yes	ACIVII	HC-H3UA/P6URZDI-D \ ACMINC-H3UA	AS/POURZD	ט-ט					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Average									
Declared temperature application		Medium									
Item	Symbol		Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	6.6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	152	%				
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•						
Tj = -7°C	Pdh	5.84	kW	Tj = -7°C	COPd	2.43	-				
Tj = +2°C	Pdh	3.55	kW	Tj = +2°C	COPd	3.83	-				
Tj = +7°C	Pdh	2.28	kW	Tj = +7°C	COPd	4.98	-				
Tj = +12°C	Pdh	2.99	kW	Tj = +12°C	COPd	7.66	-				
T <sub>i</sub> = bivalent temperature	Pdh	5.84	kW	T <sub>i</sub> = bivalent temperature	COPd	2.43	-				
$T_i$ = operation limit temperature	Pdh	4.90	kW	$T_i$ = operation limit temperature	COPd	2.43	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.7	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	,							
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	۱ ۱	Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,					
Other items	- OK										
Capacity control	\	/ariable	l	For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	57	dB	For water-/brine-to-water heat	-	-	m³/h				
Annual energy consumption	Q <sub>HE</sub>	3510	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	-									
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	ejiang,				

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Те	chnica	I parameters						
Model(s):			ACMI	HC-H30A/P60R2DI-C 、ACMHC-H30A HC-H30A/P60R2DI-D 、ACMHC-H30A	\5/P60R2D	15-C				
Air-to-water heat ump:		yes	ACIVII	nc-nsua/Pourzbi-b . Acivinc-nsua	AS/FOURZD	10-10				
Water-to-water heat pump:		no								
Brine-to-water heat pump:		no								
Low-temperature heat pump:		no								
Equipped with a supplementary h	neater:	no								
Heat pump combination heater:		no								
Declared climate condition		Colder								
Declared temperature application	<u> </u>	Low								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output(*)	Prated	7.0	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	168	%			
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performance for part load at indoor temperatur temperature Tj						
Tj = -7°C	Pdh	4.46	kW	Tj = -7°C	COPd	3.66	-			
Tj = +2°C	Pdh	2.69	kW	Tj = +2°C	COPd	5.20	-			
Tj = +7°C	Pdh	1.65	kW	Tj = +7°C	COPd	6.53	-			
Tj = +12°C	Pdh	1.65	kW	Tj = +12°C	COPd	7.96	-			
T <sub>i</sub> = bivalent temperature	Pdh	5.69	kW	T <sub>i</sub> = bivalent temperature	COPd	2.83	_			
T <sub>i</sub> = operation limit temperature	Pdh	4.06	kW	T <sub>i</sub> = operation limit temperature	COPd	1.95	_			
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-			
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C			
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.94	kW			
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>					
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,			
Crankcase heater mode	Рск	0.000	kW	1		•				
Other items										
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h			
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	4036	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger						
For heat pump combination heat	er	•		•		-				
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh			
Contact details	Ningbo A			,	-	15191 Zh				
	1166 Min China and heat	ngguang pump co	North   mbinat	Road, Jiangshan Yinzhou District, ion heaters, the rated heat output I	Ningbo, 3	equal to t				

<sup>(\*)</sup> 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  $\sup(T_j)$ .

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):			ACMHC-H30A/P60R2DI-C 、ACMHC-H30A5/P60R2DI5-C ACMHC-H30A/P60R2DI-D 、ACMHC-H30A5/P60R2DI5-D								
Air-to-water heat ump:		yes	ACIVII	HC-H3UA/P6URZDI-D \ ACMINC-H3UA	AS/POURZD	ט-ט					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application	 າ	Medium	1								
Item	Symbol		Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	5.8	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	111	%				
Declared capacity for heating for temperature 20°C and outdoor te	•		•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•	, ,,					
Tj = -7°C	Pdh	3.86	kW	Tj = -7°C	COPd	2.48	-				
Tj = +2°C	Pdh	2.21	kW	Tj = +2°C	COPd	3.35	_				
Tj = +7°C	Pdh	1.44	kW	Tj = +7°C	COPd	4.11	-				
Tj = +12°C	Pdh	1.47	kW	Tj = +12°C	COPd	5.92	-				
T <sub>i</sub> = bivalent temperature	Pdh	4.71	kW	T <sub>i</sub> = bivalent temperature	COPd	1.90	-				
$T_i$ = operation limit temperature	Pdh	2.80	kW	T <sub>i</sub> = operation limit temperature	COPd	1.22	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.0	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	Рск	0.000	kW	1							
Other items											
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	5014	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters			
Model(s):				HC-H36A/P60R2DI-C 、ACMHC-H36A HC-H36A/P60R2DI-D 、ACMHC-H36A			
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00R2DI-D \ ACIVITIC-1130A	NOTE OUT ADD	10-D	
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
Low-temperature heat pump:		no					
Equipped with a supplementary h	neater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme	<u> </u>				
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 <sub>s</sub>	267	%
Declared capacity for heating for temperature 20°C and outdoor te			,	Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•	, ,,	
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	8.20	kW	Tj = +2°C	COPd	3.84	-
Tj = +7°C	Pdh	5.53	kW	Tj = +7°C	COPd	5.85	-
Tj = +12°C	Pdh	2.76	kW	Tj = +12°C	COPd	9.14	-
T <sub>j</sub> = bivalent temperature	Pdh	5.53	kW	T <sub>j</sub> = bivalent temperature	COPd	5.85	-
T <sub>j</sub> = operation limit temperature	Pdh	8.20	kW	T <sub>j</sub> = operation limit temperature	COPd	3.84	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>	
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.40	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1			
Other items	- OK						
Capacity control	V	rariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	1701	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er			•		<u> </u>	
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A					15191 Zh	ıejiang,

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters			
Model(s):			ACMI	HC-H36A/P60R2DI-C 、ACMHC-H36A	5/P60R2D	15-C	
Air-to-water heat ump:		yes	ACM	HC-H36A/P60R2DI-D 、ACMHC-H36A	\5/P60R2D	15-D	
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
· · ·		-					
Low-temperature heat pump:		no					
Equipped with a supplementary h	eater:	no					
Heat pump combination heater:		no					
Declared climate condition		Warme					
Declared temperature application		Medium		1			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	8.6	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	177	%
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performance for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	8.20	kW	Tj = +2°C	COPd	2.59	-
Tj = +7°C	Pdh	5.53	kW	Tj = +7°C	COPd	3.93	-
Tj = +12°C	Pdh	2.46	kW	Tj = +12°C	COPd	5.82	_
T <sub>i</sub> = bivalent temperature	Pdh	5.53	kW	T <sub>i</sub> = bivalent temperature	COPd	3.93	_
T <sub>i</sub> = operation limit temperature	Pdh	8.20	kW	T <sub>i</sub> = operation limit temperature	COPd	2.59	_
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	er than a	ctive mod	de	Supplemantary heater			
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.40	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	/		•	
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		<b>,</b>	
Other items	· CK	5.555		1		I	
Capacity control	V	I ⁄ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	2545	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er						
Declaed load profile		_		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,
(*) For heat pump space heaters	and heat	pump co	mbinat	ion heaters, the rated heat output F	Prated is	equal to th	ne

<sup>(\*)</sup> 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  $\sup(T_j)$ .

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters							
Model(s):			ACMI	HC-H36A/P60R2DI-C 、ACMHC-H36A HC-H36A/P60R2DI-D 、ACMHC-H36A	\5/P60R2D	15-C					
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00K2DI-D \ ACMITC-H30A	NOTE OUT ADD	10-0					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary I	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Average									
Declared temperature application	า	Low									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	9.2	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	203	%				
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	8.14	kW	Tj = -7°C	COPd	3.10	-				
Tj = +2°C	Pdh	4.95	kW	Tj = +2°C	COPd	5.10	-				
Tj = +7°C	Pdh	3.18	kW	Tj = +7°C	COPd	6.50	-				
Tj = +12°C	Pdh	2.76	kW	Tj = +12°C	COPd	10.55	-				
T <sub>i</sub> = bivalent temperature	Pdh	8.14	kW	T <sub>i</sub> = bivalent temperature	COPd	3.10	-				
T <sub>i</sub> = operation limit temperature	Pdh	7.40	kW	T <sub>i</sub> = operation limit temperature	COPd	3.10	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes otl	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	1.8	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	()							
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,					
Other items	- OK	-									
Capacity control	\	ı ⁄ariab <b>l</b> e		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	3690	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters							
Model(s):			ACMHC-H36A/P60R2DI-C 、ACMHC-H36A5/P60R2DI5-C ACMHC-H36A/P60R2DI-D 、ACMHC-H36A5/P60R2DI5-D								
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00R2DI-D \ ACIVITIC-1130A	NOTE OUT ADD	10-D					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Average	<del></del>								
Declared temperature application	า	Medium									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	154	%				
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	6.81	kW	Tj = -7°C	COPd	2.43	-				
Tj = +2°C	Pdh	4.15	kW	Tj = +2°C	COPd	3.82	_				
Tj = +7°C	Pdh	2.67	kW	Tj = +7°C	COPd	5.00	-				
Tj = +12°C	Pdh	3.39	kW	Tj = +12°C	COPd	7.60	-				
T <sub>j</sub> = bivalent temperature	Pdh	6.81	kW	$T_j$ = bivalent temperature	COPd	2.43	-				
T <sub>j</sub> = operation limit temperature	Pdh	5.23	kW	T <sub>j</sub> = operation limit temperature	COPd	2.43	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.47	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	1				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	57	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4055	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•	•		-				
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H36A/P60R2DI-C 、ACMHC-H36A HC-H36A/P60R2DI-D 、ACMHC-H36A							
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00K2DI-D \ ACIVITIC-1130A	43/F 001\2D	13-0					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application	า	Low									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	168	%				
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•						
Tj = -7°C	Pdh	4.83	kW	Tj = -7°C	COPd	3.60	-				
Tj = +2°C	Pdh	2.94	kW	Tj = +2°C	COPd	5.26	_				
Tj = +7°C	Pdh	1.92	kW	Tj = +7°C	COPd	7.08	-				
Tj = +12°C	Pdh	1.65	kW	Tj = +12°C	COPd	7.96	-				
T <sub>j</sub> = bivalent temperature	Pdh	6.32	kW	T <sub>j</sub> = bivalent temperature	COPd	2.64	-				
T <sub>j</sub> = operation limit temperature	Pdh	4.62	kW	T <sub>j</sub> = operation limit temperature	COPd	1.97	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	<b>-</b> 22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes other	ner than a	ctive mod	de	Supplemantary heater	·						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.08	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	1	Electricity	1				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\ \	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4439	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er			•							
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·	•	15191 Zh	ıejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H36A/P60R2DI-C 、ACMHC-H36A HC-H36A/P60R2DI-D 、ACMHC-H36A							
Air-to-water heat ump:		yes	ACIVII	TC-H30A/F00R2DI-D \ ACMING-H30A	AS/FOURZD	10-10					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application		Medium	<u> </u>								
Item	Symbol		Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	6.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	116	%				
Declared capacity for heating for temperature 20°C and outdoor te			•	Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	4.27	kW	Tj = -7°C	COPd	2.54	-				
Tj = +2°C	Pdh	2.57	kW	Tj = +2°C	COPd	3.51	-				
Tj = +7°C	Pdh	1.65	kW	Tj = +7°C	COPd	4.37	-				
Tj = +12°C	Pdh	1.48	kW	Tj = +12°C	COPd	5.96	-				
T <sub>i</sub> = bivalent temperature	Pdh	5.47	kW	T <sub>i</sub> = bivalent temperature	COPd	2.00	-				
T <sub>i</sub> = operation limit temperature	Pdh	2.80	kW	T <sub>i</sub> = operation limit temperature	COPd	1.22	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater	·	<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.9	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>						
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	5574	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A					15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Те	chnica	l parameters							
Model(s):				HC-H42A/P60R2DI-C 、ACMHC-H42A HC-H42A/P60R2DI-D 、ACMHC-H42A							
Air-to-water heat ump:		yes	ACIVII	TC-H42A/F00R2DI-D \ ACMITC-H42A	NO/FOUNZD	13-0					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary I	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Warme	r								
Declared temperature application	า	Low									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	11.1	kW	Seasonal space heating energy efficiency	ηs	254	%				
Declared capacity for heating for temperature 20°C and outdoor te			Declared coeffient of performanc for part load at indoor temperatur temperature Tj		, ,,						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-				
Tj = +2°C	Pdh	10.90	kW	Tj = +2°C	COPd	3.59	-				
Tj = +7°C	Pdh	7.14	kW	Tj = +7°C	COPd	5.82	-				
Tj = +12°C	Pdh	4.61	kW	Tj = +12°C	COPd	8.30	-				
T <sub>j</sub> = bivalent temperature	Pdh	7.14	kW	$T_j$ = bivalent temperature	COPd	5.82	-				
T <sub>j</sub> = operation limit temperature	Pdh	10.90	kW	T <sub>j</sub> = operation limit temperature	COPd	3.59	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.20	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>	-					
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	1	Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\ \	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2308	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er			•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters			
Model(s):			ACMI	HC-H42A/P60R2DI-C 、ACMHC-H42A	5/P60R2D	15-C	
Air-to-water heat ump:		yes	ACM	HC-H42A/P60R2DI-D 、ACMHC-H42A	\5/P60R2D	15-D	
Water-to-water heat pump:		no					
Brine-to-water heat pump:		no					
Low-temperature heat pump:		no					
Equipped with a supplementary h	ootor:	-					
	leater.	no					
Heat pump combination heater:		no					
Declared climate condition		Warme					
Declared temperature application		Medium		1	1 1		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output(*)	Prated	12.5	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	174	%
Declared capacity for heating for part load at indoctemperature 20°C and outdoor temperature Tj				Declared coeffient of performance for part load at indoor temperatur temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = +2°C	Pdh	12.30	kW	Tj = +2°C	COPd	2.31	-
Tj = +7°C	Pdh	8.04	kW	Tj = +7°C	COPd	3.82	-
Tj = +12°C	Pdh	3.57	kW	Tj = +12°C	COPd	5.70	_
T <sub>i</sub> = bivalent temperature	Pdh	8.04	kW	T <sub>i</sub> = bivalent temperature	COPd	3.82	_
T <sub>i</sub> = operation limit temperature	Pdh	12.30	kW	T <sub>i</sub> = operation limit temperature	COPd	2.31	_
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes oth	er than a	ctive mod	de de	Supplemantary heater			
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.20	kW
Thermostat-off mode	P <sub>TO</sub>	0.030	kW				****
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	,	Electricity	
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1 1,5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
Other items	· CK	0.000	1.00				
Capacity control	V	l ⁄ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h
Annual energy consumption	Q <sub>HE</sub>	3775	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger			
For heat pump combination heat	er						
Declaed load profile		_		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,
(*) For heat pump space heaters	and heat	pump co	mbinat	ion heaters, the rated heat output F	Prated is e	equal to th	ne

<sup>(\*)</sup> 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  $\sup(T_j)$ .

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Те	chnica	I parameters								
Model(s):				HC-H42A/P60R2DI-C 、ACMHC-H42A HC-H42A/P60R2DI-D 、ACMHC-H42A								
Air-to-water heat ump:		yes	ACIVII	HC-H4ZA/P60RZDI-D \ ACMINC-H4ZA	AS/POURZD	1 <del>5-</del> D						
Water-to-water heat pump:		no										
Brine-to-water heat pump:		no										
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
	Heat pump combination heater: no											
Declared climate condition		Average	-									
Declared temperature application	<u> </u>	Low										
Item	Symbol		Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	12.2	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	186	%					
Declared capacity for heating for temperature 20°C and outdoor te			Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj									
Tj = -7°C	Pdh	10.79	kW	Tj = -7°C	COPd	3.02	-					
Tj = +2°C	Pdh	6.57	kW	Tj = +2°C	COPd	4.50	-					
Tj = +7°C	Pdh	4.22	kW	Tj = +7°C	COPd	6.60	-					
Tj = +12°C	Pdh	4.69	kW	Tj = +12°C	COPd	9.38	-					
T <sub>i</sub> = bivalent temperature	Pdh	10.79	kW	T <sub>i</sub> = bivalent temperature	COPd	3.02	-					
T <sub>i</sub> = operation limit temperature	Pdh	10.10	kW	T <sub>i</sub> = operation limit temperature	COPd	2.61	_					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.10	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	1 (/	<del>' '</del>							
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	Рск	0.000	kW	j		,						
Other items	- OK											
Capacity control	V	/ariab <b>l</b> e	l	For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat pumps:Rated brine or water flow			m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	5314	kWh	rate, outdoor heat exchanger								
For heat pump combination heat	er											
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters								
Model(s):				HC-H42A/P60R2DI-C 、ACMHC-H42A HC-H42A/P60R2DI-D 、ACMHC-H42A								
Air-to-water heat ump:		yes	ACIVII	HC-H4ZA/P60RZDI-D \ ACMINC-H4ZA	AS/POURZD	ט-ט						
Water-to-water heat pump:		no										
Brine-to-water heat pump:		no	no									
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Average										
Declared temperature application	<u> </u>	Medium										
Item	Symbol		Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	12	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	150	%					
Declared capacity for heating for temperature 20°C and outdoor te			Declared coeffient of performanc for part load at indoor temperatur temperature Tj		, ,,							
Tj = -7°C	Pdh	10.62	kW	Tj = -7°C	COPd	2.40	-					
Tj = +2°C	Pdh	6.46	kW	Tj = +2°C	COPd	3.67	-					
Tj = +7°C	Pdh	4.15	kW	Tj = +7°C	COPd	5.18	-					
Tj = +12°C	Pdh	4.12	kW	Tj = +12°C	COPd	7.60	-					
T <sub>i</sub> = bivalent temperature	Pdh	10.62	kW	T <sub>i</sub> = bivalent temperature	COPd	2.40	-					
$T_i$ = operation limit temperature	Pdh	9.16	kW	$T_i$ = operation limit temperature	COPd	2.15	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.84	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	,		-						
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	۱ ۱	Electricity	,					
Crankcase heater mode	Рск	0.000	kW	J 5, 1 .								
Other items	OK .											
Capacity control	\	/ariable	l	For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	58	dB	For water-/brine-to-water heat pumps:Rated brine or water flow	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	6477	kWh	rate, outdoor heat exchanger								
For heat pump combination heat	er											
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H42A/P60R2DI-C 、ACMHC-H42A HC-H42A/P60R2DI-D 、ACMHC-H42A							
Air-to-water heat ump:		yes	ACIVII	HC-H4ZA/P60RZDI-D \ ACMINC-H4ZA	AS/POURZD	ט-ט					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	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 <sub>s</sub>	159	%				
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj							
Tj = -7°C	Pdh	7.05	kW	Tj = -7°C	COPd	3.48	-				
Tj = +2°C	Pdh	4.67	kW	Tj = +2°C	COPd	4.96	-				
Tj = +7°C	Pdh	3.14	kW	Tj = +7°C	COPd	6.10	-				
Tj = +12°C	Pdh	3.57	kW	Tj = +12°C	COPd	7.87	-				
T <sub>i</sub> = bivalent temperature	Pdh	9.28	kW	T <sub>i</sub> = bivalent temperature	COPd	2.59	-				
T <sub>i</sub> = operation limit temperature	Pdh	7.01	kW	T <sub>i</sub> = operation limit temperature	COPd	1.98	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	4.39	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		<u> </u>						
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	Рск	0.000	kW	1		,					
Other items	- OK										
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	6926	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er										
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H42A/P60R2DI-C 、ACMHC-H42A HC-H42A/P60R2DI-D 、ACMHC-H42A							
Air-to-water heat ump:		yes	ACIVII	HC-H4ZA/P60RZDI-D \ ACMINC-H4ZA	AS/POURZD	ט-ט					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application		Medium	<u> </u>								
Item	Symbol		Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	10.3	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	117	%				
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•	, ,,					
Tj = -7°C	Pdh	6.63	kW	Tj = -7°C	COPd	2.63	-				
Tj = +2°C	Pdh	4.06	kW	Tj = +2°C	COPd	3.60	-				
Tj = +7°C	Pdh	2.78	kW	Tj = +7°C	COPd	4.54	-				
Tj = +12°C	Pdh	3.33	kW	Tj = +12°C	COPd	6.25	-				
T <sub>j</sub> = bivalent temperature	Pdh	8.41	kW	T <sub>j</sub> = bivalent temperature	COPd	1.84	-				
T <sub>i</sub> = operation limit temperature	Pdh	4.19	kW	T <sub>i</sub> = operation limit temperature	COPd	1.13	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	6.11	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	1	Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items	-										
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	_	dB	For water-/brine-to-water heat pumps:Rated brine or water flow	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	8453	kWh	rate, outdoor heat exchanger							
For heat pump combination heat	er										
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters							
Model(s):				HC-H48A/P60R2DI-C 、ACMHC-H48A HC-H48A/P60R2DI-D 、ACMHC-H48A							
Air-to-water heat ump:		yes	ACIVII	TC-H40A/F00RZDI-D \ ACIVING-H40A	NO/FOURZD	10-10					
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		Warme	r								
Declared temperature application		Low	•								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	12.1	kW	Seasonal space heating energy efficiency	ης	259	%				
Declared capacity for heating for temperature 20°C and outdoor ter			Declared coeffient of performance for part load at indoor temperatur temperature Tj	•	, ,,						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-				
Tj = +2°C	Pdh	12.00	kW	Tj = +2°C	COPd	3.44	-				
Tj = +7°C	Pdh	7.78	kW	Tj = +7°C	COPd	5.84	-				
Tj = +12°C	Pdh	4.23	kW	Tj = +12°C	COPd	8.43	-				
T <sub>i</sub> = bivalent temperature	Pdh	7.78	kW	T <sub>i</sub> = bivalent temperature	COPd	5.84	-				
$T_i$ = operation limit temperature	Pdh	12.00	kW	T <sub>i</sub> = operation limit temperature	COPd	3.44	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	er than a	ctive mod	de	Supplemantary heater	-						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.10	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	Рск	0.000	kW	1							
Other items											
Capacity control	V	′ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h				
Annual energy consumption	Q <sub>HE</sub>	2463	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heate	er										
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	$Q_{fuel}$	-	kWh				
Contact details	Ningbo A			o., Ltd. Road, Jiangshan Yinzhou District,		15191 Zh	ejiang,				

<sup>(\*)</sup> 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(T<sub>j</sub>).

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters								
Model(s):				HC-H48A/P60R2DI-C 、ACMHC-H48A HC-H48A/P60R2DI-D 、ACMHC-H48A								
Air-to-water heat ump:		yes	ACIVII	TC-H40A/POURZDI-D \ ACMITC-H40A	AS/FOURZD	וט-ט						
Water-to-water heat pump:		no										
Brine-to-water heat pump:		no	no									
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Warme	r									
Declared temperature application		Medium										
Item	Symbol		Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	178	%					
Declared capacity for heating for temperature 20°C and outdoor te				Declared coeffient of performanc for part load at indoor temperatur temperature Tj	•							
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-					
Tj = +2°C	Pdh	13.60	kW	Tj = +2°C	COPd	2.18	_					
Tj = +7°C	Pdh	8.83	kW	Tj = +7°C	COPd	3.91	-					
Tj = +12°C	Pdh	4.08	kW	Tj = +12°C	COPd	5.90	-					
T <sub>i</sub> = bivalent temperature	Pdh	8.83	kW	T <sub>i</sub> = bivalent temperature	COPd	3.91	-					
T <sub>i</sub> = operation limit temperature	Pdh	13.60	kW	$T_i$ = operation limit temperature	COPd	2.18	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.10	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	, ,	<u> </u>							
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		,						
Other items	OK .											
Capacity control	\	/ariable	l	For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	4037	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er	•		•		<u> </u>						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·	•	15191 Zh	nejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):				HC-H48A/P60R2DI-C 、ACMHC-H48A HC-H48A/P60R2DI-D 、ACMHC-H48A							
Air-to-water heat ump:		yes	ACIVII	HC-H46A/P6URZDI-D \ ACMINC-H46A	AS/POURZD	ט-ט					
Water-to-water heat pump:		no									
Brine-to-water heat pump:		no									
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	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 <sub>s</sub>	186	%				
Declared capacity for heating for temperature 20°C and outdoor te		,	Declared coeffient of performanc for part load at indoor temperatur temperature Tj								
Tj = -7°C	Pdh	12.83	kW	Tj = -7°C	COPd	3.00	-				
Tj = +2°C	Pdh	7.81	kW	Tj = +2°C	COPd	4.52	_				
Tj = +7°C	Pdh	5.02	kW	Tj = +7°C	COPd	6.40	-				
Tj = +12°C	Pdh	4.68	kW	Tj = +12°C	COPd	10.00	-				
T <sub>j</sub> = bivalent temperature	Pdh	12.83	kW	T <sub>j</sub> = bivalent temperature	COPd	3.00	-				
T <sub>j</sub> = operation limit temperature	Pdh	11.46	kW	T <sub>j</sub> = operation limit temperature	COPd	2.73	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.04	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,				
Crankcase heater mode	Рск	0.000	kW	1							
Other items											
Capacity control	V	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	6317	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er			•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ıejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters								
Model(s):				HC-H48A/P60R2DI-C \ ACMHC-H48A								
Air-to-water heat ump:		yes	ACMHC-H48A/P60R2DI-D 、ACMHC-H48A5/P60R2DI5-D res									
Water-to-water heat pump:		no										
Brine-to-water heat pump:												
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition			Average									
Declared temperature application	<u> </u>	Medium										
Item	Symbol		Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	14	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	150	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coeffient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj  Tj = -7°C COPd 2.40 -								
Tj = -7°C	Pdh	12.38	kW	Tj = -7°C	COPd	2.40	-					
Tj = +2°C	Pdh	7.54	kW	Tj = +2°C	COPd	3.66	-					
Tj = +7°C	Pdh	4.85	kW	Tj = +7°C	COPd	5.18	-					
Tj = +12°C	Pdh	2.15	kW	Tj = +12°C	COPd	7.60	-					
T <sub>i</sub> = bivalent temperature	Pdh	12.38	kW	T <sub>i</sub> = bivalent temperature	COPd	2.39	-					
$T_i$ = operation limit temperature	Pdh	10.50	kW	$T_i$ = operation limit temperature	COPd	2.13	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u> </u>						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.5	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	1 (/	<del>' '</del>							
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1		•						
Other items												
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	59	dB	For water-/brine-to-water heat	-	-	m³/h					
Annual energy consumption	Q <sub>HE</sub>	7563	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er	-										
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters								
Model(s):				HC-H48A/P60R2DI-C \ ACMHC-H48A								
Air-to-water heat ump:		yes	ACMHC-H48A/P60R2DI-D 、ACMHC-H48A5/P60R2DI5-D									
Water-to-water heat pump:		no										
Brine-to-water heat pump: no												
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Colder										
Declared temperature application		Low										
Item	Symbol		Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	12.6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	159	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj								
Tj = -7°C	Pdh	7.96	kW	Tj = -7°C	COPd	3.44	-					
Tj = +2°C	Pdh	5.05	kW	Tj = +2°C	COPd	4.92	-					
Tj = +7°C	Pdh	3.15	kW	Tj = +7°C	COPd	6.11	-					
Tj = +12°C	Pdh	3.57	kW	Tj = +12°C	COPd	7.82	-					
T <sub>i</sub> = bivalent temperature	Pdh	10.31	kW	T <sub>i</sub> = bivalent temperature	COPd	2.53	-					
$T_i$ = operation limit temperature	Pdh	7.57	kW	$T_i$ = operation limit temperature	COPd	1.92	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	<b>-</b> 22	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	5.03	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	Рск	0.000	kW	1		•						
Other items	- OK											
Capacity control	V	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h					
Annual energy consumption	Q <sub>HE</sub>	7685	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er	•		•								
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·	•	15191 Zh	ejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters				
Model(s):			ACM	HC-H48A/P60R2DI-C 、ACMHC-H48A	5/P60R2D	15-C		
Air-to-water heat ump:		yes	ACM	HC-H48A/P60R2DI-D 、ACMHC-H48A	\5/P60R2D	15-D		
Water-to-water heat pump:		no						
Brine-to-water heat pump:		no						
· · ·		no						
Low-temperature heat pump:								
Equipped with a supplementary h	eater:							
Heat pump combination heater:		no						
Declared climate condition		Colder						
Declared temperature application		Medium		1				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output(*)	Prated	11.0	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	118	%	
Declared capacity for heating for part load a temperature 20°C and outdoor temperature				Declared coefficient of performance or primary energy ra for part load at indoor temperature 20°C and outdoor temperature Tj				
Tj = -7°C	Pdh	6.89	kW	Tj = -7°C	COPd	2.66	-	
Tj = +2°C	Pdh	4.32	kW	Tj = +2°C	COPd	3.66	-	
Tj = +7°C	Pdh	3.06	kW	Tj = +7°C	COPd	4.72	-	
Tj = +12°C	Pdh	3.33	kW	Tj = +12°C	COPd	6.25	_	
T <sub>i</sub> = bivalent temperature	Pdh	8.94	kW	T <sub>i</sub> = bivalent temperature	COPd	1.79	_	
T <sub>i</sub> = operation limit temperature	Pdh	4.20	kW T <sub>i</sub> = operation limit temperature		COPd	1.13	_	
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-	
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C	
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COPcyc	-	-	
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature WTOL 75		75	°C	
Power consumption in modes oth	er than a	ctive mod	de	Supplemantary heater				
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	6.80	kW	
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	()	. 547	5.55		
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	,	Electricity	,	
Crankcase heater mode	P <sub>CK</sub>	0.002	kW		'			
Other items	· CK	0.000	1. 7 7			I		
Capacity control	V	l ⁄ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h	
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h	
Annual energy consumption	Q <sub>HE</sub>	8937	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger				
For heat pump combination heat	er							
Declaed load profile		_		Water heating energy efficiency	$\eta_{wh}$	-	%	
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh	
Contact details	Ningbo A		ctric Co	· · · · · · · · · · · · · · · · · · ·		15191 Zh		
(*) For heat pump space heaters	and heat	pump co	mbinat	ion heaters, the rated heat output F	Prated is e	equal to th	<u></u>	

<sup>(\*)</sup> 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  $\sup(T_j)$ .

<sup>(\*\*)</sup> If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters								
Model(s):				HC-H60A/P60R2DI-C \ ACMHC-H60A								
Air-to-water heat ump:		yes	ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D es									
Water-to-water heat pump:		no										
Brine-to-water heat pump:		no										
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Warme										
Declared temperature application	า	Low										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	13.1	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	246	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coeffient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj								
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-					
Tj = +2°C	Pdh	12.97	kW	Tj = +2°C	COPd	3.35	_					
Tj = +7°C	Pdh	8.42	kW	Tj = +7°C	COPd	5.31	-					
Tj = +12°C	Pdh	4.29	kW	Tj = +12°C	COPd	8.23	-					
T <sub>j</sub> = bivalent temperature	Pdh	8.42	kW	$T_j$ = bivalent temperature	COPd	5.31	-					
T <sub>j</sub> = operation limit temperature	Pdh	12.97	kW	T <sub>j</sub> = operation limit temperature	COPd	3.35	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature			°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.13	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	′					
Crankcase heater mode	Рск	0.000	kW	1								
Other items												
Capacity control	\ \	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	2812	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er			•		<u> </u>						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ıejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Те	chnica	l parameters							
Model(s):			ACMHC-H60A/P60R2DI-C 、ACMHC-H60A5/P60R2DI5-C ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D								
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 h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Warmei	r								
Declared temperature application	า	Medium	1								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	13.8	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	176	%				
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj  Tj = -7°C  COPd  -							
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-				
Tj = +2°C	Pdh	13.67	kW	Tj = +2°C	COPd	2.25	_				
Tj = +7°C	Pdh	8.87	kW	Tj = +7°C	COPd	3.80	-				
Tj = +12°C	Pdh	3.94	kW	Tj = +12°C	COPd	5.88	-				
T <sub>j</sub> = bivalent temperature	Pdh	8.87	kW	$T_j$ = bivalent temperature	COPd	3.80	-				
T <sub>j</sub> = operation limit temperature	Pdh	13.67	kW	T <sub>j</sub> = operation limit temperature	COPd	2.25	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater							
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	0.13	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	′				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4118	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	nejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters								
Model(s):				HC-H60A/P60R2DI-C \ ACMHC-H60A								
Air-to-water heat ump:		yes	ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D									
Water-to-water heat pump:			10									
Brine-to-water heat pump: no												
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Average										
Declared temperature application	 າ	Low										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	15.5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	188	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coeffient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj								
Tj = -7°C	Pdh	13.71	kW	Tj = -7°C	COPd	3.01	-					
Tj = +2°C	Pdh	8.35	kW	Tj = +2°C	COPd	4.48	-					
Tj = +7°C	Pdh	5.37	kW	Tj = +7°C	COPd	6.73	-					
Tj = +12°C	Pdh	2.38	kW	Tj = +12°C	COPd	10.05	-					
T <sub>j</sub> = bivalent temperature	Pdh	13.71	kW	T <sub>j</sub> = bivalent temperature	COPd	3.01	-					
T <sub>j</sub> = operation limit temperature	Pdh	13.42	kW	T <sub>j</sub> = operation limit temperature	COPd	2.78	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	2.08	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		<b>El</b> ectricity	,					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1								
Other items												
Capacity control	\	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m³/h					
Annual energy consumption	Q <sub>HE</sub>	6604	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er					<u> </u>						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			., Ltd.		Ningbo AUX Electric Co., Ltd. 1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang,						

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters								
Model(s):				HC-H60A/P60R2DI-C \ ACMHC-H60A								
Air-to-water heat ump:		yes	ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D res									
Water-to-water heat pump:		no										
Brine-to-water heat pump:		no										
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Average										
Declared temperature application	า	Medium										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	14	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	150	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj								
Tj = -7°C	Pdh	12.38	kW	Tj = -7°C	COPd	2.27	-					
Tj = +2°C	Pdh	7.54	kW	Tj = +2°C	COPd	3.66	_					
Tj = +7°C	Pdh	4.85	kW	Tj = +7°C	COPd	5.18	-					
Tj = +12°C	Pdh	4.43	kW	Tj = +12°C	COPd	8.75	-					
T <sub>j</sub> = bivalent temperature	Pdh	12.38	kW	T <sub>j</sub> = bivalent temperature	COPd	2.27	-					
T <sub>j</sub> = operation limit temperature	Pdh	10.50	kW	T <sub>j</sub> = operation limit temperature	COPd	2.13	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	<b>-</b> 7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater	·	<u> </u>						
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	3.5	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	,					
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1								
Other items												
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	60	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	7563	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er	•		•		<u> </u>						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ıejiang,					

<sup>(\*)</sup> 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  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	l parameters								
Model(s):			ACMHC-H60A/P60R2DI-C 、ACMHC-H60A5/P60R2DI5-C ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D									
Air-to-water heat ump:		yes										
Water-to-water heat pump:			10									
Brine-to-water heat pump: no												
Low-temperature heat pump:		no										
Equipped with a supplementary h	neater:	no										
Heat pump combination heater:		no										
Declared climate condition		Colder										
Declared temperature application	า	Low										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output(*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	157	%					
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj								
Tj = -7°C	Pdh	8.31	kW	Tj = -7°C	COPd	3.37	-					
Tj = +2°C	Pdh	5.26	kW	Tj = +2°C	COPd	4.86	_					
Tj = +7°C	Pdh	3.62	kW	Tj = +7°C	COPd	6.49	-					
Tj = +12°C	Pdh	3.34	kW	Tj = +12°C	COPd	7.40	-					
T <sub>j</sub> = bivalent temperature	Pdh	11.22	kW	$T_j$ = bivalent temperature	COPd	2.43	-					
T <sub>j</sub> = operation limit temperature	Pdh	8.88	kW	T <sub>j</sub> = operation limit temperature	COPd	1.97	-					
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-					
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	75	°C					
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater								
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	4.82	kW					
Thermostat-off mode	P <sub>TO</sub>	0.030	kW									
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input		Electricity	′					
Crankcase heater mode	Рск	0.000	kW	1								
Other items												
Capacity control	\	ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m <sup>3</sup> /h					
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h					
Annual energy consumption	Q <sub>HE</sub>	8438	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger								
For heat pump combination heat	er			•		<u> </u>						
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Q <sub>elec</sub>	_	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh					
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	nejiang,					

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9

		Te	chnica	I parameters							
Model(s):			ACMI	HC-H60A/P60R2DI-C \ ACMHC-H60A	5/P60R2DI	5-C					
Air-to-water heat ump:		yes	ACMHC-H60A/P60R2DI-D 、ACMHC-H60A5/P60R2DI5-D s								
Water-to-water heat pump:			10								
Brine-to-water heat pump: no											
Low-temperature heat pump:		no									
Equipped with a supplementary h	neater:	no									
Heat pump combination heater:		no									
Declared climate condition		Colder									
Declared temperature application	า	Medium	1								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output(*)	Prated	11.8	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	121	%				
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature Tj							
Tj = -7°C	Pdh	7.64	kW	Tj = -7°C	COPd	2.65	-				
Tj = +2°C	Pdh	4.42	kW	Tj = +2°C	COPd	3.79	-				
Tj = +7°C	Pdh	2.97	kW	Tj = +7°C	COPd	4.81	-				
Tj = +12°C	Pdh	3.43	kW	Tj = +12°C	COPd	6.29	-				
T <sub>j</sub> = bivalent temperature	Pdh	9.61	kW	T <sub>j</sub> = bivalent temperature	COPd	1.86	-				
$T_j$ = operation limit temperature	Pdh	5.21	kW	T <sub>j</sub> = operation limit temperature	COPd	1.23	-				
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C				
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency COPcyc		-	-				
Degradation co-efficient(**)	Cdh	0.9	-	Heating water operating limit temperature	operating limit WTOL 75		°C				
Power consumption in modes oth	ner than a	ctive mod	de	Supplemantary heater		<u>'</u>					
Off mode	P <sub>OFF</sub>	0.002	kW	Rated heat output (*)	Psup	6.59	kW				
Thermostat-off mode	P <sub>TO</sub>	0.030	kW								
Standby mode	P <sub>SB</sub>	0.002	kW	Type of energy input	1	Electricity	,				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW	1							
Other items											
Capacity control	\	/ariable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4000	m <sup>3</sup> /h				
Sound power level	L <sub>WA</sub>	-	dB	For water-/brine-to-water heat	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	9362	kWh	pumps:Rated brine or water flow rate, outdoor heat exchanger							
For heat pump combination heat	er	•		•		<u> </u>					
Declaed load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Contact details	Ningbo A			· · · · · · · · · · · · · · · · · · ·		15191 Zh	ejiang,				

<sup>(\*)</sup> For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating  $\sup(T_j)$ .

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9



