Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): R-AQUA CGW-IU 12 A1 + R-AQUA CGW-OU 12 A1

Air-to-water heat pump	Y			Low-temperature heat pump		N	
Water-to-water heat pump	N			Equipped with a supplementary heater		Y	
Brine-to-water heat pump	N			Heat pump combination heater		Y	
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	ηs	126	%
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 ℃	Pdh	9.6	kW	Tj = − 7 ℃	COPd	2.04	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.6	kW	Tj = 2 ℃	COPd	3.03	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.9	kW	Tj = 7 ℃	COPd	4.44	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.1	kW	Tj = 12℃	COPd	5.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	9.6	kW	Tj = bivalent temperature	COPd	2.04	–
Tj = operation limit temperature	Pdh	10.1	kW	Tj = operation limit temperature	COPd	1.96	–
For air-to-water heat pumps: Tj = − 15℃ (if TOL < − 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = − 15℃ (if TOL < − 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input		Electric	
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, indoors/outdoors	L_{WA}	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6985	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	105	%
Daily electricity consumption	Qelec	7.567	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1589	kWh	Annual fuel consumption	AFC	NA	GJ

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

<table>
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<tr><td colspan="4">Air-to-water heat pump</td><td colspan="2">Y</td><td colspan="2">Low-temperature heat pump</td></tr>
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Air-to-water heat pump		Y		Low-temperature heat pump		N	
Water-to-water heat pump		N		Equipped with a supplementary heater		Y	
Brine-to-water heat pump		N		Heat pump combination heater		Y	
Parameters declared for				Low-temperature application			
Parameters declared for				Average climate condition			

Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	ηs	182	%
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			
$T_j = -7$ ℃	Pdh	9.8	kW	$T_j = -7$ ℃	COPd	2.89	–
Degradation co-efficient (**)	Cdh	0.99	–				
$T_j = 2$ ℃	Pdh	6.2	kW	$T_j = 2$ ℃	COPd	4.48	–
Degradation co-efficient (**)	Cdh	0.98	–				
$T_j = 7$ ℃	Pdh	3.6	kW	$T_j = 7$ ℃	COPd	6.40	–
Degradation co-efficient (**)	Cdh	0.96	–				
$T_j = 12$ ℃	Pdh	3.2	kW	$T_j = 12$ ℃	COPd	7.19	–
Degradation co-efficient (**)	Cdh	0.95	–				
T_j = bivalent temperature	Pdh	9.8	kW	T_j = bivalent temperature	COPd	2.89	–
T_j = operation limit temperature	Pdh	8.6	kW	T_j = operation limit temperature	COPd	2.47	–
For air-to-water heat pumps: $T_j = -15$ ℃ (if TOL < -20 ℃)	Pdh	NA	kW	For air-to-water heat pumps: $T_j = -15$ ℃ (if TOL < -20 ℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	60	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_OFF	0.025	kW	Rated heat output (*)	Psup	2.4	kW
Thermostat-off mode	P_TO	0.025	kW	Type of energy input		Electric	
Standby mode	P_SB	0.025	kW				
Crankcase heater mode	P_CK	0.025	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, indoors/outdoors	L_WA	42/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_HE	4967	kWh				
For heat pump combination heater:							
Declared load profile		XL		Water heating energy efficiency	ηwh	105	%
Daily electricity consumption	Qelec	7.567	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1589	kWh	Annual fuel consumption	AFC	NA	GJ

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.