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

Model(s): R-AQUA CGW-IU 12 M1 + R-AQUA CGW-OU 12 M1

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	9.9	kW	Tj = – 7 ℃	COPd	2.04	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.4	kW	Tj = 2 ℃	COPd	2.98	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.7	kW	Tj = 7 ℃	COPd	4.63	–
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	9.9	kW	Tj = bivalent temperature	COPd	2.04	–
Tj = operation limit temperature	Pdh	10.1	kW	Tj = operation limit temperature	COPd	1.89	–
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}	7028	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	108	%
Daily electricity consumption	Qelec	7.393	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1542	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.

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

Model(s): R-AQUA CGW-IU 12 M1 + R-AQUA CGW-OU 12 M1

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	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 ℃	Pdh	9.7	kW	Tj = – 7 ℃	COPd	2.80	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.1	kW	Tj = 2 ℃	COPd	4.38	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.9	kW	Tj = 7 ℃	COPd	6.04	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.19	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.7	kW	Tj = bivalent temperature	COPd	2.80	–
Tj = operation limit temperature	Pdh	8.6	kW	Tj = operation limit temperature	COPd	2.34	–
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	1.1	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}	5065	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	108	%
Daily electricity consumption	Qelec	7.393	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1542	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.