

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): R-AQUA CGW-ID 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	$\eta_s$	126	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature $T_j$				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature $T_j$			
$T_j = -7$ °C	Pdh	9.9	kW	$T_j = -7$ °C	COPd	2.04	-
Degradation co-efficient (**)	Cdh	0.99	-				
$T_j = 2$ °C	Pdh	5.4	kW	$T_j = 2$ °C	COPd	2.98	-
Degradation co-efficient (**)	Cdh	0.99	-				
$T_j = 7$ °C	Pdh	3.7	kW	$T_j = 7$ °C	COPd	4.63	-
Degradation co-efficient (**)	Cdh	0.97	-				
$T_j = 12$ °C	Pdh	3.1	kW	$T_j = 12$ °C	COPd	5.61	-
Degradation co-efficient (**)	Cdh	0.96	-				
$T_j =$ bivalent temperature	Pdh	9.9	kW	$T_j =$ bivalent temperature	COPd	2.04	-
$T_j =$ operation limit temperature	Pdh	10.1	kW	$T_j =$ operation limit temperature	COPd	1.89	-
For air-to-water heat pumps: $T_j = -15$ °C (if TOL < -20 °C )	Pdh	NA	kW	For air-to-water heat pumps: $T_j = -15$ °C (if TOL < -20 °C )	COPd	NA	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	-
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.025	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.025	kW	Type of energy input	Electric		
Standby mode	P <sub>SB</sub>	0.025	kW				
Crankcase heater mode	P <sub>CK</sub>	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	5015	m <sup>3</sup> / h
Sound power level, indoors/outdoors	L <sub>WA</sub>	47/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m <sup>3</sup> / h
Annual energy consumption	Q <sub>HE</sub>	7028	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Q <sub>elec</sub>	4.459	kWh	Daily fuel consumption	Q <sub>fuel</sub>	NA	kWh
Annual electricity consumption	AEC	915	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.							

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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	$\eta_s$	176	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature $T_j$				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature $T_j$			
$T_j = -7\text{ °C}$	Pdh	9.7	kW	$T_j = -7\text{ °C}$	COPd	2.80	-
Degradation co-efficient (**)	Cdh	0.99	-				
$T_j = 2\text{ °C}$	Pdh	6.1	kW	$T_j = 2\text{ °C}$	COPd	4.38	-
Degradation co-efficient (**)	Cdh	0.98	-				
$T_j = 7\text{ °C}$	Pdh	3.9	kW	$T_j = 7\text{ °C}$	COPd	6.04	-
Degradation co-efficient (**)	Cdh	0.96	-				
$T_j = 12\text{ °C}$	Pdh	3.2	kW	$T_j = 12\text{ °C}$	COPd	7.19	-
Degradation co-efficient (**)	Cdh	0.95	-				
$T_j = \text{bivalent temperature}$	Pdh	9.7	kW	$T_j = \text{bivalent temperature}$	COPd	2.80	-
$T_j = \text{operation limit temperature}$	Pdh	8.6	kW	$T_j = \text{operation limit temperature}$	COPd	2.34	-
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	Pdh	NA	kW	For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	COPd	NA	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Ppsych	NA	kW	Cycling interval efficiency	COPcyc	NA	-
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	$P_{OFF}$	0.025	kW	Rated heat output (*)	$P_{sup}$	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 <sup>3</sup> /h
Sound power level, indoors/outdoors	$L_{WA}$	47/68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m <sup>3</sup> /h
Annual energy consumption	$Q_{HE}$	5065	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	$Q_{elec}$	4.459	kWh	Daily fuel consumption	$Q_{fuel}$	NA	kWh
Annual electricity consumption	AEC	915	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.							