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

Model(s): GRS-CQ10PdG/NhH3-M

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	9	kW	Seasonal space heating energy efficiency	ηs	129	%
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	7.65	kW	Tj = – 7 ℃	COPd	2.29	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.66	kW	Tj = 2 ℃	COPd	3.24	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.08	kW	Tj = 7 ℃	COPd	4.05	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.21	kW	Tj = 12℃	COPd	5.24	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	7.65	kW	Tj = bivalent temperature	COPd	2.29	–
Tj = operation limit temperature	Pdh	7.01	kW	Tj = operation limit temperature	COPd	2.07	–
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	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.99	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	5380	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	117	%
Daily electricity consumption	Qelec	4.256	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	878	kWh	Annual fuel consumption	AFC	NA	GJ

Contact details: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070	Name of the supplier: GREE ELECTRIC APPLIANCES,INC. OF ZHUHAI

(*) 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): GRS-CQ10PdG/NhH3-M

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	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	111	%
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	5.25	kW	Tj = – 7 ℃	COPd	2.39	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.19	kW	Tj = 2 ℃	COPd	3.39	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.43	kW	Tj = 7 ℃	COPd	4.93	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.26	kW	Tj = 12℃	COPd	5.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	6.44	kW	Tj = bivalent temperature	COPd	1.65	–
Tj = operation limit temperature	Pdh	5.19	kW	Tj = operation limit temperature	COPd	1.23	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	6.44	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.65	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.81	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	6820	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	5.416	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1133	kWh	Annual fuel consumption	AFC	NA	GJ

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(*) 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): GRS-CQ10PdG/NhH3-M							
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	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	160	%
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	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	9.51	kW	Tj = 2 ℃	COPd	2.47	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	5.84	kW	Tj = 7 ℃	COPd	3.56	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	2.78	kW	Tj = 12℃	COPd	5.02	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	9.51	kW	Tj = bivalent temperature	COPd	2.47	–
Tj = operation limit temperature	Pdh	9.51	kW	Tj = operation limit temperature	COPd	2.47	–
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	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.49	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	3109	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	118	%
Daily electricity consumption	Qelec	4.236	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	867	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070				Name of the supplier: GREE ELECTRIC APPLIANCES,INC. OF ZHUHAI			
(*) 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): GRS-CQ10PdG/NhH3-M

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	9	kW	Seasonal space heating energy efficiency	ηs	179	%
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	7.76	kW	Tj = – 7 ℃	COPd	3.15	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.90	kW	Tj = 2 ℃	COPd	4.59	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.04	kW	Tj = 7 ℃	COPd	5.49	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.28	kW	Tj = 12℃	COPd	6.83	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	7.76	kW	Tj = bivalent temperature	COPd	3.15	–
Tj = operation limit temperature	Pdh	7.14	kW	Tj = operation limit temperature	COPd	2.76	–
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	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.86	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	3962	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	117	%
Daily electricity consumption	Qelec	4.256	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	878	kWh	Annual fuel consumption	AFC	NA	GJ

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(*) 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): GRS-CQ10PdG/NhH3-M

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	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	149	%
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	5.22	kW	Tj = – 7 ℃	COPd	3.62	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 2 ℃	Pdh	3.27	kW	Tj = 2 ℃	COPd	4.29	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.53	kW	Tj = 7 ℃	COPd	5.29	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.33	kW	Tj = 12℃	COPd	6.84	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	6.46	kW	Tj = bivalent temperature	COPd	2.68	–
Tj = operation limit temperature	Pdh	3.15	kW	Tj = operation limit temperature	COPd	1.43	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	6.46	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.68	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.85	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	5115	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	5.416	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1133	kWh	Annual fuel consumption	AFC	NA	GJ

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(*) 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): GRS-CQ10PdG/NhH3-M

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	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	230	%
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	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	9.55	kW	Tj = 2 ℃	COPd	3.38	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	5.83	kW	Tj = 7 ℃	COPd	5.07	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	2.78	kW	Tj = 12℃	COPd	7.32	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	9.55	kW	Tj = bivalent temperature	COPd	3.38	–
Tj = operation limit temperature	Pdh	9.55	kW	Tj = operation limit temperature	COPd	3.38	–
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	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.45	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	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	4972	m 3 /h
Sound power level, outdoors	L_{WA}	64	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}	2182	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	118	%
Daily electricity consumption	Qelec	4.236	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	867	kWh	Annual fuel consumption	AFC	NA	GJ

Contact details: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070	Name of the supplier: GREE ELECTRIC APPLIANCES,INC. OF ZHUHAI

(*) 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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