

Certification Date

Testing basis

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<u>Login</u> VERSATI AIO G2 8-10kW Summary of Reg. No. 041-K004-11 Certificate Holder Name Gree Electric Appliances, Inc. of Zhuhai 519070 Address West Jinji Rd Zip Qianshan, Zhuhai, Guangdong Country China City Certification Body **BRE Global Limited** Subtype title VERSATI AIO G2 8-10kW Heat Pump Type Outdoor Air/Water Refrigerant R32 Mass of Refrigerant 1.1 kg

Heat Pump Keymark Scheme Rules Rev 09

18.01.2022

Model: GRS-CQ8.0PdG/NhH2-E

Configure model		
Model name	GRS-CQ8.0PdG/NhH2-E	
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	8.00 kW	7.98 kW	
El input	1.61 kW	2.60 kW	
СОР	4.97	3.06	

EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	181 %	129 %
Prated	7.00 kW	7.00 kW
SCOP	4.60	3.30
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.20 kW	6.30 kW
COP Tj = -7°C	2.94	2.24
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.90 kW	4.10 kW
COP Tj = +2°C	4.39	3.18
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	3.00 kW	4.30 kW
COP Tj = +7°C	6.29	4.26
Cdh Tj = +7 °C	0.950	0.970





Pdh Tj = 12°C	3.60 kW	5.00 kW
COP Tj = 12°C	8.43	5.93
Cdh Tj = +12 °C	0.940	0.970
Pdh Tj = Tbiv	6.20 kW	6.30 kW
COP Tj = Tbiv	2.94	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.90 kW	6.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.69	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	0.70 kW
Annual energy consumption Qhe	3149 kWh	4371 kWh

Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	217 %	159 %
Prated	8.00 kW	8.00 kW
SCOP	5.50	4.05
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.20 kW	8.10 kW
COP Tj = +2°C	3.58	2.52
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.40 kW	5.30 kW
$COP Tj = +7^{\circ}C$	4.84	3.38
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	5.10 kW	5.20 kW
COP Tj = 12°C	7.08	5.42
Cdh Tj = +12 °C	0.960	0.970





Pdh Tj = Tbiv	8.20 kW	8.10 kW
COP Tj = Tbiv	3.58	2.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.20 kW	8.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.58	2.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
РТО	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1947 kWh	2645 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	47 dB(A)	47 dB(A)	
Sound power level outdoor	67 dB(A)	67 dB(A)	

EN 14825





This information was general	Low temperature	Medium temperature
η_{S}	146 %	112 %
Prated	7.00 kW	7.00 kW
SCOP	3.72	2.87
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.50 kW	4.60 kW
COP Tj = -7° C	3.26	2.64
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = $+2$ °C	3.30 kW	3.30 kW
$COP Tj = +2^{\circ}C$	4.26	3.24
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = $+7$ °C	4.30 kW	4.20 kW
$COP Tj = +7^{\circ}C$	6.04	4.76
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	4.90 kW	4.70 kW
COP Tj = 12°C	7.26	5.86
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	5.80 kW	5.90 kW
COP Tj = Tbiv	2.63	1.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.50 kW	2.90 kW





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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.52	1.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
РТО	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.50 kW	4.10 kW
Annual energy consumption Qhe	4628 kWh	5982 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.90
COP Tj = -15°C (if TOL<-20°C)	2.63	1.77
Cdh Tj = -15 °C	0.990	0.990

Domestic Hot Water (DHW)

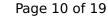


EN 16147	
Declared load profile	L
Efficiency ηDHW	123 %
СОР	2.92
Heating up time	1:47 h:min
Standby power input	36.1 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	226 I

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	143 %	
СОР	3.40	
Heating up time	1:33 h:min	
Standby power input	30.0 W	
Reference hot water temperature	53.2 °C	
Mixed water at 40°C	226	

Colder Climate





EN 16147	
Declared load profile	L
Efficiency ηDHW	94 %
СОР	2.25
Heating up time	1:58 h:min
Standby power input	38.2 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	226 I



Model: GRS-CQ10PdG/NhH2-E

Configure model		
Model name GRS-CQ10PdG/NhH2-E		
Application	Heating + DHW + low temp	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

Heating

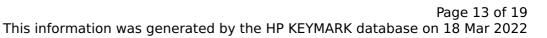
EN 14511-2			
Low temperature Medium temperature			
Heat output	10.00 kW	9.47 kW	
El input	2.10 kW	3.12 kW	
СОР	4.76	3.04	

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	181 %	127 %
Prated	9.00 kW	8.00 kW
SCOP	4.60	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.70 kW	6.90 kW
COP Tj = -7°C	2.87	2.12
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.80 kW	4.20 kW
COP Tj = +2°C	4.34	3.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	3.10 kW	4.30 kW
COP Tj = +7°C	6.58	4.34
Cdh Tj = +7 °C	0.950	0.970





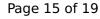
Pdh Tj = 12°C	3.70 kW	4.90 kW
COP Tj = 12°C	8.37	5.91
Cdh Tj = +12 °C	0.940	0.970
Pdh Tj = Tbiv	7.70 kW	6.90 kW
COP Tj = Tbiv	2.87	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.10 kW	6.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.90 kW	1.20 kW
Annual energy consumption Qhe	4038 kWh	5091 kWh

Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	217 %	161 %
Prated	9.00 kW	9.00 kW
SCOP	5.50	4.10
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.80 kW	9.00 kW
COP Tj = +2°C	3.15	2.48
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.80 kW	5.90 kW
COP Tj = +7°C	4.86	3.56
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	5.10 kW	5.20 kW
COP Tj = 12°C	7.18	5.30
Cdh Tj = +12 °C	0.960	0.970



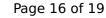


Pdh Tj = Tbiv	8.80 kW	9.00 kW
COP Tj = Tbiv	3.15	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.80 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	2.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2183 kWh	2927 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825





	Low temperature	Medium temperature
η_{s}	149 %	110 %
Prated	8.00 kW	8.00 kW
SCOP	3.80	2.82
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.20 kW	5.30 kW
COP Tj = -7°C	3.25	2.42
Cdh Tj = -7 °C	0.980	0.990
Pdh Tj = +2°C	3.20 kW	3.10 kW
COP Tj = +2°C	4.31	3.23
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	4.30 kW	4.20 kW
$COP Tj = +7^{\circ}C$	6.11	4.78
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	4.90 kW	4.80 kW
COP Tj = 12°C	7.30	5.91
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	6.40 kW	6.70 kW
COP Tj = Tbiv	2.69	1.83
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.60 kW	3.30 kW



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.22
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.40 kW	4.70 kW
Annual energy consumption Qhe	5201 kWh	6985 kWh
Pdh Tj = -15°C (if TOL<-20°C)	6.40	6.70
COP Tj = -15°C (if TOL $<$ -20°C)	2.69	1.83
Cdh Tj = -15 °C	0.990	0.990

Domestic Hot Water (DHW)

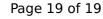


EN 16147	
Declared load profile	L
Efficiency ηDHW	123 %
СОР	2.92
Heating up time	1:47 h:min
Standby power input	36.1 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	226

Warmer Climate

EN 16147	
Declared load profile	L
Efficiency ηDHW	143 %
СОР	3.40
Heating up time	1:33 h:min
Standby power input	30.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	226

Colder Climate





EN 16147		
Declared load profile	L	
Efficiency ηDHW	94 %	
СОР	2.25	
Heating up time	1:58 h:min	
Standby power input	38.2 W	
Reference hot water temperature	53.0 °C	
Mixed water at 40°C	226	