

Subtype VERSATI AIO G2 8/10kW

Certificate Holder	Gree Electric Appliances, Inc. of Zhuhai
Address	West Jinji Rd
ZIP	519070
City	Qianshan, Zhuhai, Guangdong
Country	CN
Certification Body	BRE Global Limited
Subtype title	VERSATI AIO G2 8/10kW
Registration number	041-K004-20
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.84 kg
Certification Date	11.11.2022
Testing basis	Heat Pump Keymark Scheme Rules Rev 09

**Model GRS-CQ8.0PdG/NhH2-M**

Model name	GRS-CQ8.0PdG/NhH2-M
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	117 %
COP	2.74
Heating up time	1:28 h:min
Standby power input	46.8 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	234 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	90 %
COP	2.15
Heating up time	1:48 h:min
Standby power input	47.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	230 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	118 %
COP	2.75
Heating up time	2:28 h:min
Standby power input	52.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	237 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	8 kW	7.2 kW
El input	1.63 kW	3.19 kW
COP	4.91	2.26
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	178 %	136 %
Prated	8 kW	9 kW
SCOP	4.53	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.3 kW	7.9 kW
COP Tj = -7°C	2.96	2.32
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.5 kW	4.9 kW
COP Tj = +2°C	4.59	3.36
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	3.8 kW	4.2 kW
COP Tj = +7°C	5.53	4.6
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	4.3 kW	4.1 kW
COP Tj = 12°C	6.86	5.34
Cdh Tj = +12 °C	0.95	0.96
Pdh Tj = Tbiv	7.3 kW	7.9 kW
COP Tj = Tbiv	2.96	2.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.3 kW	7.1 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	1.92
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	0.7 kW	1.9 kW
Annual energy consumption Qhe	3768 kWh	5350 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	127 %	106 %
Prated	8 kW	8 kW
SCOP	3.25	2.73
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.1 kW	4.8 kW
COP Tj = -7°C	2.65	2.07
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	4 kW	3.4 kW
COP Tj = +2°C	3.68	3.27
Cdh Tj = +2 °C	0.97	0.97
Pdh Tj = +7°C	3.8 kW	3.8 kW
COP Tj = +7°C	4.84	4
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	4.1 kW	4.1 kW
COP Tj = 12°C	6.26	5.47
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	6.3 kW	6.7 kW
COP Tj = Tbiv	2.73	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.8 kW	5.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.8
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	2.2 kW	2.3 kW
Annual energy consumption Qhe	5925 kWh	7481 kWh
Pdh Tj = -15°C (if TOL)	6.3	6.7
COP Tj = -15°C (if TOL)	2.73	2.12

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	202 %	154 %
Prated	8 kW	9 kW
SCOP	5.13	3.93
Tbiv	2 °C	2 °C

TOL	2 °C	2 °C
Pdh Tj = +2°C	8.4 kW	8.5 kW
COP Tj = +2°C	3.61	2.41
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.5 kW	6.1 kW
COP Tj = +7°C	4.65	3.64
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	4.1 kW	3.8 kW
COP Tj = 12°C	6.26	4.67
Cdh Tj = +12 °C	0.96	0.98
Pdh Tj = Tbiv	8.4 kW	8.5 kW
COP Tj = Tbiv	3.61	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.4 kW	8.5 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.61	2.41
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 kW	0 kW
Annual energy consumption Qhe	2199 kWh	2916 kWh

**Model GRS-CQ10PdG/NhH2-M**

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Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	n/a

**Outdoor Air/Water****EN 16147 | Average Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	117 %
COP	2.74
Heating up time	1:28 h:min
Standby power input	46.8 W
Reference hot water temperature	53.0 °C
Mixed water at 40°C	234 l

**EN 16147 | Colder Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	90 %
COP	2.15
Heating up time	1:48 h:min
Standby power input	47.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	230 l

**EN 16147 | Warmer Climate**

Declared load profile	L
Efficiency $\eta_{DHW}$	118 %
COP	2.75
Heating up time	2:28 h:min
Standby power input	52.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	237 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Defrost test	passed	
Starting and operating test	passed	
<b>EN 14511-2   Heating</b>		
	Low temperature	Medium temperature
Heat output	10 kW	8.55 kW
El input	2.15 kW	3.89 kW
COP	4.65	2.2
<b>EN 12102-1   Average Climate</b>		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)
<b>EN 14825   Average Climate</b>		
	Low temperature	Medium temperature
$\eta_s$	185 %	136 %
Prated	9 kW	10 kW
SCOP	4.7	3.48
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.7 kW	8.6 kW
COP Tj = -7°C	2.69	2.25
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5 kW	5.2 kW
COP Tj = +2°C	4.71	3.36
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	3.9 kW	4.2 kW
COP Tj = +7°C	6.52	4.71
Cdh Tj = +7 °C	0.95	0.97
Pdh Tj = 12°C	4.4 kW	4.1 kW
COP Tj = 12°C	7.03	5.36
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	7.7 kW	8.6 kW
COP Tj = Tbiv	2.69	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.1 kW	7.6 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.75	2.11
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	0.9 kW	2.4 kW
Annual energy consumption Qhe	3829 kWh	5753 kWh

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	126 %	124 %
Prated	8 kW	9 kW
SCOP	3.23	3.18
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.1 kW	5.5 kW
COP Tj = -7°C	2.65	2.98
Cdh Tj = -7 °C	0.98	0.98
Pdh Tj = +2°C	4 kW	3.2 kW
COP Tj = +2°C	3.68	3.56
Cdh Tj = +2 °C	0.97	0.97
Pdh Tj = +7°C	3.8 kW	3.7 kW
COP Tj = +7°C	4.84	3.99
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	4.1 kW	4.1 kW
COP Tj = 12°C	6.26	5.45
Cdh Tj = +12 °C	0.96	0.96
Pdh Tj = Tbiv	6.5 kW	7.7 kW
COP Tj = Tbiv	2.51	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.8 kW	5.7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.94	1.8
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	2.2 kW	3.3 kW
Annual energy consumption Qhe	6118 kWh	7255 kWh
Pdh Tj = -15°C (if TOL)	6.5	7.7
COP Tj = -15°C (if TOL)	2.51	2.23

**EN 14825 | Warmer Climate**

	Low temperature	Medium temperature
ηs	200 %	154 %
Prated	9 kW	9 kW
SCOP	5.08	3.93
Tbiv	2 °C	2 °C

TOL	2 °C	2 °C
Pdh Tj = +2°C	8.9 kW	9.3 kW
COP Tj = +2°C	2.87	2.38
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	5.5 kW	6.1 kW
COP Tj = +7°C	4.65	3.64
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	4.1 kW	3.8 kW
COP Tj = 12°C	6.34	4.67
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	8.9 kW	9.3 kW
COP Tj = Tbiv	2.87	2.38
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.9 kW	9.3 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	2.38
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 kW	0 kW
Annual energy consumption Qhe	2350 kWh	3190 kWh