

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 η_{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 η_{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 η_{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	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	8 kW	7.2 kW
El input	1.63 kW	3.19 kW
COP	4.91	2.26
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
η_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 Q _{he}	3768 kWh	5350 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	127 %	106 %
Prated	8 kW	8 kW
SCOP	3.25	2.73
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.1 kW	4.8 kW
COP T _j = -7°C	2.65	2.07
C _{dh} T _j = -7 °C	0.98	0.98
P _{dh} T _j = +2°C	4 kW	3.4 kW
COP T _j = +2°C	3.68	3.27
C _{dh} T _j = +2 °C	0.97	0.97
P _{dh} T _j = +7°C	3.8 kW	3.8 kW
COP T _j = +7°C	4.84	4
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	4.1 kW	4.1 kW
COP T _j = 12°C	6.26	5.47
C _{dh} T _j = +12 °C	0.96	0.96
P _{dh} T _j = T _{biv}	6.3 kW	6.7 kW
COP T _j = T _{biv}	2.73	2.12
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	5.8 kW	5.7 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.94	1.8
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	5925 kWh	7481 kWh
P _{dh} T _j = -15°C (if TOL	6.3	6.7
COP T _j = -15°C (if TOL	2.73	2.12

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	202 %	154 %
Prated	8 kW	9 kW
SCOP	5.13	3.93
T _{biv}	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

Model name	GRS-CQ10PdG/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 η_{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 η_{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 η_{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	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	10 kW	8.55 kW
El input	2.15 kW	3.89 kW
COP	4.65	2.2
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
η_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 Q _{he}	3829 kWh	5753 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	126 %	124 %
Prated	8 kW	9 kW
SCOP	3.23	3.18
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.1 kW	5.5 kW
COP T _j = -7°C	2.65	2.98
C _{dh} T _j = -7 °C	0.98	0.98
P _{dh} T _j = +2°C	4 kW	3.2 kW
COP T _j = +2°C	3.68	3.56
C _{dh} T _j = +2 °C	0.97	0.97
P _{dh} T _j = +7°C	3.8 kW	3.7 kW
COP T _j = +7°C	4.84	3.99
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	4.1 kW	4.1 kW
COP T _j = 12°C	6.26	5.45
C _{dh} T _j = +12 °C	0.96	0.96
P _{dh} T _j = T _{biv}	6.5 kW	7.7 kW
COP T _j = T _{biv}	2.51	2.23
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	5.8 kW	5.7 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.94	1.8
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	6118 kWh	7255 kWh
P _{dh} T _j = -15°C (if TOL	6.5	7.7
COP T _j = -15°C (if TOL	2.51	2.23

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	9 kW	9 kW
SCOP	5.08	3.93
T _{biv}	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