

Subtype Versati monobloc A1 18/22kW

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 monobloc A1 18/22kW
Registration number	041-K004-29
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	4 kg
Certification Date	26.07.2024
Testing basis	Heat Pump KEYMARK certification Scheme rules v14
Testing laboratory	Intertek Testing Services Shenzhen LTD. Guangzhou Branch, CN

Model GRS-CQ18Pd/NhA-M+SXTVD300LC/B-M

Model name	GRS-CQ18Pd/NhA-M+SXTVD300LC/B-M
Application	Heating + DHW + low temp
Units	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	XL
Efficiency η_{DHW}	116 %
COP	2.61
Heating up time	0:50 h:min
Standby power input	133.1 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	343 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	85 %
COP	1.92
Heating up time	0:57 h:min
Standby power input	189.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	341 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	124 %
COP	2.84
Heating up time	0:41 h:min
Standby power input	109.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	339 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	18.00 kW	18.00 kW
El input	3.75 kW	6.50 kW
COP	4.80	2.80

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	181 %	127 %
Prated	19.00 kW	18.00 kW
SCOP	4.60	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	16.85 kW	16.35 kW
COP Tj = -7°C	2.69	1.98
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	10.81 kW	9.17 kW
COP Tj = +2°C	4.49	3.10
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	6.11 kW	6.35 kW
COP Tj = +7°C	6.29	4.49
Cdh Tj = +7 °C	0.960	0.980
Pdh Tj = 12°C	5.68 kW	5.40 kW
COP Tj = 12°C	7.86	5.39
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	16.85 kW	16.35 kW
COP Tj = Tbiv	2.69	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.84 kW	16.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.16 kW	1.81 kW
Annual energy consumption Q _{he}	8514 kWh	11730 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	148 %	117 %
Prated	17.00 kW	18.00 kW
SCOP	3.78	3.00
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	11.12 kW	11.37 kW
COP T _j = -7°C	3.17	2.41
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	6.92 kW	6.94 kW
COP T _j = +2°C	4.24	3.59
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	4.55 kW	4.25 kW
COP T _j = +7°C	5.50	4.43
C _{dh} T _j = +7 °C	0.960	0.970
P _{dh} T _j = 12°C	5.67 kW	5.39 kW
COP T _j = 12°C	7.56	5.55
C _{dh} T _j = +12 °C	0.960	0.970
P _{dh} T _j = T _{biv}	14.17 kW	14.91 kW
COP T _j = T _{biv}	2.66	2.01
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	16.49 kW	17.88 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.14	1.42
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	0.12 kW
Annual energy consumption Q _{he}	11303 kWh	14918 kWh
P _{dh} T _j = -15°C (if TOL	14.17	14.91
COP T _j = -15°C (if TOL	2.66	2.01
C _{dh} T _j = -15 °C		

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	249 %	164 %
Prated	19.00 kW	18.00 kW
SCOP	6.30	4.18
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	18.86 kW	17.69 kW
COP Tj = +2°C	2.94	2.15
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	12.31 kW	11.46 kW
COP Tj = +7°C	5.35	3.42
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	5.90 kW	5.43 kW
COP Tj = 12°C	8.35	5.65
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	18.86 kW	17.69 kW
COP Tj = Tbiv	2.94	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.86 kW	17.69 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	2.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3993 kWh	5636 kWh

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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	XL
Efficiency η_{DHW}	116 %
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Heating up time	0:50 h:min
Standby power input	133.1 W
Reference hot water temperature	53.1 °C
Mixed water at 40°C	343 l

EN 16147 | Colder Climate

Declared load profile	XL
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COP	1.92
Heating up time	0:57 h:min
Standby power input	189.0 W
Reference hot water temperature	53.2 °C
Mixed water at 40°C	341 l

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Declared load profile	XL
Efficiency η_{DHW}	124 %
COP	2.84
Heating up time	0:41 h:min
Standby power input	109.0 W
Reference hot water temperature	52.7 °C
Mixed water at 40°C	339 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	22.00 kW	22.00 kW
El input	4.89 kW	8.30 kW
COP	4.50	2.70
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
η_s	180 %	127 %
Prated	22.00 kW	20.00 kW
SCOP	4.58	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.02 kW	17.34 kW
COP Tj = -7°C	2.65	2.00
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	10.81 kW	10.30 kW
COP Tj = +2°C	4.59	3.10
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	7.27 kW	6.35 kW
COP Tj = +7°C	5.99	4.49
Cdh Tj = +7 °C	0.970	0.980
Pdh Tj = 12°C	5.46 kW	5.40 kW
COP Tj = 12°C	7.67	5.40
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	19.02 kW	17.34 kW
COP Tj = Tbiv	2.65	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	19.48 kW	16.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	1.81
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	25 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.52 kW	3.81 kW
Annual energy consumption Q _{he}	9670 kWh	12441 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	148 %	117 %
Prated	19.00 kW	18.00 kW
SCOP	3.78	3.00
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	11.12 kW	11.37 kW
COP T _j = -7°C	3.17	2.41
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	6.92 kW	6.94 kW
COP T _j = +2°C	4.23	3.59
C _{dh} T _j = +2 °C	0.980	0.980
P _{dh} T _j = +7°C	4.79 kW	4.25 kW
COP T _j = +7°C	5.76	4.43
C _{dh} T _j = +7 °C	0.970	0.970
P _{dh} T _j = 12°C	5.67 kW	5.39 kW
COP T _j = 12°C	7.56	5.55
C _{dh} T _j = +12 °C	0.960	0.960
P _{dh} T _j = T _{biv}	15.33 kW	14.91 kW
COP T _j = T _{biv}	2.69	2.01
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	16.49 kW	17.88 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.14	1.42
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}		
WTOL	65 °C	65 °C
P _{off}	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.51 kW	0.12 kW
Annual energy consumption Q _{he}	12197 kWh	14918 kWh
P _{dh} T _j = -15°C (if TOL	15.33	17.88
COP T _j = -15°C (if TOL	2.69	1.42
C _{dh} T _j = -15 °C		

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	247 %	160 %
Prated	20.00 kW	20.00 kW
SCOP	6.25	4.08
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	19.84 kW	19.94 kW
COP Tj = +2°C	2.63	1.86
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	12.31 kW	12.97 kW
COP Tj = +7°C	5.35	3.33
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	5.90 kW	5.43 kW
COP Tj = 12°C	8.35	5.64
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	19.84 kW	19.94 kW
COP Tj = Tbiv	2.63	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	19.84 kW	19.94 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	25 W	25 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4236 kWh	6508 kWh