

## Subtype VERSATI AIO G3 12/14kW

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 G3 12/14kW
Registration number	041-K004-32
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.84 kg
Certification Date	17.06.2025
Testing basis	Heat Pump Keymark Scheme Rules Rev 15
Testing laboratory	Intertek Testing Services Shenzhen LTD. Guangzhou Branch, CN

## Model GRS-CQ12PdG/NhH3-E

Model name	GRS-CQ12PdG/NhH3-E
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	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	112 %
COP	2.61
Heating up time	1h:7min h:min
Standby power input	52.5 W
Reference hot water temperature	54.6 °C
Mixed water at 40°C	236 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	95 %
COP	2.23
Heating up time	1h:18min h:min
Standby power input	57.5 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	234 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	116 %
COP	2.70
Heating up time	1h:4min h:min
Standby power input	51.7 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	238 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	12.20 kW	12.00 kW
El input	2.42 kW	3.94 kW
COP	5.05	3.05

#### 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)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	187 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.75	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.98 kW	10.99 kW
COP Tj = -7°C	3.39	2.23
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	7.06 kW	6.82 kW
COP Tj = +2°C	4.57	3.43
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	4.52 kW	4.51 kW
COP Tj = +7°C	6.07	4.51
Cdh Tj = +7 °C	0.970	0.970
Pdh Tj = 12°C	4.56 kW	4.81 kW
COP Tj = 12°C	6.80	6.50
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	10.98 kW	10.99 kW
COP Tj = Tbiv	3.39	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.18 kW	11.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.99
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	0.02 kW
Annual energy consumption Q <sub>he</sub>	5379 kWh	7228 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	162 %	127 %
Prated	12.00 kW	11.00 kW
SCOP	4.13	3.25
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.50 kW	7.02 kW
COP T <sub>j</sub> = -7°C	3.16	2.48
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.84 kW	4.44 kW
COP T <sub>j</sub> = +2°C	5.44	4.29
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.95 kW	3.74 kW
COP T <sub>j</sub> = +7°C	5.64	4.40
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.960	0.970
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.62 kW	4.64 kW
COP T <sub>j</sub> = 12°C	7.28	6.05
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.960	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.87 kW	9.03 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.62	1.96
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.80 kW	8.25 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.02	1.41
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	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	3.20 kW	2.75 kW
Annual energy consumption Q <sub>he</sub>	7209 kWh	8392 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	9.87	9.03
COP T <sub>j</sub> = -15°C (if TOL	2.62	1.96
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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$\eta_s$	265 %	166 %
Prated	12.00 kW	13.00 kW
SCOP	6.70	4.23
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.45 kW	13.19 kW
COP Tj = +2°C	3.33	2.33
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.44 kW	9.14 kW
COP Tj = +7°C	6.38	3.89
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	5.04 kW	4.09 kW
COP Tj = 12°C	8.04	5.00
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	12.45 kW	13.19 kW
COP Tj = Tbiv	3.33	2.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.45 kW	13.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	2.33
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	2474 kWh	4169 kWh

## Model GRS-CQ14PdG/NhH3-E

Model name	GRS-CQ14PdG/NhH3-E
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	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	112 %
COP	2.61
Heating up time	1h:7min h:min
Standby power input	52.5 W
Reference hot water temperature	54.6 °C
Mixed water at 40°C	236 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	95 %
COP	2.23
Heating up time	1h:18min h:min
Standby power input	57.5 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	234 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	116 %
COP	2.70
Heating up time	1h:4min h:min
Standby power input	51.7 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	238 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	14.45 kW	14.00 kW
El input	3.17 kW	4.44 kW
COP	4.56	3.10

#### 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)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	144 %
Prated	13.00 kW	13.00 kW
SCOP	4.70	3.68
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.18 kW	11.23 kW
COP Tj = -7°C	3.32	2.91
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	7.45 kW	6.82 kW
COP Tj = +2°C	4.49	3.43
Cdh Tj = +2 °C	0.970	0.990
Pdh Tj = +7°C	4.62 kW	4.58 kW
COP Tj = +7°C	6.04	4.30
Cdh Tj = +7 °C	0.930	0.970
Pdh Tj = 12°C	4.56 kW	4.80 kW
COP Tj = 12°C	6.87	6.52
Cdh Tj = +12 °C	0.900	0.960
Pdh Tj = Tbiv	11.18 kW	11.23 kW
COP Tj = Tbiv	3.32	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.19 kW	11.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	1.99
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	0.81 kW	1.02 kW
Annual energy consumption Q <sub>he</sub>	5549 kWh	7124 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	163 %	117 %
Prated	13.00 kW	12.00 kW
SCOP	4.15	3.00
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.50 kW	7.02 kW
COP T <sub>j</sub> = -7°C	3.16	2.48
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.86 kW	4.46 kW
COP T <sub>j</sub> = +2°C	5.46	3.61
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.980
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.95 kW	3.74 kW
COP T <sub>j</sub> = +7°C	5.64	4.40
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.960	0.970
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.62 kW	4.64 kW
COP T <sub>j</sub> = 12°C	7.28	6.05
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.960	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.66 kW	9.83 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.73	1.89
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.80 kW	8.25 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.02	1.41
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	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	4.20 kW	3.75 kW
Annual energy consumption Q <sub>he</sub>	7750 kWh	9858 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	10.66	9.83
COP T <sub>j</sub> = -15°C (if TOL	2.73	1.89
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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$\eta_s$	266 %	171 %
Prated	13.00 kW	14.00 kW
SCOP	6.73	4.35
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.84 kW	14.08 kW
COP Tj = +2°C	3.30	2.37
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.46 kW	9.57 kW
COP Tj = +7°C	6.39	3.89
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	5.04 kW	4.21 kW
COP Tj = 12°C	8.04	5.30
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	12.84 kW	14.08 kW
COP Tj = Tbiv	3.30	2.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.84 kW	14.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.30	2.37
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	2549 kWh	4322 kWh

## Model GRS-CQ12PdG/NhH3-M

Model name	GRS-CQ12PdG/NhH3-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 $\eta_{DHW}$	112 %
COP	2.61
Heating up time	1h:7min h:min
Standby power input	52.5 W
Reference hot water temperature	54.6 °C
Mixed water at 40°C	236 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	95 %
COP	2.23
Heating up time	1h:18min h:min
Standby power input	57.5 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	234 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	116 %
COP	2.70
Heating up time	1h:4min h:min
Standby power input	51.7 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	238 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	12.20 kW	12.00 kW
El input	2.42 kW	3.94 kW
COP	5.05	3.05

#### 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)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	179 %	133 %
Prated	12.00 kW	12.00 kW
SCOP	4.55	3.40
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.03 kW	11.04 kW
COP Tj = -7°C	3.24	2.13
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	7.11 kW	6.87 kW
COP Tj = +2°C	4.37	3.28
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.57 kW	4.56 kW
COP Tj = +7°C	5.82	4.33
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	4.61 kW	4.81 kW
COP Tj = 12°C	6.52	6.16
Cdh Tj = +12 °C	0.960	0.910
Pdh Tj = Tbiv	11.03 kW	11.04 kW
COP Tj = Tbiv	3.24	2.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	12.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.91
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 Q <sub>he</sub>	5644 kWh	7582 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	157 %	116 %
Prated	12.00 kW	11.00 kW
SCOP	4.00	2.98
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.59 kW	7.07 kW
COP T <sub>j</sub> = -7°C	3.14	2.48
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.95 kW	4.49 kW
COP T <sub>j</sub> = +2°C	5.18	3.54
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.04 kW	3.79 kW
COP T <sub>j</sub> = +7°C	5.38	4.33
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.960	0.970
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.71 kW	4.69 kW
COP T <sub>j</sub> = 12°C	6.90	5.92
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.960	0.960
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	9.92 kW	9.08 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.56	1.88
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.89 kW	8.30 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.90	1.37
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	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	3.11 kW	2.70 kW
Annual energy consumption Q <sub>he</sub>	7487 kWh	9189 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	9.92	9.08
COP T <sub>j</sub> = -15°C (if TOL	2.56	1.88
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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$\eta_s$	254 %	162 %
Prated	12.00 kW	13.00 kW
SCOP	6.43	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.49 kW	13.24 kW
COP Tj = +2°C	3.18	2.27
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.49 kW	9.19 kW
COP Tj = +7°C	6.09	3.80
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	5.09 kW	4.13 kW
COP Tj = 12°C	7.70	4.91
Cdh Tj = +12 °C	0.960	0.970
Pdh Tj = Tbiv	12.49 kW	13.24 kW
COP Tj = Tbiv	3.18	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.49 kW	13.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.27
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	2595 kWh	4268 kWh

## Model GRS-CQ14PdG/NhH3-M

Model name	GRS-CQ14PdG/NhH3-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 $\eta_{DHW}$	112 %
COP	2.61
Heating up time	1h:7min h:min
Standby power input	52.5 W
Reference hot water temperature	54.6 °C
Mixed water at 40°C	236 l

### EN 16147 | Colder Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	95 %
COP	2.23
Heating up time	1h:18min h:min
Standby power input	57.5 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	234 l

### EN 16147 | Warmer Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	116 %
COP	2.70
Heating up time	1h:4min h:min
Standby power input	51.7 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	238 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	14.50 kW	14.00 kW
El input	3.02 kW	4.52 kW
COP	4.80	3.10

#### 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)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	177 %	131 %
Prated	13.00 kW	13.00 kW
SCOP	4.50	3.35
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.23 kW	11.28 kW
COP Tj = -7°C	3.18	2.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	7.50 kW	6.87 kW
COP Tj = +2°C	4.29	3.28
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.70 kW	4.63 kW
COP Tj = +7°C	5.80	4.13
Cdh Tj = +7 °C	0.950	0.950
Pdh Tj = 12°C	4.61 kW	4.85 kW
COP Tj = 12°C	6.58	6.24
Cdh Tj = +12 °C	0.910	0.910
Pdh Tj = Tbiv	11.23 kW	11.28 kW
COP Tj = Tbiv	3.18	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.19 kW	12.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.44	1.91
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	0.81 kW	0.97 kW
Annual energy consumption Q <sub>he</sub>	5815 kWh	7850 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	155 %	115 %
Prated	13.00 kW	12.00 kW
SCOP	3.95	2.95
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	7.60 kW	7.07 kW
COP T <sub>j</sub> = -7°C	3.06	2.43
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = +2°C	4.95 kW	4.51 kW
COP T <sub>j</sub> = +2°C	5.18	3.54
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.970	0.970
P <sub>dh</sub> T <sub>j</sub> = +7°C	4.04 kW	3.79 kW
COP T <sub>j</sub> = +7°C	5.38	4.33
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.950	0.940
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.71 kW	4.69 kW
COP T <sub>j</sub> = 12°C	6.90	5.92
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.950	0.930
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	10.76 kW	9.88 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.57	1.84
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.90 kW	8.30 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.90	1.38
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>		
WTOL	65 °C	65 °C
P <sub>off</sub>	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	4.10 kW	3.70 kW
Annual energy consumption Q <sub>he</sub>	8183 kWh	10111 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	10.76	9.88
COP T <sub>j</sub> = -15°C (if TOL	2.57	1.84
C <sub>dh</sub> T <sub>j</sub> = -15 °C		

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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$\eta_s$	253 %	165 %
Prated	13.00 kW	14.00 kW
SCOP	6.40	4.20
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.89 kW	14.14 kW
COP Tj = +2°C	3.15	2.26
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	8.51 kW	9.62 kW
COP Tj = +7°C	6.11	3.80
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	5.09 kW	4.26 kW
COP Tj = 12°C	7.70	5.09
Cdh Tj = +12 °C	0.950	0.940
Pdh Tj = Tbiv	12.89 kW	14.14 kW
COP Tj = Tbiv	3.15	2.26
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.89 kW	14.14 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	2.26
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	2674 kWh	4481 kWh