

## Subtype Versati split G1 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 split G1 8/10kW
Registration number	041-K004-17
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
Testing laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch, CN

## Model GRS-CQ8.0Pd/NhH-M+SXTVD300LC/B-M

Model name	GRS-CQ8.0Pd/NhH-M+SXTVD300LC/B-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	XL
Efficiency $\eta_{DHW}$	118 %
COP	2.79
Heating up time	2:28 h:min
Standby power input	69.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	329 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.59
Heating up time	2:57 h:min
Standby power input	63.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	336 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.07
Heating up time	2:28 h:min
Standby power input	58 W
Reference hot water temperature	52 °C
Mixed water at 40°C	326 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	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	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 Q <sub>he</sub>	3769 kWh	5352 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	127 %	106 %
Prated	8 kW	8 kW
SCOP	3.25	2.73
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.1 kW	4.8 kW
COP T <sub>j</sub> = -7°C	2.65	2.07
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +2°C	4 kW	3.4 kW
COP T <sub>j</sub> = +2°C	3.68	3.27
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.97	0.97
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.8 kW	3.8 kW
COP T <sub>j</sub> = +7°C	4.84	4
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.96	0.97
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.1 kW	4.1 kW
COP T <sub>j</sub> = 12°C	6.26	5.47
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.96	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	6.3 kW	6.7 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.73	2.12
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>	5.8 kW	5.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.94	1.8
WTOL	60 °C	60 °C
P <sub>off</sub>	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 <sub>he</sub>	5925 kWh	7513 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.3	6.7
COP T <sub>j</sub> = -15°C (if TOL	2.73	2.12

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	202 %	154 %
Prated	8 kW	9 kW
SCOP	5.13	3.93
T <sub>biv</sub>	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-CQ10Pd/NhH-M+SXTVD300LC/B-M

Model name	GRS-CQ10Pd/NhH-M+SXTVD300LC/B-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	XL
Efficiency $\eta_{DHW}$	118 %
COP	2.79
Heating up time	2:28 h:min
Standby power input	69.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	329 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.59
Heating up time	2:57 h:min
Standby power input	63.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	336 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.07
Heating up time	2:28 h:min
Standby power input	58 W
Reference hot water temperature	52 °C
Mixed water at 40°C	326 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	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	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 Q <sub>he</sub>	3833 kWh	5763 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	126 %	124 %
Prated	8 kW	9 kW
SCOP	3.23	3.18
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.1 kW	5.5 kW
COP T <sub>j</sub> = -7°C	2.65	2.98
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +2°C	4 kW	3.2 kW
COP T <sub>j</sub> = +2°C	3.68	3.56
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.97	0.97
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.8 kW	3.7 kW
COP T <sub>j</sub> = +7°C	4.84	3.99
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.96	0.97
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.1 kW	4.1 kW
COP T <sub>j</sub> = 12°C	6.26	5.45
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.96	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	6.5 kW	7.7 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.51	2.23
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>	5.8 kW	5.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.94	1.74
WTOL	60 °C	60 °C
P <sub>off</sub>	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 <sub>he</sub>	6118 kWh	7255 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.5	7.7
COP T <sub>j</sub> = -15°C (if TOL	2.51	2.23

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	196 %	154 %
Prated	9 kW	9 kW
SCOP	4.98	3.93
T <sub>biv</sub>	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	0.99	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	2403 kWh	3190 kWh

## Model GRS-CQ8.0Pd/NhH-M

Model name	GRS-CQ8.0Pd/NhH-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	XL
Efficiency $\eta_{DHW}$	118 %
COP	2.79
Heating up time	2:28 h:min
Standby power input	69.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	329 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.59
Heating up time	2:57 h:min
Standby power input	63.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	336 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.07
Heating up time	2:28 h:min
Standby power input	58 W
Reference hot water temperature	52 °C
Mixed water at 40°C	326 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	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	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 Q <sub>he</sub>	3769 kWh	5352 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	127 %	106 %
Prated	8 kW	8 kW
SCOP	3.25	2.73
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.1 kW	4.8 kW
COP T <sub>j</sub> = -7°C	2.65	2.07
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +2°C	4 kW	3.4 kW
COP T <sub>j</sub> = +2°C	3.68	3.27
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.97	0.97
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.8 kW	3.8 kW
COP T <sub>j</sub> = +7°C	4.84	4
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.96	0.97
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.1 kW	4.1 kW
COP T <sub>j</sub> = 12°C	6.26	5.47
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.96	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	6.3 kW	6.7 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.73	2.12
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>	5.8 kW	5.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.94	1.8
WTOL	60 °C	60 °C
P <sub>off</sub>	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 <sub>he</sub>	5925 kWh	7513 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.3	6.7
COP T <sub>j</sub> = -15°C (if TOL	2.73	2.12

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	202 %	154 %
Prated	8 kW	9 kW
SCOP	5.13	3.93
T <sub>biv</sub>	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-CQ10Pd/NhH-M

Model name	GRS-CQ10Pd/NhH-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	XL
Efficiency $\eta_{DHW}$	118 %
COP	2.79
Heating up time	2:28 h:min
Standby power input	69.6 W
Reference hot water temperature	52 °C
Mixed water at 40°C	329 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	108 %
COP	2.59
Heating up time	2:57 h:min
Standby power input	63.6 W
Reference hot water temperature	52 °C
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### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.07
Heating up time	2:28 h:min
Standby power input	58 W
Reference hot water temperature	52 °C
Mixed water at 40°C	326 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	42 dB(A)	42 dB(A)
Sound power level outdoor	64 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	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 Q <sub>he</sub>	3833 kWh	5763 kWh

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	126 %	124 %
Prated	8 kW	9 kW
SCOP	3.23	3.18
T <sub>biv</sub>	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.1 kW	5.5 kW
COP T <sub>j</sub> = -7°C	2.65	2.98
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.98	0.98
P <sub>dh</sub> T <sub>j</sub> = +2°C	4 kW	3.2 kW
COP T <sub>j</sub> = +2°C	3.68	3.56
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.97	0.97
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.8 kW	3.7 kW
COP T <sub>j</sub> = +7°C	4.84	3.99
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.96	0.97
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.1 kW	4.1 kW
COP T <sub>j</sub> = 12°C	6.26	5.45
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.96	0.96
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	6.5 kW	7.7 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.51	2.23
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>	5.8 kW	5.7 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.94	1.74
WTOL	60 °C	60 °C
P <sub>off</sub>	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 <sub>he</sub>	6118 kWh	7255 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.5	7.7
COP T <sub>j</sub> = -15°C (if TOL	2.51	2.23

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	196 %	154 %
Prated	9 kW	9 kW
SCOP	4.98	3.93
T <sub>biv</sub>	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	0.99	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	2403 kWh	3190 kWh