Subtype Vitocal 3xx-G C12

Certificate Holder	Viessmann Climate Solutions GmbH & Co. KG
Address	Viessmannstr. 1
ZIP	35107
City	Allendorf/Eder
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Vitocal 3xx-G C12
Registration number	011-1W0292
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	2.3 kg
Certification Date	11.07.2019

Model VITOCAL 300-G BWC 301.C12	
Model name	VITOCAL 300-G BWC 301.C12
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water

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	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	205 %	151 %
Prated	12.00 kW	12.00 kW
SCOP	5.32	3.97
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.07 kW	10.86 kW
COP Tj = -7°C	4.26	3.05
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.75 kW	6.66 kW
COP Tj = +2°C	5.28	3.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.56 kW	4.41 kW
COP Tj = +7°C	6.03	4.57

Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.46 kW	2.37 kW
COP Tj = 12°C	6.03	4.93
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.49 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Annual energy consumption Qhe	4661 kWh	6242 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.70 kW	7.62 kW
COP Tj = -7°C	5.18	3.71
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.56 kW	4.52 kW
COP Tj = +2°C	6.03	4.47
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.45 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL	9.70	9.35
COP Tj = -15°C (if TOL	4.60	3.29
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	10.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.08	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

EN 14825 | Average Climate	
Pdesignh	12.00 kW
Backup Heater	0.00 kW

Model VITOCAL 300-G BWC 301.C12 SC	
Model name	VITOCAL 300-G BWC 301.C12 SC
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water

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	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	205 %	151 %
Prated	12.00 kW	12.00 kW
SCOP	5.32	3.97
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.07 kW	10.86 kW
COP Tj = -7°C	4.26	3.05
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.75 kW	6.66 kW
COP Tj = +2°C	5.28	3.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.56 kW	4.41 kW
COP Tj = +7°C	6.03	4.57

Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.46 kW	2.37 kW
COP Tj = 12°C	6.03	4.93
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.49 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Annual energy consumption Qhe	4661 kWh	6242 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.70 kW	7.62 kW
COP Tj = -7°C	5.18	3.71
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.56 kW	4.52 kW
COP Tj = +2°C	6.03	4.47
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.45 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL	9.70	9.35
COP Tj = -15°C (if TOL	4.60	3.29
Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	10.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.08	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

EN 14825 | Average Climate	
Pdesignh	12.00 kW
Backup Heater	0.00 kW

Model VITOCAL 333-G BWT 331.C12	
Model name	VITOCAL 333-G BWT 331.C12
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Brine+Water
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water	
EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 l
EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 l
EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 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	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	205 %	151 %
Prated	12.00 kW	12.00 kW
SCOP	5.32	3.97
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.07 kW	10.86 kW
COP Tj = -7°C	4.26	3.05
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.75 kW	6.66 kW
COP Tj = +2°C	5.28	3.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.56 kW	4.41 kW
COP Tj = +7°C	6.03	4.57
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.46 kW	2.37 kW
COP Tj = 12°C	6.03	4.93
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.49 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Annual energy consumption Qhe	4661 kWh	6242 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.70 kW	7.62 kW
COP Tj = -7°C	5.18	3.71
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.56 kW	4.52 kW
COP Tj = +2°C	6.03	4.47
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.45 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL	9.70	9.35
COP Tj = -15°C (if TOL	4.60	3.29

Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	10.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.08	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

EN 14825 | Average Climate	
Pdesignh	12.00 kW
Backup Heater	0.00 kW

Model VITOCAL 333-G BWT 331.C12 SC	
Model name	VITOCAL 333-G BWT 331.C12 SC
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Heat Source	Brine+Water
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Brine/Water	
EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 l
EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 l
EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 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	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	205 %	151 %
Prated	12.00 kW	12.00 kW
SCOP	5.32	3.97
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.07 kW	10.86 kW
COP Tj = -7°C	4.26	3.05
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.75 kW	6.66 kW
COP Tj = +2°C	5.28	3.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.56 kW	4.41 kW
COP Tj = +7°C	6.03	4.57
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.46 kW	2.37 kW
COP Tj = 12°C	6.03	4.93
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.49 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Annual energy consumption Qhe	4661 kWh	6242 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.70 kW	7.62 kW
COP Tj = -7°C	5.18	3.71
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.56 kW	4.52 kW
COP Tj = +2°C	6.03	4.47
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh Tj = +12 °C	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.45 kW	10.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.09	2.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL	9.70	9.35
COP Tj = -15°C (if TOL	4.60	3.29

Cdh Tj = -15 °C	0.99	0.99

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
Cdh Tj = +12 °C	0.99	0.98
Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	10.83 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.08	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

EN 14825 | Average Climate

Pdesignh	12.00 kW
Backup Heater	0.00 kW