Subtype Vitocal 2xx-G B08

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 2xx-G B08
Registration number	011-1W0286
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R410A
Mass of Refrigerant	1.7 kg
Certification Date	11.07.2019

Model VITOCAL 200-G BWC 201.B08	
Model name	VITOCAL 200-G BWC 201.B08
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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 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	7.52 kW	6.95 kW
El input	1.68 kW	2.50 kW
COP	4.47	2.79

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	187 %	134 %
Prated	8.60 kW	7.95 kW
SCOP	4.87	3.56
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.55 kW	7.06 kW
COP Tj = -7°C	4.61	3.01
Cdh Tj = -7 °C	0.992	0.994
Pdh Tj = +2°C	7.62 kW	7.24 kW
COP Tj = +2°C	4.89	3.55
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	7.69 kW	7.38 kW

COP Tj = +7°C	5.16	3.94
Cdh Tj = +7 °C	0.991	0.992
Pdh Tj = 12°C	7.75 kW	7.51 kW
COP Tj = 12°C	5.44	4.38
Cdh Tj = +12 °C	0.990	0.992
Pdh Tj = Tbiv	7.55 kW	7.06 kW
COP Tj = Tbiv	4.61	3.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.08 kW	1.00 kW
Annual energy consumption Qhe	3646 kWh	4612 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	176 %	133 %
Prated	12.50 kW	11.63 kW
SCOP	4.61	3.53
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.68 kW	7.28 kW
COP Tj = -7°C	5.17	3.66
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	7.72 kW	7.40 kW
COP Tj = +2°C	5.32	4.01
Cdh Tj = +2 °C	0.991	0.992
Pdh Tj = +7°C	7.75 kW	7.49 kW
COP Tj = +7°C	5.46	4.35
Cdh Tj = +7 °C	0.990	0.992
Pdh Tj = 12°C	7.75 kW	7.57 kW
COP Tj = 12°C	5.45	4.62
Cdh Tj = +12 °C	0.990	0.991
Pdh Tj = Tbiv	7.68 kW	7.28 kW

COP Tj = Tbiv	5.17	3.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.98 kW	4.68 kW
Annual energy consumption Qhe	6682 kWh	8110 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	188 %	133 %
Prated	7.61 kW	6.92 kW
SCOP	4.89	3.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.52 kW	6.95 kW
COP Tj = +2°C	4.47	2.79
Cdh Tj = +2 °C	0.992	0.994
Pdh Tj = +7°C	7.60 kW	7.13 kW
COP Tj = +7°C	4.78	3.23
Cdh Tj = +7 °C	0.991	0.994
Pdh Tj = 12°C	7.70 kW	7.41 kW
COP Tj = 12°C	5.23	4.05
Cdh Tj = +12 °C	0.991	0.992
Pdh Tj = Tbiv	7.52 kW	6.95 kW
COP Tj = Tbiv	4.47	2.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W

PTO	15 W	15 W
PSB	15 W	15 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	2080 kWh	2623 kWh

Water/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	10.12 kW	9.19 kW
El input	1.68 kW	2.59 kW
COP	6.04	3.55

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	255 %	179 %
Prated	11.50 kW	10.60 kW
SCOP	6.57	4.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.13 kW	9.36 kW
COP Tj = -7°C	6.14	3.87
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.22 kW	9.64 kW
COP Tj = +2°C	6.56	4.56
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.30 kW	9.92 kW
COP Tj = +7°C	6.93	5.32
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.49 kW	10.12 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.13 kW	9.36 kW
COP Tj = Tbiv	6.14	3.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	1.41 kW
Annual energy consumption Qhe	3617 kWh	4695 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	174 %	241 %
Prated	16.00 kW	22.40 kW
SCOP	4.54	6.22
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.78 kW	14.24 kW
COP Tj = -7°C	4.90	7.33
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	9.95 kW	14.29 kW
COP Tj = +2°C	5.37	7.53
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.08 kW	14.37 kW
COP Tj = +7°C	5.85	7.73
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.24 kW	14.36 kW
COP Tj = 12°C	6.35	7.74
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	9.78 kW	14.24 kW
COP Tj = Tbiv	4.90	7.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.19 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.55	6.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.81 kW	8.58 kW
Annual energy consumption Qhe	8684 kWh	8875 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	278 %	177 %
Prated	10.10 kW	9.20 kW
SCOP	7.15	4.62
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.12 kW	9.19 kW
COP Tj = +2°C	6.04	3.55
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.32 kW	9.52 kW
COP Tj = +7°C	6.97	4.22
Cdh Tj = +7 °C	0.995	0.997
Pdh Tj = 12°C	10.42 kW	9.86 kW
COP Tj = 12°C	7.41	5.26
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.43 kW	9.19 kW
COP Tj = Tbiv	7.44	3.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 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	1887 kWh	2661 kWh

Model VITOCAL 200-G BWC 201.B08 SC	
Model name	VITOCAL 200-G BWC 201.B08 SC
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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	n/a

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	7.52 kW	6.95 kW
El input	1.68 kW	2.50 kW
COP	4.47	2.79

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	187 %	134 %
Prated	8.60 kW	7.95 kW
SCOP	4.87	3.56
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.55 kW	7.06 kW
COP Tj = -7°C	4.61	3.01
Cdh Tj = -7 °C	0.992	0.994
Pdh Tj = +2°C	7.62 kW	7.24 kW
COP Tj = +2°C	4.89	3.55
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	7.69 kW	7.38 kW
COP Tj = +7°C	5.16	3.94

Cdh Tj = +7 °C	0.991	0.992
Pdh Tj = 12°C	7.75 kW	7.51 kW
COP Tj = 12°C	5.44	4.38
Cdh Tj = +12 °C	0.990	0.992
Pdh Tj = Tbiv	7.55 kW	7.06 kW
COP Tj = Tbiv	4.61	3.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.08 kW	1.00 kW
Annual energy consumption Qhe	3646 kWh	4612 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	176 %	133 %
Prated	12.50 kW	11.63 kW
SCOP	4.61	3.53
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.68 kW	7.28 kW
COP Tj = -7°C	5.17	3.66
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	7.72 kW	7.40 kW
COP Tj = +2°C	5.32	4.01
Cdh Tj = +2 °C	0.991	0.992
Pdh Tj = +7°C	7.75 kW	7.49 kW
COP Tj = +7°C	5.46	4.35
Cdh Tj = +7 °C	0.990	0.992
Pdh Tj = 12°C	7.75 kW	7.57 kW
COP Tj = 12°C	5.45	4.62
Cdh Tj = +12 °C	0.990	0.991
Pdh Tj = Tbiv	7.68 kW	7.28 kW
COP Tj = Tbiv	5.17	3.66

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.98 kW	4.68 kW
Annual energy consumption Qhe	6682 kWh	8110 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	188 %	133 %
Prated	7.61 kW	6.92 kW
SCOP	4.89	3.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.52 kW	6.95 kW
COP Tj = +2°C	4.47	2.79
Cdh Tj = +2 °C	0.992	0.994
Pdh Tj = +7°C	7.60 kW	7.13 kW
COP Tj = +7°C	4.78	3.23
Cdh Tj = +7 °C	0.991	0.994
Pdh Tj = 12°C	7.70 kW	7.41 kW
COP Tj = 12°C	5.23	4.05
Cdh Tj = +12 °C	0.991	0.992
Pdh Tj = Tbiv	7.52 kW	6.95 kW
COP Tj = Tbiv	4.47	2.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W

PSB	15 W	15 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	2080 kWh	2623 kWh

Water/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	10.12 kW	9.19 kW
El input	1.68 kW	2.59 kW
COP	6.04	3.55

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	255 %	179 %
Prated	11.50 kW	10.60 kW
SCOP	6.57	4.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.13 kW	9.36 kW
COP Tj = -7°C	6.14	3.87
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.22 kW	9.64 kW
COP Tj = +2°C	6.56	4.56
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.30 kW	9.92 kW
COP Tj = +7°C	6.93	5.32
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.49 kW	10.12 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.13 kW	9.36 kW
COP Tj = Tbiv	6.14	3.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	1.41 kW
Annual energy consumption Qhe	3617 kWh	4695 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	174 %	241 %
Prated	16.00 kW	22.40 kW
SCOP	4.54	6.22
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.78 kW	14.24 kW
COP Tj = -7°C	4.90	7.33
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	9.95 kW	14.29 kW
COP Tj = +2°C	5.37	7.53
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.08 kW	14.37 kW
COP Tj = +7°C	5.85	7.73
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.24 kW	14.36 kW
COP Tj = 12°C	6.35	7.74
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	9.78 kW	14.24 kW
COP Tj = Tbiv	4.90	7.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.19 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.55	6.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.81 kW	8.58 kW

Annual energy consumption Qhe	8684 kWh	8875 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	278 %	177 %
Prated	10.10 kW	9.20 kW
SCOP	7.15	4.62
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.12 kW	9.19 kW
COP Tj = +2°C	6.04	3.55
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.32 kW	9.52 kW
COP Tj = +7°C	6.97	4.22
Cdh Tj = +7 °C	0.995	0.997
Pdh Tj = 12°C	10.42 kW	9.86 kW
COP Tj = 12°C	7.41	5.26
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.43 kW	9.19 kW
COP Tj = Tbiv	7.44	3.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 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	1887 kWh	2661 kWh

Model VITOCAL 222-G BWT 221.B08	
Model name	VITOCAL 222-G BWT 221.B08
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 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	7.52 kW	6.95 kW
El input	1.68 kW	2.50 kW
COP	4.47	2.79

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	187 %	134 %
Prated	8.60 kW	7.95 kW
SCOP	4.87	3.56
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.55 kW	7.06 kW
COP Tj = -7°C	4.61	3.01
Cdh Tj = -7 °C	0.992	0.994
Pdh Tj = +2°C	7.62 kW	7.24 kW
COP Tj = +2°C	4.89	3.55
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	7.69 kW	7.38 kW
COP Tj = +7°C	5.16	3.94
Cdh Tj = +7 °C	0.991	0.992
Pdh Tj = 12°C	7.75 kW	7.51 kW
COP Tj = 12°C	5.44	4.38
Cdh Tj = +12 °C	0.990	0.992
Pdh Tj = Tbiv	7.55 kW	7.06 kW
COP Tj = Tbiv	4.61	3.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	1.08 kW	1.00 kW
Annual energy consumption Qhe	3646 kWh	4612 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	176 %	133 %
Prated	12.50 kW	11.63 kW
SCOP	4.61	3.53
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.68 kW	7.28 kW
COP Tj = -7°C	5.17	3.66
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	7.72 kW	7.40 kW
COP Tj = +2°C	5.32	4.01
Cdh Tj = +2 °C	0.991	0.992
Pdh Tj = +7°C	7.75 kW	7.49 kW
COP Tj = +7°C	5.46	4.35
Cdh Tj = +7 °C	0.990	0.992
Pdh Tj = 12°C	7.75 kW	7.57 kW
COP Tj = 12°C	5.45	4.62
Cdh Tj = +12 °C	0.990	0.991
Pdh Tj = Tbiv	7.68 kW	7.28 kW
COP Tj = Tbiv	5.17	3.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.98 kW	4.68 kW
Annual energy consumption Qhe	6682 kWh	8110 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature

Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	188 %	133 %
Prated	7.61 kW	6.92 kW
SCOP	4.89	3.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.52 kW	6.95 kW
COP Tj = +2°C	4.47	2.79
Cdh Tj = +2 °C	0.992	0.994
Pdh Tj = +7°C	7.60 kW	7.13 kW
COP Tj = +7°C	4.78	3.23
Cdh Tj = +7 °C	0.991	0.994
Pdh Tj = 12°C	7.70 kW	7.41 kW
COP Tj = 12°C	5.23	4.05
Cdh Tj = +12 °C	0.991	0.992
Pdh Tj = Tbiv	7.52 kW	6.95 kW
COP Tj = Tbiv	4.47	2.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 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	2080 kWh	2623 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 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	10.12 kW	9.19 kW
El input	1.68 kW	2.59 kW
COP	6.04	3.55

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	255 %	179 %
Prated	11.50 kW	10.60 kW
SCOP	6.57	4.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.13 kW	9.36 kW
COP Tj = -7°C	6.14	3.87
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.22 kW	9.64 kW
COP Tj = +2°C	6.56	4.56
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.30 kW	9.92 kW
COP Tj = +7°C	6.93	5.32
Cdh Tj = +7 °C	0.995	0.996

Pdh Tj = 12°C	10.49 kW	10.12 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.13 kW	9.36 kW
COP Tj = Tbiv	6.14	3.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	1.41 kW
Annual energy consumption Qhe	3617 kWh	4695 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	174 %	241 %
Prated	16.00 kW	22.40 kW
SCOP	4.54	6.22
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.78 kW	14.24 kW
COP Tj = -7°C	4.90	7.33
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	9.95 kW	14.29 kW
COP Tj = +2°C	5.37	7.53
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.08 kW	14.37 kW
COP Tj = +7°C	5.85	7.73
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.24 kW	14.36 kW
COP Tj = 12°C	6.35	7.74
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	9.78 kW	14.24 kW
COP Tj = Tbiv	4.90	7.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.19 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.55	6.23

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.81 kW	8.58 kW
Annual energy consumption Qhe	8684 kWh	8875 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	278 %	177 %
Prated	10.10 kW	9.20 kW
SCOP	7.15	4.62
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.12 kW	9.19 kW
COP Tj = +2°C	6.04	3.55
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.32 kW	9.52 kW
COP Tj = +7°C	6.97	4.22
Cdh Tj = +7 °C	0.995	0.997
Pdh Tj = 12°C	10.42 kW	9.86 kW
COP Tj = 12°C	7.41	5.26
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.43 kW	9.19 kW
COP Tj = Tbiv	7.44	3.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 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	1887 kWh	2661 kWh

Model VITOCAL 222-G BWT 221.B08 SC	
Model name	VITOCAL 222-G BWT 221.B08 SC
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Colder Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Warmer Climate	
Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 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	7.52 kW	6.95 kW
El input	1.68 kW	2.50 kW
COP	4.47	2.79

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	187 %	134 %
Prated	8.60 kW	7.95 kW
SCOP	4.87	3.56
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.55 kW	7.06 kW
COP Tj = -7°C	4.61	3.01
Cdh Tj = -7 °C	0.992	0.994
Pdh Tj = +2°C	7.62 kW	7.24 kW
COP Tj = +2°C	4.89	3.55
Cdh Tj = +2 °C	0.991	0.993
Pdh Tj = +7°C	7.69 kW	7.38 kW
COP Tj = +7°C	5.16	3.94
Cdh Tj = +7 °C	0.991	0.992
Pdh Tj = 12°C	7.75 kW	7.51 kW
COP Tj = 12°C	5.44	4.38
Cdh Tj = +12 °C	0.990	0.992
Pdh Tj = Tbiv	7.55 kW	7.06 kW
COP Tj = Tbiv	4.61	3.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	1.08 kW	1.00 kW
Annual energy consumption Qhe	3646 kWh	4612 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	176 %	133 %
Prated	12.50 kW	11.63 kW
SCOP	4.61	3.53
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.68 kW	7.28 kW
COP Tj = -7°C	5.17	3.66
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	7.72 kW	7.40 kW
COP Tj = +2°C	5.32	4.01
Cdh Tj = +2 °C	0.991	0.992
Pdh Tj = +7°C	7.75 kW	7.49 kW
COP Tj = +7°C	5.46	4.35
Cdh Tj = +7 °C	0.990	0.992
Pdh Tj = 12°C	7.75 kW	7.57 kW
COP Tj = 12°C	5.45	4.62
Cdh Tj = +12 °C	0.990	0.991
Pdh Tj = Tbiv	7.68 kW	7.28 kW
COP Tj = Tbiv	5.17	3.66
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.98 kW	4.68 kW
Annual energy consumption Qhe	6682 kWh	8110 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature

Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	188 %	133 %
Prated	7.61 kW	6.92 kW
SCOP	4.89	3.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.52 kW	6.95 kW
COP Tj = +2°C	4.47	2.79
Cdh Tj = +2 °C	0.992	0.994
Pdh Tj = +7°C	7.60 kW	7.13 kW
COP Tj = +7°C	4.78	3.23
Cdh Tj = +7 °C	0.991	0.994
Pdh Tj = 12°C	7.70 kW	7.41 kW
COP Tj = 12°C	5.23	4.05
Cdh Tj = +12 °C	0.991	0.992
Pdh Tj = Tbiv	7.52 kW	6.95 kW
COP Tj = Tbiv	4.47	2.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.52 kW	6.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.47	2.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	15 W	15 W
PSB	15 W	15 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	2080 kWh	2623 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency ηDHW	127 %
COP	3.08
Heating up time	1:36 h:min
Standby power input	35.0 W
Reference hot water temperature	51.6 °C
Mixed water at 40°C	282 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	10.12 kW	9.19 kW
El input	1.68 kW	2.59 kW
COP	6.04	3.55

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	255 %	179 %
Prated	11.50 kW	10.60 kW
SCOP	6.57	4.66
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.13 kW	9.36 kW
COP Tj = -7°C	6.14	3.87
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.22 kW	9.64 kW
COP Tj = +2°C	6.56	4.56
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.30 kW	9.92 kW
COP Tj = +7°C	6.93	5.32
Cdh Tj = +7 °C	0.995	0.996

Pdh Tj = 12°C	10.49 kW	10.12 kW
COP Tj = 12°C	7.53	5.92
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.13 kW	9.36 kW
COP Tj = Tbiv	6.14	3.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.38 kW	1.41 kW
Annual energy consumption Qhe	3617 kWh	4695 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	174 %	241 %
Prated	16.00 kW	22.40 kW
SCOP	4.54	6.22
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.78 kW	14.24 kW
COP Tj = -7°C	4.90	7.33
Cdh Tj = -7 °C	0.995	0.996
Pdh Tj = +2°C	9.95 kW	14.29 kW
COP Tj = +2°C	5.37	7.53
Cdh Tj = +2 °C	0.995	0.996
Pdh Tj = +7°C	10.08 kW	14.37 kW
COP Tj = +7°C	5.85	7.73
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.24 kW	14.36 kW
COP Tj = 12°C	6.35	7.74
Cdh Tj = +12 °C	0.995	0.995
Pdh Tj = Tbiv	9.78 kW	14.24 kW
COP Tj = Tbiv	4.90	7.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.19 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.55	6.23

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.81 kW	8.58 kW
Annual energy consumption Qhe	8684 kWh	8875 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	278 %	177 %
Prated	10.10 kW	9.20 kW
SCOP	7.15	4.62
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.12 kW	9.19 kW
COP Tj = +2°C	6.04	3.55
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.32 kW	9.52 kW
COP Tj = +7°C	6.97	4.22
Cdh Tj = +7 °C	0.995	0.997
Pdh Tj = 12°C	10.42 kW	9.86 kW
COP Tj = 12°C	7.41	5.26
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	10.43 kW	9.19 kW
COP Tj = Tbiv	7.44	3.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.04	3.55
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	8 W	8 W
PSB	8 W	8 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	1887 kWh	2661 kWh