

## Subtype Vitocal 2xx-G M B08

Certificate Holder	Viessmann Climate Solutions SE
Address	Viessmannstr. 1
ZIP	35107
City	Allendorf/Eder
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Vitocal 2xx-G M B08
Registration number	011-1W0289
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	1.95 kg
Certification Date	11.07.2019

## Model VITOCAL 200-G BWC-M 201.B08

Model name	VITOCAL 200-G BWC-M 201.B08
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	1x230V 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 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
$\eta_s$	214 %	151 %
Prated	8.50 kW	7.94 kW
SCOP	5.54	3.98
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.48 kW	6.98 kW
COP Tj = -7°C	5.22	3.24
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.52 kW	7.23 kW
COP Tj = +2°C	5.54	3.99
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	7.61 kW	7.37 kW
COP Tj = +7°C	5.92	4.49
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.66 kW	7.48 kW
COP Tj = 12°C	6.29	5.05
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	7.48 kW	6.98 kW
COP Tj = Tbiv	5.22	3.24

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.47 kW	6.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.17	3.06
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	1.04 kW	1.03 kW
Annual energy consumption Qhe	3167 kWh	4119 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	195 %	147 %
Prated	12.34 kW	11.56 kW
SCOP	5.08	3.87
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.59 kW	7.18 kW
COP Tj = -7°C	5.64	3.91
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.64 kW	7.33 kW
COP Tj = +2°C	5.92	4.52
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	7.68 kW	7.48 kW
COP Tj = +7°C	6.17	5.05
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.69 kW	7.53 kW
COP Tj = 12°C	6.24	5.48
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	7.59 kW	7.18 kW
COP Tj = Tbiv	5.64	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.47 kW	6.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.09	3.12
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	4.87 kW	4.66 kW
Annual energy consumption Q <sub>he</sub>	6095 kWh	7356 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	7.53	7.05
COP T <sub>j</sub> = -15°C (if TOL	5.43	3.56
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.99	0.99

#### 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
η <sub>s</sub>	218 %	148 %
Prated	7.50 kW	6.92 kW
SCOP	5.64	3.90
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	7.50 kW	6.92 kW
COP T <sub>j</sub> = +2°C	5.14	3.01
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.53 kW	7.12 kW
COP T <sub>j</sub> = +7°C	5.44	3.54
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = 12°C	7.62 kW	7.37 kW
COP T <sub>j</sub> = 12°C	6.05	4.53
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.99	0.99
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.50 kW	6.92 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.14	3.01
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>	7.50 kW	6.92 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.14	3.01
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>	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	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	1778 kWh	2371 kWh

## Model VITOCAL 222-G BWT-M 221.B08

Model name	VITOCAL 222-G BWT-M 221.B08
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	1x230V 50Hz
Off-peak product	Yes

### Brine/Water

#### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l

#### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l

#### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l

## Model VITOCAL 222-G BWT-M 221.B08 SC

Model name	VITOCAL 222-G BWT-M 221.B08 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	1x230V 50Hz
Off-peak product	Yes

## Brine/Water

## EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l

## EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l

## EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	130 %
COP	3.03
Heating up time	1:47 h:min
Standby power input	63.0 W
Reference hot water temperature	54.1 °C
Mixed water at 40°C	293 l