

Datasheet

For part no. and prices: see pricelist



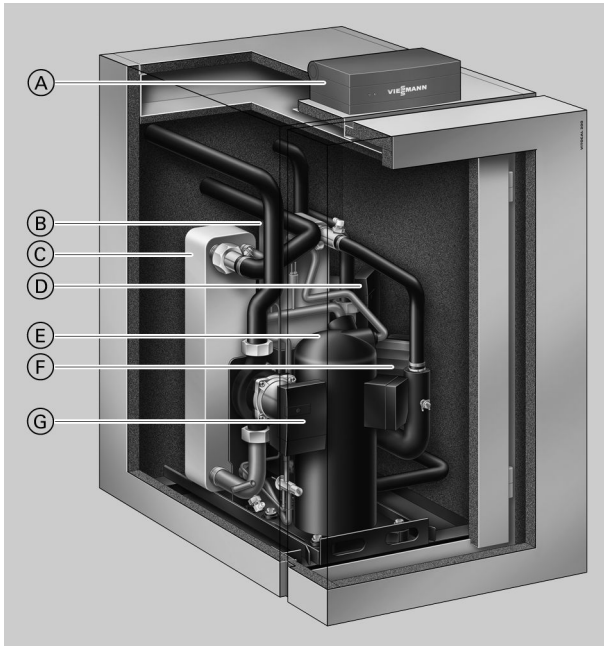
VITOCAL 200-G Type BWC 201.A06 to A17

Single stage brine/water heat pump, 400 V~
Heat pump with electric drive for central heating and DHW heating in mono mode or dual mode heating systems
With integral high efficiency circulation pump for brine and heating circuit, plus circulation pump for cylinder heating

VITOCAL 200-G Type BWC-M 201.A06 to A10

Single stage brine/water heat pump, 230 V~
Heat pump with electric drive for central heating and DHW heating in mono mode or dual mode heating systems
With integral high efficiency circulation pump for brine and heating circuit, plus circulation pump for cylinder heating

Benefits



- Ⓐ Weather-compensated, digital heat pump controller Vitotronic 200
- Ⓑ Condenser
- Ⓒ Evaporator
- Ⓓ Secondary pump (heating water), HE circulation pump
- Ⓔ Hermetically sealed Compliant scroll compressor
- Ⓕ High efficiency circulation pump for cylinder heating
- Ⓖ Primary pump (brine), HE circulation pump

- Low running costs thanks to a high COP to EN 14511: Up to 4.5 (B0/W35)
- Mono mode operation for central heating and DHW heating
- Maximum flow temperatures of up to 60 °C
- Low noise and vibration levels thanks to sound-optimised appliance design – sound power level < 45 dB(A)
- Easy to use Vitotronic control unit with plain text and graphic display for weather-compensated heating operation and natural cooling
- Optional installation of a booster heater, for example for screed drying

- Easy installation thanks to the integral HE circulation pump for brine and heating circuit, plus HE circulation pump for cylinder heating
- Optimised utilisation of power generated by an on-site photovoltaic system
- Control of a Vitovent 300-F ventilation unit
- Web-enabled through Vitoconnect (accessories) for operation and service via Viessmann apps

Specification

Specification

400 V appliances

Type BWC 201.A		06	08	10	13	17
Performance data to EN 14511 (B0/W35, 5 K spread)						
Rated heating output	kW	5.64	7.63	9.74	12.95	17.20
Cooling capacity	kW	4.37	6.01	7.69	10.30	13.66
Power consumption	kW	1.27	1.74	2.21	2.85	3.81
Coefficient of performance ϵ (COP)		4.46	4.40	4.41	4.54	4.52
Brine (primary circuit)						
Content	l	1.1	1.4	1.9	2.4	3.7
Minimum flow rate	l/h	820	1100	1420	1900	2520
Residual head (at minimum flow rate)	mbar	640	640	640	780	740
	kPa	64	64	64	78	74
Max. flow temperature	°C	25	25	25	25	25
Min. flow temperature	°C	-5	-5	-5	-5	-5
Heating water (secondary circuit)						
Content	l	1.1	1.4	1.9	2.4	3.7
Nominal flow rate	l/h	990	1310	1670	2240	2960
Residual head (at nominal flow rate)	mbar	550	530	510	340	90
	kPa	55	53	51	34	9
Minimum flow rate	l/h	520	660	850	1100	1500
Residual head (at minimum flow rate)	mbar	630	600	580	600	545
	kPa	63	60	58	60	54.5
Max. flow temperature	°C	60	60	60	60	60
Electrical values, heat pump						
Rated voltage, compressor		3/N/PE 400 V/50 Hz				
Rated current, compressor	A	5.5	6.0	8.0	10.0	15.0
Starting current, compressor (with starting current limiter, not for type BWC 201.A06)	A	25.0	14.0	20.0	22.0	25.0
Starting current, compressor with stalled armature	A	26.0	35.0	48.0	64.0	75.0
Compressor MCB/fuse protection	A	C16A 3-pole	B16A 3-pole	B16A 3-pole	B16A 3-pole	B20A 3-pole
Power consumption:						
– Primary pump	W	10 to 55	10 to 55	10 to 55	10 to 130	10 to 130
– Secondary pump	W	10 to 55	10 to 55	10 to 55	10 to 55	10 to 55
– Circulation pump for cylinder heating	W	62 to 132	62 to 132	62 to 132	62 to 132	62 to 132
Protection class		I	I	I	I	I
Electrical values, control unit						
Rated voltage		1/N/PE 230 V/50 Hz				
MCB/fuse protection		B16A				
Fuses		2 x 6.3 A H (slow)/250 V				
Max. power consumption	W	1000	1000	1000	1000	1000
Power consumption in operation	W	5	5	5	5	5
Refrigerant circuit						
Refrigerant		R410A	R410A	R410A	R410A	R410A
– Refrigerant charge	kg	1.2	1.45	1.7	2.2	2.9
– Global warming potential (GWP)		2088	2088	2088	2088	2088
– CO ₂ equivalent	t	2.51	3.03	3.55	4.59	6.06
Compressor	Type	Hermetically sealed scroll				
Oil in compressor	Type	Emkarate RL32 3MAF				
Quantity of oil in compressor	l	0.7	0.7	1.2	1.2	1.8
Permiss. operating pressure						
Primary circuit	bar	3	3	3	3	3
	MPa	0.3	0.3	0.3	0.3	0.3
Secondary circuit	bar	3	3	3	3	3
	MPa	0.3	0.3	0.3	0.3	0.3
Dimensions						
Total length	mm	844	844	844	844	844
Total width	mm	600	600	600	600	600
Total height (programming unit pivoted up)	mm	1155	1155	1155	1155	1155

Specification (cont.)

Type BWC 201.A		06	08	10	13	17
Weight	kg	113	117	129	135	148
Connections						
Primary circuit flow/return	G	1½	1½	1½	1½	1½
Secondary circuit flow/return	G	1½	1½	1½	1½	1½
Sound power level (tested with reference to EN 12102/EN ISO 9614-2) Weighted total sound power level at B0±3 K/W35±5 K						
– At rated heating output	dB(A)	43	44	44	44	45
Energy efficiency class to EU Regulation no. 811/2013						
Heating, average climatic conditions						
– Low temperature applications (W35)		A++	A++	A++	A++	A++
– Medium temperature applications (W55)		A++	A++	A++	A++	A++

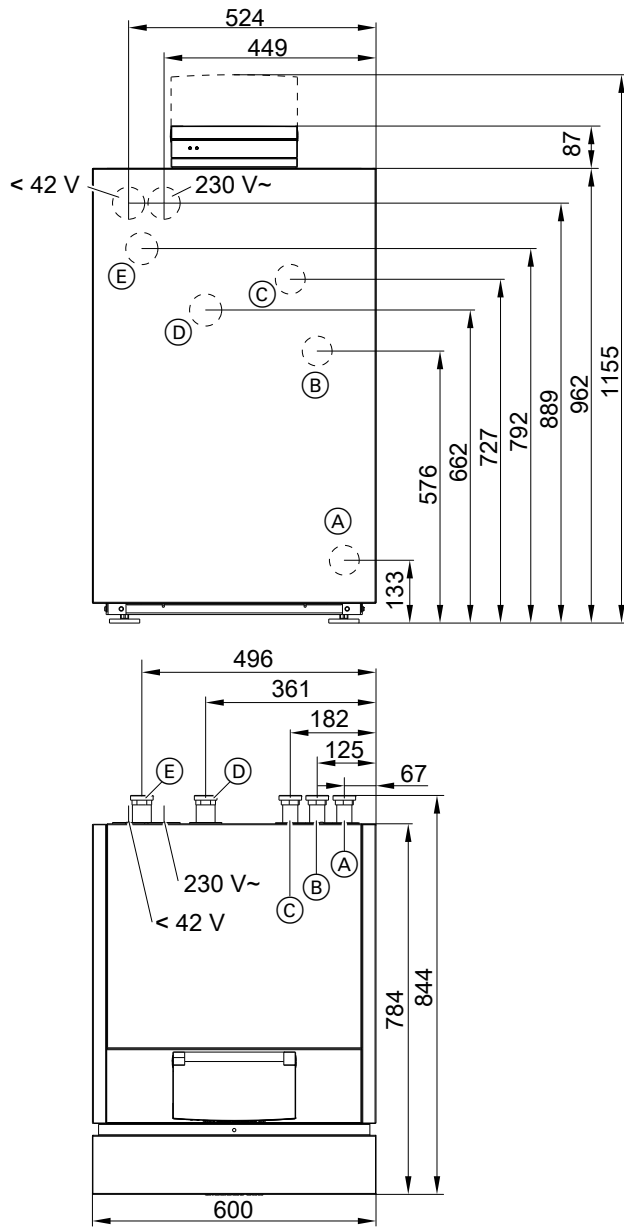
230 V appliances

Type BWC-M 201.A		06	08	10
Performance data to EN 14511 (B0/W35, 5 K spread)				
Rated heating output	kW	5.61	7.54	9.70
Cooling capacity	kW	4.35	5.94	7.61
Power consumption	kW	1.36	1.72	2.25
Coefficient of performance ε (COP)		4.13	4.39	4.31
Brine (primary circuit)				
Content	l	1.1	1.4	1.9
Minimum flow rate	l/h	820	1100	1420
Residual head (at minimum flow rate)	mbar	640	640	640
	kPa	64	64	64
Max. flow temperature	°C	25	25	25
Min. flow temperature	°C	–5	–5	–5
Heating water (secondary circuit)				
Content	l	1.1	1.4	1.9
Nominal flow rate	l/h	990	1310	1670
Residual head (at nominal flow rate)	mbar	550	530	510
	kPa	55	53	51
Minimum flow rate	l/h	520	660	850
Residual head (at minimum flow rate)	mbar	630	600	580
	kPa	63	60	58
Max. flow temperature	°C	60	60	60
Electrical values, heat pump				
Rated voltage, compressor		1/N/PE 230 V/50 Hz		
Rated current, compressor	A	16.0	17.1	23.0
Starting current, compressor	A	< 45	< 45	< 45
(with starting current limiter, not for type BWC 201.A06)				
Starting current, compressor with stalled armature	A	58.0	67.0	97.0
Compressor MCB/fuse protection	A	B20A	B20A	B25A
		1-pole	1-pole	1-pole
Power consumption:				
– Primary pump	W	10 to 55	10 to 55	10 to 55
– Secondary pump	W	10 to 55	10 to 55	10 to 55
– Circulation pump for cylinder heating	W	62 to 132	62 to 132	62 to 132
Protection class		I	I	I
Electrical values, control unit				
Rated voltage		1/N/PE 230 V/50 Hz		
MCB/fuse protection		B16A		
Fuses		2 x 6.3 A H (slow)/250 V		
Max. power consumption	W	1000	1000	1000
Power consumption in operation	W	5	5	5
Refrigerant circuit				
Refrigerant		R410A	R410A	R410A
– Refrigerant charge	kg	1.2	1.45	1.7
– Global warming potential (GWP)		2088	2088	2088
– CO ₂ equivalent	t	2.51	3.03	3.55
Compressor	Type	Hermetically sealed scroll		
Oil in compressor	Type	Emkarate RL32 3MAF		
Quantity of oil in compressor	l	0.7	0.7	1.2

Specification (cont.)

Type BWC-M 201.A		06	08	10
Permiss. operating pressure				
Primary circuit	bar	3	3	3
	MPa	0.3	0.3	0.3
Secondary circuit	bar	3	3	3
	MPa	0.3	0.3	0.3
Dimensions				
Total length	mm	844	844	844
Total width	mm	600	600	600
Total height (programming unit pivoted up)	mm	1155	1155	1155
Weight		kg	115	119
Connections				
Primary circuit flow/return	G	1½	1½	1½
Secondary circuit flow/return	G	1½	1½	1½
Sound power level (tested with reference to EN 12102/EN ISO 9614-2) Weighted total sound power level at B0 ^{±3 K} /W35 ^{±5 K}				
– At rated heating output	dB(A)	43	44	44
Energy efficiency class to EU Regulation no. 811/2013				
Heating, average climatic conditions				
– Low temperature applications (W35)		A ⁺⁺	A ⁺⁺	A ⁺⁺
– Medium temperature applications (W55)		A ⁺⁺	A ⁺⁺	A ⁺⁺

Dimensions



- (A) Return, heating circuit and DHW cylinder
- (B) Flow, DHW cylinder
- (C) Flow, heating circuit
- (D) Flow, primary circuit (brine inlet)
- (E) Return, primary circuit (brine outlet)



Subject to technical modifications.

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