

Datasheet

Part no. and prices: See pricelist.



Vertical DHW cylinder made from steel, with **Ceraprotect enamel coating**

With **2 internal indirect coils**

- Lower indirect coil for DHW heating via solar collectors or heat pumps (CVBD-300-S2)
- Upper indirect coil for DHW reheating via a heat generator

VITOCELL 100-B

Vitopearlwhite

300 l, type CVBC-300-S2

300 l, type CVBD-300-S2

400 l, type CVB-400-S1/CVB-400-S2

500 l, type CVB-500-S1/CVB-500-S2

750 l, type CVBB-750-S1

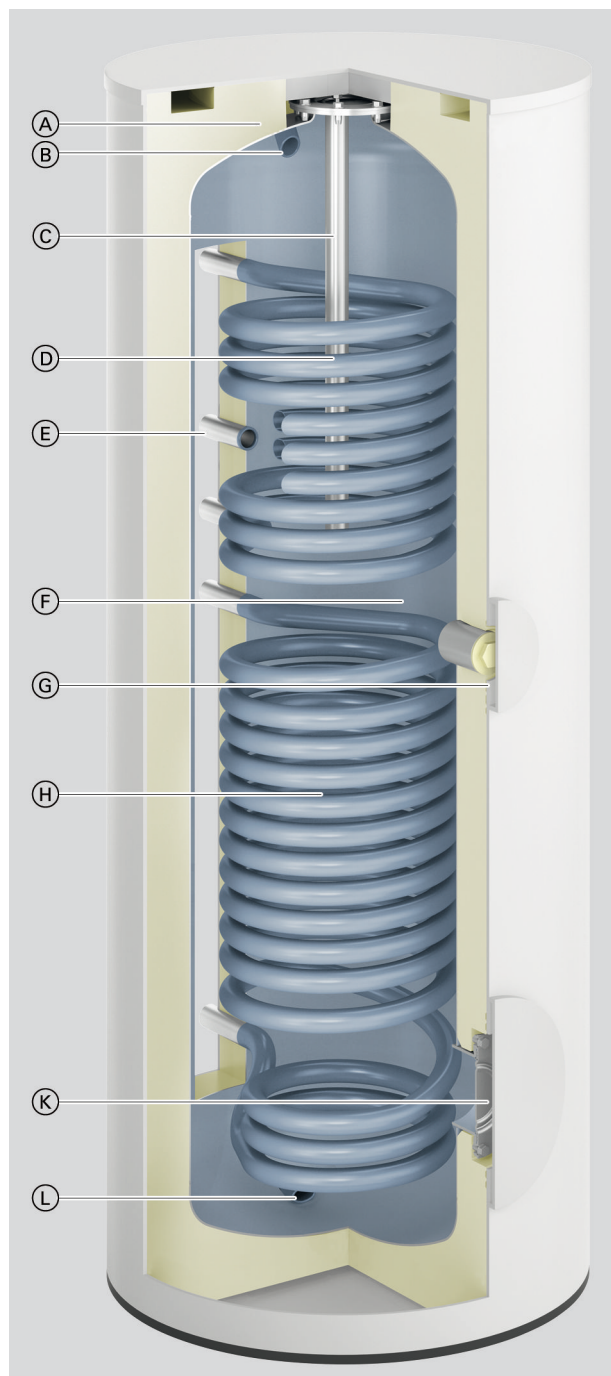
910 l, type CVBB-910-S1

Vitographite

300 l, type CVBC-300-S2

Benefits

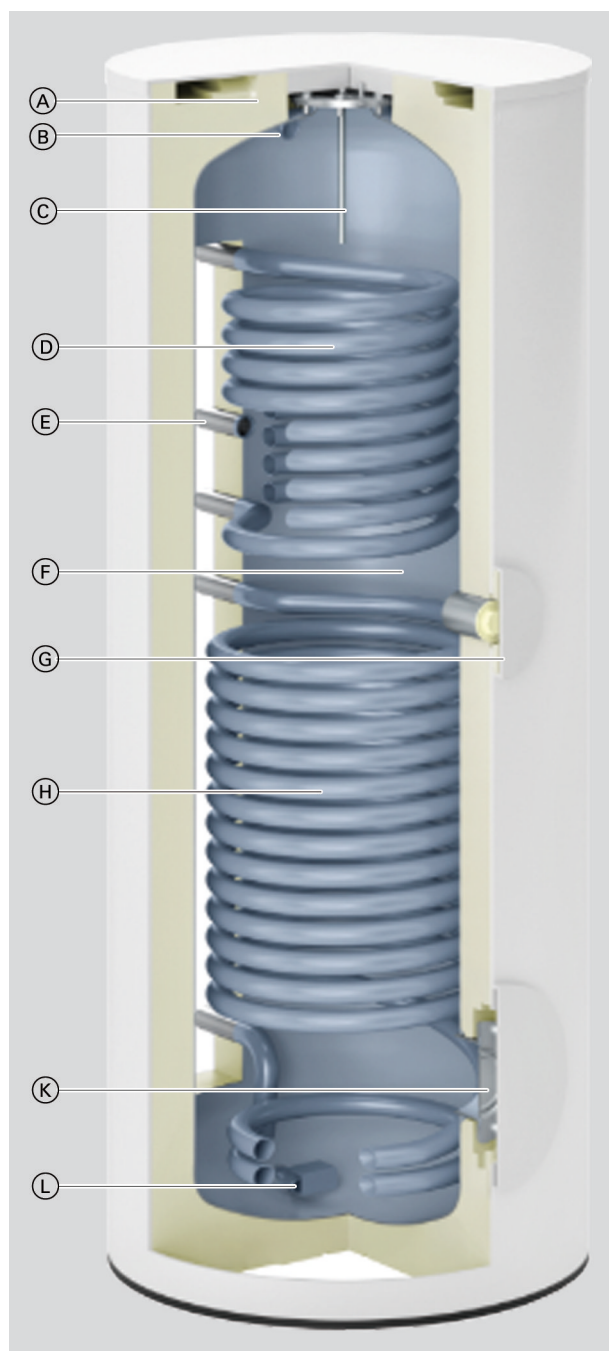
Type CVBC-300-S2



- Ⓐ Highly effective all-round thermal insulation
- Ⓑ DHW
- Ⓒ Protective magnesium anode
- Ⓓ Upper indirect coil – DHW is reheated via the indirect coil.
- Ⓔ DHW circulation
- Ⓕ Steel cylinder with Ceraprotect enamel coating
- Ⓖ Connection for electric immersion heater EHE
- Ⓗ Lower indirect coil – connection for solar collectors
- Ⓚ Inspection and cleaning aperture (also for installation of an electric immersion heater EHE)
- Ⓛ Cold water and drain

Benefits (cont.)

Type CVBD-300-S2



- Ⓐ Highly effective all-round thermal insulation
- Ⓑ DHW
- Ⓒ Impressed current anode
- Ⓓ Upper indirect coil – DHW is reheated via the indirect coil.
- Ⓔ DHW circulation
- Ⓕ Steel cylinder with Ceraprotect enamel coating
- Ⓖ Connection for electric immersion heater EHE
- Ⓗ Lower indirect coil – connection for solar collectors
- Ⓚ Inspection and cleaning aperture (also for installation of an electric immersion heater EHE)
- Ⓛ Cold water and drain

- Corrosion-protected steel cylinder with Ceraprotect enamel coating
- Additional protection via an impressed current anode (for CVBD-300-S2) or a protective magnesium anode
- Internal indirect coil reaching down to the cylinder floor heats the entire water content
- High level of DHW convenience, with rapid, even heat-up via generously sized internal indirect coils

- Low heat losses through highly effective, all-round thermal insulation
- For dual mode DHW heating in conjunction with heat generators, solar collectors or heat pumps (CVBD-300-S2)
- For easier manoeuvrability, the Vitocell 100-B from 400 l is fitted with removable thermal insulation.

Delivered condition

Type CVBC-300-S2, type CVB-400-S2 and CVB-500-S2

Equipment:

- Cylinder and indirect coil made from steel
- Ceraprotect enamel coating for corrosion protection

- Additional cathodic protection through protective magnesium anode
- Connection for installing an electric immersion heater: R 1½
- Inspection and cleaning aperture with flange cover, also for installation of an electric immersion heater

Benefits (cont.)

- Type CVB-400-S2 and CVB-500-S2:
Thermal insulation made from rigid PUR foam
- Type CVB-400-S2 and CVB-500-S2:
Sheet steel casing, epoxy-coated

Standard delivery:

- DHW cylinder with **300, 400 and 500 l**
- Solar threaded elbow with sensor well: Internal diameter 6.5 mm
- 2 integral welded sensor wells for cylinder temperature sensors or temperature controllers with internal diameter 16 mm
- Adjustable feet
- Type CVB-400-S2 and CVB-500-S2:
Removable thermal insulation
- Type CVB-400-S2 and CVB-500-S2:
Polystyrene casing

Type CVBD-300-S2

Equipment:

- Cylinder and indirect coil made from steel
- Ceraprotect enamel coating for corrosion protection
- Additional protection through maintenance-free impressed current anode
- Thermal insulation made from rigid PUR foam
- Sheet steel casing, epoxy-coated
- Inspection and cleaning aperture with flange cover, also for installation of an electric immersion heater
- Integrated carrying handles on the top and bottom
- Connection for installing an electric immersion heater

Standard delivery:

- 2 integral welded sensor wells for cylinder temperature sensors or temperature controllers (internal diameter: 16 mm)
- DHW cylinder with **300 l**
- Adjustable feet

Type CVB-400-S1, CVB-500-S1

Equipment:

- Cylinder and indirect coil made from steel
- Ceraprotect enamel coating for corrosion protection
- Additional cathodic protection through protective magnesium anode
- Connection for installing an electric immersion heater: R 1½
- Inspection and cleaning aperture with flange cover, also for installation of an electric immersion heater

Standard delivery:

- DHW cylinder with **400 and 500 l**
- Solar threaded elbow with sensor well: Internal diameter 6.5 mm
- 2 integral welded sensor wells for cylinder temperature sensors or temperature controllers with internal diameter 16 mm
- Adjustable feet
- Removable thermal insulation
- Polystyrene casing

Type CVBB-750-S1 and CVBB-910-S1

Equipment:

- Cylinder and indirect coil made from steel
- Ceraprotect enamel coating for corrosion protection
- Additional cathodic protection through protective magnesium anode
- Connection for installing an electric immersion heater: R 1½
- Inspection and cleaning aperture with flange cover, also for installation of an electric immersion heater

Standard delivery:

- DHW cylinder with **750 and 910 l**
- Solar threaded elbow with sensor well: Internal diameter 6.5 mm
- 2 clamping devices for securing immersion temperature sensors to the cylinder jacket, each with fixing points for 3 immersion temperature sensors
- Adjustable feet
- Removable thermal insulation
- Polystyrene casing

Specification

Specification – type CVBC-300-S2, CVB-400-S1/CVB-400-S2, CVB-500-S1/CVB-500-S2, CVBB-750-S1, CVBB-910-S1

Information about the upper indirect coil

The upper indirect coil is designed for connection to a heat generator.

Information about the lower indirect coil

The lower indirect coil is intended for connecting solar collectors or heat pumps.

To install the cylinder temperature sensor, use the threaded elbow with sensor well included in the standard delivery.

Information on continuous output

When designing systems with the specified or calculated continuous output, allow for a matching circulation pump. The specified continuous output is only achieved if the heat generator's rated heating output is $\geq$ the continuous output.

Sizing entry points

The actual dimensions of the DHW cylinder may vary slightly due to manufacturing tolerances.

Specification

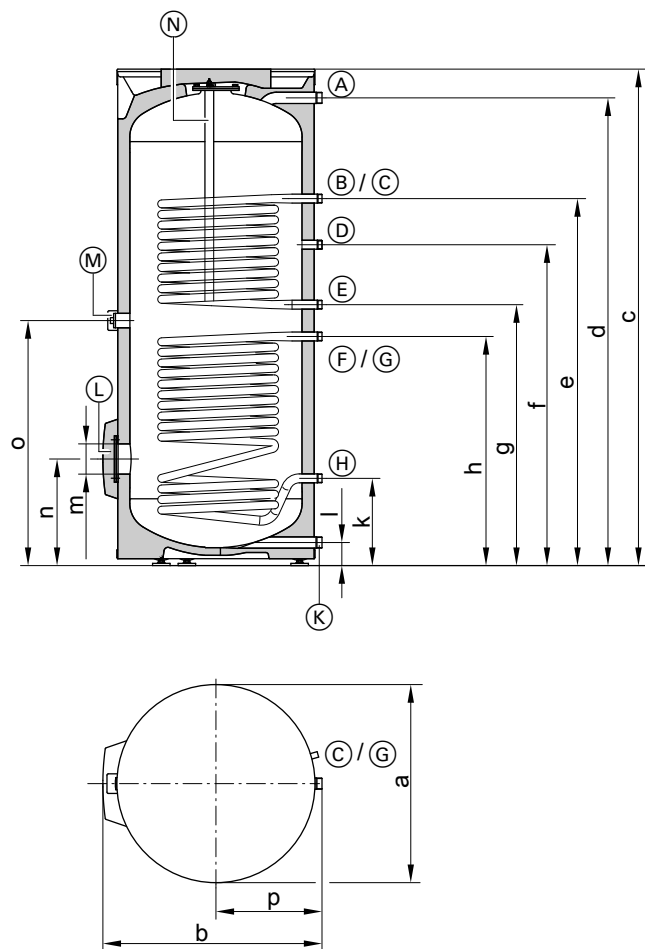
Type		CVBC-300-S2		CVB-400-S1/ CVB-400-S2		CVB-500-S1/ CVB-500-S2		CVBB-750-S1		CVBB-910-S1	
Cylinder	l	300		400		500		750		910	
Thermal insulation		Efficient		Standard/ Efficient		Standard/ Efficient		Standard		Standard	
DHW capacity	l	294.7		393.7		493.1		720.1		849.1	
Internal indirect coil		Top	Bot- tom	Top	Bot- tom	Top	Bot- tom	Top	Bot- tom	Top	Bottom
Heating water capacity	l	6.3	10.6	7.1	10.9	10	13.6	10.8	24.7	15.1	31.7
Gross volume	l	311.6	311.6	411.7	411.7	516.7	516.7	755.6	755.6	895.9	895.9
Continuous output at heating water flow rate stated below – For DHW heating from 10 to 45 °C and the following heating water flow temperatures											
90 °C	kW	31	53	42	63	47	70	76	114	90	122
	l/h	761	1302	1032	1548	1154	1720	1866	2790	2221	2995
	80 °C	26	44	33	52	40	58	63	94	75	101
	l/h	638	1081	811	1278	982	1425	1546	2311	1840	2482
	70 °C	20	33	25	39	30	45	49	73	58	78
60 °C	l/h	491	811	614	958	737	1106	1200	1794	1428	1926
	kW	15	23	17	27	22	32	35	52	41	56
	l/h	368	565	418	663	540	786	853	1275	1015	1369
	50 °C	11	18	10	13	16	24	26	39	31	42
	l/h	270	442	246	319	393	589	639	955	760	1026
– For DHW heating from 10 to 60 °C and the following heating water flow temperatures											
90 °C	kW	23	45	36	56	36	53	59	79	67	85
	l/h	395	774	619	963	619	911	1012	1359	1157	1465
	80 °C	20	34	27	42	30	44	49	66	56	71
	l/h	344	584	464	722	516	756	840	1128	960	1216
	70 °C	15	23	18	29	22	33	37	49	42	53
l/h	258	395	310	499	378	567	630	846	720	912	
	Heating water flow rate for the specified continuous outputs	m³/h	3.0		3.0		3.0		3.0		3.0
Max. connectible heat pump output	kW	10		12		14		21		23	
At 55 °C heating water flow temperature and 45 °C DHW temperature at the specified heating water flow rate (both internal indirect coils connected in series)											
Standby heat loss	kWh/ 24 h	1.57		2.31/ 1.62		2.34/ 1.90		2.53		2.90	
Volume of standby part V _{aux}	l	156.3		207.4		243.6		363.8		389.6	
Solar capacity V _{sol}	l	138.4		186.3		249.5		356.3		459.5	
Permissible temperatures											
– Heating water side	°C	160		160		160		160		160	
– DHW side	°C	95		95		95		95		95	
– Solar side	°C	160		160		160		160		160	

Specification (cont.)

Type		CVBC-300-S2		CVB-400-S1/ CVB-400-S2		CVB-500-S1/ CVB-500-S2		CVBB-750-S1		CVBB-910-S1									
Cylinder	l	300		400		500		750		910									
Thermal insulation		Efficient		Standard/ Efficient		Standard/ Efficient		Standard		Standard									
DHW capacity	l	294.7		393.7		493.1		720.1		849.1									
Internal indirect coil		Top	Bot- tom	Top	Bot- tom	Top	Bot- tom	Top	Bot- tom	Top	Bottom								
Permissible operating pressure																			
– Heating water side	bar	10		10		10		10		10									
	MPa	1.0		1.0		1.0		1.0		1.0									
– DHW side	bar	10		10		10		10		10									
	MPa	1.0		1.0		1.0		1.0		1.0									
– Solar side	bar	10		10		10		10		10									
	MPa	1.0		1.0		1.0		1.0		1.0									
Total weight incl. thermal insulation	kg	126		167/176		205		320		390									
Heating surface	m²	0.9	1.5	1.0	1.5	1.4	1.9	1.6	3.5	2.2	3.9								
Electrical conductivity , DHW side	µS/cm	≥ 300		≥ 300		≥ 300		≥ 300		≥ 300									
Note <i>For conductivity of between 100 µS/cm and 300 µS/cm, an impressed current anode must be used: See accessories.</i>																			
Energy efficiency class (F→A*)																			
B												C/B		C/B		–		–	
Colour																			
– Vitographite												X		—		—		—	
– Vitopearlwhite												X		X		X		X	

Specification (cont.)

Dimensions 300 I, type CVBC-300-S2



Connections

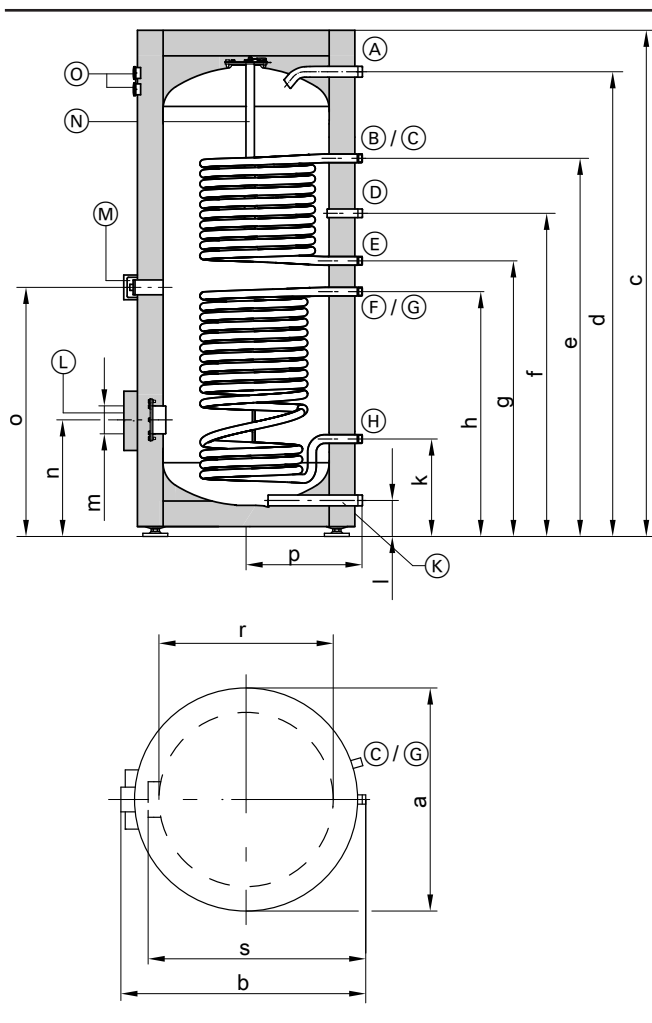
(A)	DHW	R 1	Male thread
(B)	Heating water flow	G (3-K) 1	Male thread
(C)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(D)	DHW circulation	R 1	Male thread
(E)	Heating water return	G (3-K) 1	Male thread
(F)	Heating water flow, solar thermal system	G (3-K) 1	Male thread
(G)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(H)	Heating water return, solar thermal system	G (3-K) 1	Male thread
(K)	Cold water and drain	R 1	Male thread
(L)	Inspection and cleaning aperture with flange cover (also suitable for installation of an electric immersion heater)	—	—
(M)	Sleeve for electric immersion heater EHE	G 1½	Female thread
(N)	Protective magnesium anode	—	—

Specification (cont.)

Dimensions

Cylinder		l	300
Height when tilted, incl. thermal insulation		mm	1790
Length (Ø) incl. thermal insulation	a	mm	668
Width incl. thermal insulation	b	mm	714
Height incl. thermal insulation	c	mm	1687
	d	mm	1607
	e	mm	1362
	f	mm	1122
	g	mm	1002
	h	mm	882
	k	mm	267
	l	mm	83
	m	mm	Ø 100
	n	mm	340
	o	mm	942
	p	mm	362

Dimensions 400 l, 500 l, type CVB-400-S1/CVB-400-S2, CVB-500-S1/CVB-500-S2



Specification (cont.)

Connections

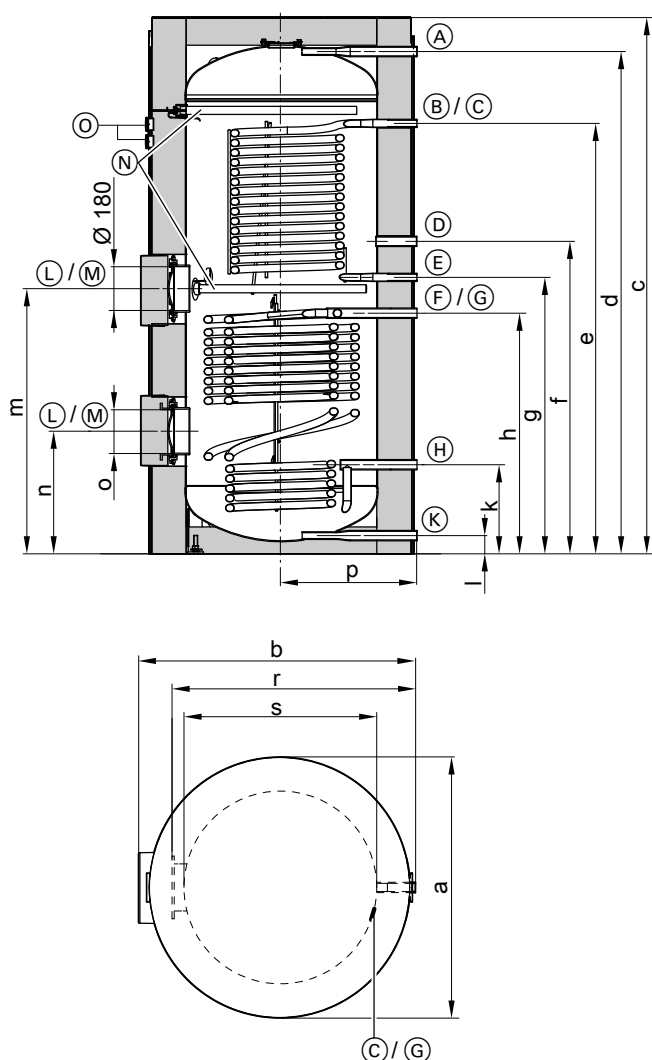
(A)	DHW	R 1¼	Male thread
(B)	Heating water flow	G (3-K) 1	Male thread
(C)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(D)	DHW circulation	R 1	Male thread
(E)	Heating water return	G (3-K) 1	Male thread
(F)	Heating water flow, solar thermal system	G (3-K) 1	Male thread
(G)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(H)	Heating water return, solar thermal system	G (3-K) 1	Male thread
(K)	Cold water and drain	R 1¼	Male thread
(L)	Inspection and cleaning aperture with flange cover (also suitable for installation of an electric immersion heater)	—	—
(M)	Sleeve for electric immersion heater EHE	G 1½	Female thread
(N)	Protective magnesium anode	—	—
(O)	Thermometer (accessories)	—	—

Dimensions

Cylinder		I	400	500
Height when tilted, excl. thermal insulation		mm	1550	1860
Length (Ø) incl. thermal insulation	a	mm	859	859
Width				
– Incl. thermal insulation	b	mm	923	923
– Excl. thermal insulation		mm	881	881
Height				
– Incl. thermal insulation	c	mm	1624	1948
– Excl. thermal insulation		mm	1518	1844
	d	mm	1458	1784
	e	mm	1204	1444
	f	mm	1044	1230
	g	mm	924	1044
	h	mm	804	924
	k	mm	349	349
	l	mm	107	107
	m	mm	Ø 100	Ø 100
	n	mm	422	422
	o	mm	864	984
	p	mm	455	455
Length (Ø) excl. thermal insulation	r	mm	650	650
	s	mm	881	881

Specification (cont.)

Dimensions 750 I, 910 I, type CVBB-750-S1, CVBB-910-S1



Connections

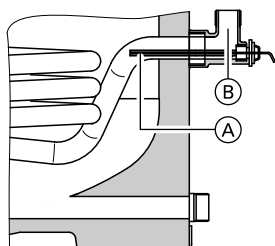
(A)	DHW	R 1¼	Male thread
(B)	Heating water flow	G (3-K) 1	Male thread
(C)	Clamping device for securing immersion temperature sensors to the cylinder jacket, with fixing points for 3 immersion temperature sensors	—	—
(D)	DHW circulation	R 1¼	Male thread
(E)	Heating water return	G (3-K) 1	Male thread
(F)	Heating water flow, solar thermal system	R 1¼	Male thread
(G)	Clamping device for securing immersion temperature sensors to the cylinder jacket, with fixing points for 3 immersion temperature sensors	—	—
(H)	Heating water return, solar thermal system	R 1¼	Male thread
(K)	Cold water and drain	R 1¼	Male thread
(L)	Connector for electric immersion heater	G ½	Female thread
(M)	Inspection and cleaning aperture with flange cover (also suitable for installation of an electric immersion heater)	—	—
(N)	Protective magnesium anode	—	—
(O)	Thermometer (accessories)	—	—

Specification (cont.)

Dimensions

Cylinder		I	750	910
Height when tilted, excl. thermal insulation		mm	1980	2286
Length (Ø) incl. thermal insulation	a	mm	1062	1062
Width				
– Incl. thermal insulation	b	mm	1110	1110
– Excl. thermal insulation		mm	1005	1005
Height				
– Incl. thermal insulation	c	mm	1897	2197
– Excl. thermal insulation		mm	1797	2103
	d	mm	1749	2054
	e	mm	1464	1760
	f	mm	1175	1278
	g	mm	1044	1130
	h	mm	912	983
	k	mm	373	363
	l	mm	74	73
	m	mm	975	1084
	n	mm	509	501
	o	mm	Ø 180	Ø 180
	p	mm	555	555
	r	mm	999	999
Length (Ø) excl. thermal insulation	s	mm	790	790

Cylinder temperature sensor for solar operation



Arrangement of cylinder temperature sensor in the heating water return HR_s

- (A) Cylinder temperature sensor in the heating water return (standard delivery of solar control unit)
- (B) Threaded elbow with sensor well (standard delivery, internal diameter 6.5 mm)

Performance factor N_L to DIN 4708, upper internal indirect coil

Cylinder	I	300	400	500	750 ^{*1}	910 ^{*1}
Performance factor N_L						
Heating water flow temperature						
90 °C		1.6	3.0	6.0	8.0	11.0
80 °C		1.5	3.0	6.0	8.0	11.0
70 °C		1.4	2.5	5.0	7.0	10.0

- The performance factor N_L changes in line with the cylinder storage temperature T_{cyl}
- Cylinder storage temperature T_{cyl} = cold water inlet temperature +50 K ^{+5 K/-0 K}

Standard values for performance factor N_L

- $T_{cyl} = 60\text{ °C} \rightarrow 1.0 \times N_L$
- $T_{cyl} = 55\text{ °C} \rightarrow 0.75 \times N_L$
- $T_{cyl} = 50\text{ °C} \rightarrow 0.55 \times N_L$
- $T_{cyl} = 45\text{ °C} \rightarrow 0.3 \times N_L$

Specification (cont.)

Peak output over 10 min, relative to performance factor N_L

Cylinder	l	300	400	500	750 ^{*1}	910 ^{*1}
Peak output for DHW heating from 10 to 45 °C						
Heating water flow temperature						
90 °C	l/10 min	173	230	319	438	600
80 °C	l/10 min	168	230	319	438	600
70 °C	l/10 min	164	210	299	400	550

Max. draw-off rate over 10 min., relative to performance factor N_L

Cylinder	l	300	400	500	750 ^{*1}	910 ^{*1}
Max. draw-off rate for DHW heating from 10 to 45 °C, with reheating						
Heating water flow temperature						
90 °C	l/min	17	23	32	44	60
80 °C	l/min	17	23	32	44	60
70 °C	l/min	16	21	30	40	55

Drawable water volume

Cylinder	l	300	400	500	750 ^{*1}	910 ^{*1}
Draw-off rate for cylinder volume heated to 60 °C						
	l/min	15	15	15	15	15
Drawable water volume without reheating						
Water at t = 60 °C (constant)		110	120	220	330	420

Heat-up time

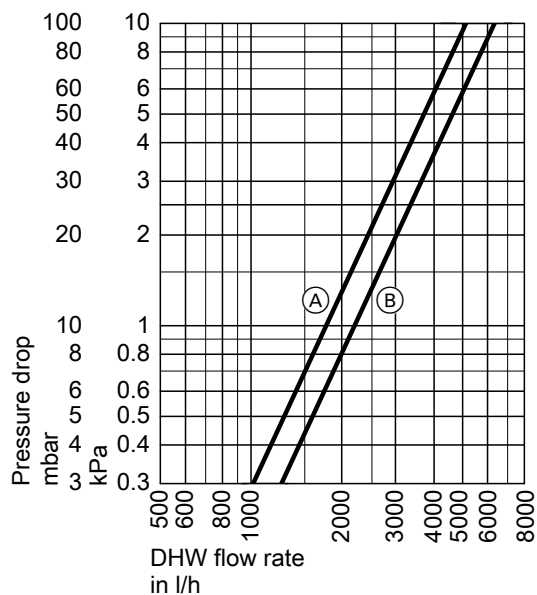
The specified heat-up times will be achieved if the maximum continuous output of the DHW cylinder is made available at the relevant heating water flow temperature and when DHW is heated from 10 to 60 °C.

Cylinder	l	300	400	500	750 ^{*1}	910 ^{*1}
Heat-up time						
Heating water flow temperature						
90 °C	min	16	17	19	17	18
80 °C	min	22	23	24	21	22
70 °C	min	30	36	37	26	28

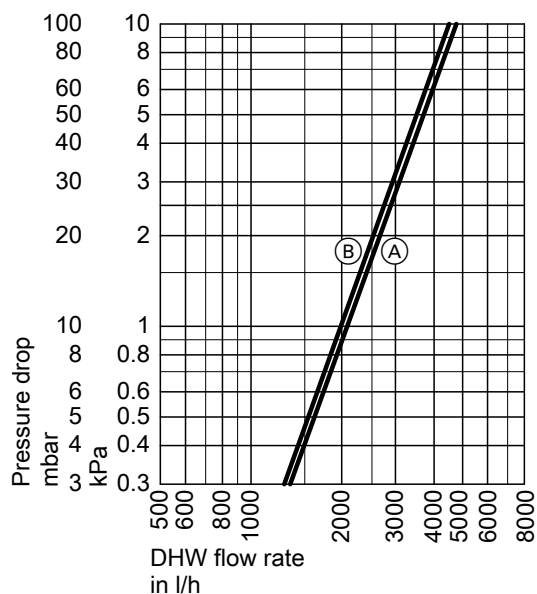
^{*1} Values determined by calculation.

Specification (cont.)

Pressure drop on the DHW side

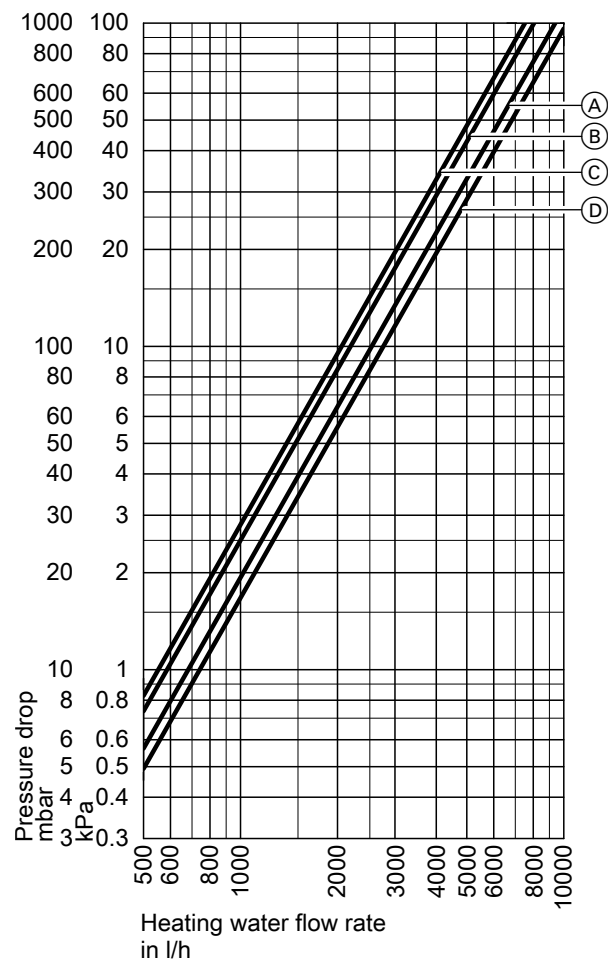


- (A) 300 l
- (B) 400 l, 500 l



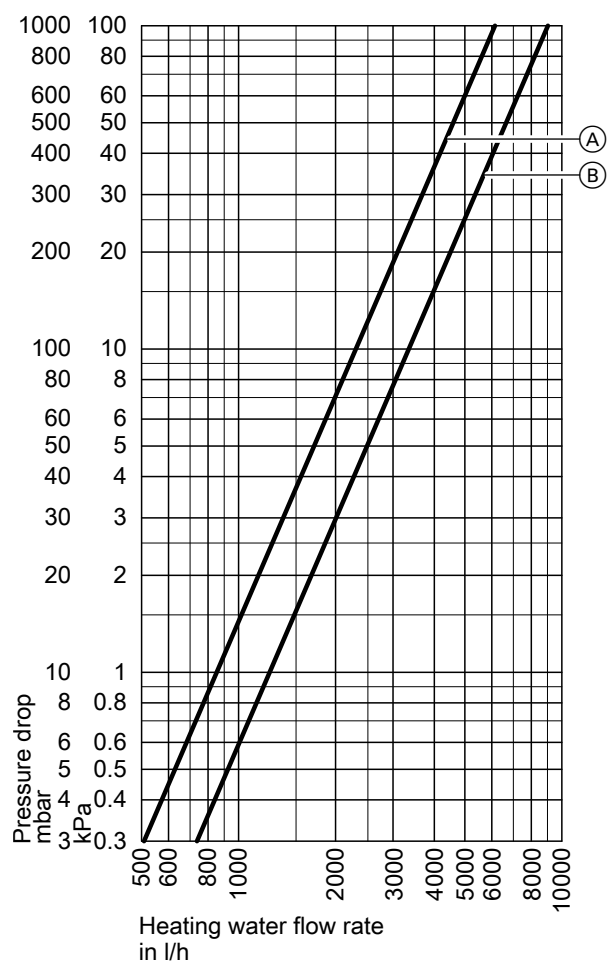
- (A) 750 l
- (B) 910 l

Pressure drop on the heating water side



- (A) 300 l (indirect coil at the top), type CVBC-300-S2, CVBD-300-S2
- (B) 300 l (indirect coil at the bottom), type CVBC-300-S2
- (C) 500 l (bottom indirect coil)
- (D) 400 l (bottom indirect coil)

Specification (cont.)



- (A) 750 l, 910 l (top indirect coil)
- (B) 750 l, 910 l (bottom indirect coil)

Specification – type CVBD-300-S2

Information about the upper indirect coil

The upper indirect coil is designed for connection to a heat generator.

Information about the lower indirect coil

The lower indirect coil is intended for connecting heat pumps.

Information on continuous output

When designing systems with the specified or calculated continuous output, allow for a matching circulation pump. The specified continuous output is only achieved if the heat generator's rated heating output is $\geq$ the continuous output.

Sizing entry points

The actual dimensions of the DHW cylinder may vary slightly due to manufacturing tolerances.

Specification (cont.)

Specification

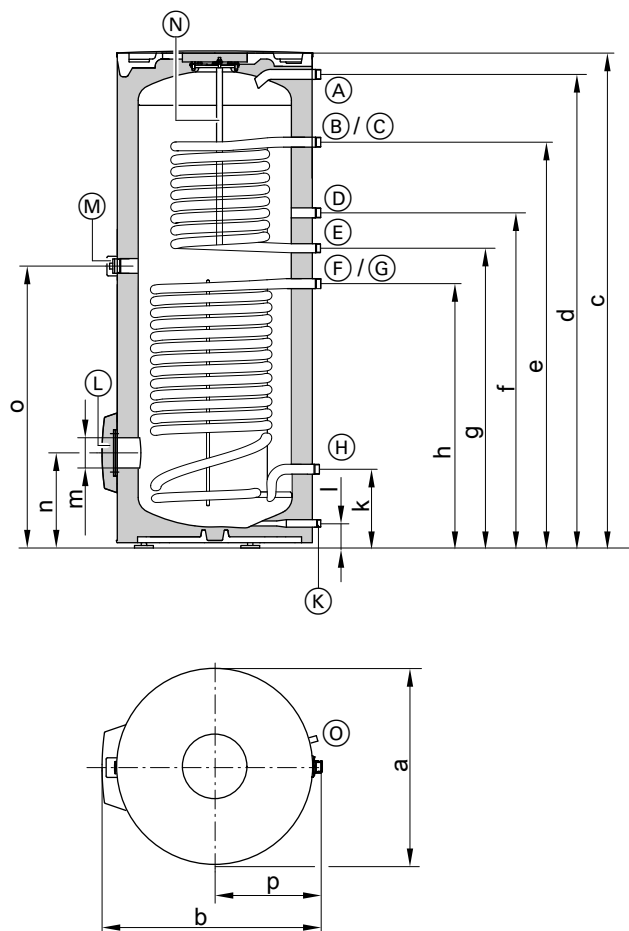
Type		CVBD-300-S2	
Cylinder	I	300	
Thermal insulation		Efficient	
DHW capacity	I	290.3	
Indirect coil		Top	Bottom
Heating water capacity	I	6.3	13.3
Gross volume	I	309.9	309.9
Continuous output at heating water flow rate stated below			
– For DHW heating from 10 to 45 °C and the following heating water flow temperatures			
90 °C	kW	31	—
	l/h	761	—
80 °C	kW	26	—
	l/h	638	—
70 °C	kW	20	—
	l/h	491	—
65 °C	kW	—	36.2
	l/h	—	891
60 °C	kW	15	30.6
	l/h	368	753
55 °C	kW	—	24.7
	l/h	—	608
50 °C	kW	11	18.1
	l/h	270	446
– For DHW heating from 10 to 50 °C and the following heating water flow temperatures			
90 °C	kW	23	—
	l/h	395	—
80 °C	kW	20	—
	l/h	344	—
70 °C	kW	15	—
	l/h	258	—
65 °C	kW	—	32.5
	l/h	—	700
60 °C	kW	—	26.5
	l/h	—	570
55 °C	kW	—	19.6
	l/h	—	423
– For DHW heating from 10 to 55 °C and the following heating water flow temperatures			
65 °C	kW	—	28.2
	l/h	—	539
60 °C	kW	—	21.1
	l/h	—	405
– For DHW heating from 10 to 60 °C and the following heating water flow temperatures			
65 °C	kW	—	22.6
	l/h	—	389
Heating water flow rate for the specified continuous outputs		m³/h	2.7
Standby heat loss		kWh/24 h	1.61
Permissible temperatures			
– Heating water side	°C	160	
– DHW side	°C	95	
Permissible operating pressure			
– Heating water side	bar	10	
	MPa	1.0	
– DHW side	bar	10	
	MPa	1.0	
Total weight incl. thermal insulation		kg	127
Heating surface		m²	0.9
Electrical conductivity, DHW side		µS/cm	≥ 100
Energy efficiency class (F→A⁺)		B	
Colour			
– Vitopearlwhite		X	

Note

Vitocell 100-B, type CVBD-300-S2 can be combined with
Vitocell 100-E, type MSCA.

Specification (cont.)

Dimensions 300 I, type CVBD-300-S2



Connections

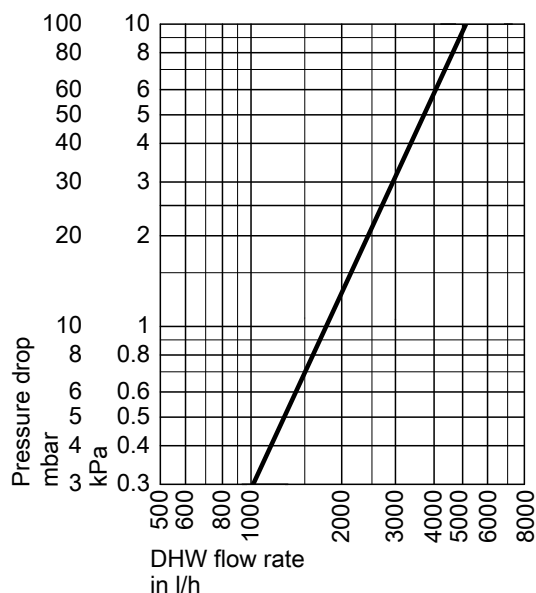
(A)	DHW	R 1	Male thread
(B)	Heating water flow, heat generator 1	G (3-K) 1	Male thread
(C)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(D)	DHW circulation	R 1	Male thread
(E)	Heating water return, heat generator 1	G (3-K) 1	Male thread
(F)	Heating water flow, heat generator 2	G (3-K) 1	Male thread
(G)	Sensor well for cylinder temperature sensor and temperature controller	Internal diameter: 16 mm	
(H)	Heating water return, heat generator 2	G (3-K) 1	Male thread
(K)	Cold water and drain	R 1	Male thread
(L)	Inspection and cleaning aperture with flange cover (also suitable for installation of an electric immersion heater)	—	—
(M)	Sleeve for electric immersion heater EHE	G 1½	Female thread
(N)	Impressed current anode	—	—
(O)	Position of electronic unit for impressed current anode	—	—

Specification (cont.)

Dimensions

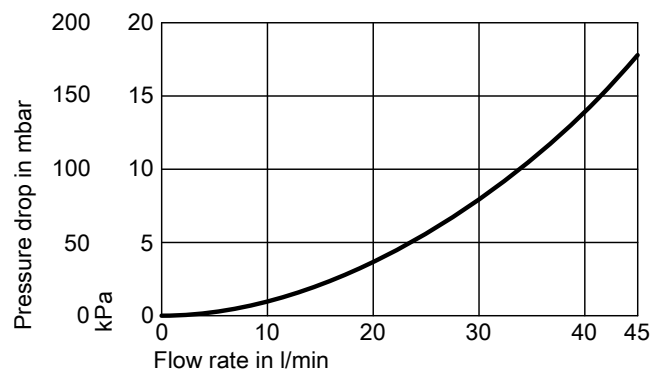
Cylinder		I	300
Height when tilted, incl. thermal insulation		mm	1790
Length (Ø) incl. thermal insulation	a	mm	668
Width incl. thermal insulation	b	mm	714
Height incl. thermal insulation	c	mm	1697
	d	mm	1607
	e	mm	1377
	f	mm	1137
	g	mm	1017
	h	mm	897
	k	mm	267
	l	mm	83
	m	mm	Ø 100
	n	mm	323
	o	mm	957
	p	mm	362

Pressure drop on the DHW side



Pressure drop on the heating water side

Top indirect coil: See (A) in the diagram on page 13.



300 l (bottom indirect coil)

Design information

Warranty

Our warranty for DHW cylinders requires that the water to be heated meets the DHW quality in accordance with current potable water regulations and that existing water treatment systems work properly.

Heat transfer surface

The corrosion-resistant, protected heat transfer surface (DHW/heat transfer medium) complies with EN 1717/DIN 1988-100 version 2.

Electric immersion heater

When using third party products, the threaded immersion heater must have an unheated length of at least 130 mm. The electric immersion heater must be suitable for use in enamelled DHW cylinders.

Design information (cont.)

Intended use

The appliance is intended to be installed and operated only in sealed unvented systems that comply with EN 12828/DIN 1988, or solar thermal systems that comply with EN 12977, with due attention paid to the associated installation, service and operating instructions. DHW cylinders are only designed to store and heat water of potable water quality. Buffer cylinders are exclusively designed to hold fill water of potable quality. Operate solar collectors only with heat transfer medium approved by the manufacturer.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

Commercial or industrial usage for a purpose other than heating the building or DHW shall be deemed inappropriate.

Any usage beyond this must be approved by the manufacturer in each individual case.

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and will result in an exclusion of liability.

Incorrect usage also applies if the components in the system are modified from their intended use (e.g. through direct DHW heating in the collector).

Adhere to statutory regulations, especially concerning the hygiene of potable water.

Accessories

Safety assembly to DIN 1988

For surface mounting

- **Part no. 7180662**
10 bar (1 MPa)
- **AT: Part no. 7179666**
6 bar (0.6 MPa)

Equipment:

- Diaphragm safety valve 10 bar (1.0 MPa)
- Shut-off valve
- Non-return valve
- Test connector
- Pressure gauge connector

Specification:

- Connections: DN 20, R $\frac{3}{4}$



Temperature controller

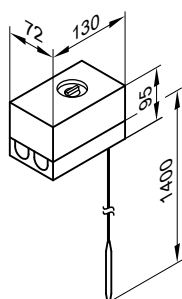
Part no. 7151989

Equipment:

- Thermostatic system

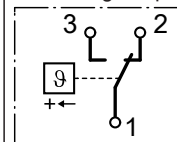
Standard delivery:

- Temperature controller
- Top-hat rail to be fitted to the DHW cylinder or the wall
- Without sensor well



Specification

Temperature sensor diameter	6 mm
Connection	3-core cable with a cross-section of 1.5 mm ²
IP rating	IP41 to EN 60529
Setting range	30 to 60 °C, adjustable up to 110 °C
Max. switching differential	11 K
Breaking capacity	6 (1.5) A 250 V~
Switching function	With rising temperature from 2 to 3



Accessories (cont.)

Circulation pump for cylinder heating

High efficiency circulation pump for boilers

Part no.	Pump type	Boiler
7172611	Para 25-180/6-43/SC 9	Up to 40 kW
7172612	Para 30-180/6-43/SC 9	40 to 70 kW
7172613	Stratos 40/1-4	From 70 kW

Equipment, type Para 25-180/6-43/SC 9:

- Check valve DN 25
- Pump fitting Rp 1 x G 1½ (female thread) including gasket

Equipment, type Para 30-180/6-43/SC 9:

- Check valve DN 32
- Pump fitting Rp 1¼ x G 2 (female thread) including gasket

Equipment, type Stratos 40/1-4:

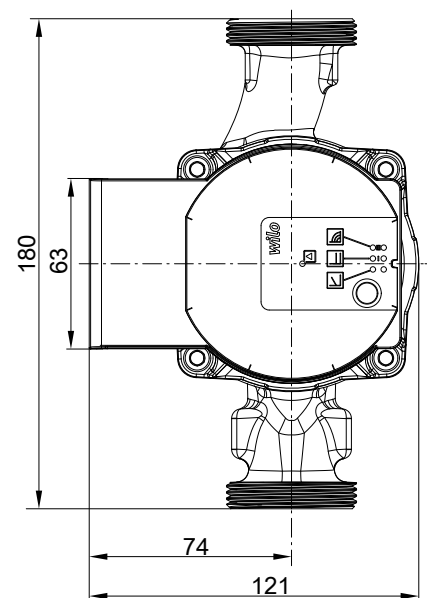
- Flange connection
- Intermediate flange non-return valve DN 40

Standard delivery:

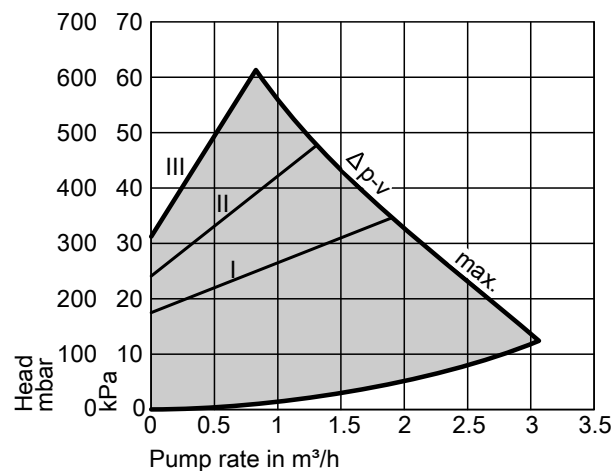
- Circulation pump
- Only type Stratos 40/1-4: 1 set of mating flanges DN 40 with connection thread Rp 1½ (female thread) including screws and gaskets

Pump type		Para 25-180/6-43/SC 9	Para 30-180/6-43/SC 9	Stratos 40/1-4
Energy efficiency index EEI		≤ 0.2	≤ 0.2	≤ 0.2
Voltage	V~	230	230	230
Power consumption	W	3 to 43	3 to 43	14 to 130
Connection		G 1½	G 2	DN 40
Connection line	m	5.0	5.0	5.0

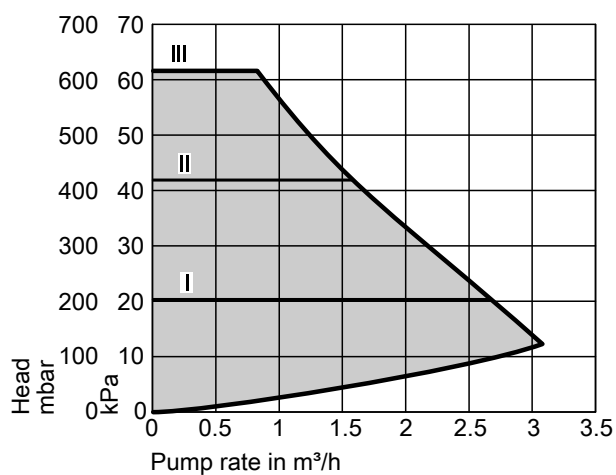
Dimensions of Para 25-180/6-43/SC 9, Para 30-180/6-43/SC 9



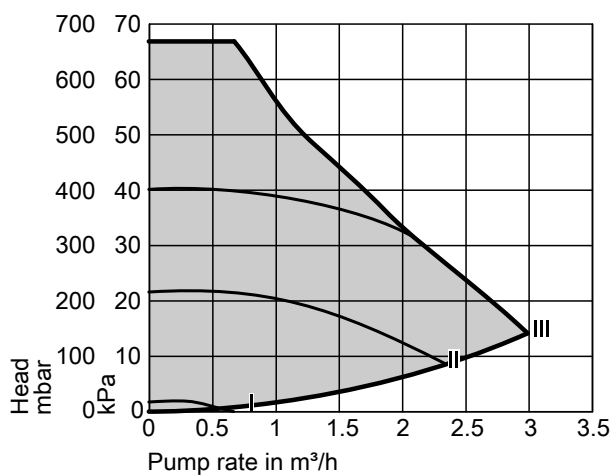
Curves of Para 25-180/6-43/SC 9, Para 30-180/6-43/SC 9



Δp-v (variable)

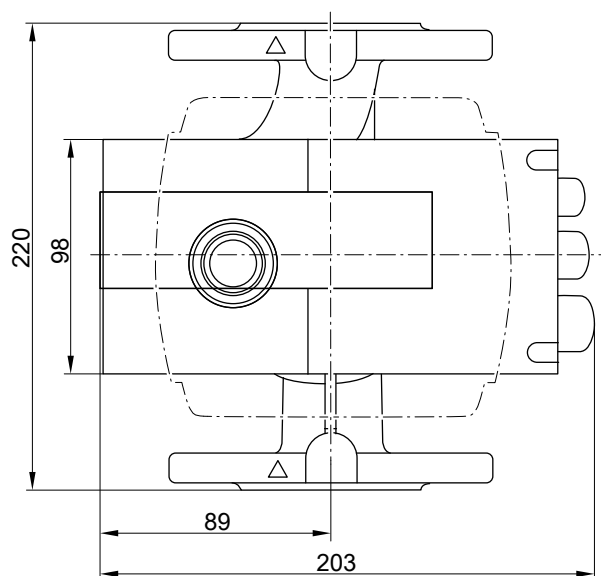


Δp -c (constant)

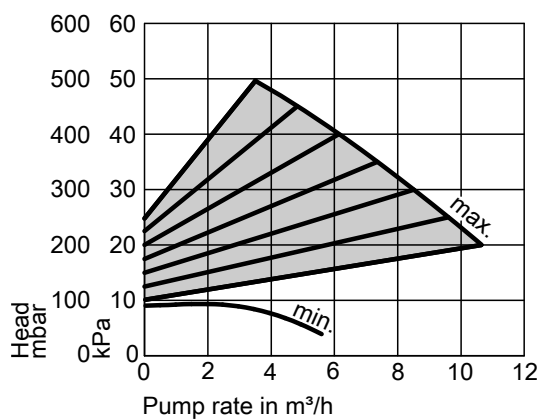


Constant speed

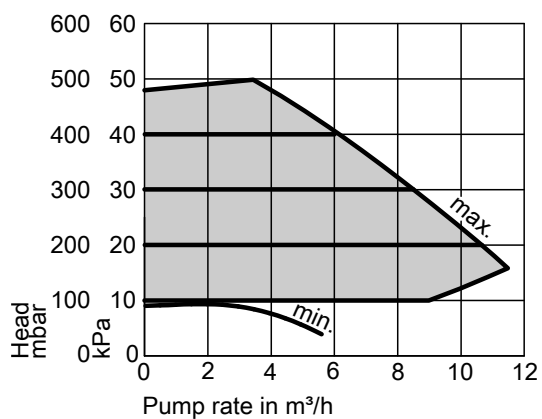
Dimensions of Stratos 40/1-4



Curves of Stratos 40/1-4



Δp -v (variable)



Δp -c (constant)

Accessories (cont.)

Impressed current anode

Cylinder	Part no.
≤ 500 l	ZK08511
≥ 750 l	ZK08512

- Maintenance-free
- In place of the protective magnesium anode supplied

Standard delivery:

- Impressed current anode
- Electronic unit with connecting cable

Note

Not suitable for Vitocell 100-B, type CVBD

Thermometer

For cylinders ≤ 300 l

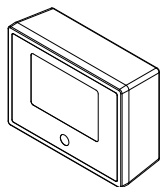
Thermometer, digital

Part no. ZK05265

- For wall mounting
- Digital display of 2 temperatures

Standard delivery:

- Thermometer
- 2 cylinder temperature sensors NTC 10 kΩ



For cylinders ≥ 400 l

Thermometer, analogue

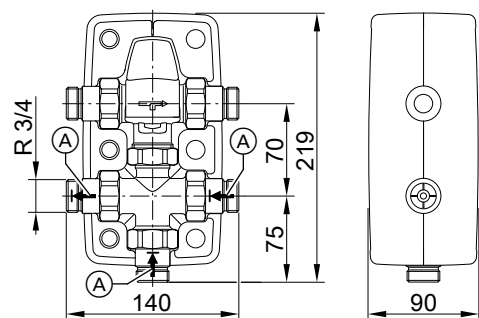
Part no. 7595765

For installation in the thermal insulation or front panel of the DHW cylinder

Thermostatic DHW circulation set

Part no. ZK01284

For limiting the DHW outlet temperature in DHW heating systems with DHW circulation pipe



(A) Non-return valve

Equipment:

- Automatic thermostatic mixing valve
- Integral non-return valves
- Thermal insulation

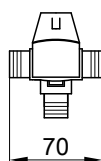
Specification

Connections		R 3/4
Weight	kg	1.45
Temperature range	°C	35 to 60
Max. temperature of the medium	°C	95
Operating pressure	bar	10
	MPa	1

Automatic thermostatic mixing valve

Part no. 7438940

For limiting the DHW outlet temperature in DHW heating systems without DHW circulation pipe



Accessories (cont.)

Specification

Connections		G 1
Temperature range	°C	35 to 60
Max. temperature of the medium	°C	95
Operating pressure	bar/MPa	10/1.0

Heating lance

Part no. Z021956

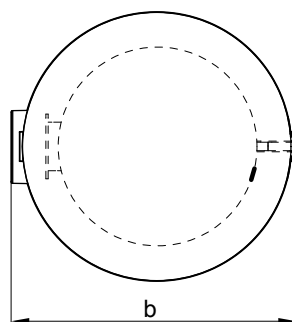
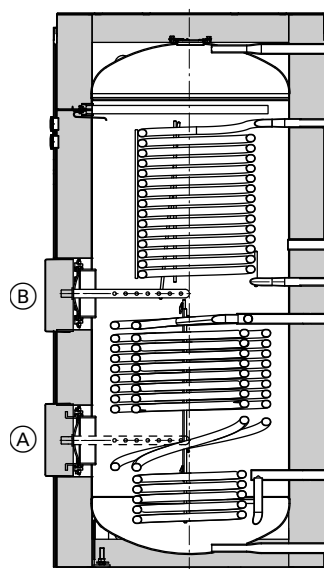
Large quantities of hot water can be heated quickly with the heating lance. The water heated in the heat exchanger flows slowly into the lower part of the cylinder through the holes in the heating lance. Temperature turbulence is avoided. The DHW is distributed better and more evenly over a larger volume (up to the DHW connection). The heating lance can also be used in conjunction with 1 electric immersion heater EHE (for type CVBB-750-S1 and CVBB-910-S1).

- The heating lance comprises a tube with an end cap and several holes.
- The heating lance is made from plastic that is suitable for potable water applications.
- It is particularly suitable for heat pumps with a high output
- A plate heat exchanger is also required (Vitotrans 100). Size the plate heat exchanger to suit the system configuration.

Standard delivery:

- Heating lance
 - Flange
 - Gasket
 - Flange cover
- Flange cover colour: Vitopearlwhite

Cylinder	I	750	910
Content that can be heated with the heating lance			
Position (B)	I	338	431
Position (A)	I	561	711
Width b with heating lance	mm	1110	1110
Minimum wall clearance for installation of heating lance	mm	535	535
Weight of heating lance	kg	0.5	0.5



The heating lance can be installed either at position (A) or (B).

Electric immersion heater EHE

Part no. Z021938, Z021939, Z021940, Z021942, Z021943

- For installation in the DHW cylinder
- Installation position: Flanged aperture
- For use with soft to medium hard drinking water up to 14 °dH (average hardness level up to 2.5 mol/m³)

Equipment:

- High limit safety cut-out
- Temperature controller

Standard delivery:

- Electric immersion heater EHE
- Flange with gasket
- Flange cover
 - **Part no. Z021938**
Flange cover colour: Black
 - **Part no. Z021939, Z021940, Z021942, Z021943**
Flange cover colour: Vitopearlwhite

Part no. Z012684, Z012687

- For installation in the heating water buffer cylinder or DHW cylinder
- Installation position: Connector
- For use with soft to medium hard drinking water up to 14 °dH (average hardness level up to 2.5 mol/m³)

Equipment:

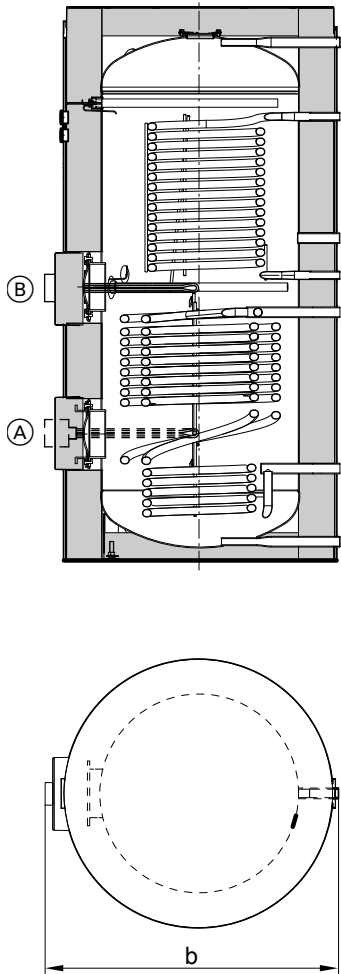
- High limit safety cut-out
- Temperature controller

Accessories (cont.)

Part no.

Cylinder	I	300	400	500	750		910	
Heating lance		No	No	No	No	Yes	No	Yes
Output range								
– 2/4/6 kW		Z021938 Z021939	Z021940	Z021940	Z021942	Z012684	Z021942	Z012684
– 4/8/12 kW		—	—	—	Z021943	Z012687	Z021943	Z012687

Installation position



The electric immersion heater can be installed either at position (A) or (B).

Accessories (cont.)

Specification – electric immersion heater EHE in conjunction with heating water buffer cylinder/DHW cylinder

Cylinder type		CVBD-300-S2	CVBC-300-S2	CVB-400-S1/ CVB-400-S2	CVB-500-S1/ CVB-500-S2	CVBB-750-S1	CVBB-910-S1
	I	300	300	400	500	750	910
Content that can be heated by the electric immersion heater	I	(B) 125	130	179	238	338	431
		(A) 246	246	309	407	561	711
Width b incl. electric immersion heater EHE	mm	820	820	1040	1040	1228	1228
Minimum wall clearance for installation of the electric immersion heater EHE							
– 2/4/6 kW	mm	650	650	650	650	650	650
– 4/8/12 kW	mm	—	—	—	—	950	950
Heat-up time from 10 to 60 °C with electric immersion heater EHE 2/4/6 kW:							
– 2 kW	h	(B) 3.7	3.8	5.2	6.9	9.8	12.5
		(A) 7.2	7.2	9.0	11.8	16.3	20.7
– 4 kW	h	(B) 1.8	1.9	2.6	3.5	4.9	6.3
		(A) 3.6	3.6	4.5	5.9	8.2	10.3
– 6 kW	h	(B) 1.2	1.3	1.7	2.3	3.3	4.2
		(A) 2.4	2.4	3.0	3.9	5.4	6.9
Heat-up time from 10 to 60 °C with electric immersion heater EHE 4/8/12 kW:							
– 4 kW	h	(B) —	—	—	—	4.9	6.3
		(A) —	—	—	—	8.2	10.3
– 8 kW	h	(B) —	—	—	—	2.5	3.1
		(A) —	—	—	—	4.1	5.2
– 12 kW	h	(B) —	—	—	—	1.6	2.1
		(A) —	—	—	—	2.7	3.4

Specification – electric immersion heater EHE

Max. output range	kW	6			12		
Heating output	kW	2	4	6	4	8	12
Rated voltage		1/N/PE 230 V~/50 Hz	1/N/PE 230 V~/50 Hz	3/PE 400 V~/50 Hz	2/PE 400 V~/50 Hz	2/PE 400 V~/50 Hz	3/PE 400 V~/50 Hz
Rated current	A	8.7	17.4	8.7	10.0	20.0	17.3
Weight	kg	2	2	2	3	3	3
IP rating		IP45	IP45	IP45	IP45	IP45	IP45

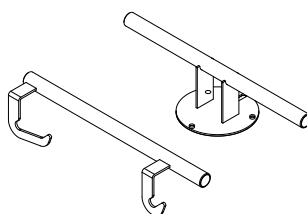
Transport aid

Part no. ZK05266

For easier handling of floorstanding DHW cylinders with thermal insulation made from rigid PUR foam
For cylinders up to 300 l capacity

Note

Not suitable for Vitocell 100-B, type CVBD



Transport aid

Part no. ZK01793

For easier handling of floorstanding DHW cylinders or buffer cylinders with removable thermal insulation.
For cylinders with 400 and 500 l capacity.



Standard delivery:

- Transport aid

Accessories (cont.)

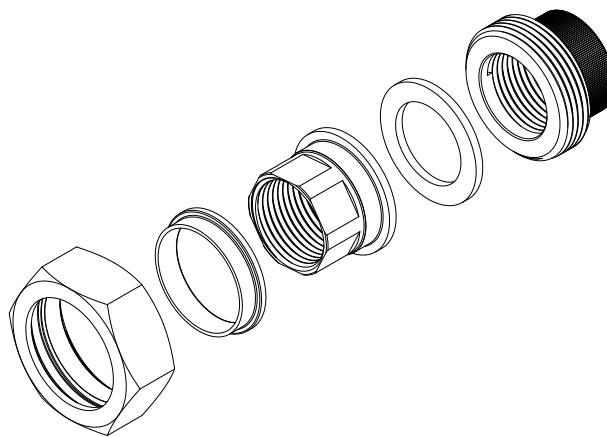
Electrically isolating fitting

For all connections on the DHW side of the DHW cylinder

Part no.	Fitting	Cylinder capacity
7994624	Rp 1 (female thread)	Up to 500 l
7994625	Rp 1¼ (female thread)	From 400 l

Specification:

- Material: Stainless steel
- Gasket material: EPDM
- Material of electrical separation: PE HD



Subject to technical modifications.

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