

Datasheet

Part no. and prices: See pricelist



Floorstanding stainless steel DHW cylinder

With 2 internal indirect coils

- Lower indirect coil for DHW heating via solar collectors
- Upper indirect coil for DHW reheating via a heat generator

VITOCCELL 300-B

Vitosilver

300 I, type EVBB-A

Vitopearlwhite

500 I, type EVBA-A

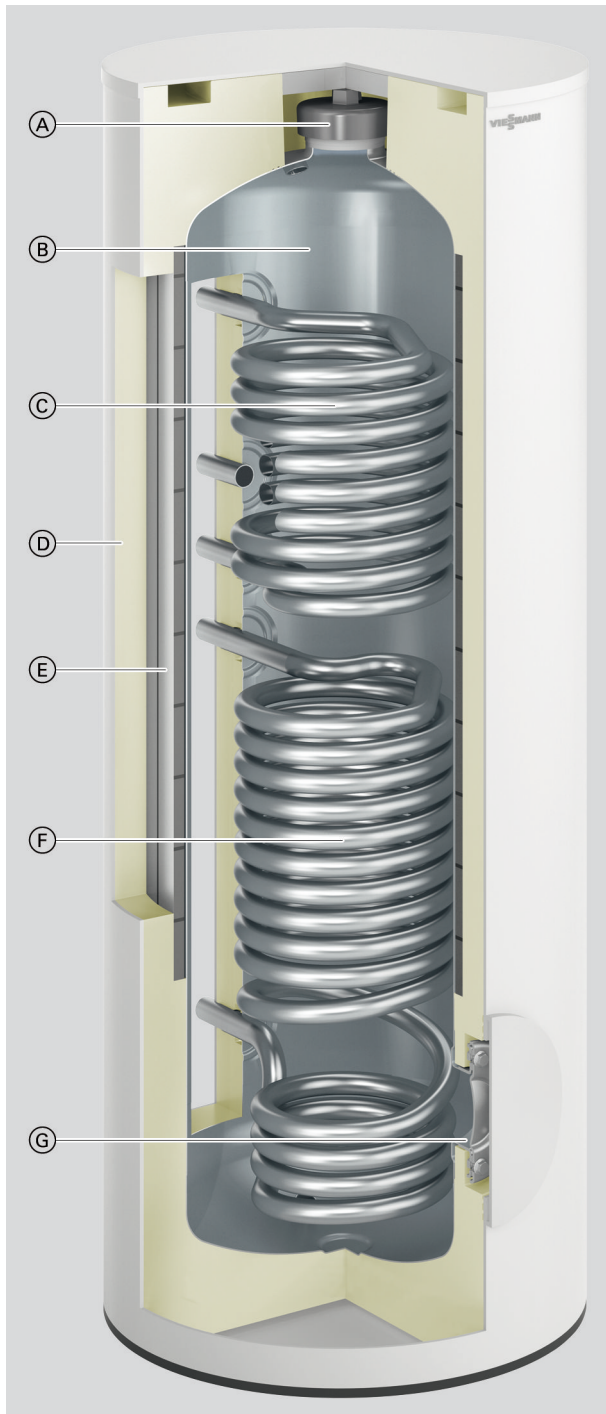
VITOCCELL 300-W

Vitopearlwhite

300 I, type EVBB-A

Benefits

Type EVBB-A, 300 l



- Ⓐ Upper inspection and cleaning aperture
- Ⓑ Stainless steel cylinder
- Ⓒ Upper indirect coil – DHW is reheated via the heat generator.
- Ⓓ Highly effective all-round thermal insulation
- Ⓔ Vacuum-insulated panel
- Ⓕ Lower indirect coil – connection for solar collectors
- Ⓖ Front inspection and cleaning aperture (also for installation of an immersion heater EHE)

- Long lasting product thanks to corrosion-resistant stainless steel cylinder
- Hygienic and made to food hygiene standards with high surface quality
- Easy to maintain and no protective anode required, meaning no additional subsequent costs
- Internal indirect coils that stretch right down to the cylinder floor heat up the entire water content
- High DHW convenience through rapid, even heat-up via generously sized indirect coils

- Equipped with vacuum-insulated panel for low heat loss (with 300 l cylinder capacity)
- Easy handling through light weight and removable thermal insulation (500 l capacity)
- For dual mode DHW heating in conjunction with solar collectors and heat generator. The heat from the solar collectors is transferred to the DHW via the lower indirect coil.

Benefits (cont.)

Delivered condition

Type EVBB-A

DHW cylinder with **300 l** capacity:

- Attached vacuum-insulated panels
- Sheet steel casing, epoxy-coated: Vitopearlwhite or Vitosilver
- Adjustable feet
- Cylinder and internal indirect coil made from stainless steel
- Clamping device for securing immersion temperature sensors to the cylinder jacket, with fixing points for 3 immersion temperature sensors
- Threaded elbow with sensor well: Internal diameter 6.5 mm
- Integral welded sensor well (internal diameter 7 mm) for cylinder temperature sensor

Type EVBA-A

DHW cylinder with **500 l** capacity:

- Removable thermal insulation
- Polystyrene casing: Vitopearlwhite
- Adjustable feet
- Cylinder and internal indirect coil made from stainless steel
- 2 clamping devices for securing immersion temperature sensors to the cylinder jacket, each with fixing points for 3 immersion temperature sensors
- Threaded elbow with sensor well: Internal diameter 6.5 mm
- 2 thermometers

Specification

Information on the upper indirect coil

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

Information on the lower indirect coil

The lower indirect coil is designed for connection to solar collectors. 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 stated 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

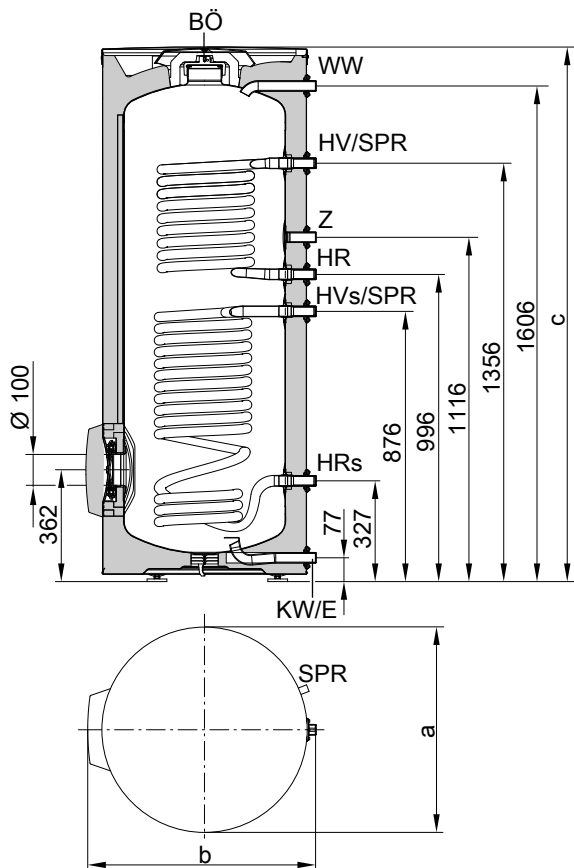
Type		EVBB-A		EVBA-A	
Cylinder capacity (AT: Actual water capacity)	l	300		500	
Heating water capacity					
– Upper indirect coil	l	6.7		10.0	
– Lower indirect coil	l	11.0		12.9	
Gross volume	l	317.7		522.9	
DIN registration number		9W71-10 MC/E			
Indirect coils		Top	Bottom	Top	Bottom
Continuous output 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	43	61	57	69
	l/h	1058	1501	1409	1688
80 °C	kW	35	51	48	59
	l/h	861	1252	1175	1414
70 °C	kW	28	41	38	46
	l/h	701	998	936	1128
60 °C	kW	20	30	28	34
	l/h	513	733	687	830
50 °C	kW	12	18	16	20
	l/h	302	434	406	491
– For DHW heating from 10 to 60 °C and the following heating water flow temperatures					
90 °C	kW	36	52	49	59
	l/h	627	894	838	1011
80 °C	kW	29	41	38	46
	l/h	494	706	662	799
70 °C	kW	20	29	27	33
	l/h	349	501	469	568
Heating water flow rate for the stated continuous outputs	m ³ /h	3.0	3.0	3.0	3.0
Max. connectible heat pump output	kW	8.0		10.0	
At 55 °C heating water flow temperature and 45 °C DHW temperature and at the specified heating water flow rate (both indirect coils connected in series)					
Standby heat loss	kWh/24 h	1.18		1.37	
Standby capacity V_{aux}	l	139		235	
Solar capacity V_{sol}	l	161		265	
Permissible temperatures					
– Heating water side	°C	160		160	
– DHW side	°C	95		95	
– Solar side	°C	160		160	
Permissible operating pressure					
– Heating water side	bar	10		10	
	MPa	1.0		1.0	
– DHW side	bar	10		10	
	MPa	1.0		1.0	
– Solar side	bar	10		10	
	MPa	1.0		1.0	



Specification (cont.)

Type		EVBB-A		EVBA-A	
Cylinder capacity (AT: Actual water capacity)	I	300		500	
Dimensions					
Length a (Ø)					
– Incl. thermal insulation	mm	668		1022	
– Excl. thermal insulation	mm	—		715	
Width b					
– Incl. thermal insulation	mm	706		1084	
– Excl. thermal insulation	mm	—		954	
Height c					
– Incl. thermal insulation	mm	1740		1852	
– Excl. thermal insulation	mm	—		1667	
Height when tilted					
– Incl. thermal insulation	mm	1840		—	
– Excl. thermal insulation	mm	—		1690	
Total weight incl. thermal insulation	kg	102		123	
Heating surface	m ²	0.9	1.5	1.3	1.7
Connections (male thread)					
Indirect coils	R	1		1	
Cold water, DHW	R	1		1¼	
DHW circulation	R	1		1	
Energy efficiency class		A		A	
Colour					
– Vitosilver		X		—	
– Vitopearlwhite		X		X	

Dimensions of type EVBB-A, 300 l capacity



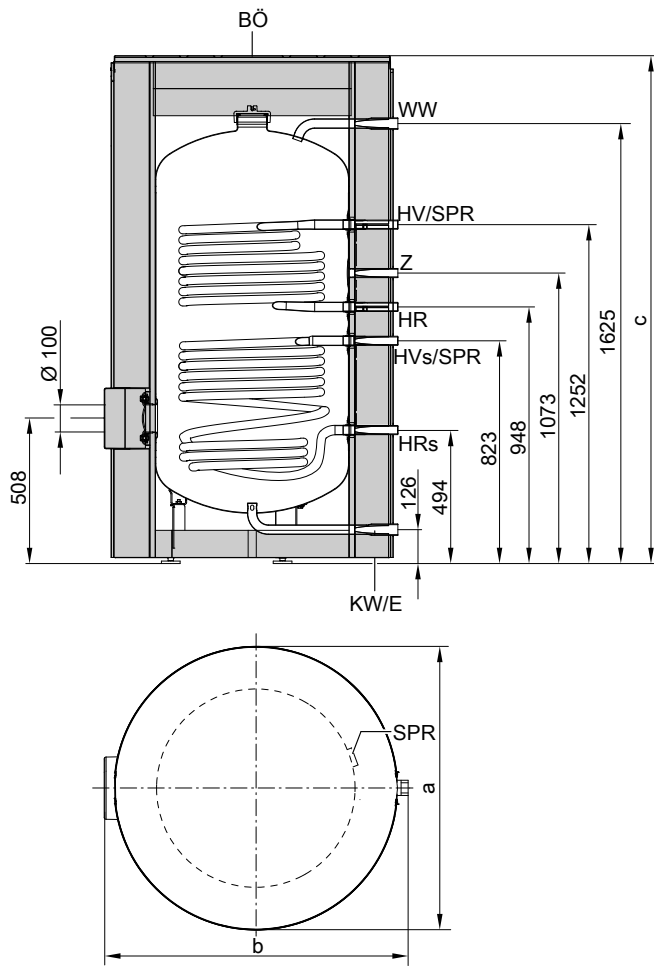
- HR Heating water return
- HR_s Heating water return, solar thermal system
- HV Heating water flow
- HV_s Heating water flow, solar thermal system
- KW Cold water
- SPR Clamping device for securing immersion temperature sensors to the cylinder jacket, with fixing points for 3 immersion temperature sensors
- WW Domestic hot water
- Z DHW circulation

- BÖ Inspection and cleaning aperture
- E Drain outlet

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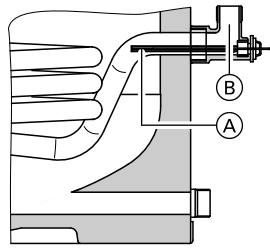
Specification (cont.)

Dimensions of type EVBA-A, 500 l capacity



- HR Heating water return
- HR_s Heating water return, solar thermal system
- HV Heating water flow
- HV_s Heating water flow, solar thermal system
- KW Cold water
- SPR Clamping device for securing immersion temperature sensors to the cylinder jacket, with fixing points for 3 immersion temperature sensors
- WW Domestic hot water
- Z DHW circulation

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)

- BÖ Inspection and cleaning aperture
- E Drain outlet

Performance factor N_L to DIN 4708, upper internal indirect coil

Cylinder capacity	I	300	500
Performance factor N_L			
Heating water flow temperature			
90 °C		2.4	7.0
80 °C		2.2	6.5
70 °C		2.0	6.0

- The performance factor N_L depends on 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

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

Peak output over 10 min, relative to performance factor N_L

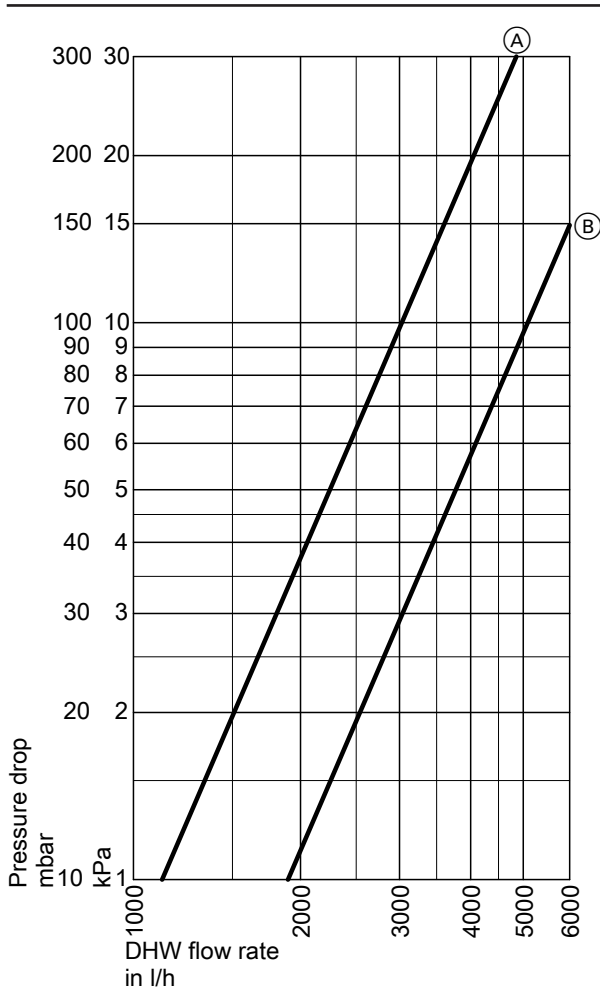
Cylinder capacity	I	300	500
Peak output (l/10 min) for DHW heating from 10 to 45 °C			
Heating water flow temperature			
90 °C		211	404
80 °C		203	333
70 °C		195	319

Specification (cont.)

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

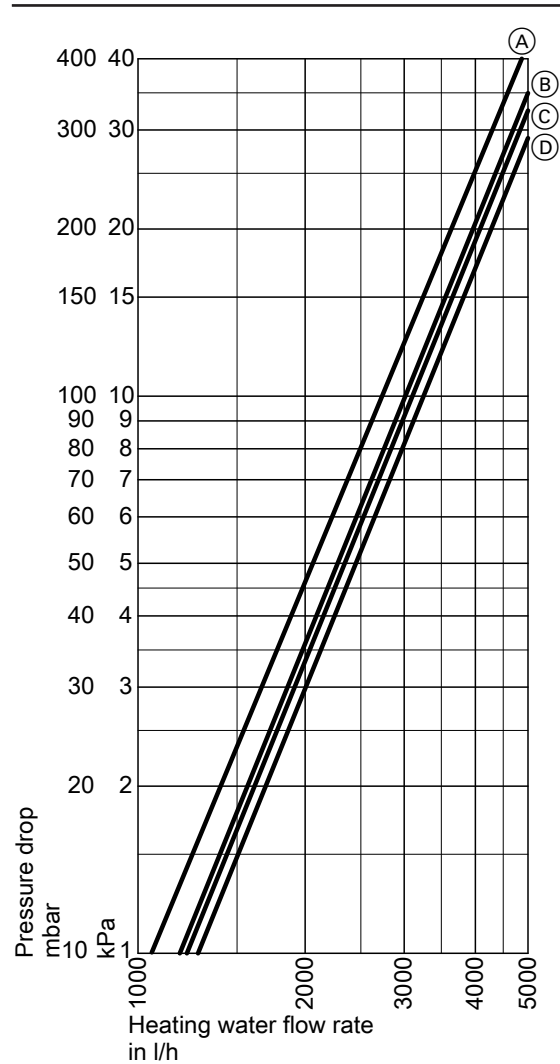
Cylinder capacity	I	300	500
Max. draw-off rate (l/min) for DHW heating from 10 to 45 °C, with reheating			
Heating water flow temperature			
90 °C		21.1	40.4
80 °C		20.3	33.3
70 °C		19.5	31.9

Pressure drop on the DHW side



- (A) Cylinder capacity 300 l
- (B) Cylinder capacity 500 l

Pressure drop on the heating water side



- (A) Cylinder capacity 300 l: Lower indirect coil
- (B) Cylinder capacity 300 l: Upper indirect coil
- (C) Cylinder capacity 500 l: Lower indirect coil
- (D) Cylinder capacity 500 l: Upper indirect coil

Design information

Heating water flow temperatures in excess of 110 °C

For these operating conditions, DIN 4753 recommends the installation of a type-tested high limit safety cut-out in the DHW cylinder, which limits the temperature to 95 °C.

Design information (cont.)

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.

Intended use

The appliance is only intended to be installed and operated 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. Heating water buffer cylinders are only designed to hold fill water of potable water quality. Only operate solar collectors with the 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 for the individual case.

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

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

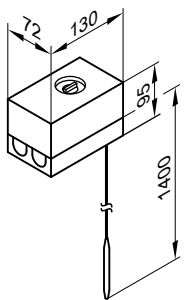
Adhere to statutory regulations, especially concerning the hygiene of potable water.

Accessories

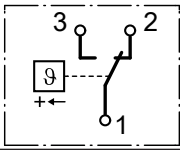
Temperature controller

Part no. 7151989

- With a thermostatic system
- With selector on the outside of the casing
- Without sensor well
- With top-hat rail to be fitted to the DHW cylinder or the wall



Specification

Connection	3-core lead with a cross-section of 1.5 mm ²
IP rating	IP 41 to EN 60529
Setting range	30 to 60 °C, adjustable up to 110 °C
Switching differential	Max. 11 K
Breaking capacity	6 (1.5) A 250 V~
Switching function	With rising temperature from 2 to 3 
DIN registration number	DIN TR 1168

Safety assembly to DIN 1988

- **Part no. 7180662**
10 bar (1 MPa)
- **AT: Part no. 719666**
6 bar (0.6 MPa)
- DN 20/R 1
- Max. heat input: 150 kW



Components:

- Shut-off valve
- Non-return valve and test connector
- Pressure gauge connector
- Diaphragm safety valve

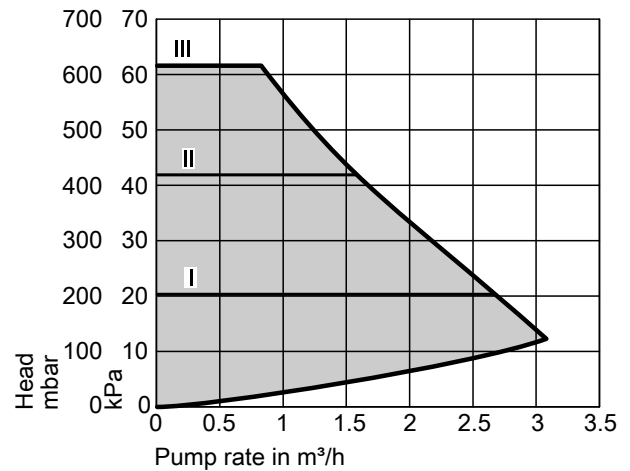
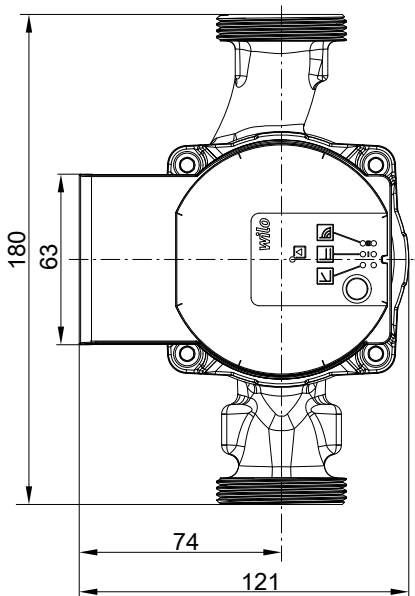
Accessories (cont.)

Circulation pump for cylinder heating

Pump type	Part no.
Para 25-180/6-43/SC 9	7172611
Para 30-180/6-43/SC 9	7172612
Stratos 40/1-4	7172613

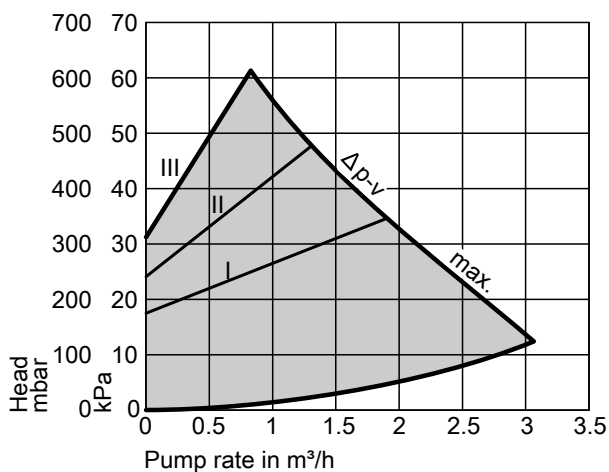
Pump type		Para 25-180/6-43/SC 9	Para 30-180/6-43/SC 9	Stratos 40/1-4
Energy efficiency index EEI		≤ 0.2	≤ 0.2	≤ 0.2
Voltage	V~	230	230	230
Power consumption	W	3-43	3-43	14-130
Connection	G	1½	2	40
Connecting cable	m	5.0	5.0	5.0
For heat generator		Up to 40 kW	From 40 to 70 kW	From 70 kW

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

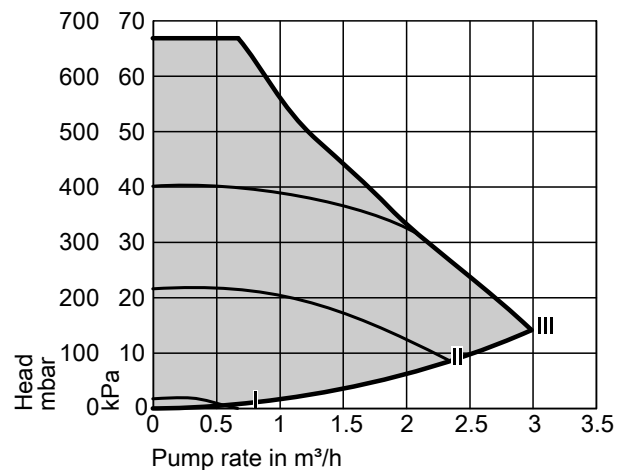


Δp-c (constant)

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



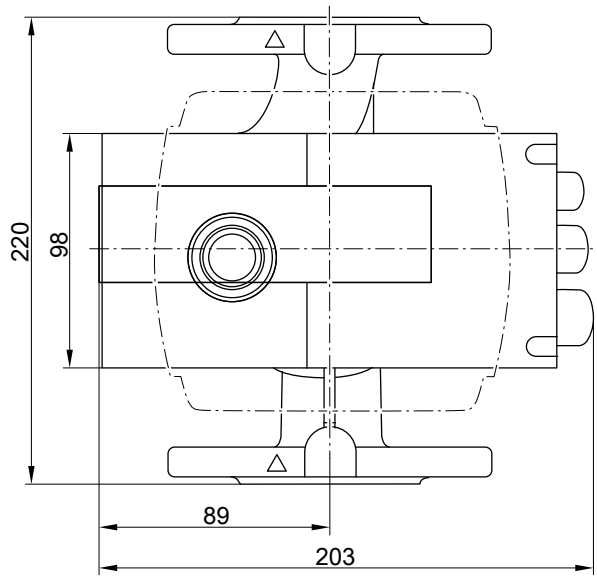
Δp-v (variable)



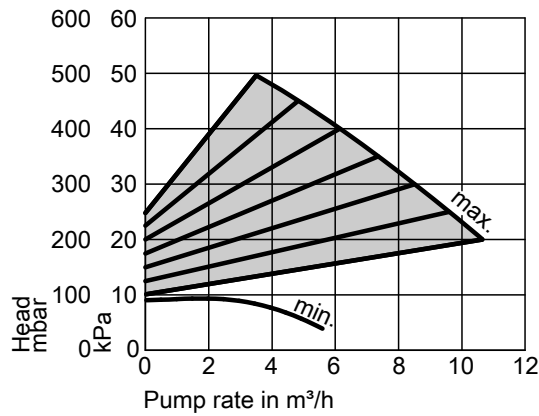
Constant speed

Accessories (cont.)

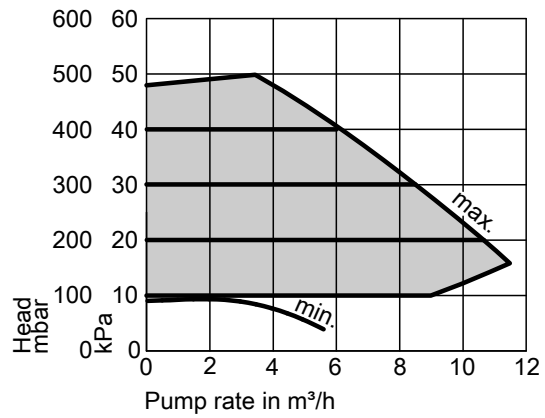
Dimensions of Stratos 40/1-4



Curves of Stratos 40/1-4



$\Delta p-v$ (variable)

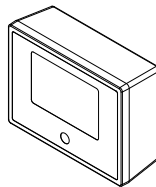


$\Delta p-c$ (constant)

Thermometer, digital

Part no. ZK05265

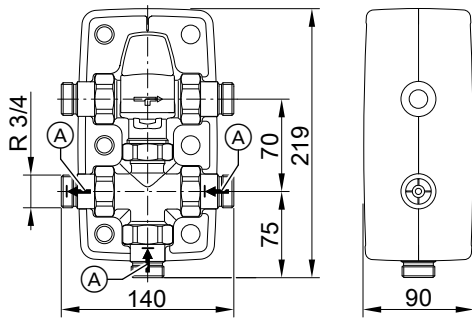
- For wall mounting
- Digital display of two temperatures



Accessories (cont.)

Thermostatic DHW circulation set

Part no. ZK01284



(A) Non-return valve

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

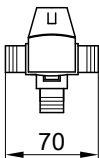
- Automatic thermostatic mixing valve with bypass line
- Integral non-return valves
- Removable insulation shells

Specification

Connections	R	¾
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

Specification

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

Immersion heater EHE

- Use the immersion heater only with soft to medium hard water up to 14 °dH (hardness level 2, up to 2.5 mol/m³).
- The heating output can be selected: 2, 4 or 6 kW

Components:

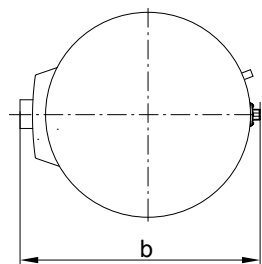
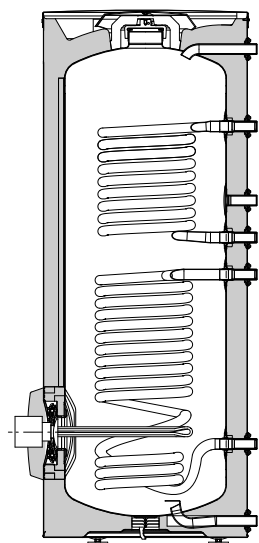
- High limit temperature cut-out device
- Temperature controller

Part no.

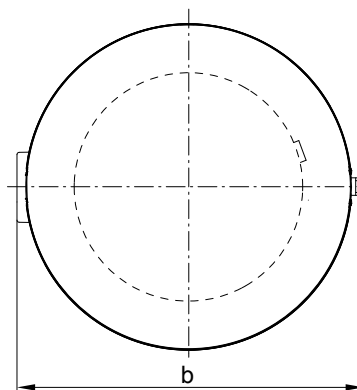
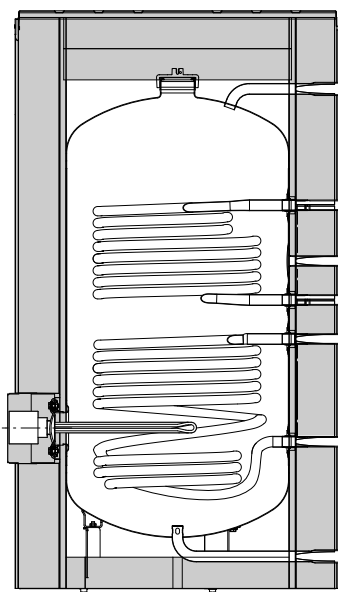
Cylinder capacity	l	300	500
Colour			
– Black		Z021953	—
– Vitopearlwhite		Z021954	Z021955

Accessories (cont.)

Installed location



300 litre capacity



500 litre capacity

Specification – immersion heater EHE

Power	kW	2	4	6
Rated voltage		1/N/PE 230 V/50 Hz	1/N/PE 230 V/50 Hz	3/PE 400 V/50 Hz
IP rating		IP 45		
Rated current	A	8.7	17.4	8.7
Heat-up time from 10 to 60 °C				
– Cylinder volume 300 l	h	7.1	3.6	2.4
– Cylinder volume 500 l	h	11.0	5.5	3.7

Specification for immersion heater EHE in conjunction with Vitocell

Cylinder capacity	l	300	500
Content that can be heated by the immersion heater	l	245	379
Dimensions			
Width b with immersion heater	mm	792	1103
Minimum wall clearance for installation of immersion heater EHE	mm	730	670
Weight			
Immersion heater EHE	kg	2	2

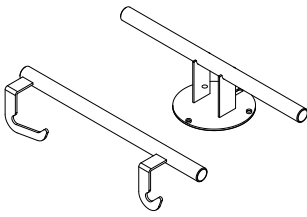
Transport aid

Part no. ZK05266

For easier handling of vertical DHW cylinders.

- For cylinder capacity up to 300 litres
- For DHW cylinders with rigid PUR foam thermal insulation

Accessories (cont.)



Transport aid

Part no. ZK01793

For easier handling of vertical DHW cylinders.

- For cylinder capacity 500 litres
- For DHW cylinders with removable thermal insulation



Subject to technical modifications.

Viessmann Climate Solutions SE
35108 Allendorf / Germany
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

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