

Datasheet

Part numbers and prices: see pricelist



VITOCELL 340-M Type SVK

Multi-mode heating water buffer cylinder with integral DHW heating

- Heating water: 705/953 l capacity
- DHW: 33/33 l capacity
- Solar heat exchanger: 12/14 l capacity

VITOCELL 360-M Type SVS

Multi-mode heating water buffer cylinder with stratification primary system and integral DHW heating

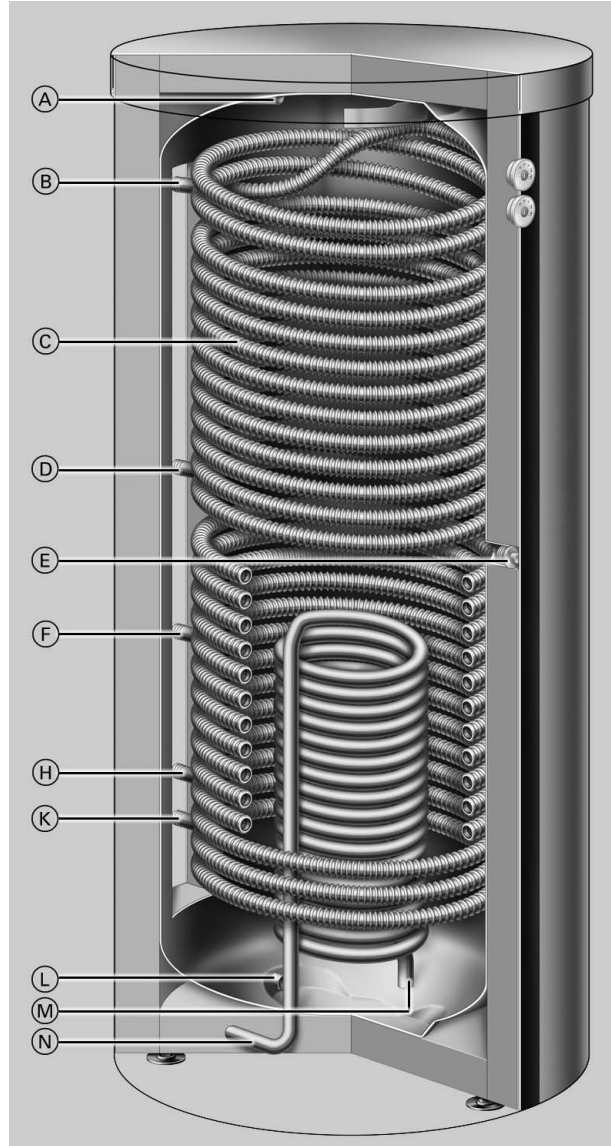
- Heating water: 705/953 l capacity
- DHW: 33/33 l capacity
- Solar heat exchanger: 12/14 l capacity

Product information Vitocell 340-M and Vitocell 360-M

Connection of several heat sources and hygienic DHW heating with high draw-off rates; space-efficient in a single combi cylinder.

Benefits at a glance

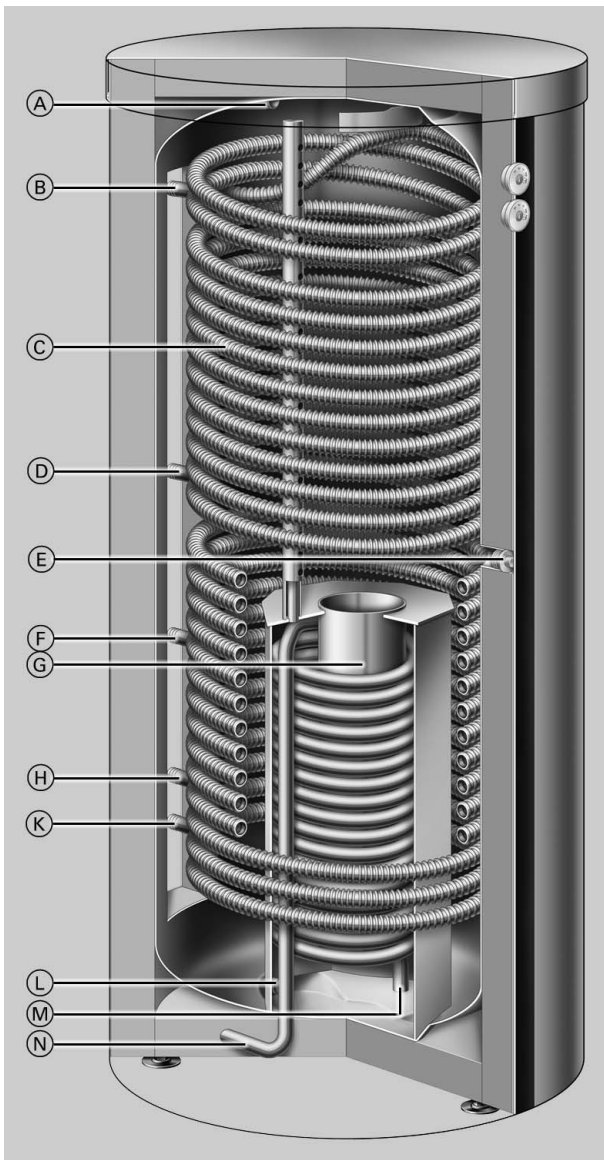
- Vitocell 340-M and Vitocell 360-M – the combination of heating water buffer cylinder and DHW cylinder.
- For heating systems with several heat sources. Particularly suitable in connection with Viessmann solar heating systems for DHW heating and backing up the heating function of your system.
- Connectors at different heights enable the utilisation of different heat sources, e.g. solid fuel boiler or heat pump. The temperature stratification remains unaffected.
- Low space requirement and installation effort – combined DHW cylinder and buffer cylinder.
- Corrugated DHW pipe made from high-alloy stainless steel, resilient and stress-free integration.
- Optimum exploitation of solar energy through efficient heat transfer in the lower section via the large heat exchanger surface of the corrugated DHW pipe.
- Vitocell 360-M: The stratification primary system ensures the layering of solar energy-heated water at different temperatures, making DHW heated by solar energy available very quickly.



Vitocell 340-M (type SVK) – multi-mode heating water buffer cylinder with integral DHW heating

- (A) Heating water flow 1 / air vent valve
- (B) DHW / DHW circulation
- (C) Corrugated DHW pipe made from stainless steel
- (D) Heating water flow 2 / heating water return 1
- (E) Electric immersion heater EHE
- (F) Heating water return 2
- (H) Heating water return 3
- (K) Cold water
- (L) Drain
- (M) Heating water return / Solar heating system drain
- (N) Heating water flow / Solar heating system air vent valve

Benefits at a glance (cont.)



Vitocell 360-M (type SVS) – multi-mode heating water buffer cylinder with stratification primary system and integral DHW heating

- Ⓐ Heating water flow 1 / air vent valve
- Ⓑ DHW / DHW circulation
- Ⓒ Corrugated DHW pipe made from stainless steel
- Ⓓ Heating water flow 2 / heating water return 1
- Ⓔ Electric immersion heater EHE
- Ⓕ Heating water return 2
- Ⓖ Stratification primary system
- Ⓗ Heating water return 3
- Ⓚ Cold water
- Ⓛ Drain
- Ⓜ Heating water return / Solar heating system drain
- Ⓝ Heating water flow / Solar heating system air vent valve

Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS)

For storing heating water and DHW heating in conjunction with solar collectors, heat pumps and solid fuel boilers.

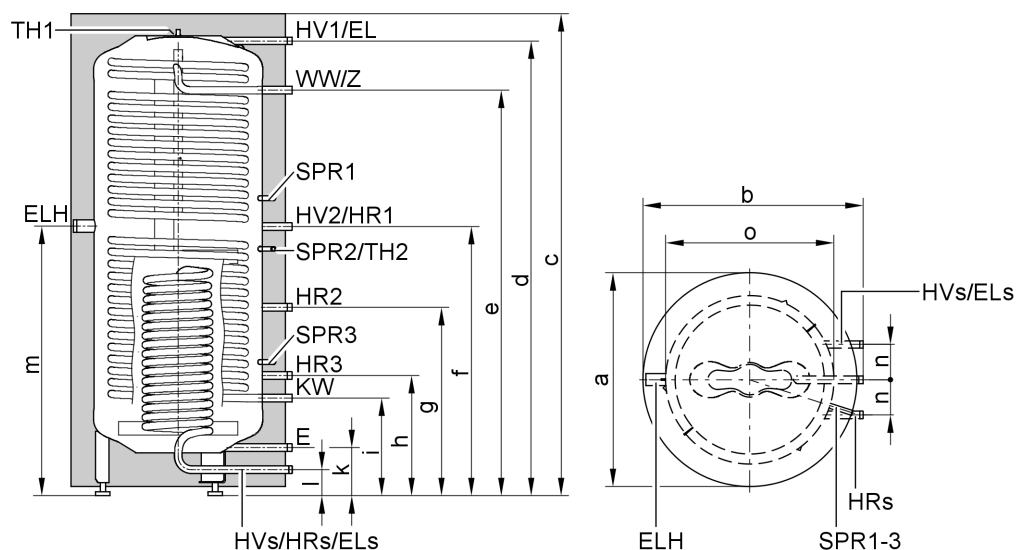
Suitable for the following systems:

- DHW temperatures up to 95 °C
- Heating water flow temperature up to 110 °C

- Solar flow temperature up to 140 °C
- Operating pressure on the heating water side up to 3 bar
- Solar side operating pressure up to 10 bar
- Operating pressure on the DHW side up to 10 bar

| Cylinder capacity | | 750 | 1000 |
|--|----------------|----------------|------|
| Heating water content | l | 705 | 953 |
| DHW content | l | 33 | 33 |
| Solar indirect coil content | l | 12 | 14 |
| DIN reg. no. | | | |
| – Vitocell 340-M | | 0262/06-10MC/E | |
| – Vitocell 360-M | | 0263/06-10MC/E | |
| Dimensions | | | |
| Length (∅) | | | |
| – incl. thermal insulation | a mm | 960 | 1060 |
| – excl. thermal insulation | o mm | 750 | 850 |
| Width | b mm | 1000 | 1100 |
| Height | | | |
| – incl. thermal insulation | c mm | 2100 | 2100 |
| – excl. thermal insulation | mm | 2002 | 2044 |
| Height when tilted | | | |
| – excl. thermal insulation | mm | 2070 | 2130 |
| Minimum installation height | mm | 2190 | 2190 |
| Weight | | | |
| – incl. thermal insulation | kg | 212 | 240 |
| – excl. thermal insulation | kg | 197 | 224 |
| Connections | | | |
| Heating water flow and return | R | 1" | 1¼" |
| Cold water, DHW | R | 1" | 1" |
| Heating water flow and return (solar) | G | 1" | 1" |
| Solar heat exchanger | | | |
| Heating surface | m ² | 1.8 | 2.1 |
| DHW heat exchanger | | | |
| Heating surface | m ² | 7.2 | 7.2 |
| Max. connectable aperture area Vitosol | m ² | 12 | 20 |
| Standby heat loss q _{BS} (standard parameter) | kWh/24 h | 1.47 | 1.55 |
| Standby capacity V _{aux} | l | 341 | 433 |
| Solar capacity V _{sol} | l | 409 | 567 |

Vitocell 340-M



E Drain
EL Air vent valve
EL_s Solar indirect coil ventilation

ELH Immersion heater
(Fem. connection Rp 1½")
HR Heating water return

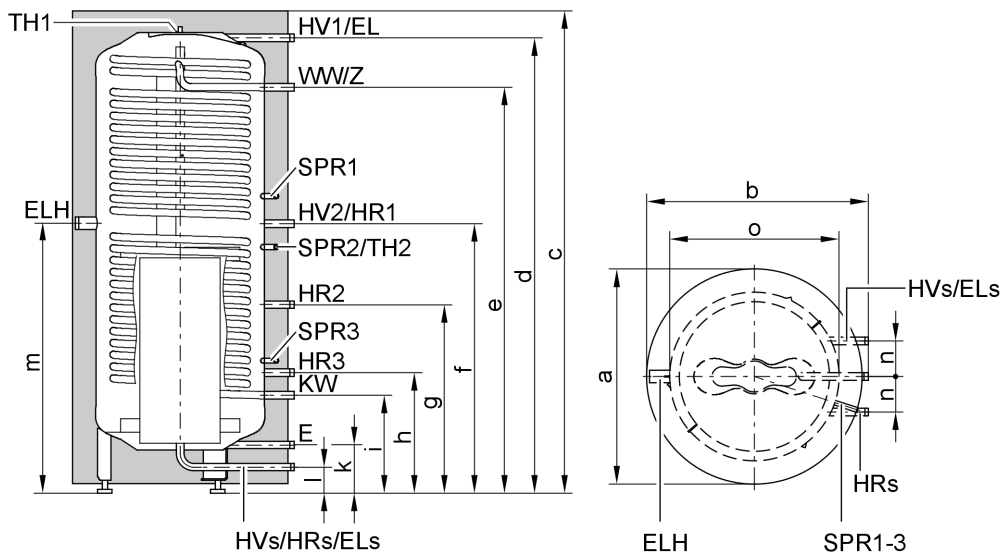
Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

HR_s Heating water return, solar heating system
 HV Heating water flow
 HV_s Heating water flow, solar heating system
 KW Cold water
 TH Thermometer

SPR Temperature sensor or thermostat
 WW DHW
 Z DHW circulation (threaded DHW circulation fitting, accessory)

| Cylinder capacity | | I | 750 | 1000 |
|-----------------------------------|---|----|------|------|
| Length (∅) | a | mm | 960 | 1060 |
| Width | b | mm | 1000 | 1100 |
| Height | c | mm | 2100 | 2100 |
| | d | mm | 1980 | 2023 |
| | e | mm | 1761 | 1747 |
| | f | mm | 1156 | 1142 |
| | g | mm | 796 | 814 |
| | h | mm | 526 | 512 |
| | i | mm | 426 | 412 |
| | k | mm | 173 | 136 |
| | l | mm | 75 | 75 |
| | m | mm | 1156 | 1142 |
| | n | mm | 157 | 185 |
| Length without thermal insulation | o | mm | 750 | 850 |

Vitocell 360-M



E Drain
 EL Air vent valve
 EL_s Solar indirect coil ventilation
 ELH Immersion heater
 (Fem. connection Rp 1½")
 HR Heating water return
 HR_s Heating water return, solar heating system
 HV Heating water flow

HV_s Heating water flow, solar heating system
 KW Cold water
 TH Thermometer
 SPR Temperature sensor or thermostat
 WW DHW
 Z DHW circulation (threaded DHW circulation fitting, accessory)

Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

| Cylinder capacity | | I | 750 | 1000 |
|-----------------------------------|---|----|------|------|
| Length (∅) | a | mm | 960 | 1060 |
| Width | b | mm | 1000 | 1100 |
| Height | c | mm | 2100 | 2100 |
| | d | mm | 1980 | 2023 |
| | e | mm | 1761 | 1747 |
| | f | mm | 1156 | 1142 |
| | g | mm | 796 | 814 |
| | h | mm | 526 | 512 |
| | i | mm | 426 | 412 |
| | k | mm | 173 | 136 |
| | l | mm | 75 | 75 |
| | m | mm | 1156 | 1142 |
| | n | mm | 157 | 185 |
| Length without thermal insulation | o | mm | 750 | 850 |

Continuous output

| Continuous output | kW | 15 | 22 | 33 |
|---|-----|-----|-----|-----|
| for DHW heating from 10 to 45 °C and a heating water flow temperature of 70 °C at the heating water throughput stated below (tested at HV ₁ /HR ₁) | l/h | 368 | 540 | 810 |
| Heating water flow rate for the stated continuous output | l/h | 252 | 378 | 610 |
| Continuous output | kW | 15 | 22 | 33 |
| for DHW heating from 10 to 60 °C and a heating water flow temperature of 70 °C at the heating water throughput stated below (tested at HV ₁ /HR ₁) | l/h | 258 | 378 | 567 |
| Heating water flow rate for the stated continuous output | l/h | 281 | 457 | 836 |

Information regarding continuous output

When designing the system for continuous output as stated or calculated, allow for the corresponding circulation pump. The stated continuous output is only achieved when the rated boiler output \geq continuous output.

Performance factor N_L

To DIN 4708.

Cylinder storage temperature T_{cyl} = cold water inlet temperature + 50 K ^{+5 K/-0 K} and 70 °C heating water flow temperature.

| Performance factor N_L subject to the delivered boiler output (Q_D) | | | |
|---|---|--------------|------|
| Cylinder capacity | I | 750 | 1000 |
| Q_D in kW | | N_L figure | |
| 15 | | 2.00 | 2.60 |
| 18 | | 2.25 | 2.90 |
| 22 | | 2.50 | 3.20 |
| 27 | | 2.75 | 3.80 |
| 33 | | 3.00 | 4.40 |

Information regarding performance factor

The performance factor N_L varies according to the cylinder storage temperature T_{cyl} .

Standard values for

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

Peak output (over 10 minutes)

Relative to the performance factor N_L .

DHW heating from 10 to 45 °C and 70 °C heating water flow temperature.

Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

Peak output (l/10 min) subject to the delivered boiler output (Q_D)

| Cylinder capacity | l | 750 | 1000 |
|-------------------|---|----------------|----------------|
| Q_D in kW | | Peak output | |
| 15 | | 190 | 214 |
| 18 | | 200 | 226 |
| 22 | | 210 | 236 |
| 27 | | 220 | 256 |
| 33 | | 230 l / 10 min | 273 l / 10 min |

Max. draw-off rate (over 10 minutes)

Relative to the performance factor N_L .

With booster heater.

DHW heating from 10 to 45 °C and 70 °C heating water flow temperature.

Max. DHW drawing rate (l/min) subject to the delivered boiler output (Q_D)

| Cylinder capacity | l | 750 | 1000 |
|-------------------|---|--------------------|------|
| Q_D in kW | | max. draw-off rate | |
| 15 | | 19.0 | 21.4 |
| 18 | | 20.0 | 22.6 |
| 22 | | 21.0 | 23.6 |
| 27 | | 22.0 | 25.6 |
| 33 | | 23.0 | 27.3 |

Available water volume

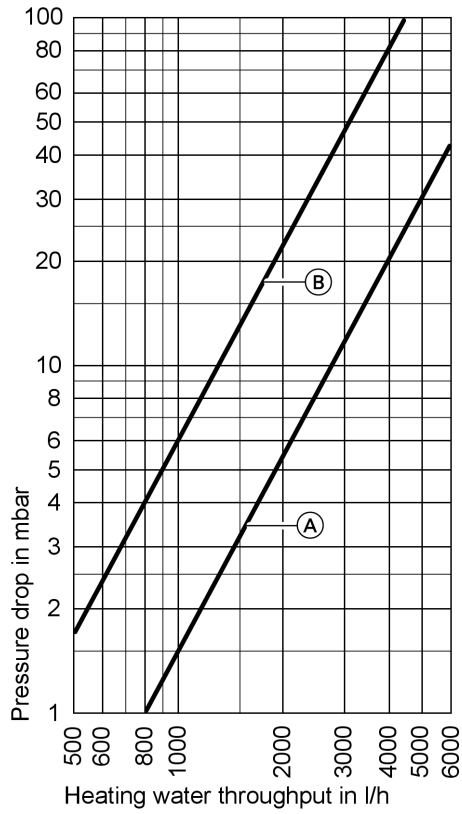
Cylinder content heated to 60 °C.

Without booster heater.

| Draw-off rate | l/min | 10 | 20 |
|--|-------|-----|-----|
| Available water volume | | | |
| Water at $t = 45$ °C (mixed temperature) | | | |
| 750 l | | 255 | 190 |
| 1000 l | | 315 | 234 |

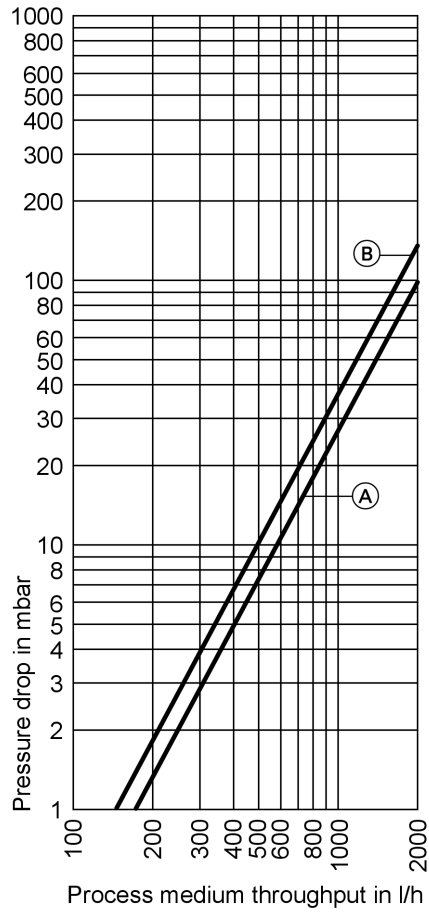
Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

Pressure drop



Pressure drop on the heating water side

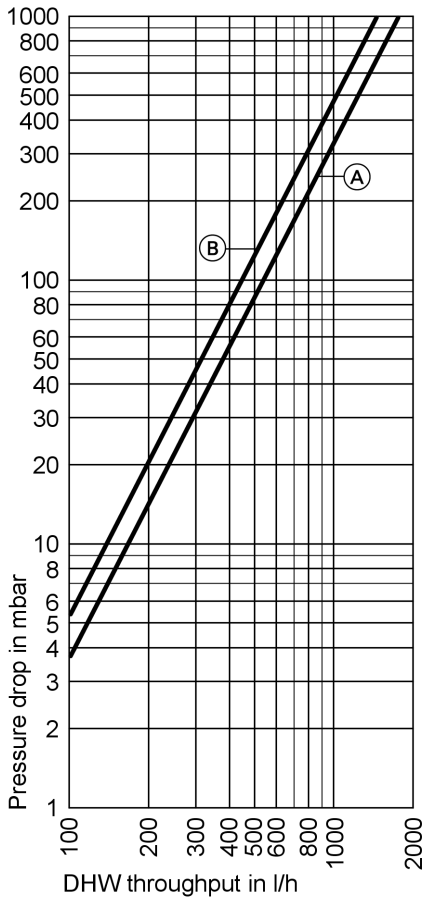
- (A) Cylinder capacity 1000 l
- (B) Cylinder capacity 750 l



Pressure drop on the solar side

- (A) Cylinder capacity 750 l
- (B) Cylinder capacity 1000 l

Specification Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)



Pressure drop on the DHW side 750/1000 l

- (A) Without threaded DHW circulation fitting
- (B) With threaded DHW circulation fitting

Delivered condition

Vitocell 340-M, type SVK 750 and 1000 litre capacity

Multi-mode heating water buffer cylinder, made from steel with integral stainless steel indirect coil for DHW heating.

- 3 welded-in sensor wells
- 2 thermometers
- Adjustable threaded feet
- Air vent valve for the indirect solar coils

Packed separately and fitted to the crate are the following components:

- Thermal insulation made from thick polyester fleece
- The colour of the plastic-coated thermal insulation is Vitosilver.

Vitocell 360-M, type SVS 750 and 1000 litre capacity

Multi-mode heating water buffer cylinder, made from steel with stratification primary system and integral stainless steel indirect coil for DHW heating.

- 3 welded-in sensor wells
- 2 thermometers
- Fitted adjustable feet
- Air vent valve for the indirect solar coils

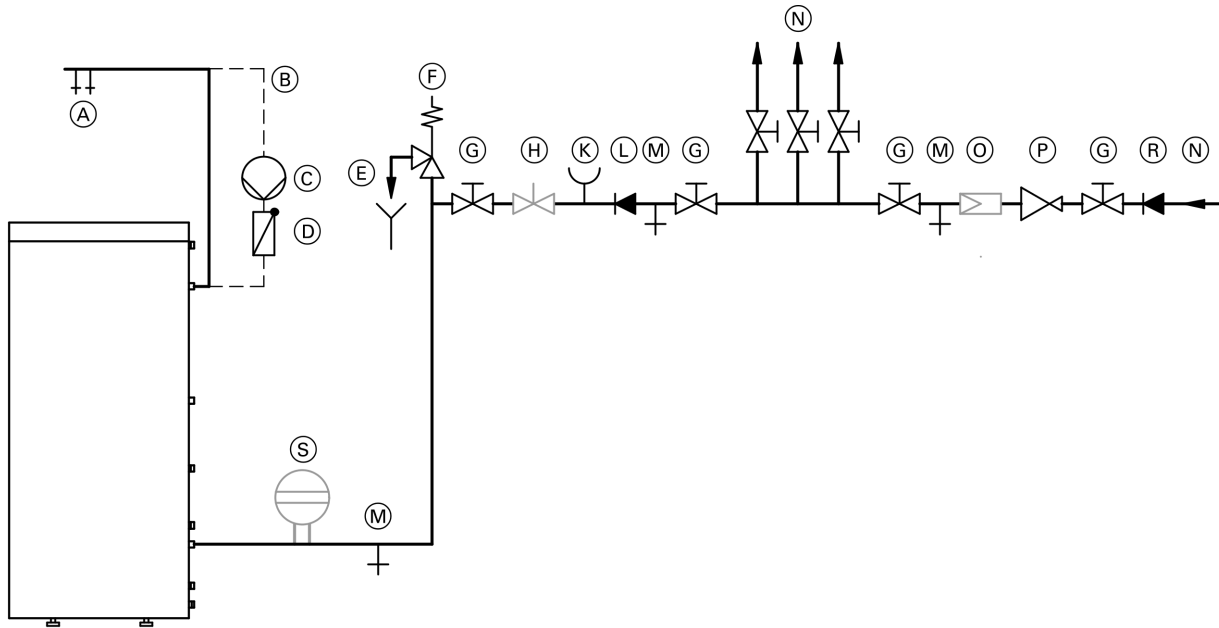
Packed separately and fitted to the crate are the following components:

- Thermal insulation made from thick polyester fleece
- The colour of the plastic-coated thermal insulation is Vitosilver.

Design information Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS)

DHW connection

Connection to DIN 1988



Vitocell 340-/360-M

- | | |
|---|---|
| (A) DHW | (K) Pressure gauge connection |
| (B) DHW circulation line | (L) Non-return valve |
| (C) DHW circulation pump | (M) Drain |
| (D) Spring-loaded check valve | (N) Cold water |
| (E) Visible blow-off line outlet | (O) Drinking water filter*2 |
| (F) Safety valve | (P) Pressure reducer to DIN 1988-2 issue Dec.1988 |
| (G) Shut-off valve | (R) Non-return valve/pipe separator |
| (H) Flow regulating valve*1 (installation recommended) | (S) Diaphragm expansion vessel, suitable for drinking water |

The safety valve must be installed.

Recommendation: Install the safety valve higher than the top edge of the cylinder. This protects the valve against contamination, scaling and high temperatures. The DHW cylinder must then not be drained when working on the safety valve.

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 into the cylinder, which limits the temperature to 95 °C.

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/process medium) corresponds to type C to DIN 1988-2.

*1 We recommend the installation and adjustment of the maximum water flow rate in accordance with 10 minute performance of the DHW cylinder.

*2 According to DIN 1988-2, a drinking water filter should be installed in systems with metal pipework. Viessmann and DIN 1988 also recommend the installation of a drinking water filter when using plastic pipes to prevent contamination entering the DHW system.

Design information Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

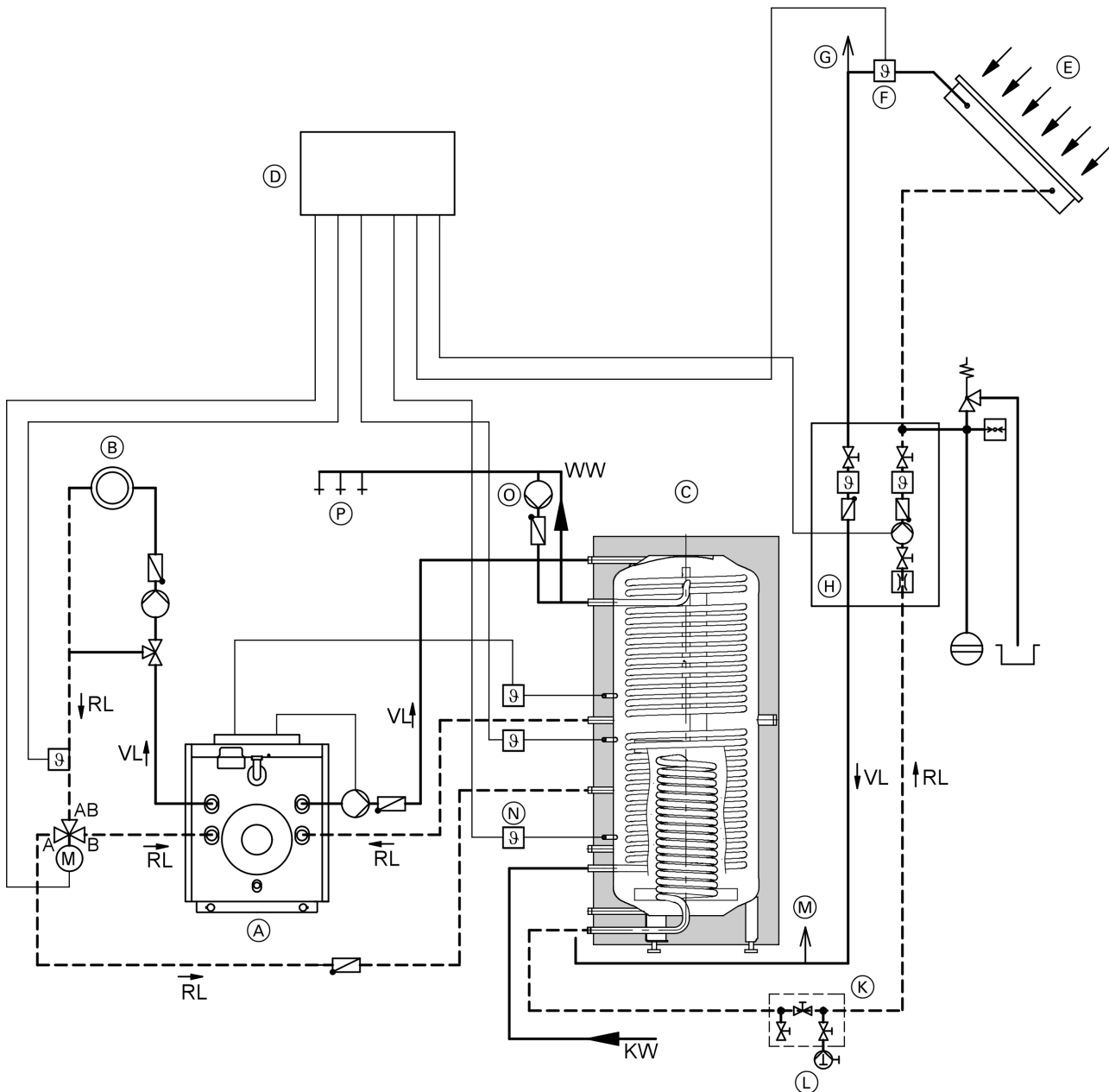
Immersion heater

When using third party products, the threaded heater element must have an unheated length of at least 100 mm.

Technical guide

For further information regarding the design and sizing, see the technical guides "Vitocal", "Vitosol" and "Vitolig".

Installation example with Vitocell 340-M



KW Cold water
 WW DHW
 RL Return
 VL Flow
 (A) Oil/gas fired boiler

(B) Heating circuit
 (C) Vitocell 340-M
 (D) Solar control unit
 (E) Solar collector
 (F) Collector temperature sensor

Design information Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

- | | |
|--------------------------------|-------------------------------|
| Ⓒ Air vent valve*1 | Ⓜ Air separator*2 |
| Ⓓ Solar-Divicon (pump station) | Ⓝ Cylinder temperature sensor |
| Ⓚ Fill valve | Ⓞ DHW circulation |
| Ⓛ Manual solar fill pump | Ⓟ Draw-off points |

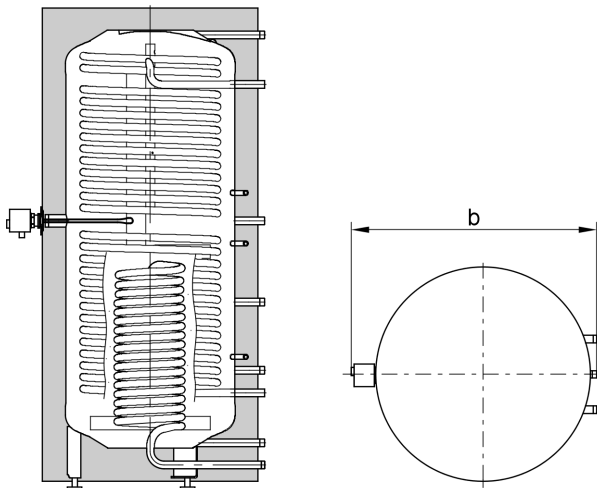
Accessories Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS)

Electric immersion heater EHE

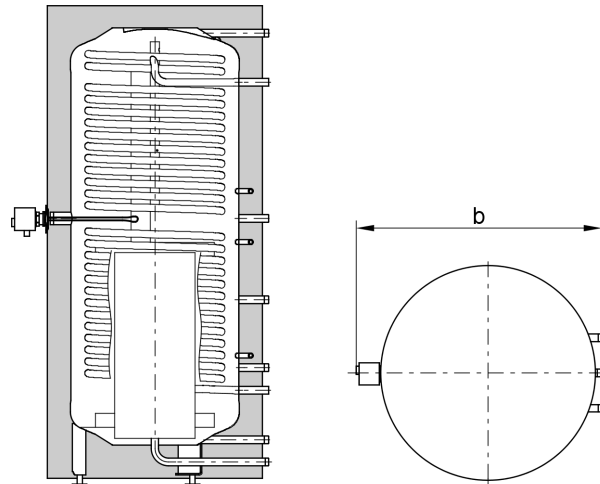
| Current type and rated voltage 3/N/PE 400 V/50 Hz | | Protection: IP 54 | | | | | |
|--|--------|-------------------|-----|-----|------------|------|------|
| Power range | | max. 6 kW | | | max. 12 kW | | |
| Rated power consumption in standard operation/during quick heat-up | kW | 2 | 4 | 6 | 4 | 8 | 12 |
| Rated current | A | 8.7 | 8.7 | 8.7 | 17.4 | 17.4 | 17.4 |
| Heat-up time from 10 to 60 °C | 750 l | 10 | 5 | 3.4 | — | — | — |
| | 1000 l | 12.6 | 6.3 | 4.3 | 6.3 | 3.1 | 2.1 |

Multi-mode heating water buffer cylinder with DHW heating and electric immersion heater EHE

| Vitocell | | 340-M | | 360-M | |
|---|-----------|-----------|-----------|-----------|-----------|
| Cylinder capacity (total) | l | 750 | 1000 | 750 | 1000 |
| Cylinder capacity (heating water/DHW/solar) | l | 705/33/12 | 953/33/14 | 705/33/12 | 953/33/14 |
| Available capacity to be heated with an immersion heater | l | 341 | 433 | 341 | 433 |
| Dimensions | | | | | |
| Width b (with electric immersion heater EHE) | mm | 1107 | 1107 | 1107 | 1107 |
| Minimum wall clearance for the installation of an electric immersion heater EHE | 2/4/6 kW | mm | 650 | 650 | 650 |
| | 4/8/12 kW | mm | — | 950 | — |
| Weight | | | | | |
| Vitocell 340-/360-M | kg | 212 | 240 | 212 | 240 |
| Electric immersion heater EHE | 2/4/6 kW | kg | 2 | 2 | 2 |
| | 4/8/12 kW | kg | — | 3 | — |



Vitocell 340-M with electric immersion heater EHE



Vitocell 360-M with electric immersion heater EHE

b = Width incl. electric immersion heater EHE

b = Width incl. electric immersion heater EHE

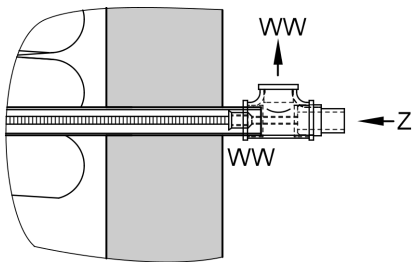
*1 Install at least one air vent valve (quick-acting air vent valve with shut-off valve or a manual vent valve) at the highest point of the system.

*2 Mount the air separator at an accessible point in the flow pipe.

Accessories Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

Threaded DHW circulation fitting

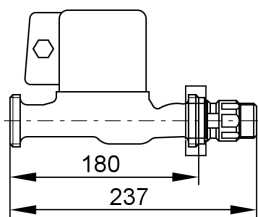
For connecting a DHW circulation line to the DHW connection.



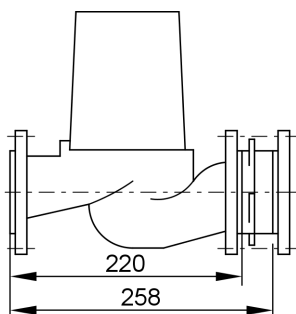
WW DHW
Z DHW circulation

Cylinder primary pump

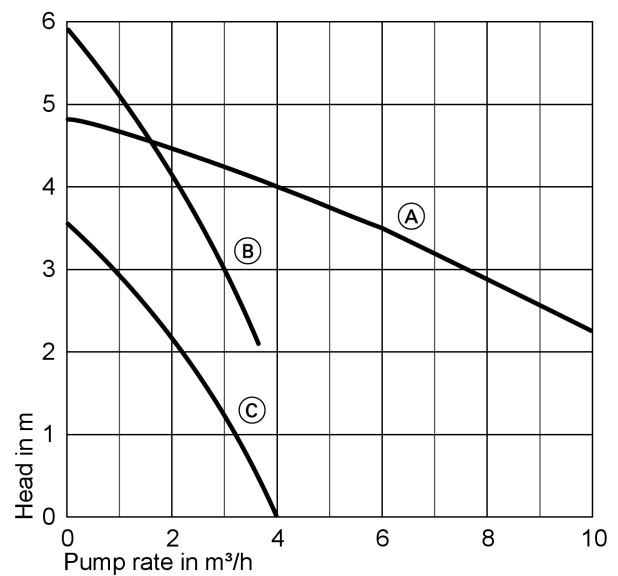
| Part no. | | 7339 467 | 7339 468 | 7339 469 |
|---------------------------------|----|-------------|------------------|---------------|
| Pump type | | UP 25-40 | VIRS 30/6-1 | VI TOP-S 40/4 |
| Voltage | V~ | 230 | 230 | 230 |
| Power consumption | W | 55-65 | 110-140 | 155-195 |
| Connection | R | 1" | 1 1/4" | - |
| | DN | - | - | 40 |
| Connecting cable for the boiler | m | 4.7 | 4.7 | 4.7 |
| | | up to 40 kW | from 40 to 70 kW | from 70 kW |



Part no. 7339 467 and 7339 468



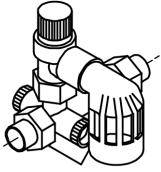
Part no. 7339 469



- (A) Part no. 7339 469
- (B) Part no. 7339 468
- (C) Part no. 7339 467

Accessories Vitocell 340-M (type SVK) / Vitocell 360-M (type SVS) (cont.)

Safety assembly to DIN 1988



Safety assembly, comprising:

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

DN 20/R 1"
maximum heating load 150 kW

- 10 bar: Part no. 7180 662
-

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Subject to technical modifications.

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