Hoval calorifier MultiVal ESRR (500)

- Calorifier made of steel enamelled inside
- 2 plain-tube coils enamelled, permanently installed
  - at the bottom: for solar use
  - for heating with heat pumps
- Magnesium protection anode or impressed current anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam hulls, foamed on the calorifier, dismantable foil casing, colour red
- Sensor channel
- Immersion sleeve welded in
- With thermometer
- 1½" sleeve for a screw-in electric heating element

Delivery
- Calorifier with foil casing, pre-installed

On request
- Flange-mounted electric heating element

Hoval calorifier MultiVal ESRR (800-1000)

- Calorifier made of steel enamelled inside
- 2 plain-tube coils enamelled, permanently installed
  - at the bottom: for solar use
  - for heating with heat pumps
- Correx® potentiostat included
- 2 impressed current anodes incl. connecting cable integrated
- Flange below as cleaning flange or for the installation of a flange-mounted electric heating element or blank flange with immersion sleeve
- Flange above as additional cleaning flange or for the installation of a flange-mounted electric heating element
- Thermal insulation made of polyester fleece with foil jacket, colour red
- Two terminal bars for contact sensor
- With thermometer

Delivery
- Calorifier and thermal insulation completely installed (can be removed for installation)

On request
- Flange-mounted electric heating element

MultiVal ESRR (500) MultiVal ESRR (800,1000)

Range
MultiVal type

ESRR	(500)	B
ESRR	(800)	
ESRR	(1000)	

Calorifier

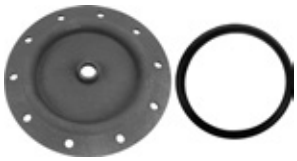
MultiVal ESRR (500-1000)

Made of enamelled steel, with 2 plain-tube coils.

MultiVal ESRR type		Volume dm³	Heating surface top m²	Heating surface bottom m²	Part No.
(500)	B	463	4.30	2.15	7016 754
(800)		731	5.20	2.60	7018 053
(1000)		958	6.10	3.40	7018 054

Electric heating elements
see chapter “Electric heating elements”

Accessories



Flange cover 180 - ¾″
for the installation of the Correx®
impressed current anode in flange
Ø 180/110 mm,
enamelled on the inside with Rp ¾″
sleeve
Seal included

2077 035

Flange with immersion sleeve
for temperature sensor made of steel.
On domestic water side, enamelled
inside.
Flange dimensions:
- Outer Ø 180 mm,
- Pitch circle Ø 150 mm, 8 x M10
Immersion sleeve dimensions:
- Installation length = 120 mm,
- Outer Ø: 24 mm, inner Ø: 20 mm

6028 468

Kit Correx® impressed current anode UP2.3-919-L395/1
for long-term corrosion protection for
installation in the enamelled calorifier
with reduction R 1¼″ (ET) – Rp 1″ (IT)
and R 1″ (ET) – Rp ¾″ (IT)
Installation length: 395 mm
Connection cable length: 1 x 2000 mm
1 Correx® impressed current anode

Included in the scope of delivery
of ESRR (800,1000)

684 760

In every case, **either** a Correx® impressed current anode **or** one/two magnesium anodes are allowed to be used.

		Part No.
	**Immersion sensor TF/2P/5/6T, L = 5.0 m with plug** for TopTronic® E controller modules/ module expansions with exception of basic module district heating/fresh water or basic module district heating com, cable length: 5 m with plug sensor sleeve diameter: 6 x 50 mm, dewpoint-proof, operating temperature: -20…105 °C, protection class: IP67	2056 788
	**Immersion sensor TF/2P/5/6T, L = 5.0 m** for TopTronic® E controller modules/ module expansions with exception of basic module district heating/fresh water or basic module district heating com, cable length: 5 m without plug sensor sleeve diameter: 6 x 50 mm, dewpoint-proof, operating temperature: -20…105 °C, protection class: IP67	2055 888
	**Immersion sensor TF/12N/2.5/6T, L = 2.5 m** for gas boiler with RS-OT Cable length: 2.5 m Sensor sleeve diameter: 6 x 50 mm, dewpoint-proof, operating temperature: -20…105 °C, protection class: IP67	2056 791
	At TopTronic® E, immersion sensor is included in the boiler controller or in the heating controller set.	
	**Calorifier thermostat control TW 12** Universal thermostat controller for thermostatic pump charge demand, setting in casing, visible from outside. 15-95 °C, switching difference 6 K, capillar length 700 mm incl. fastening material for Hoval calorifier, can be used with integrated immersion sleeve	6010 080
	Thermal water mixer see “Various system components”	

Services

Commissioning
Commissioning by works service or Hoval trained authorised serviceman/company is condition for warranty.

For commissioning and other services please contact your Hoval sales office.

MultiVal ESRR (500-1000)

Type		(500)	(800)	(1000)
• Volume	l	463	731	958
• Max. operating/test pressure SVGW	bar	6/12	6/12	6/12
• Max. operating/test pressure DVGW	bar	10/13	10/13	10/13
• Max. operating temperature	°C	95	95	95
• Thermal insulation PU hard foam, foam-lined	mm	75	-	-
• Thermal insulation polyester fleece	mm	-	100	100
• Thermal insulation λ	W/mK	0.027	0.04	0.04
• Fire protection class		B2	B2	B2
• Heat loss at 65 °C	W	81	128	144
• Transport weight	kg	234	301	383
• U value	W/m^2K	0.333	0.38	0.375
Heating battery low (built in)		Plain tube heat exchanger for solar use		
• Heating surface	m^2	2.15	2.6	3.4
• Heating water content	l	15.1	17.8	24.1
• Flow resistance[1] water	z value	3.6	4.5	7.5
• Flow resistance[1] water/glycol 50 %	z value	3.9	5.8	10
• Max. operating/test pressure SVGW	bar	8/13	8/13	8/13
• Max. operating/test pressure DVGW	bar	10/13	10/13	10/13
• Max. operating temperature	°C	110	110	110
• For flat collectors up to [2]	m^2	11	15	20
Heating battery up (built in)		Plain tube heat exchanger for heat pumps		
• Heating surface	m^2	4.3	5.2	6.1
• Heating water content	l	30.1	36.1	42.6
• Flow resistance [1]	z value	8	8	10
• Max. operating/test pressure SVGW	bar	8/13	8/13	8/13
• Max. operating/test pressure DVGW	bar	10/13	10/13	10/13
• Max. operating temperature	°C	110	110	110
• Dimensions		see table of dimensions		

[1] Flow resistance heating battery in mbar = flow rate $(m^3/h)^2$ x z (1 mbar = 0.1 kPa)

[2] Collector surface area, with regard to coil heating surface only

Performance figure

Selection of the calorifier type
at a hot water temperature of 45 °C

Reading example
see engineering

	Comfort [1]			Standard [2]		
T >	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL ˅						
1						
2						
3						
4						
5						
6						
7						
8						
9	500					
10				500		
11						
12	800					
13	1000					
14				800		
15				1000		
16						
17		500				
18						
19			500			
20						
21					500	
22						
23						500
24		800				
25						
26		1000				
27			800			
28						
29						
30					800	
31			1000			
32						
33					1000	
34						800
35						
36						
37						
38						
39						
40						1000
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

	Comfort [1]			Standard [2]		
T >	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL ˅						
51						
52						
53						
54						
55						
56						
57						
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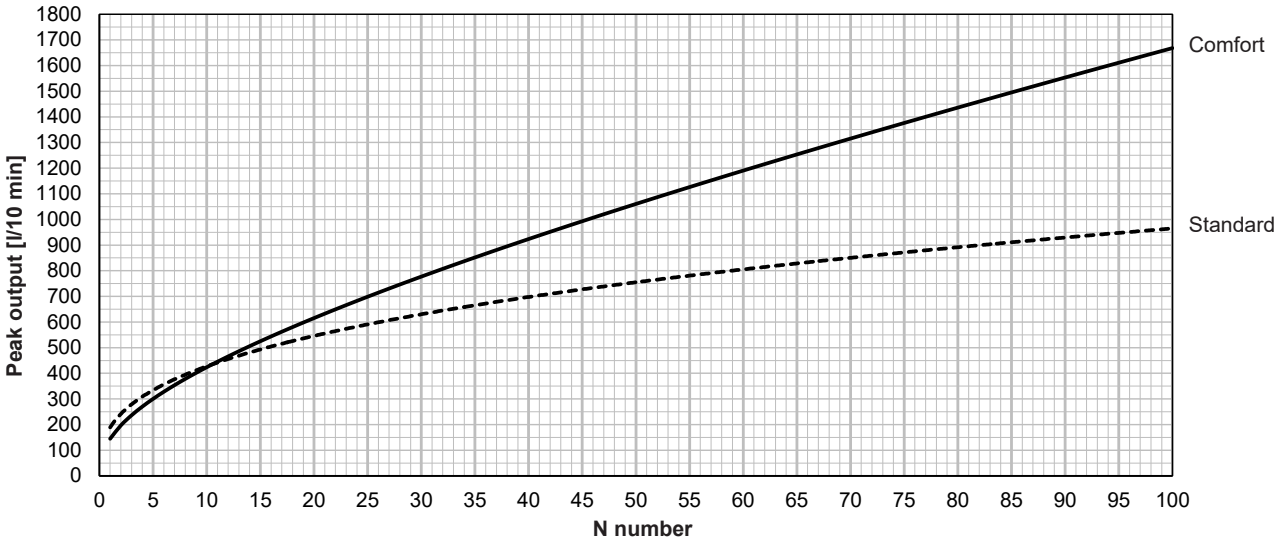
100						

T = heating flow
NL = performance figure
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom - 4 rooms - 3.5 persons)
[1] Calculation with simultaneity factor according to DIN 4708 (preferred for Switzerland)
[2] Calculation with simultaneity factor according to Dresden Technical University

10 min peak output/N number with domestic hot water 45 °C

according to DIN 4708 (Comfort) and Dresden Technical University (Standard)

Reading example
see Engineering



MultiVal ESRR (500)

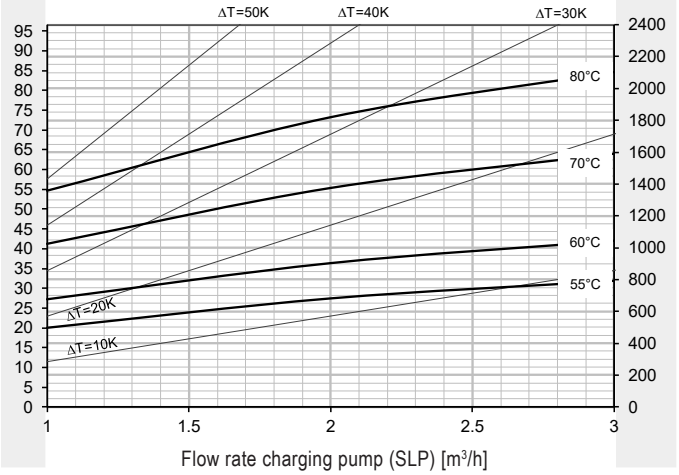
Hot water output
Continuous output

Reading example
see engineering

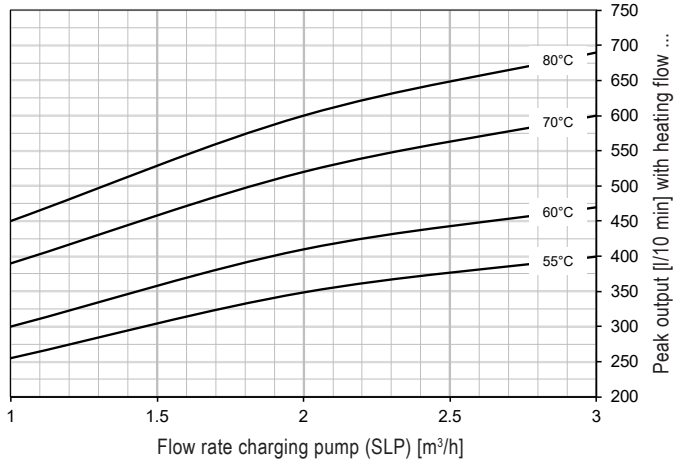
Heat input [kW]

Continuous output [l/h] with heating flow ...

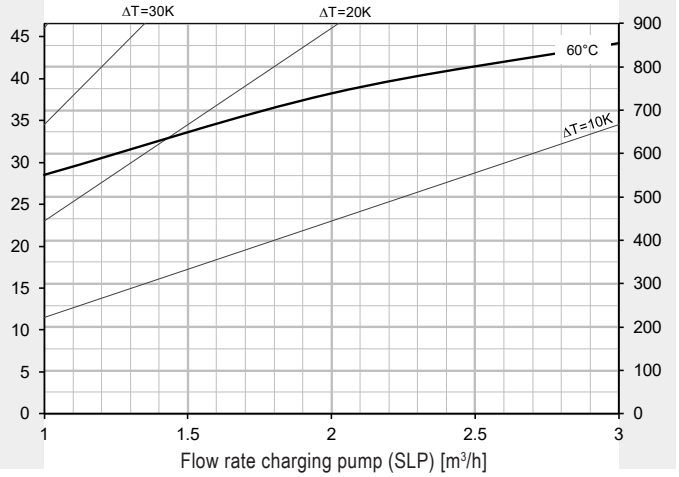
Hot water 45 °C



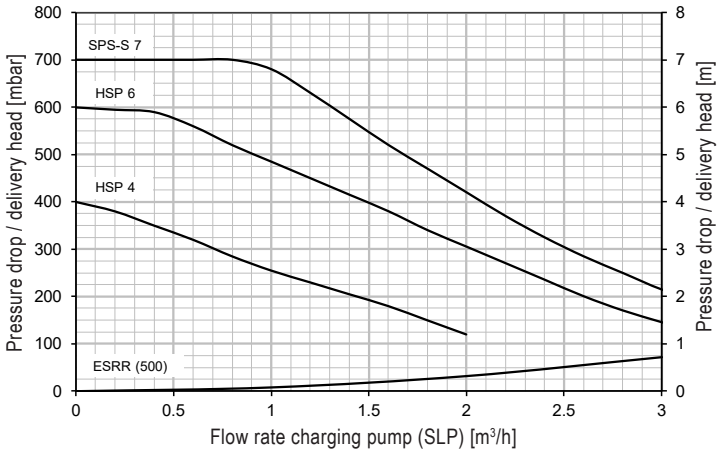
10 min peak output - hot water 45 °C *



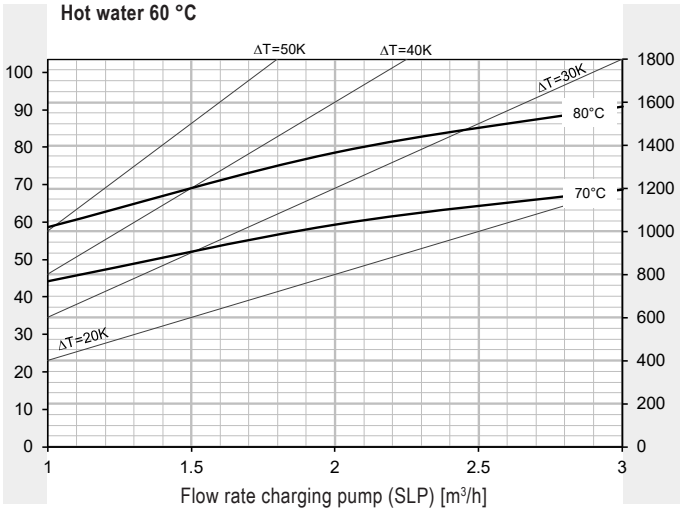
Hot water 55 °C



Pressure drop heating coil - delivery head charging pump



Hot water 60 °C



* Calorifier heated to 60 °C

MultiVal ESRR (800)

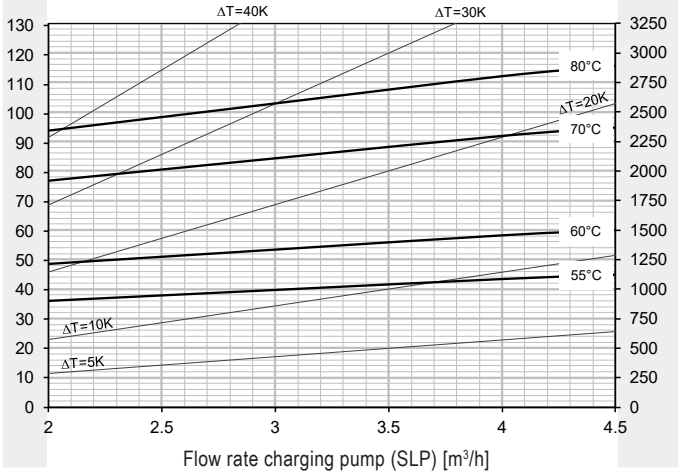
Hot water output
Continuous output

Reading example
see engineering

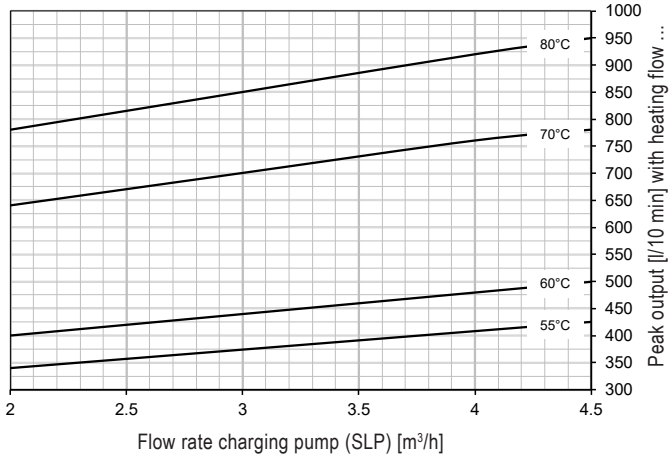
Heat input [kW]

Continuous output [l/h] with heating flow ...

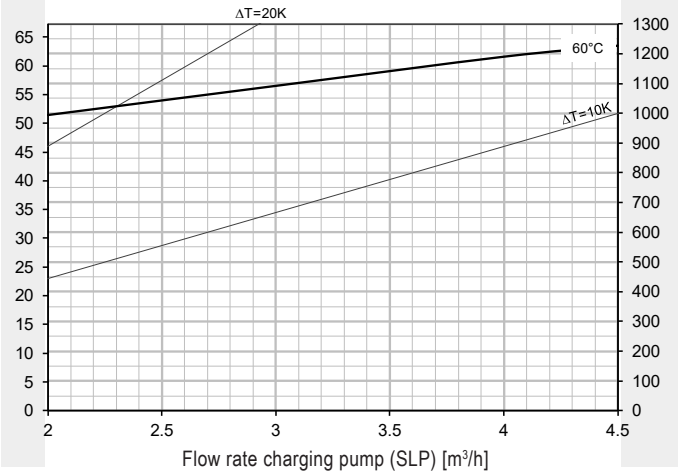
Hot water 45 °C



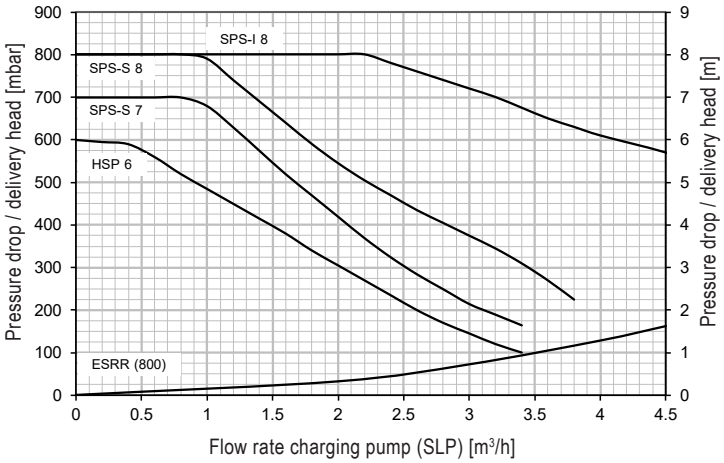
10 min peak output - hot water 45 °C *



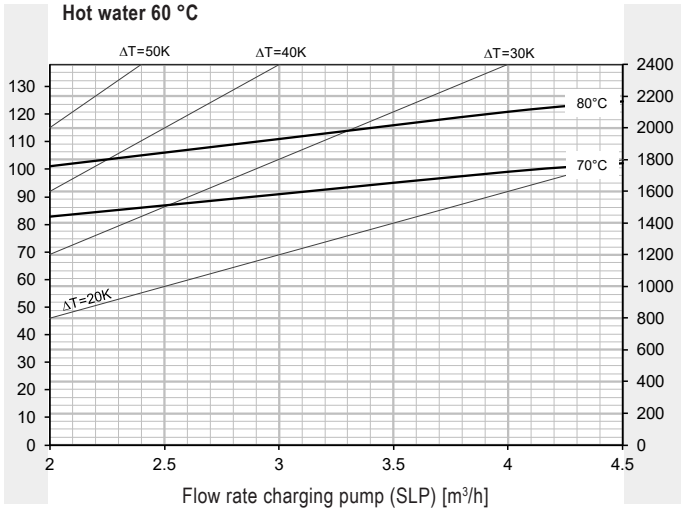
Hot water 55 °C



Pressure drop heating coil - delivery head charging pump



Hot water 60 °C



* Calorifier heated to 60 °C

MultiVal ESRR (1000)

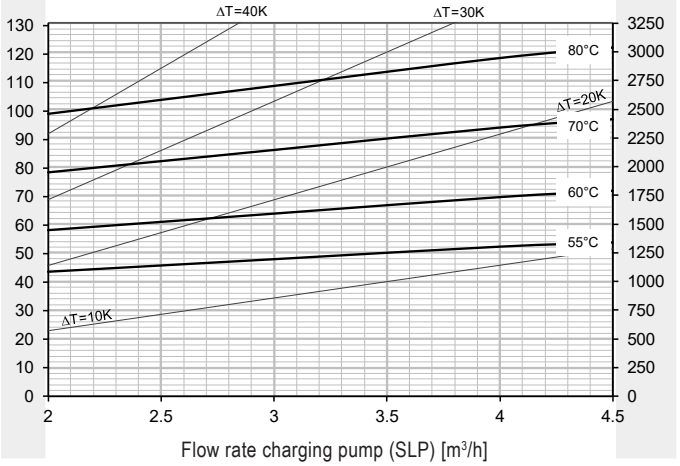
Hot water output
Continuous output

Reading example
see engineering

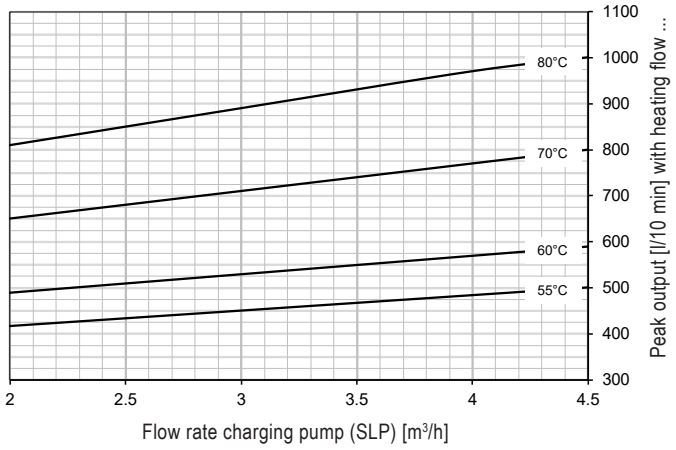
Heat input [kW]

Continuous output [l/h] with heating flow ...

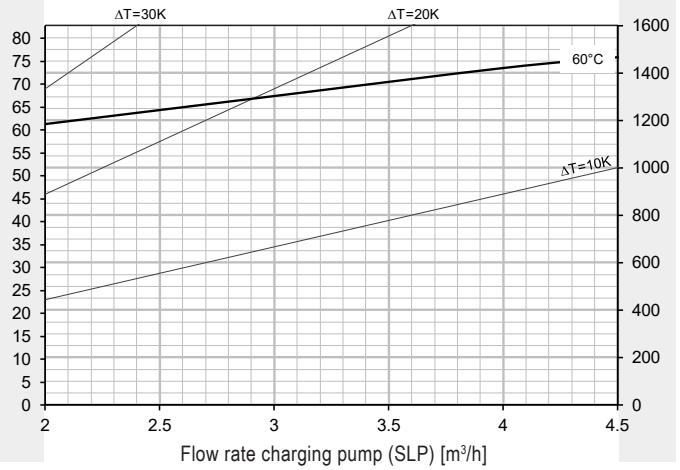
Hot water 45 °C



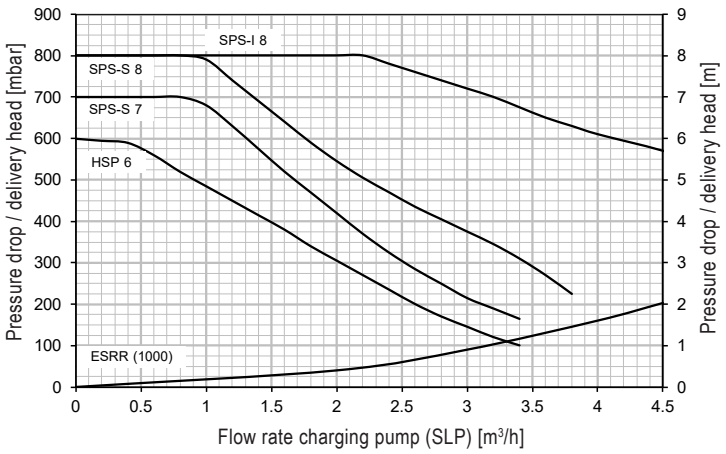
10 min peak output - hot water 45 °C *



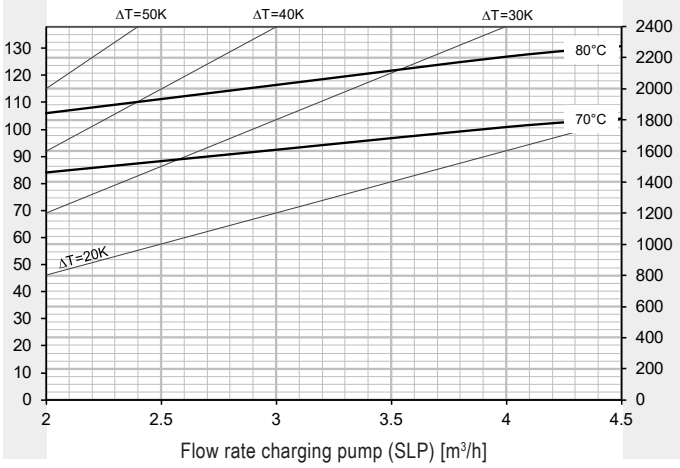
Hot water 55 °C



Pressure drop heating coil - delivery head charging pump



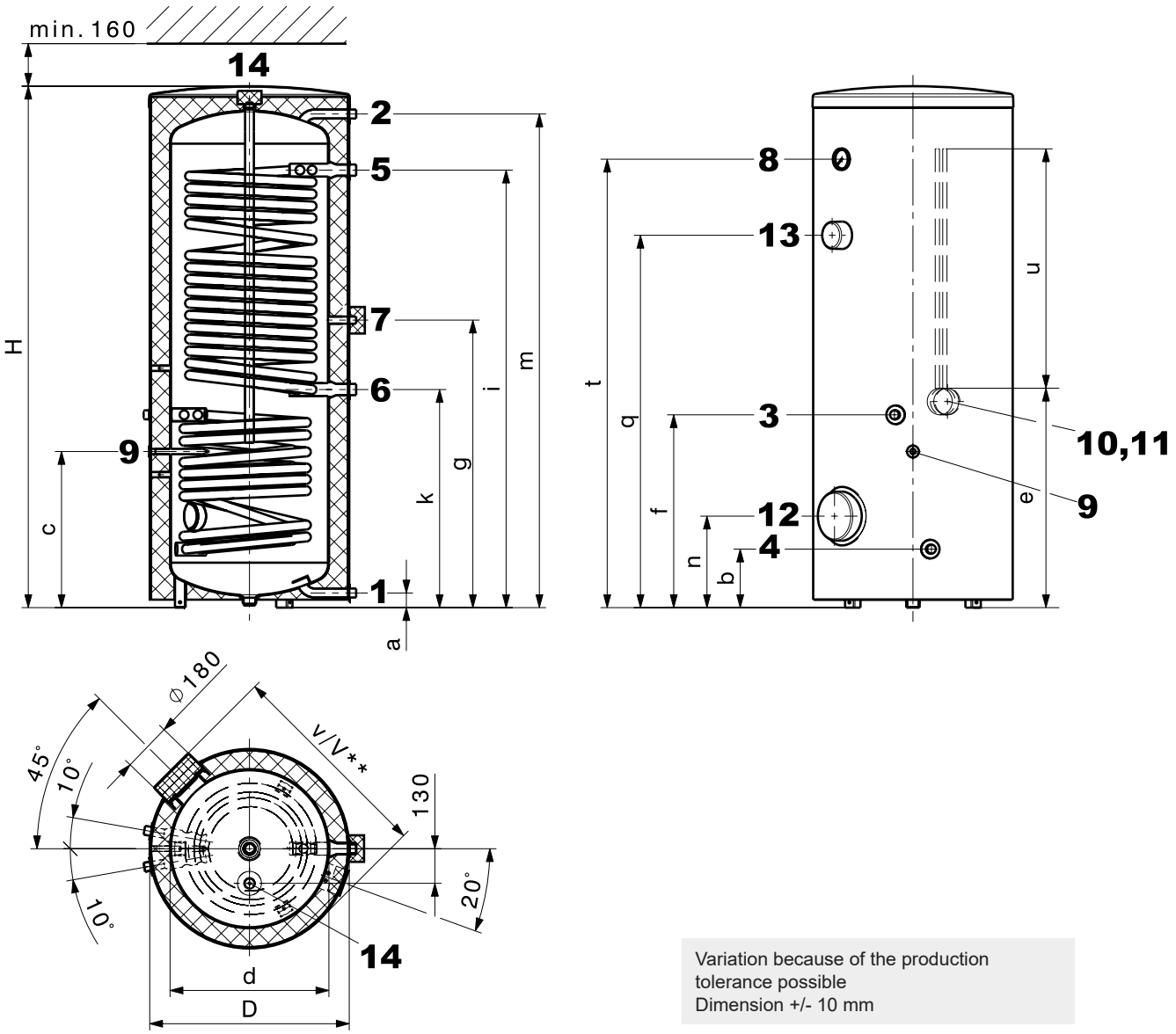
Hot water 60 °C



* Calorifier heated to 60 °C

MultiVal ESRR (500)

(Dimensions in mm)



Variation because of the production tolerance possible
Dimension +/- 10 mm

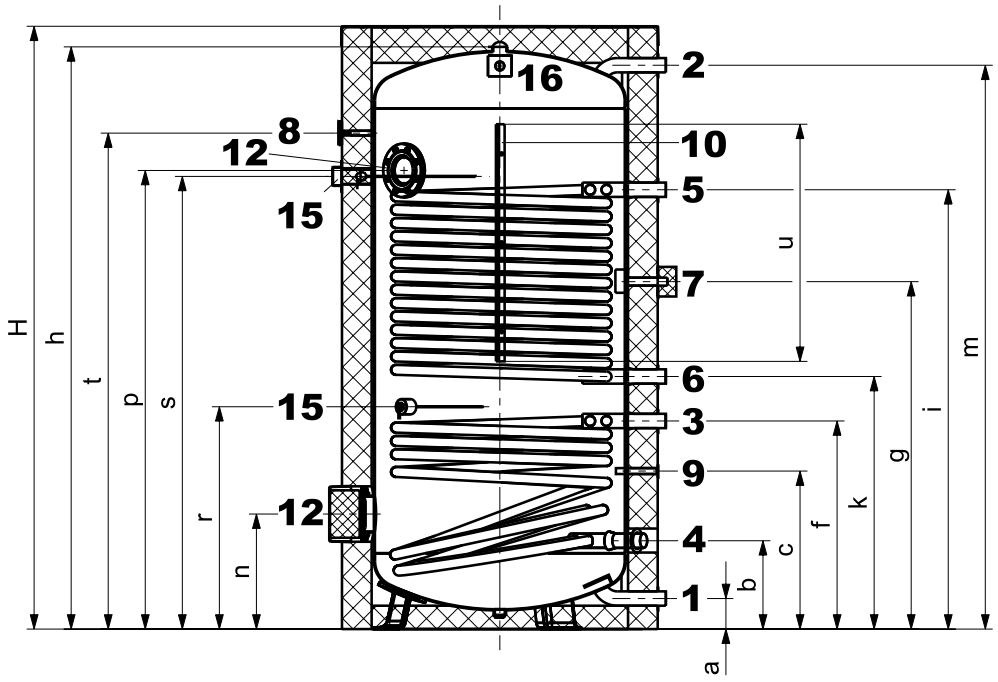
1	Cold water	G 1″	(ET)
2	Domestic hot water	G 1″	(ET)
3	Solar circuit flow	G 1″	(ET)
4	Solar circuit return	G 1″	(ET)
5	Flow supplemental heating	G 1¼″	(ET)
6	Return supplemental heating	G 1¼″	(ET)
7	Circulation (removable insulated cap Ø 100 mm)	G ¾″	(ET)
8	Thermometer		
9	Connection for sensor/thermostat, inner Ø 16 mm	Rp 1½″	(ET)
10	2 sensor channels inner Ø 11 mm		
11	Removable cap (Ø 100 mm) for positioning the sensor in the sensor channel		
12	Hand-hole flange (flange-mounted electric heating element) Ø 180/120 mm, pitch circle Ø 150 mm, 8 x M10		
13	Connection for screw-in electric heating element (cap Ø 100 mm)	Rp 1½″	(IT)
14	Anode sleeve Screw connection uninsulated	Rp 1¼″	(IT)

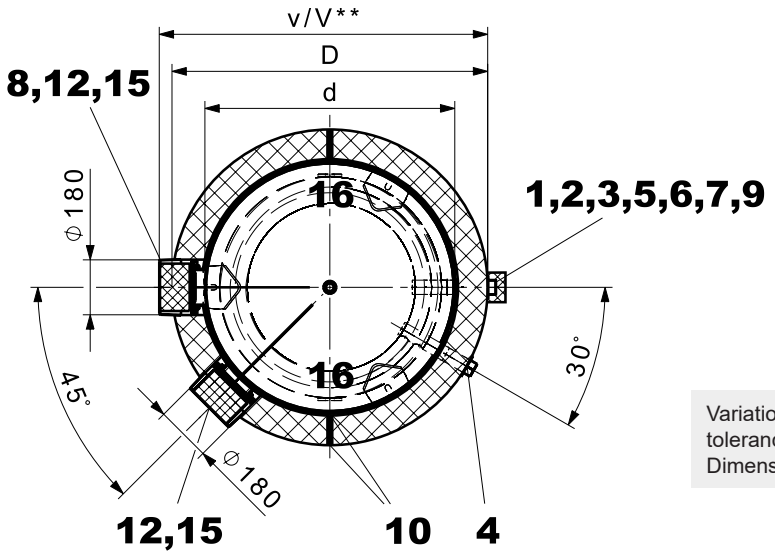
MultiVal ESRR type	D	d	H	a	b	c	e	f	g	i	k	m	n	q	t	u	v	V**	Tilting dimension
(500)	750	597	1951	55	220	587	820	725	1081	1645	820	1856	344	1400	1686	900	791	831	2029

** when using a flange-mounted electric heating element

MultiVal ESRR (800,1000)

(Dimensions in mm)





Variation because of the production tolerance possible
Dimension +/- 10 mm

1	Cold water	G 1½″ (ET)
2	Domestic hot water	G 1½″ (ET)
3	Solar circuit flow	G 1½″ (ET)
4	Solar circuit return (turned through 30° in section)	G 1½″ (ET)
5	Flow supplemental heating	G 1½″ (ET)
6	Return supplemental heating	G 1½″ (ET)
7	Circulation (removable insulated cap Ø 100 mm)	G ¾″ (ET)
8	Thermometer	
9	Connection for sensor/thermostat, inner Ø 16 mm	
10	Sensor terminal strip (zip fastener)	
12	Hand-hole flange (flange-mounted electric heating element) Ø 180/120 mm, pitch circle Ø 150 mm, 8 x M10	
15	Correx® impressed current anode sleeve	Rp ¾″ (IT)
16	Transport strap	

MultiVal ESRR type	D	d	H	h	a	b	c	f	g	i	k	m	n	p	r	s	t	u	v	V**	Tilting dimension
(800)	950	750	2033	1936	104	290	527	650	1120	1430	800	1890	382	1540	750	1455	1647	800	975	1020	1962
(1000)	1050	850	2063	1963	103	298	533	702	1172	1482	852	1902	388	1547	750	1527	1673	800	1075	1120	1991

** when using a flange-mounted electric heating element