

Hoval calorifier
CombiVal ER (200-500)

- Calorifier made of steel enamelled inside
- Smooth pipe heat exchanger enamelled, built in
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismountable foil casing, red coloured, ERW (200) white coloured
- Including thermometer
- Sensor channel

On request

- Flange-mounted electric heating element

Delivery

- Calorifier with foil casing installed

Hoval calorifier
CombiVal ER (800,1000)

- Calorifier made of steel, enamelled inside
- Smooth pipe heat exchanger enamelled, built in
- 2 magnesium protection anodes built in
- Flange below as cleaning flange or for the installation as flange-mounted electric heating element or blank flange with immersion sleeve
- Flange above as additional cleaning flange
- Flange for electric heating element or immersion sleeve
- Thermal insulation made of polyester fleece with foil jacket, red coloured
- With thermometer
- Two terminal bars for contact sensor

On request

- Flange-mounted electric heating element
- Flange including immersion sleeve

Delivery

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



Range

CombiVal
type

ER	(200)	B
ERW	(200)	B
ER	(300)	B
ER	(400)	B
ER	(500)	B
ER	(800)	
ER	(1000)	

Calorifier



CombiVal ER (200-1000)

Calorifier made of steel enamelled inside.
Smooth pipe heat exchanger enamelled, built in

CombiVal ER type		Volume dm ³	Heating surface m ²
(200)	B	196	0.95
(200) ERW (white)	B	196	0.95
(300)	B	302	1.45
(400)	B	382	1.80
(500)	B	473	1.90
(800)		735	3.70
(1000)		968	4.50

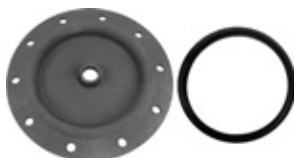
Electric heating elements

see chapter "Electric heating elements"

Part No.

7015 960
7015 961
7015 962
7015 963
7015 964
7015 964
7014 422
7014 423

Accessories



Flange cover 180 - 3/4"

for the installation of the Correx® impressed current anode in flange Ø 180/110 mm, enamelled on the inside with Rp 3/4" sleeve
Seal included

2077 035



Flange with immersion sleeve for temperature sensor made of steel on DHW 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 1 1/4" (ET) – Rp 1" (IT) and R 1" (ET) – Rp 3/4" (IT)
Installation length: 395 mm
Connection cable length: 1 x 2000 mm
1 Correx® impressed current anode

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.

CombiVal ER (200-500)

Type		(200)	(300)	(400)	(500)
• Volume	dm ³	196	302	382	473
• Operating pressure/test pressure	bar	10/13	10/13	10/13	10/13
• Max. operating temperature	°C	95	95	95	95
• Thermal insulation PU-foam foamed onto calorifier	mm	75	50	75	75
• Thermal insulation λ	W/mK	0.027	0.027	0.027	0.027
• Fire protection class		B2	B2	B2	B2
• Heat loss at 65 °C	W	49	67	65	76
• Transport weight	kg	77	104	134	146
• U value	W/m ² K	0.328	0.404	0.307	0.308
Heating battery (built in)					
• Heating surface	m ²	0.95	1.45	1.80	1.90
• Heating water	dm ³	6.4	9.9	12.2	12.8
• Flow resistance ¹⁾	z value	7	10	12	13
• Operating pressure/test pressure	bar	10/13	10/13	10/13	10/13
• Max. operating temperature	°C	110	110	110	110
• Dimensions		see table of dimensions			

¹⁾ Flow resistance heating battery in mbar = flow rate (m³/h)² x z (1 mbar = 0.1 kPa)

CombiVal ER (800,1000)

Type		(800)	(1000)
• Volume	dm ³	735	968
• Operating pressure/test pressure	bar	10/13	10/13
• Max. operating temperature	°C	95	95
• Thermal insulation made of polyester fleece	mm	100	100
• Thermal insulation λ	W/mK	0.040	0.040
• Fire protection class		B2	B2
• Heat loss at 65 °C	W	127	142
• Transport weight	kg	251	324
• U value	W/m ² K	0.376	0.370
Heating battery (built in)			
• Heating surface	m ²	3.70	4.50
• Heating water	dm ³	34.2	40.6
• Flow resistance ¹⁾	z value	6	8
• Operating pressure/test pressure	bar	10/13	10/13
• Max. operating temperature	°C	110	110
• Dimensions		see table of dimensions	

¹⁾ Flow resistance heating battery in mbar = flow rate (m³/h)² x z (1 mbar = 0.1 kPa)

Performance figure

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

Reading example
see engineering

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
1	200			200		
2	300	200		300	200	
3			200			200
4	400			400		
5	500	300		500	300	
6			300			300
7						
8						
9	800	400				
10	1000	500		800	400	
11			400	1000	500	
12			500			
13						400
14						500
15						
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19						
20						
21						
22		800				
23						
24						
25						
26		1000				
27						
28				800		
29						
30			800			
31						
32						
33				1000		
34						
35			1000			
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37						
38						800
39						
40						
41						
42						
43						
44						
45						1000
46						
47						
48						
49						
50						

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
51						
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T = Heating flow

NL = Performance figure

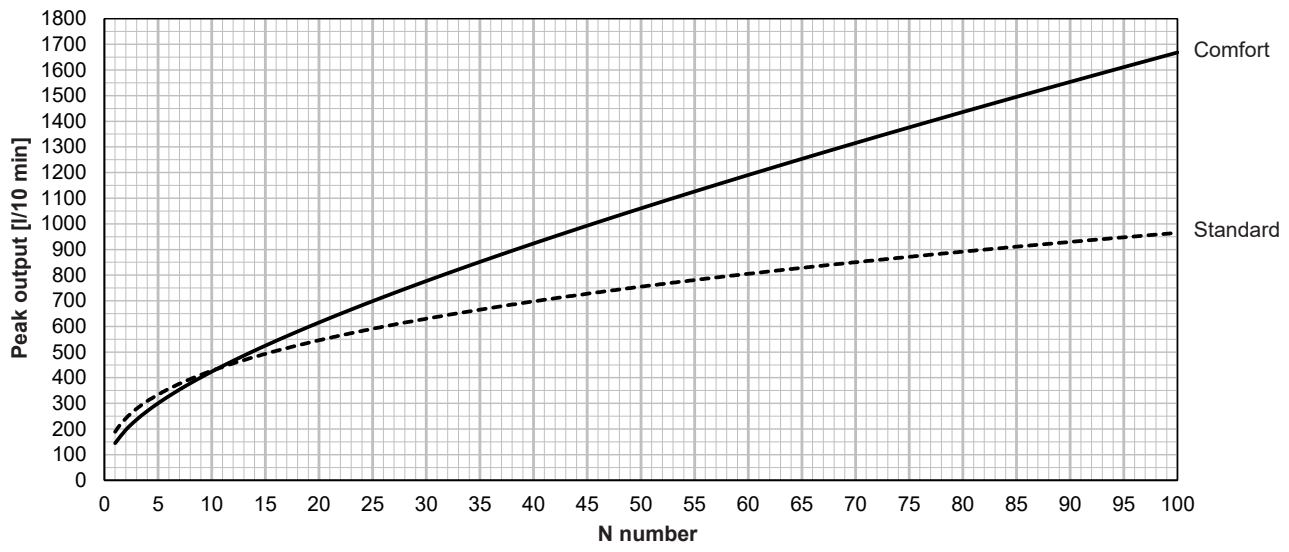
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom - 4 rooms - 3.5 persons)

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)

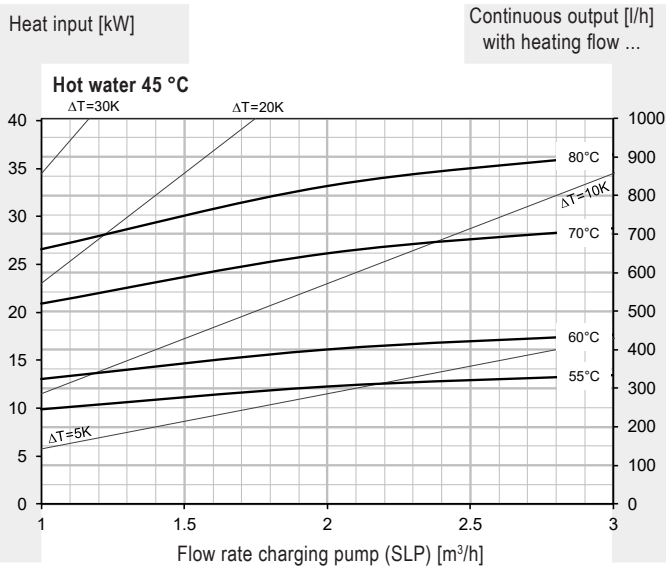
Reading example
 see Engineering



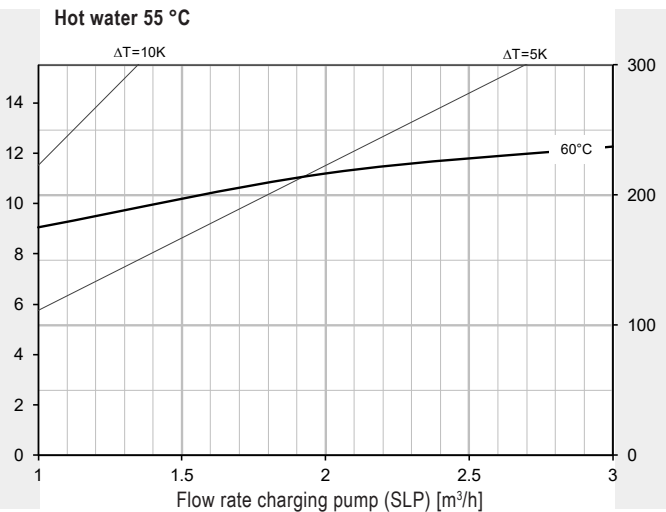
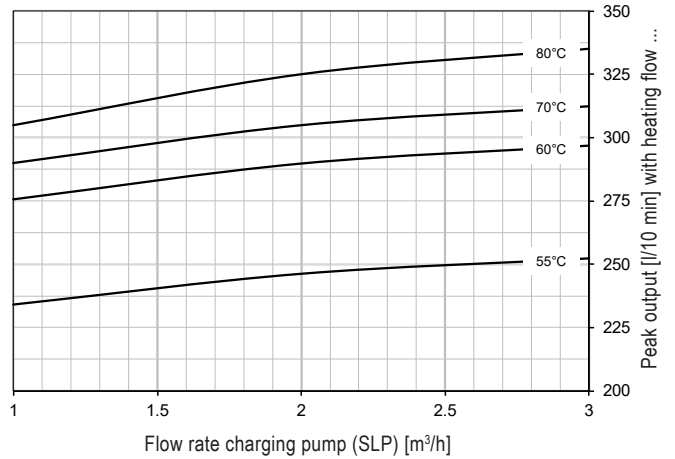
CombiVal ER (200)

Hot water output
Continuous output

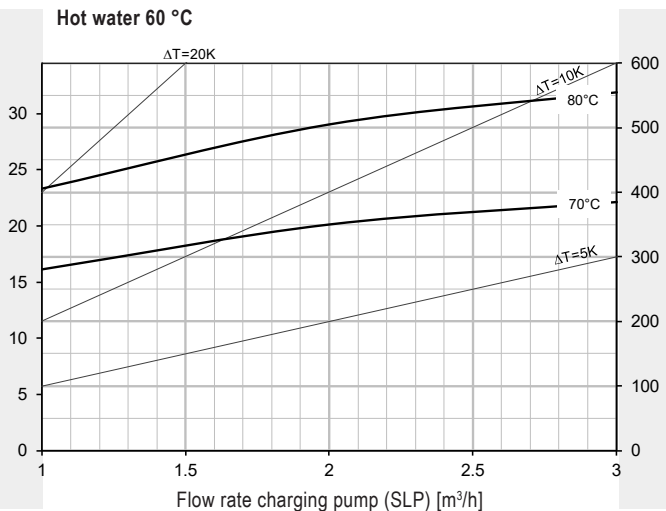
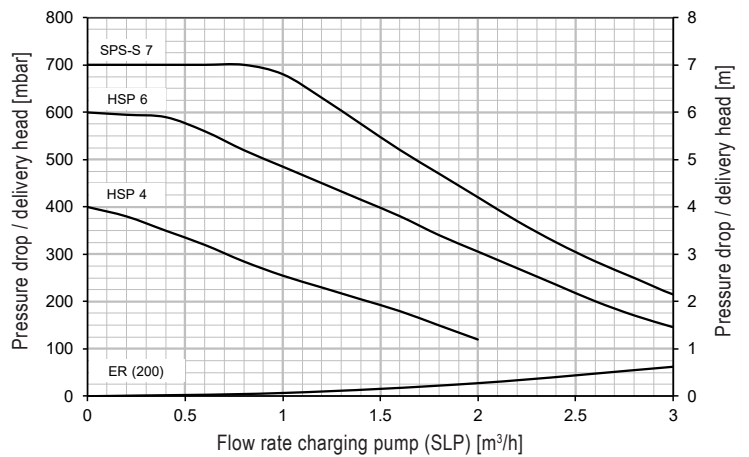
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

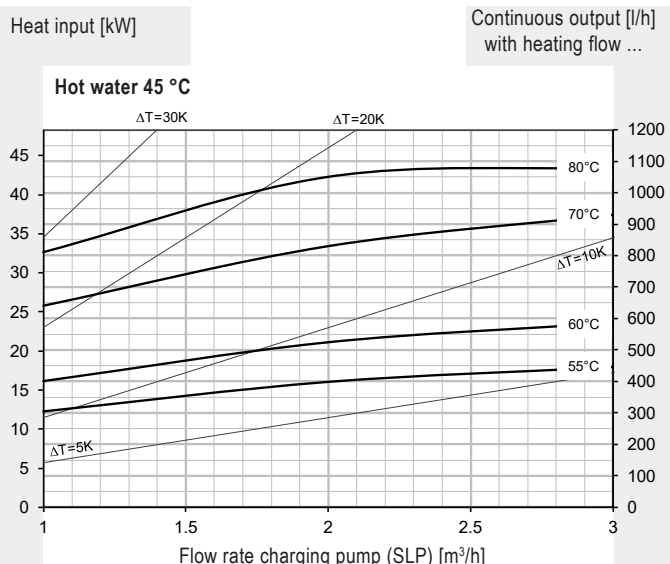


* Calorifier heated to 60 °C

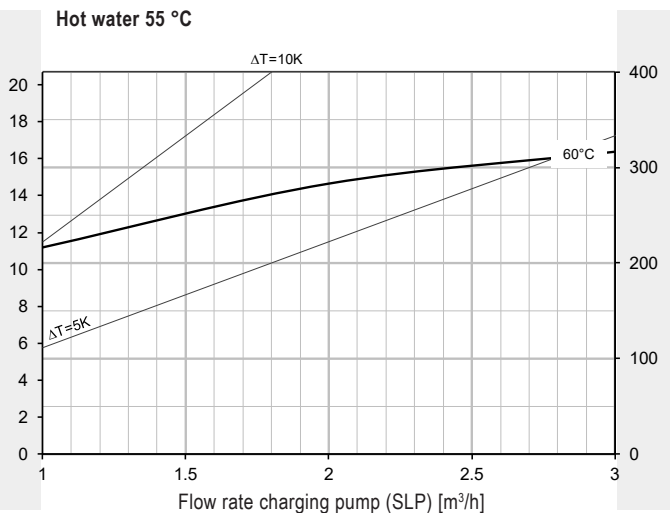
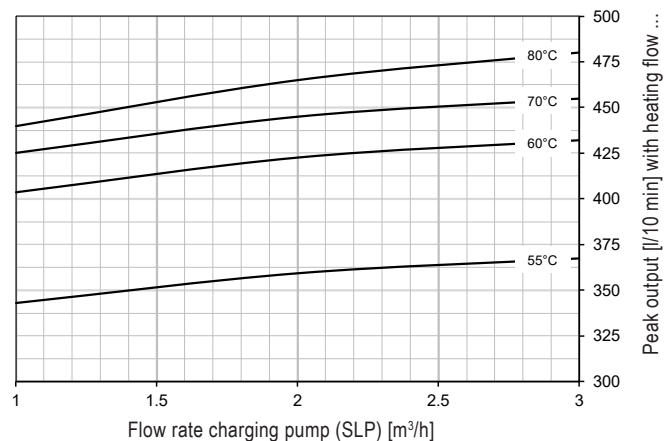
CombiVal ER (300)

Hot water output
Continuous output

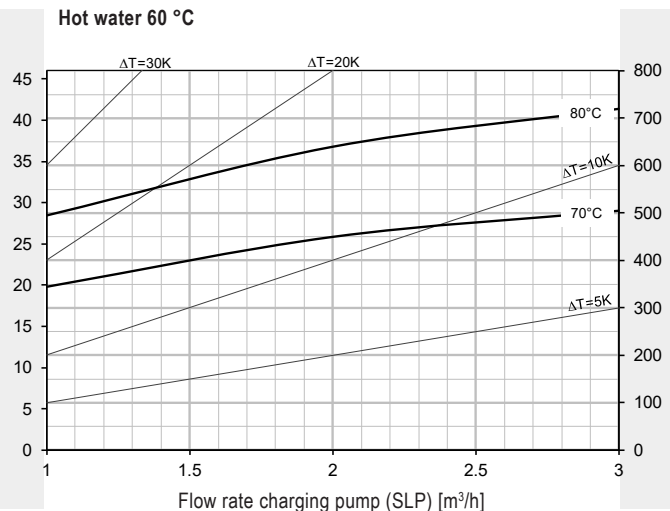
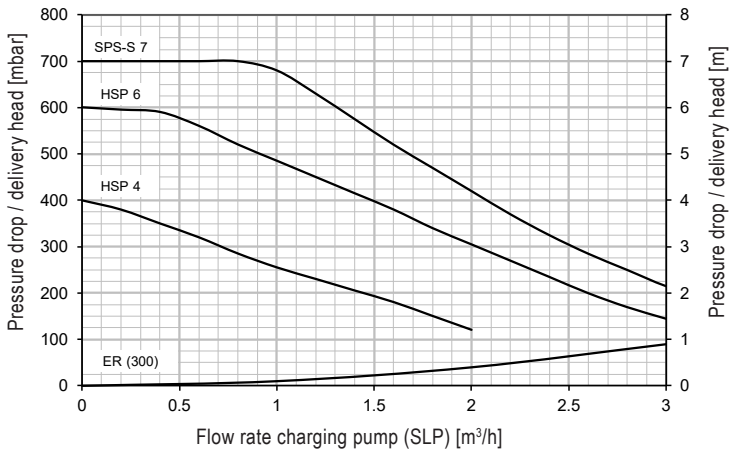
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

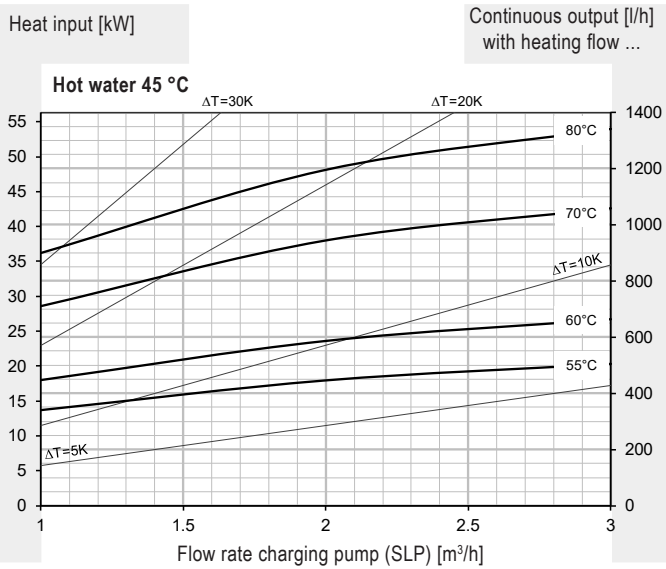


* Calorifier heated to 60 °C

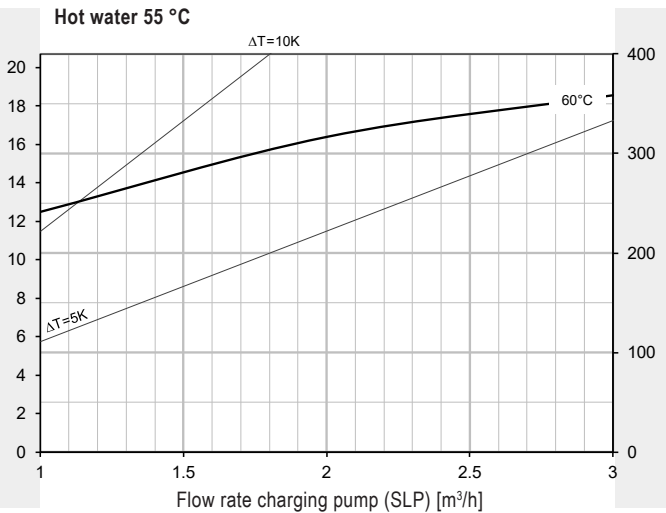
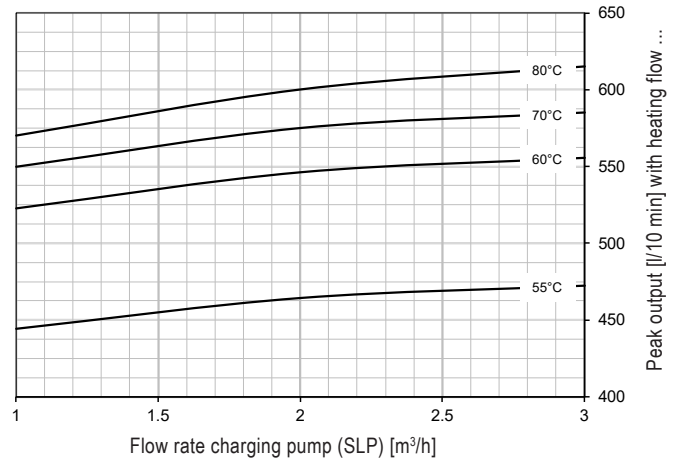
CombiVal ER (400)

Hot water output
Continuous output

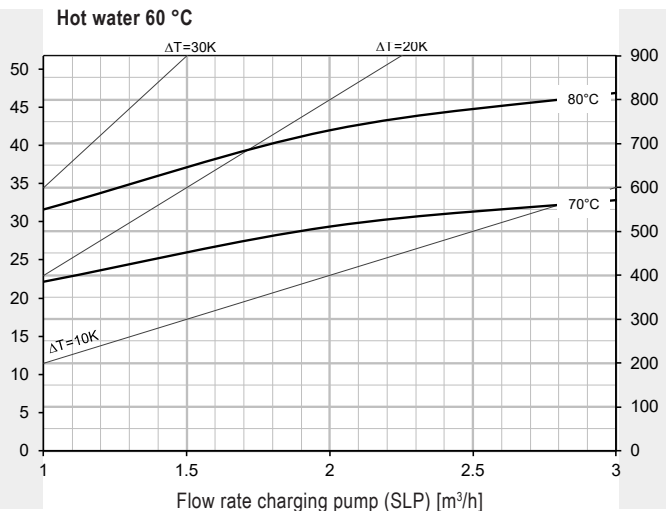
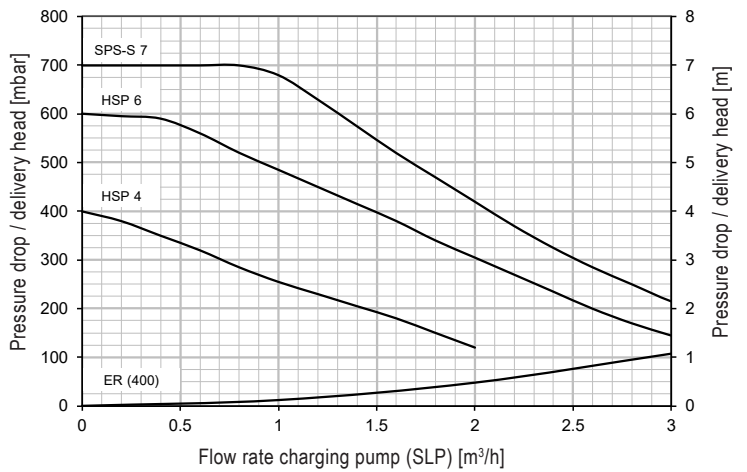
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

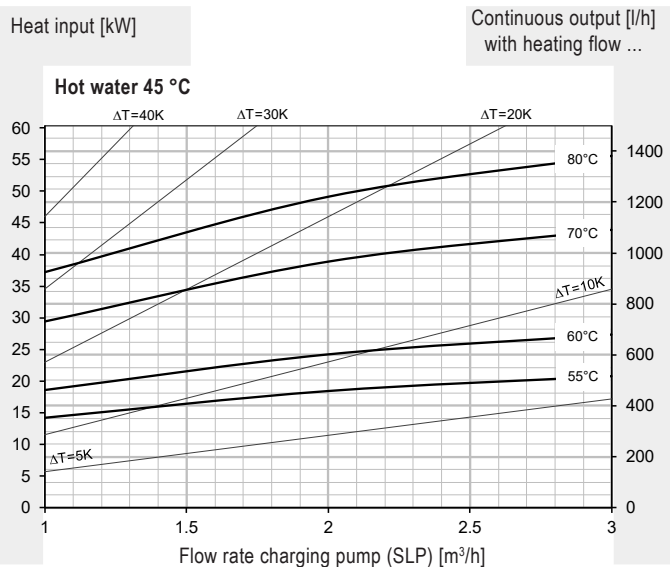


* Calorifier heated to 60 °C

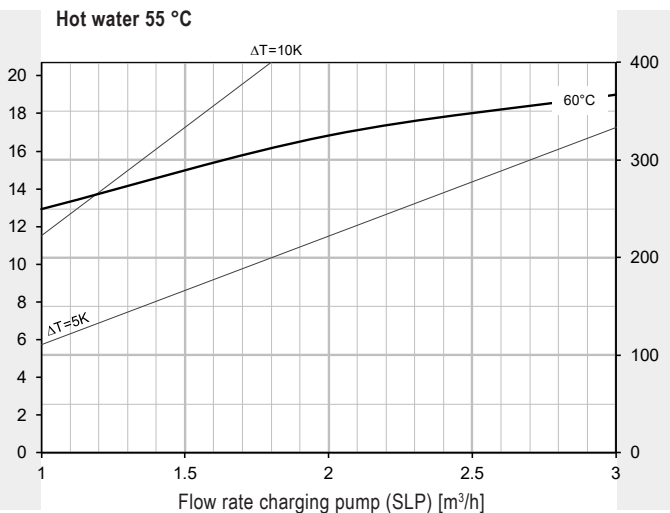
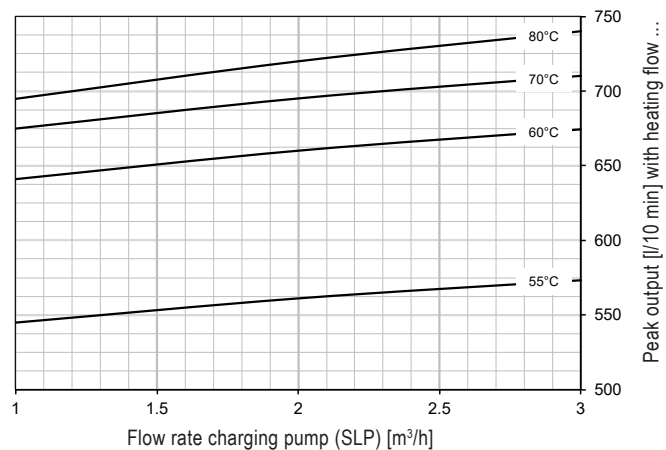
CombiVal ER (500)

Hot water output
Continuous output

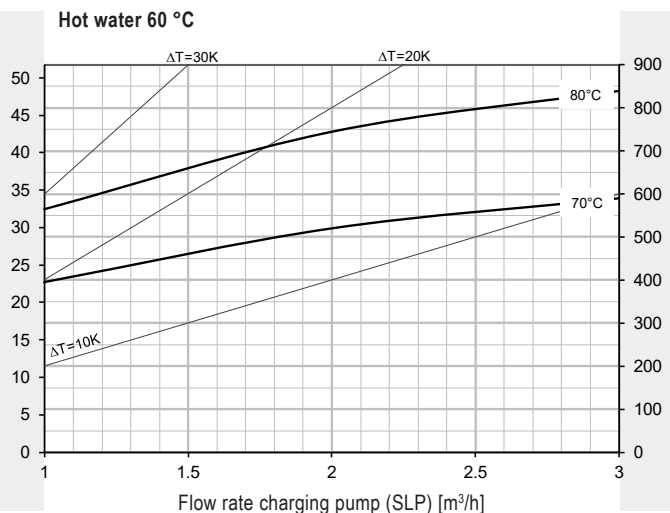
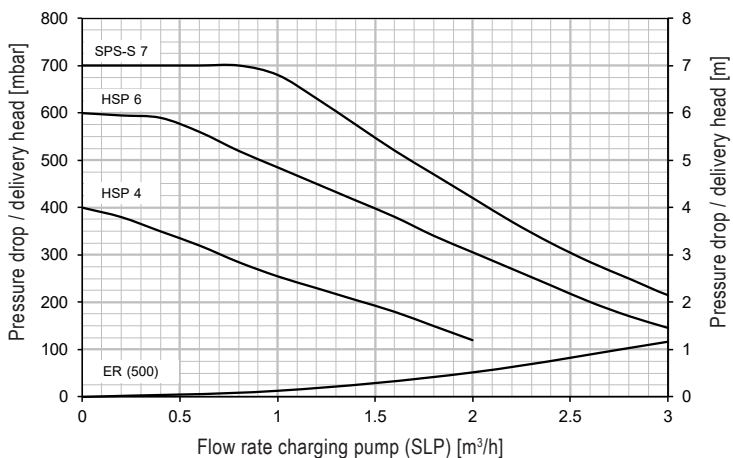
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

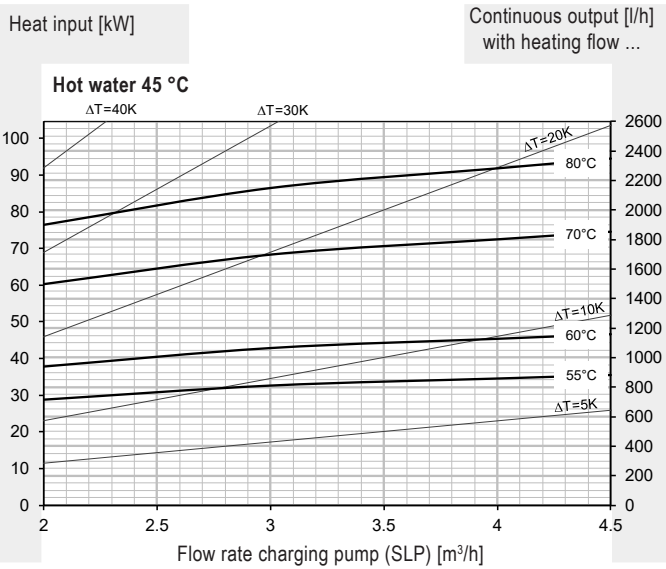


* Calorifier heated to 60 °C

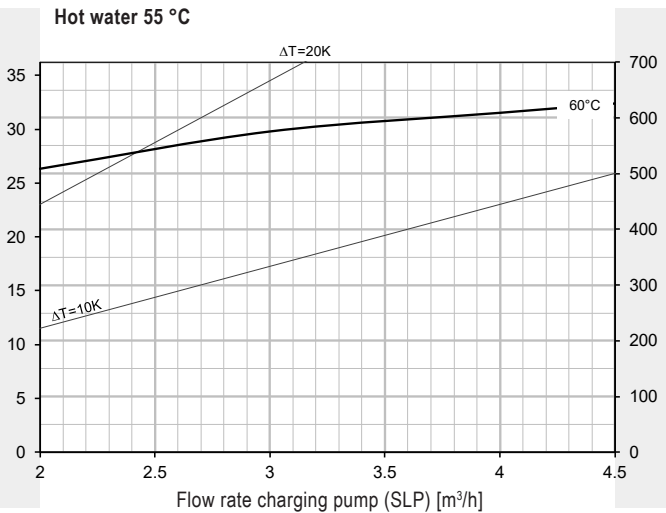
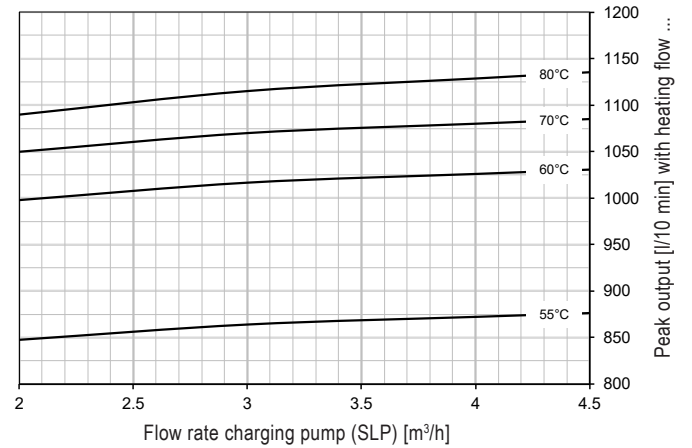
CombiVal ER (800)

Hot water output
Continuous output

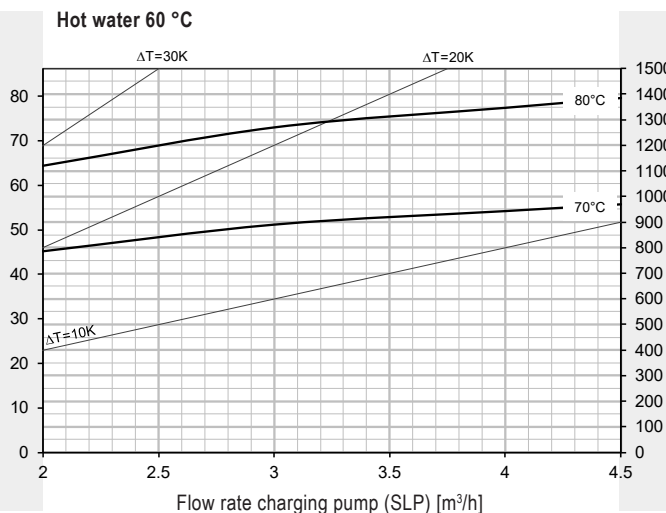
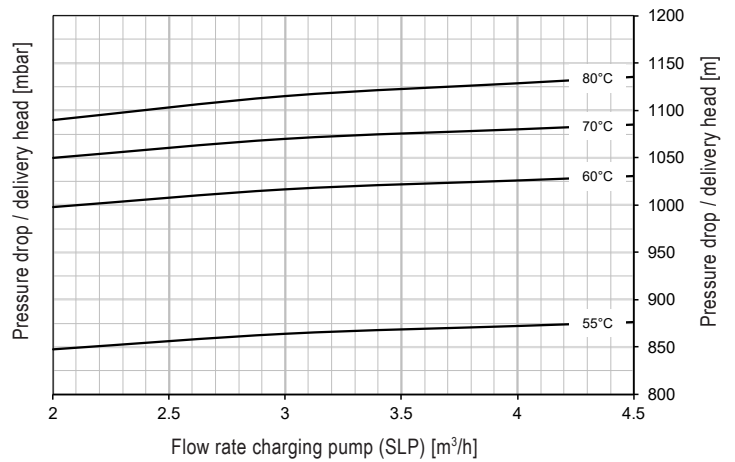
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

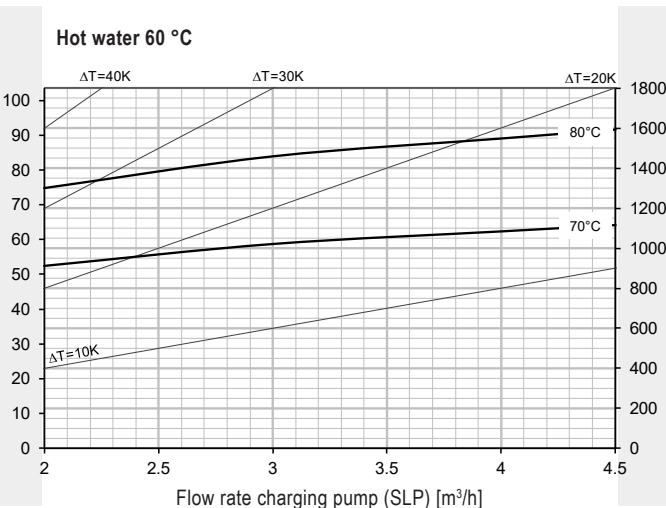
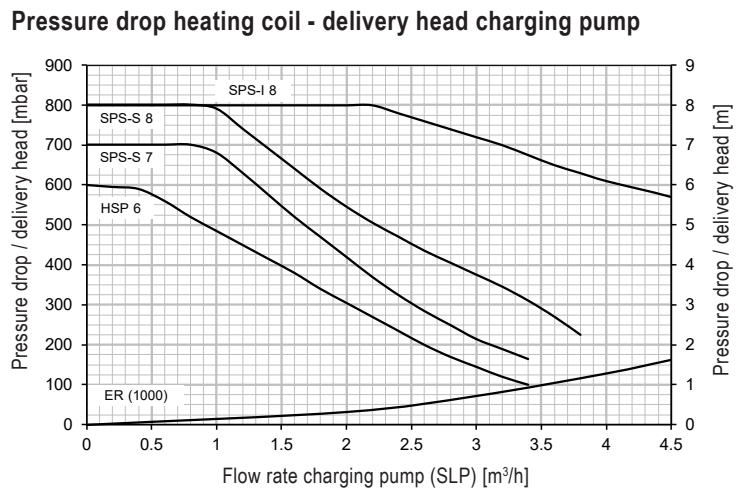
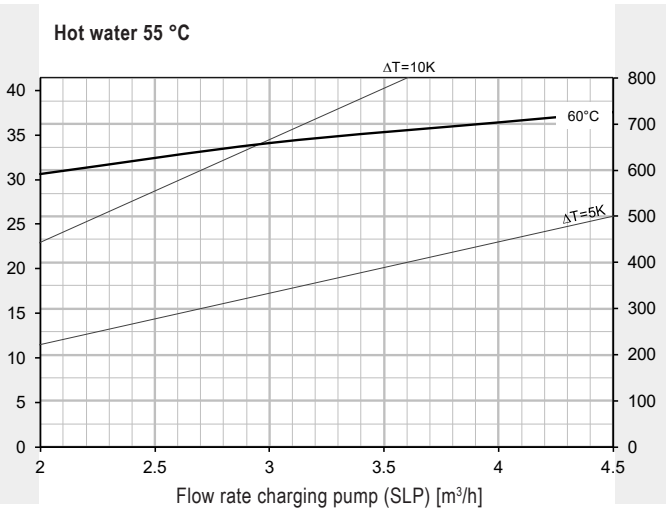
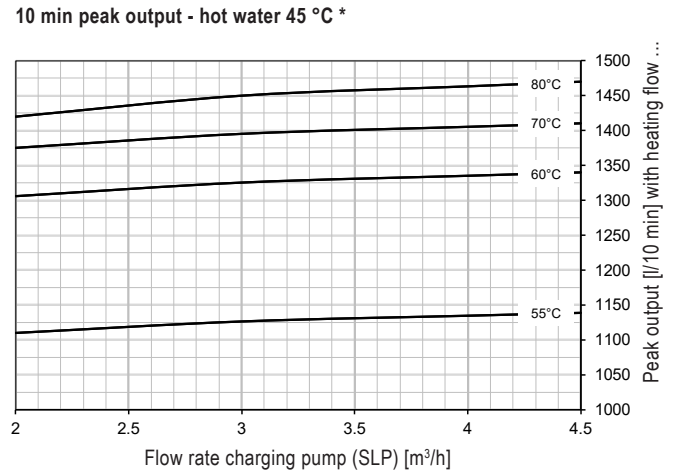
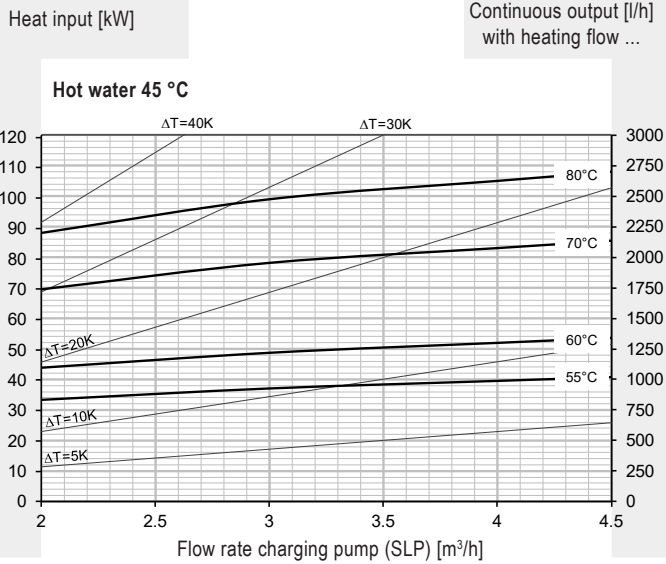


* Calorifier heated to 60 °C

CombiVal ER (1000)

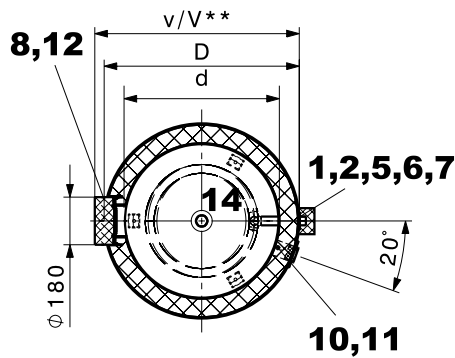
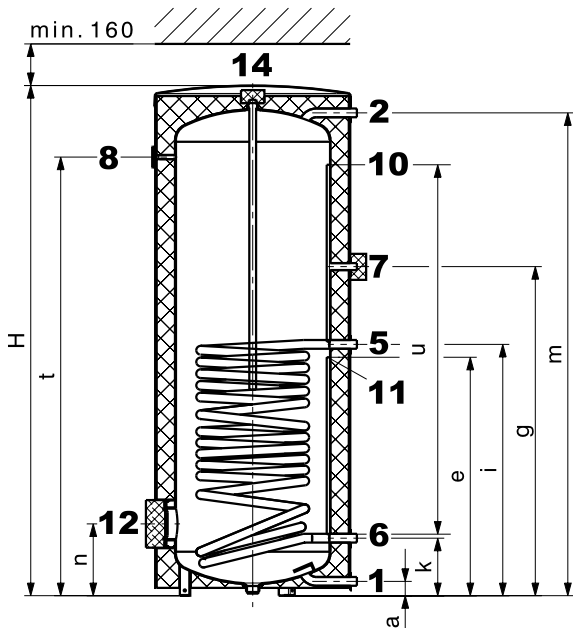
Hot water output
Continuous output

Reading example
see engineering

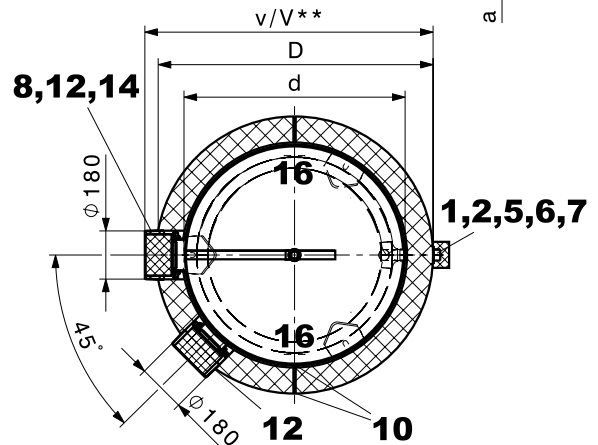
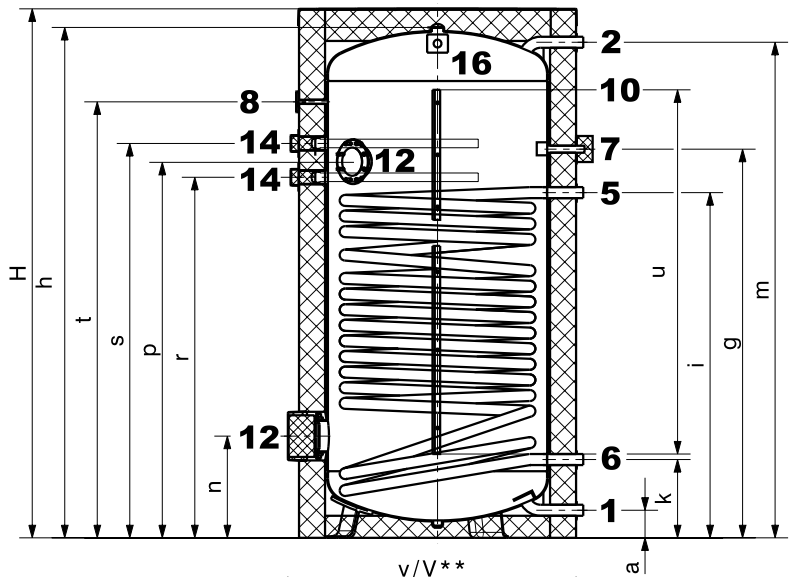


* Calorifier heated to 60 °C

CombiVal ER (200-500)
(Dimensions in mm)



CombiVal ER (800,1000)



- 1 Cold water
type (200) G 3/4" (ET)
type (300-500) G 1" (ET)
type (800,1000) G 1 1/4" (ET)
- 2 Domestic hot water
type (200) G 3/4" (ET)
type (300-500) G 1" (ET)
type (800,1000) G 1 1/4" (ET)
- 5 Heating flow
type (200-500) G 1" (ET)
type (800,1000) G 1 1/4" (ET)
- 6 Heating return
type (200-500) G 1" (ET)
type (800,1000) G 1 1/4" (ET)
- 7 Circulation
(removable insulated cap Ø 100 mm)
G 3/4" (ET)
- 8 Thermometer

- 10 Sensor channel, inner Ø 11 mm
Sensor terminal strip (zip fastener) type (200-500)
type (800,1000)
- 11 Removable cap (Ø 60 mm) type (200-500)
for positioning the sensor in the sensor channel
- 12 Hand-hole flange (flange-mounted electric heating element) Ø 180/120 mm, hole circle 150 mm, 8 x M10
(Mounting of a flange-mounted electric heating element:
- bottom, possible.
- top, not possible.)
- 14 Anode sleeve type (200-500) Rp 1" (IT)
type (800,1000) Rp 1 1/4" (IT)
Screw connection uninsulated
- 16 Transport strap type (800,1000)

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

CombiVal ER

type	D	d	H	h	a	e	g	i	k	m	n	p	r	s	t	u	v	v**	Tilting dimension
(200)	600	450	1464	-	55	680	902	689	194	1373	249	-	-	-	1229	1060	635	650	1583
(300)	700	597	1326	-	55	609	921	721	221	1229	276	-	-	-	1069	860	795	810	1524
(400)	750	597	1623	-	55	747	1112	909	221	1526	276	-	-	-	1356	1060	795	810	1788
(500)	750	597	1953	-	55	917	1265	966	221	1856	276	-	-	-	1686	1360	795	810	2093
(800)	950	750	2040	1937	105	-	1422	1319	293	1891	383	1408	1348	1478	1648	1400	975	1020	1962
(1000)	1050	850	2063	1962	106	-	1494	1327	301	1905	391	1446	1386	1516	1676	1400	1075	1120	1991

** when using a flange-mounted electric heating element

Hoval calorifier
CombiVal ESR (200-400)

- Calorifier made of steel enamelled inside
- Large smooth pipe heat exchanger enamelled, built in
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismantable foil casing, red coloured
- Including thermometer
- Sensor channel

On request

- Flange-mounted electric heating element

Delivery

- Calorifier with foil casing installed



Range

CombiVal
type

ESR	(200)	B ▶
ESR	(300)	B ▶
ESR	(400)	B ▶

Calorifier



CombiVal ESR (200-400)

Calorifier made of steel enamelled inside.
With smooth pipe heat exchanger, built in.

CombiVal ESR type		Volume dm ³	Heating surface m ²
(200)	B	193	1.8
(300)	B	298	2.6
(400)	B	379	3.8

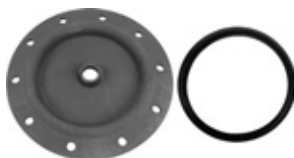
Electric heating elements

see chapter "Electric heating elements"

Part No.

7015 965
7015 966
7015 967

Accessories



Flange cover 180 - 3/4"

for the installation of the Correx[®] impressed current anode in flange Ø 180/110 mm, enamelled on the inside with Rp 3/4" sleeve
Seal included

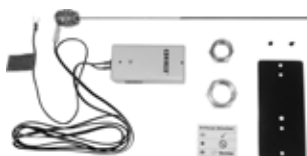
2077 035



Flange with immersion sleeve for temperature sensor made of steel on DHW 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 1 1/4" (ET) – Rp 1" (IT) and R 1" (ET) – Rp 3/4" (IT)
Installation length: 395 mm
Connection cable length: 1 x 2000 mm
1 Correx[®] impressed current anode

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.

CombiVal ESR (200-400)

Type		(200)	(300)	(400)
• Volume	dm ³	193	298	379
• Max. operating pressure/test pressure	bar	10/13	10/13	10/13
• Max. operating temperature	°C	95	95	95
• Thermal insulation PU-foam, foamed onto calorifier	mm	75	50	75
• Thermal insulation λ	W/mK	0.027	0.027	0.027
• Fire protection class		B2	B2	B2
• Heat loss at 65 °C	W	48	68	68
• Transport weight	kg	91	118	156
• U value	W/m ² K	0.32	0.41	0.32
Heating battery (built in)				
• Heating surface	m ²	1.8	2.6	3.8
• Heating water content	dm ³	12.2	16	34
• Flow resistance ¹⁾	z value	13	17	6
• Max. operating pressure/test pressure	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 (m³/h)² x z (1 mbar = 0.1 kPa)

Performance figure

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

Reading example
see engineering

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
1				200		
2	200					
3						
4	300			300		
5		200			200	
6	400		200	400		200
7						
8						
9		300				
10			300		300	
11						300
12						
13						
14		400				
15						
16						
17					400	
18			400			
19						
20						
21						
22						400
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50						

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
51						
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100						

T = heating flow

NL = performance figure

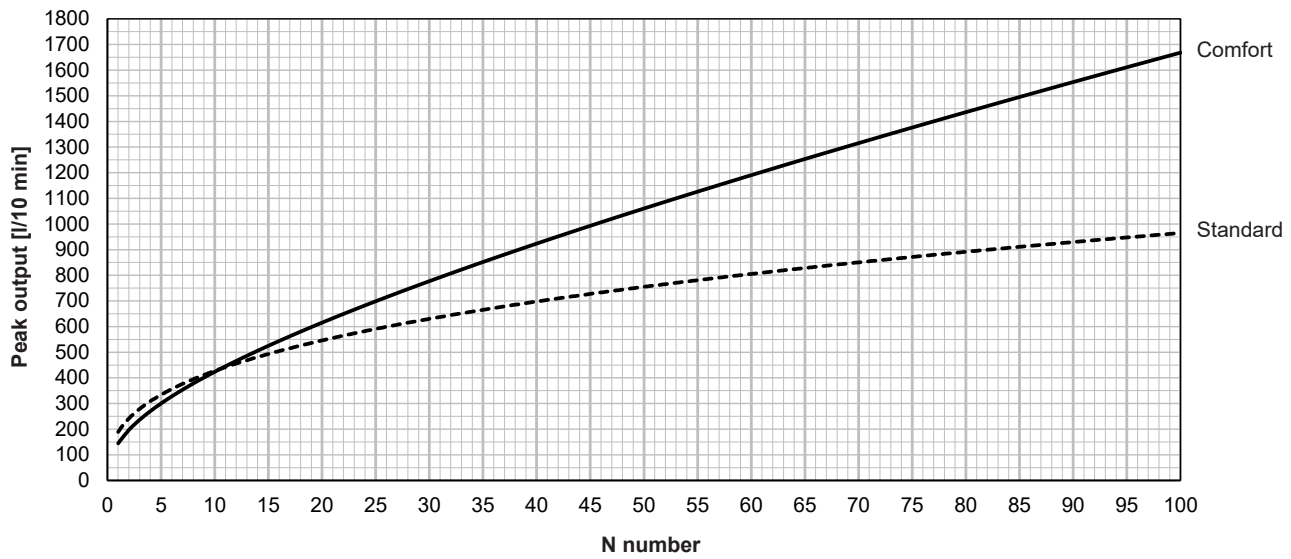
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom - 4 rooms - 3.5 persons)

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)

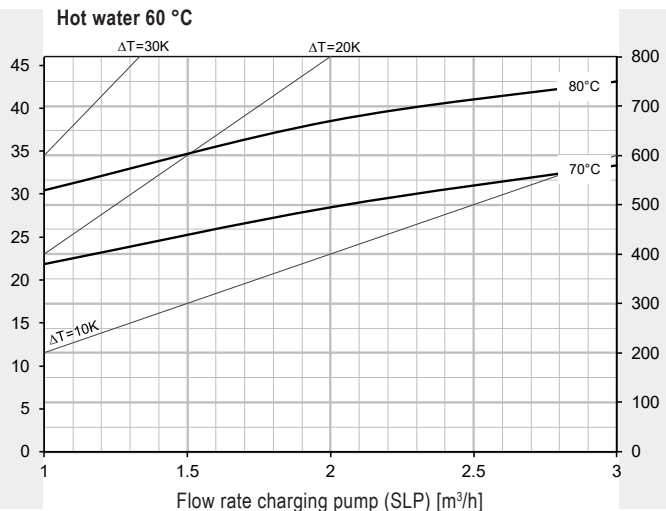
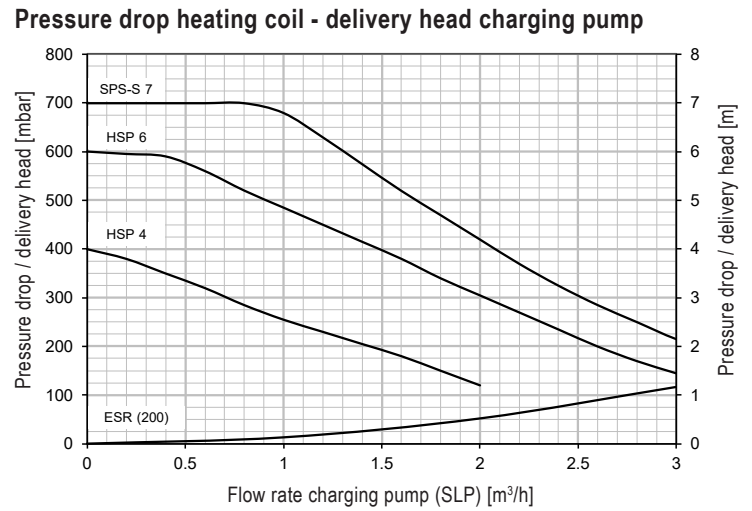
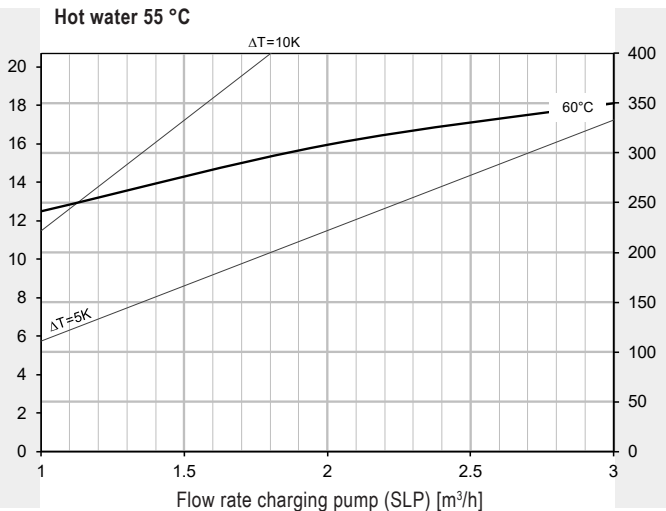
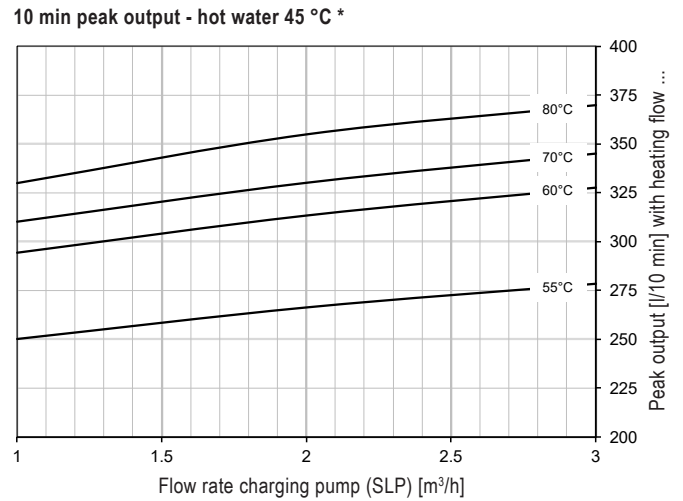
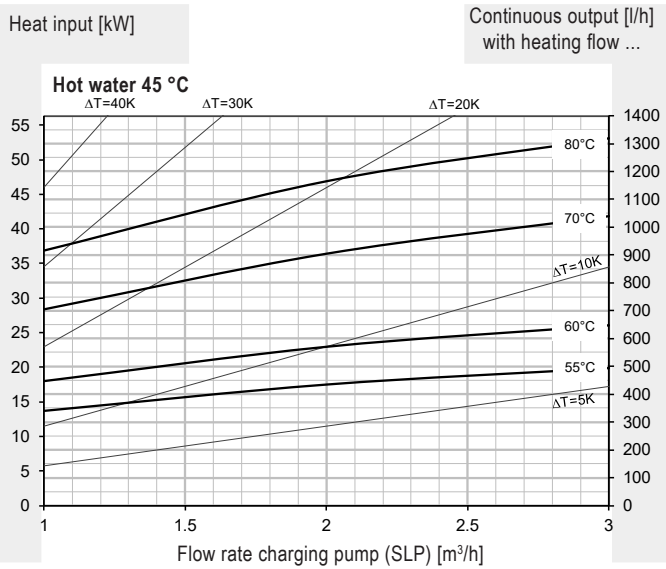
Reading example
see Engineering



CombiVal ESR (200)

Hot water output
Continuous output

Reading example
see engineering

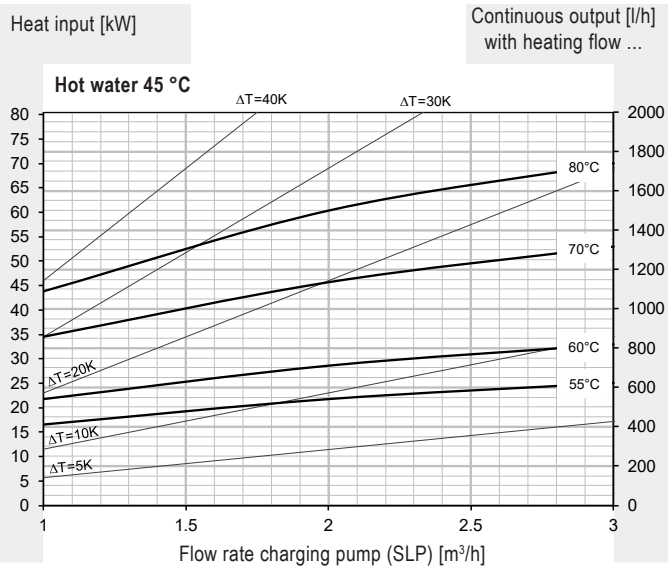


* Calorifier heated to 60 °C

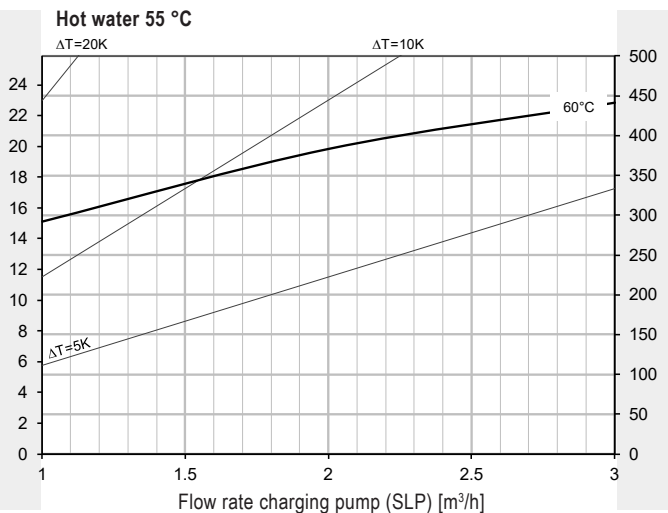
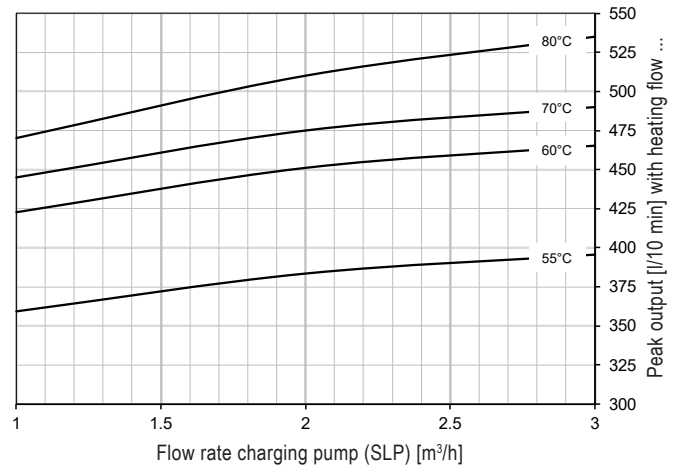
CombiVal ESR (300)

Hot water output
Continuous output

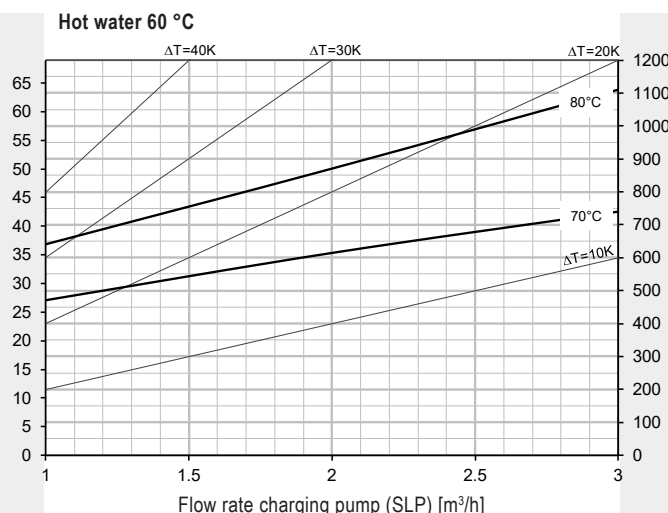
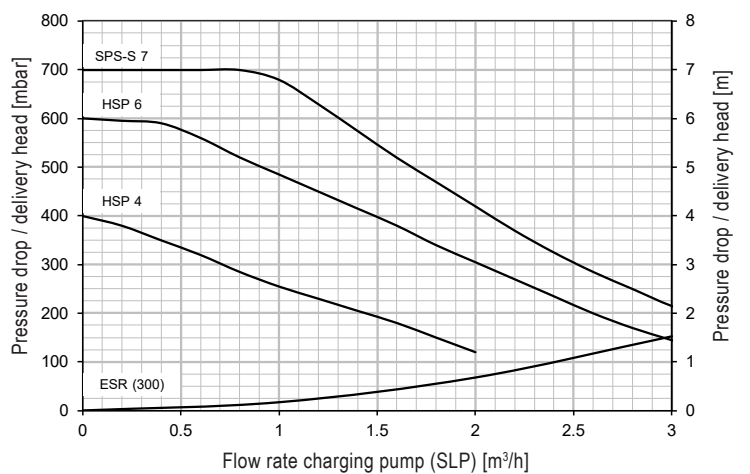
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

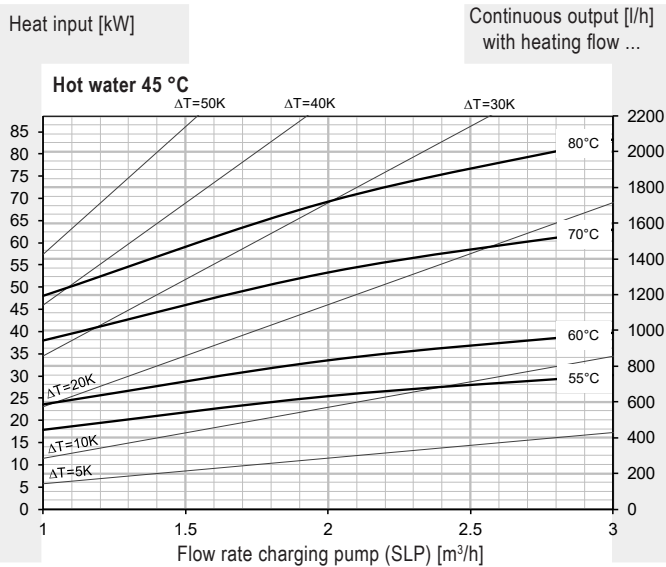


* Calorifier heated to 60 °C

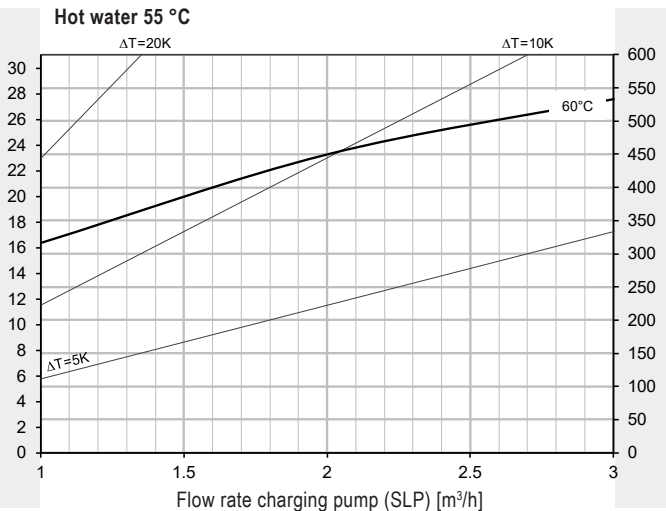
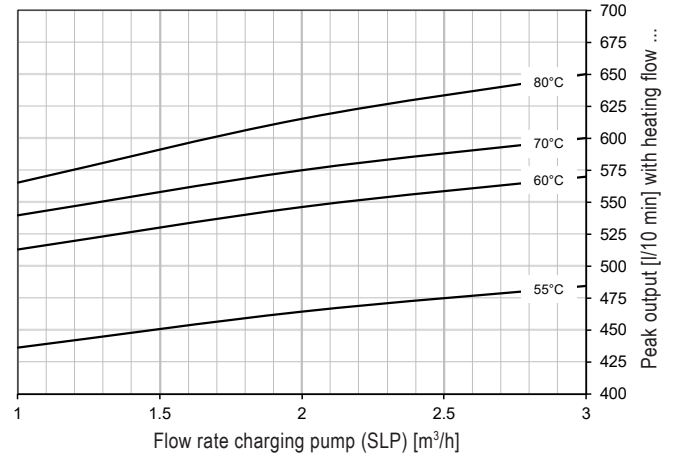
CombiVal ESR (400)

Hot water output
Continuous output

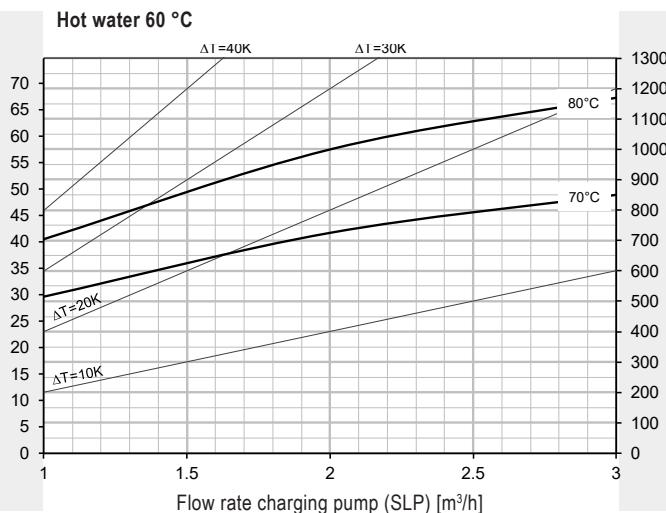
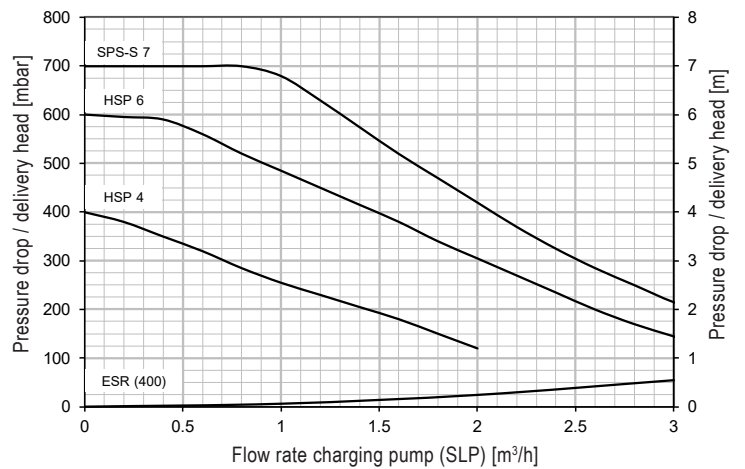
Reading example
see engineering



10 min peak output - hot water 45 °C *

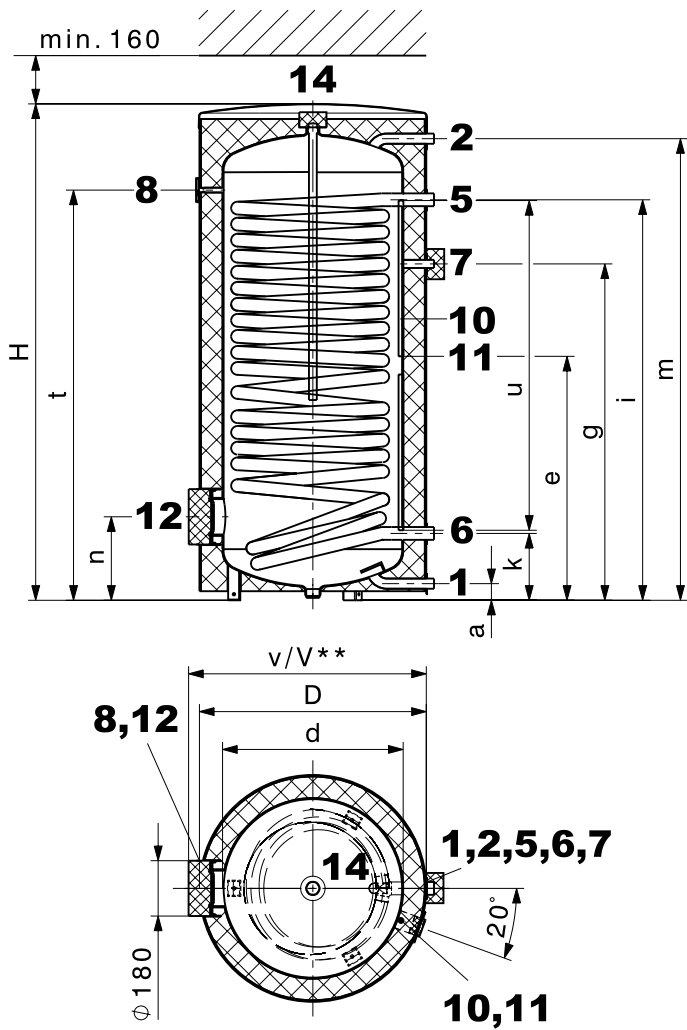


Pressure drop heating coil - delivery head charging pump



* Calorifier heated to 60 °C

CombiVal ESR (200-400)
(Dimensions in mm)



- | | | | |
|---|----------------|---------------|---|
| 1 Cold water | type (200) | G 3/4" (ET) | 10 Sensor channel, inner Ø 11 mm |
| | type (300,400) | G 1" (ET) | 11 Removable cap (Ø 60 mm) |
| 2 Domestic hot water | type (200) | G 3/4" (ET) | for positioning the sensor in the sensor channel |
| | type (300,400) | G 1" (ET) | 12 Hand-hole flange (flange-mounted electric heating element) |
| 5 Heating flow | type (200,300) | G 1" (ET) | Ø 180/120 mm, pitch circle 150 mm, 8 x M10 |
| | type (400) | G 1 1/4" (ET) | 14 Anode sleeve Rp 1" (IT) |
| 6 Heating return | type (200,300) | G 1" (ET) | Screw connection uninsulated |
| | type (400) | G 1 1/4" (ET) | |
| 7 Circulation
(removable insulated cap Ø 100 mm) | | G 3/4" (ET) | |
| 8 Thermometer | | | |

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

CombiVal ESR type	D	d	H	a	e	g	i	k	m	n	t	u	v	V**	Tilting dimension
(200)	600	450	1464	55	740	789	902	194	1373	249	1229	1060	635	650	1583
(300)	700	597	1326	55	669	850	991	221	1229	276	1069	860	745	760	1524
(400)	750	597	1629	55	807	1112	1324	221	1526	276	1359	1060	795	810	1788

** when using a flange-mounted electric heating element

Hoval calorifier
CombiVal ESSR (500)

- Calorifier made of steel enamelled inside
- Pipe register with extra large heating surface as heat exchanger, enamelled, built in
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismantable foil casing, red coloured
- Sensor channel
- Including thermometer

On request

- Flange-mounted electric heating element
- Screw-in electric heating element 1½"

Delivery

- Calorifier with foil casing installed

Hoval calorifier
CombiVal ESSR (800,1000)

- Calorifier made of steel, enamelled inside
- Pipe register with large heating surface as heat exchanger, enamelled, built in
- 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, red coloured
- Two terminal bars for contact sensor
- Including thermometer

On request

- Flange-mounted electric heating element

Delivery

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



Range

CombiVal
 type

ESSR	(500)	B ➔
ESSR	(800)	
ESSR	(1000)	

Calorifier



CombiVal ESSR (500-1000)

Calorifier made of steel enamelled inside.
Pipe register as heat exchanger enamelled,
built in

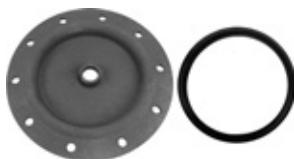
CombiVal ESSR type		Volume dm ³	Heating surface m ²
(500)	B	465	5.90
(800)		733	7.00
(1000)		961	9.15

Electric heating elements
see chapter "Electric heating elements"

Part No.

7015 970
7018 051
7018 052

Accessories



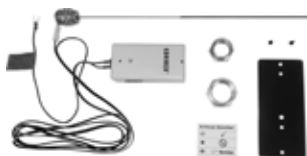
Flange cover 180 - 3/4"
for the installation of the Correx[®]
impressed current anode in flange
Ø 180/110 mm,
enamelled on the inside with Rp 3/4"
sleeve
Seal included

2077 035



Flange with immersion sleeve for temperature sensor made of steel on DHW 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 1 1/4" (ET) – Rp 1" (IT)
and R 1" (ET) – Rp 3/4" (IT)
Installation length: 395 mm
Connection cable length: 1 x 2000 mm
1 Correx[®] impressed current anode

684 760

Included in the scope of delivery for ESSR (800,1000).

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.

CombiVal ESSR (500-1000)

Type		(500)	(800)	(1000)
• Volume	dm ³	465	733	961
• Max. operating pressure/test pressure	bar	10/13	10/13	10/13
• Max. operating temperature	°C	95	95	95
• Thermal insulation PU foam, foamed onto calorifier	mm	75	-	-
• Thermal insulation λ	W/mK	0.027	0.027	0.027
• Thermal insulation polyester fleece	mm	-	100	100
• Fire protection class		B2	B2	B2
• Heat loss at 65 °C	W	78	126	144
• Transport weight	kg	232	304	387
• U value	W/m ² K	0.316	0.374	0.375
Heating battery (built in)				
• Heating surface	m ²	5.9	7	9.15
• Heating water	dm ³	41	49.4	64.6
• Flow resistance ¹⁾	z value	10	11	14
• Max. operating pressure/test pressure	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 (m³/h)² x z (1 mbar = 0.1 kPa)

Performance figure

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

Reading example
see engineering

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

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
51						
52						
53						
54						
55						
56						
57						800
58			1000			
59						
60						
61						
62						
63					1000	
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T = heating flow

NL = performance figure

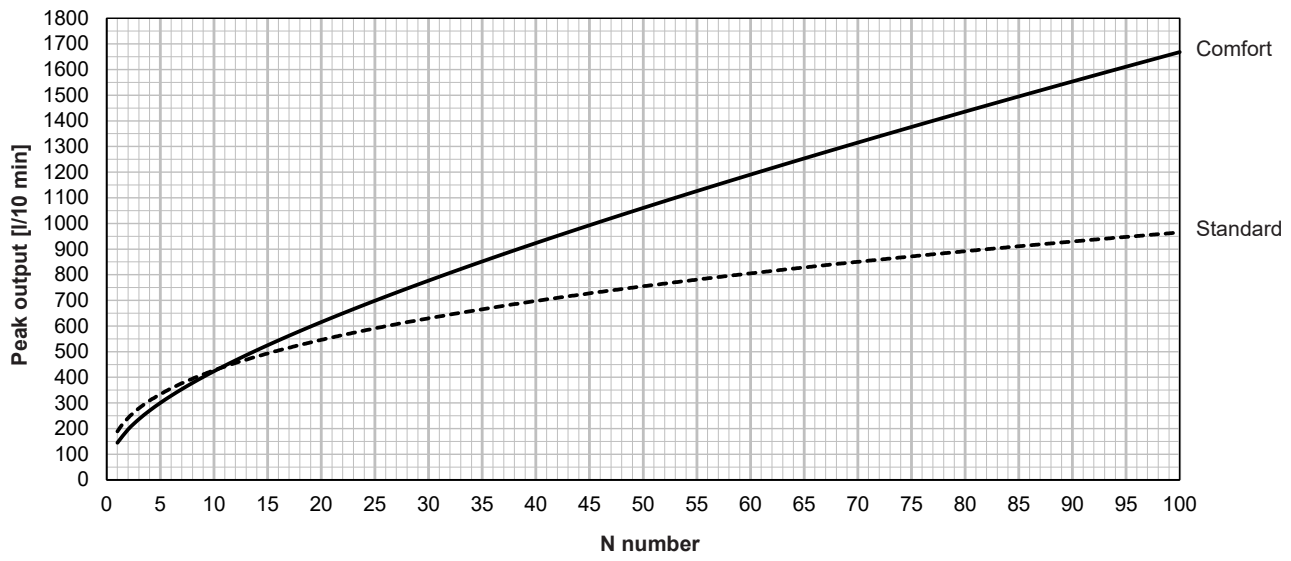
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom - 4 rooms - 3.5 persons)

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)

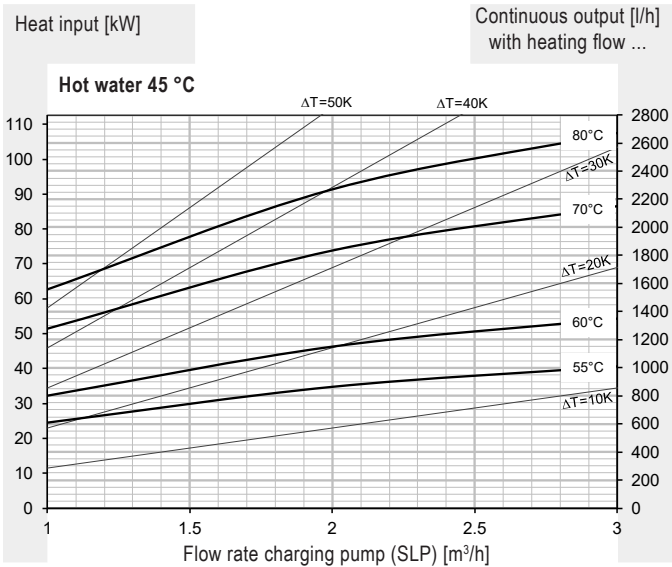
Reading example
see Engineering



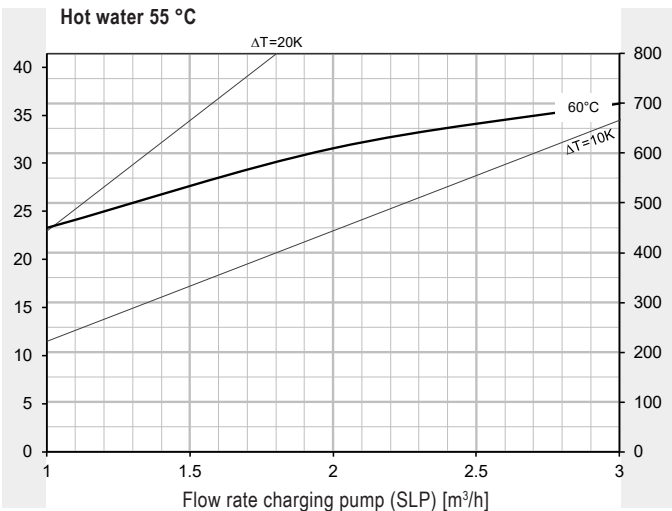
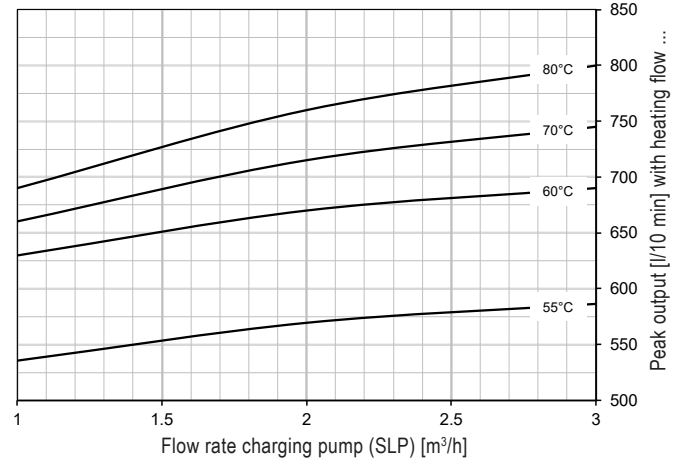
CombiVal ESSR (500)

Hot water output
Continuous output

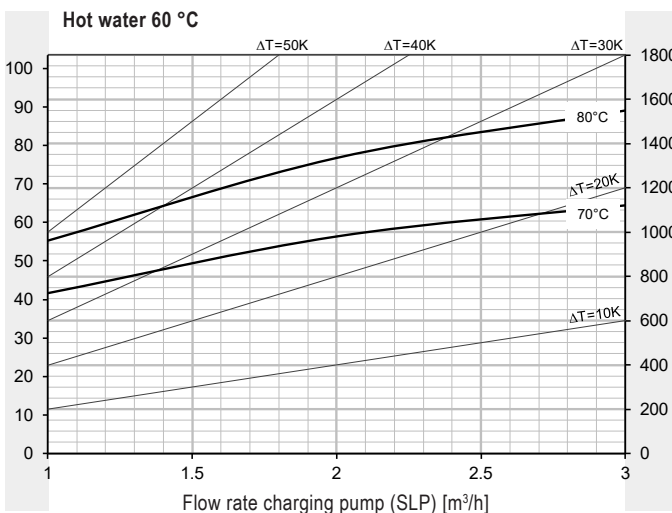
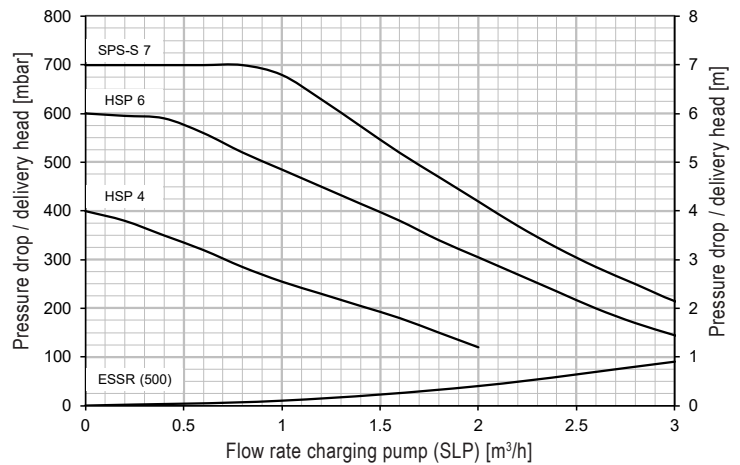
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

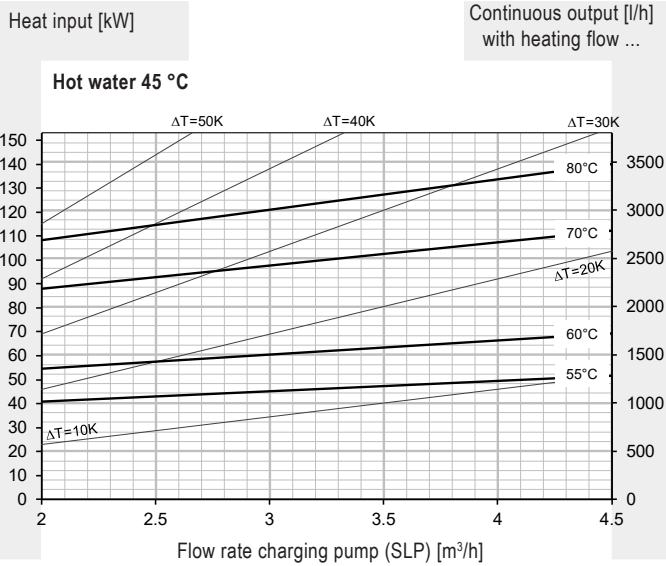


* Calorifier heated to 60 °C

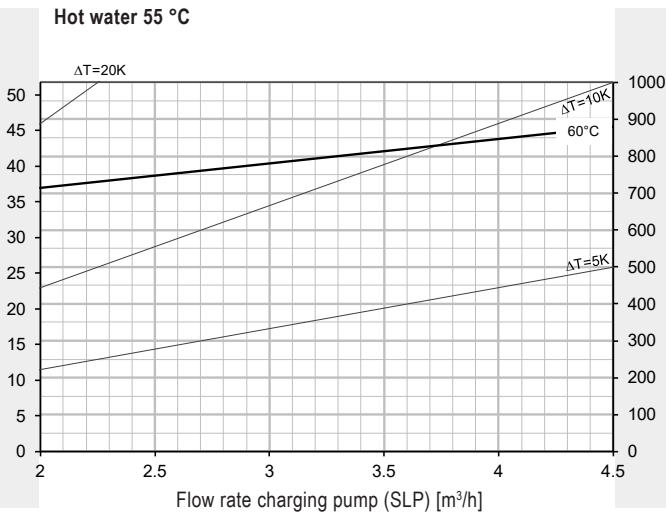
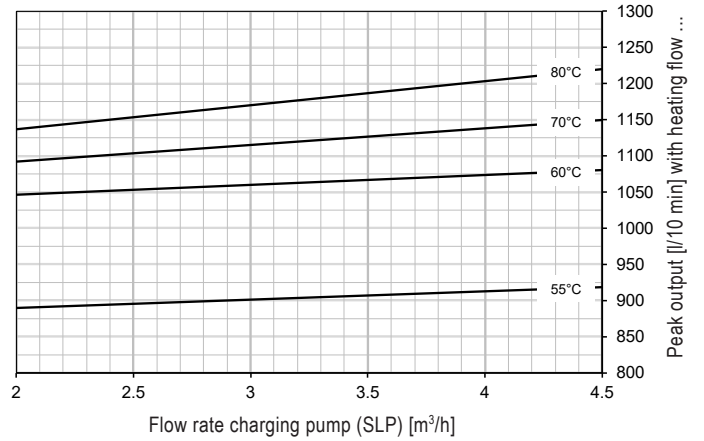
CombiVal ESSR (800)

Hot water output
Continuous output

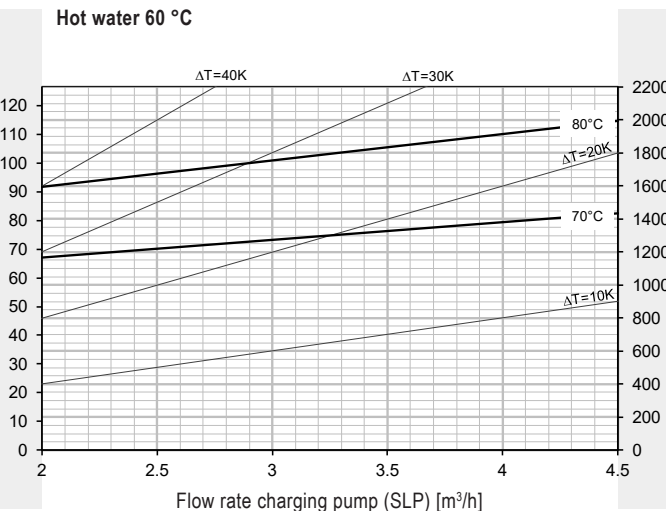
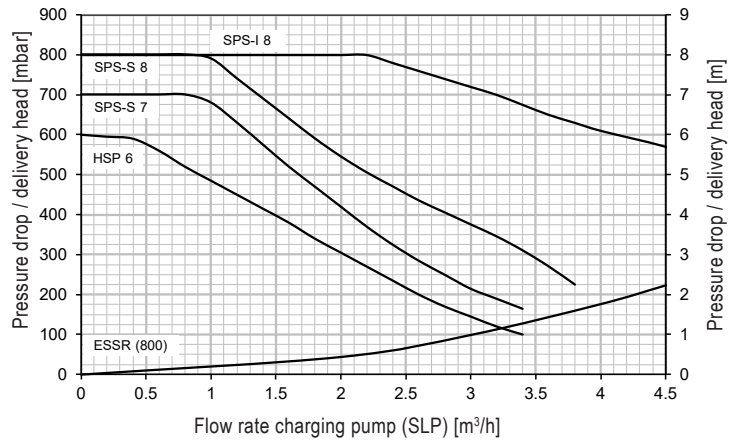
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

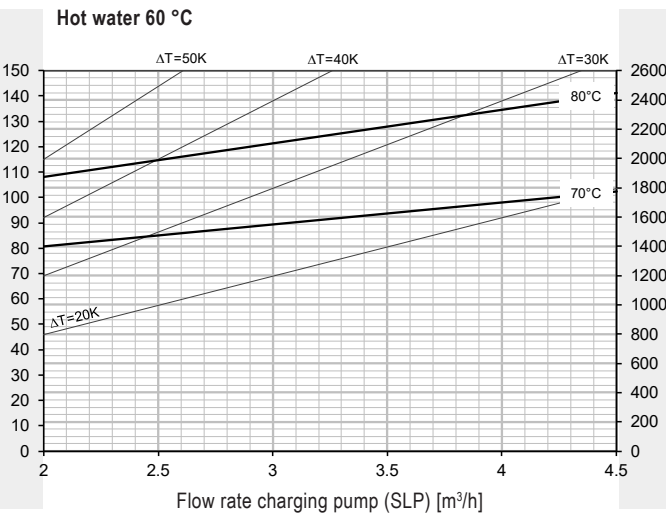
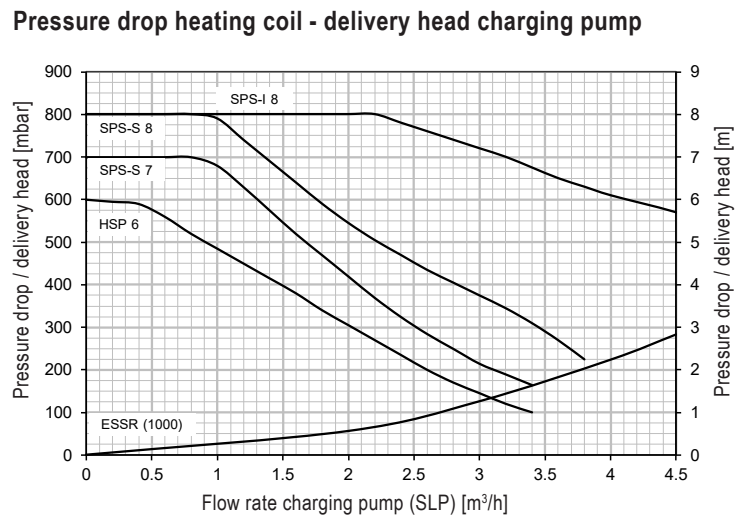
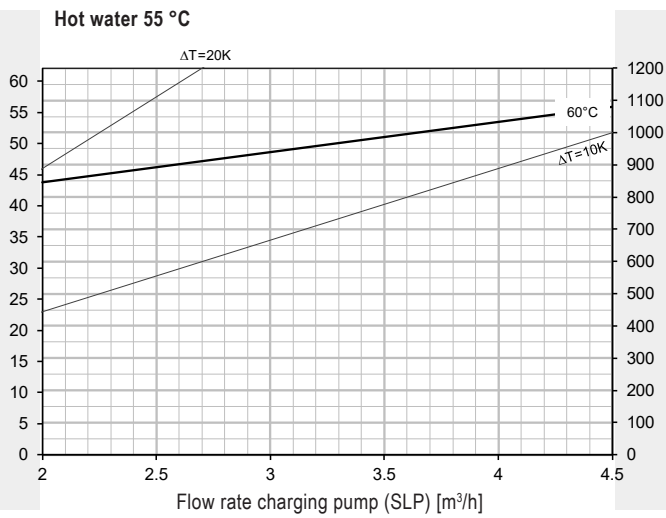
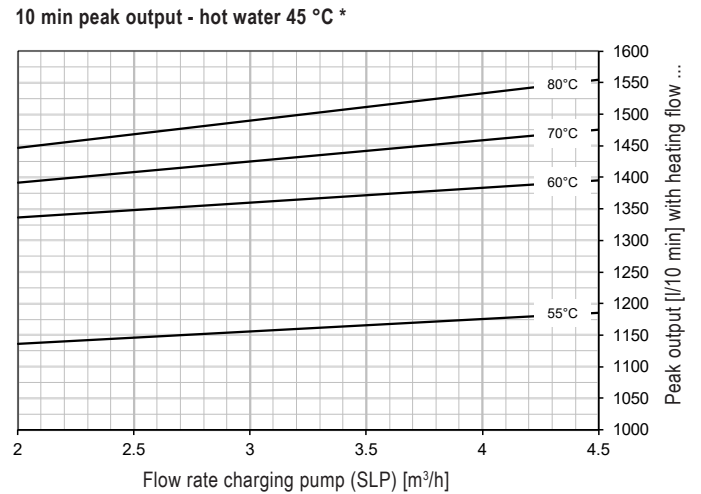
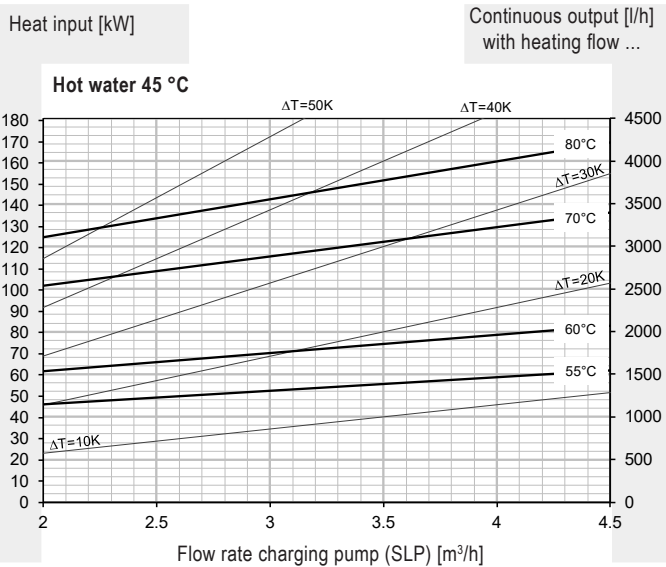


* Calorifier heated to 60 °C

CombiVal ESSR (1000)

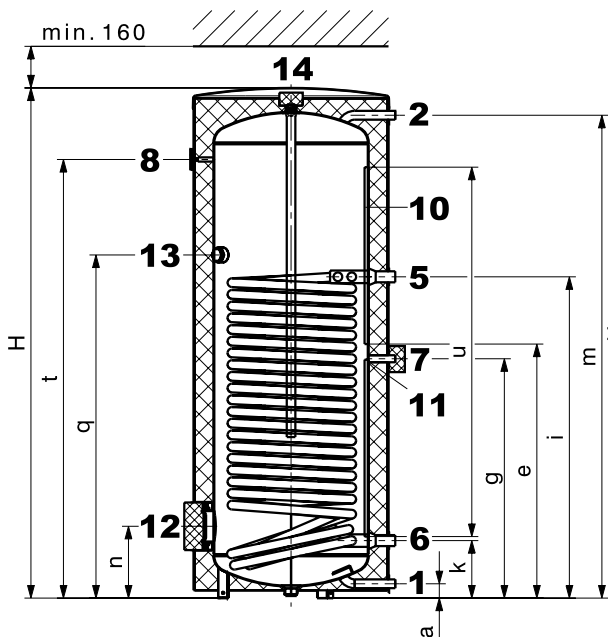
Hot water output
Continuous output

Reading example
see engineering

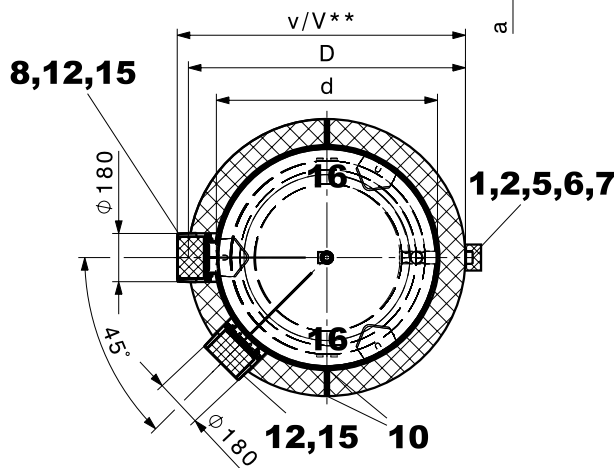
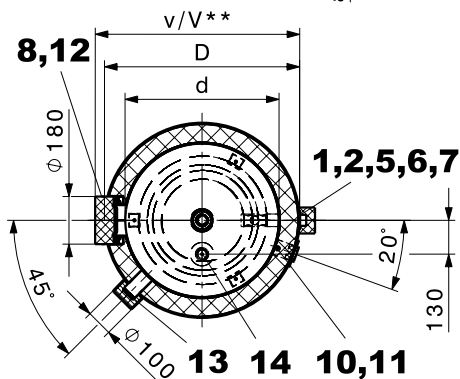
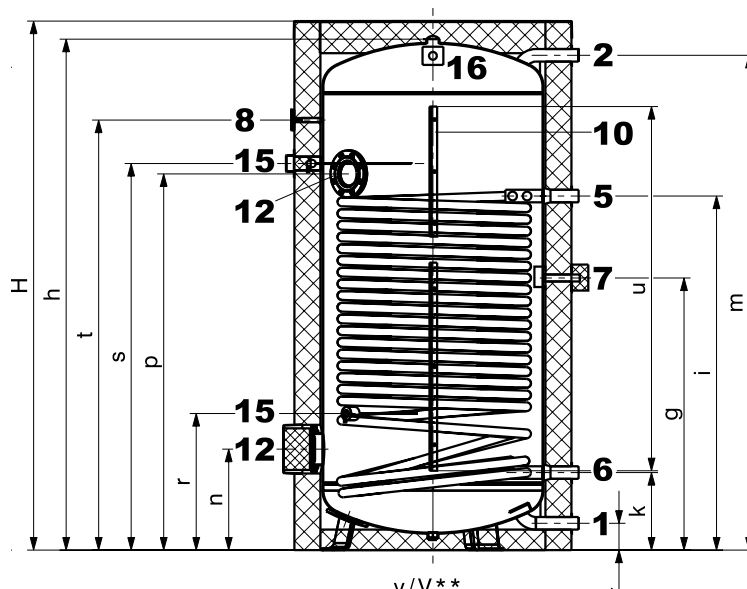


* Calorifier heated to 60 °C

CombiVal ESSR (500)
(Dimensions in mm)



CombiVal ESSR (800,1000)



- 1 Cold water type (500) G 1" (ET)
type (800,1000) G 1½" (ET)
- 2 Domestic hot water type (500) G 1" (ET)
type (800,1000) G 1½" (ET)
- 5 Heating flow type (500) G 1¼" (ET)
type (800,1000) G 1½" (ET)
- 6 Heating return type (500) G 1¼" (ET)
type (800,1000) G 1½" (ET)
- 7 Circulation (removable insulated cap Ø 100 mm) G ¾" (ET)
- 8 Thermometer

- 10 Sensor channel, inner Ø 11 mm type (500)
Sensor terminal strip (zip fastener) type (800,1000)
- 11 Removable cap (Ø 60 mm) type (500)
for positioning the sensor in the sensor channel
- 12 Hand-hole flange (flange-mounted electric heating element) Ø 180/120 mm, pitch circle 150 mm, 8 x M10
- 13 Connection for screw-in electric heating element (cap Ø 100 mm) type (500) Rp 1½" (IT)
- 14 Anode sleeve type (500) Rp 1¼" (IT)
Screw connection uninsulated
- 15 Correx® impressed current anode sleeve type (800,1000) Rp ¾" (IT)
- 16 Transport strap type (800,1000)

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

CombiVal ESSR type	D	d	H	h	a	e	g	i	k	m	n	p	r	q	s	t	u	v	v**	Tilting dimension
(500)	750	597	1953	-	55	977	920	1235	221	1856	276	-	-	1319	-	1686	1360	795	810	2093
(800)	950	750	2033	1937	104	-	995	1265	292	1890	382	1413	520	-	1497	1647	1400	975	1020	1962
(1000)	1050	850	2063	1963	103	-	1046	1361	298	1902	388	1446	525	-	1486	1653	1400	1075	1120	1991

** when using a flange-mounted electric heating element

Hoval calorifier
MultiVal ERR (300-500)

- Calorifier made of steel enamelled inside
- 2 smooth pipe heat exchangers enamelled, built in
 - for alternative use at the bottom
 - for additional heating with an oil, gas or wood boiler at the top
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam hulls, foamed on the calorifier
- Dismantable foil casing, red coloured
- Sensor channel
- Immersion sleeve welded in
- Including thermometer
- 1½" sleeve for a screw-in electric heating element

Delivery

- Calorifier with foil casing installed

On request

- Screw-in electric heating element
- Flange-mounted electric heating element



Range

MultiVal
type

ERR (300)	B ➤
ERR (400)	B ➤
ERR (500)	B ➤

Calorifier



MultiVal ERR (300-500)

Made of steel enamelled inside, with 2 heat exchangers. Calorifier fully cased.

MultiVal ERR type		Volume dm ³	Heating surface m ²	
			top	bottom
(300)	B	295	0.80	1.55
(400)	B	381	1.00	2.15
(500)	B	471	1.30	2.15

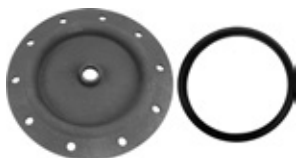
Electric heating elements

see chapter "Electric heating elements"

Part No.

7015 971
7016 752
7016 753

Accessories



Flange cover 180 - 3/4"

for the installation of the Correx[®] impressed current anode in flange Ø 180/110 mm, enamelled on the inside with Rp 3/4" sleeve
Seal included

2077 035



Flange with immersion sleeve for temperature sensor made of steel on DHW 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 1 1/4" (ET) – Rp 1" (IT) and R 1" (ET) – Rp 3/4" (IT)
Installation length: 395 mm
Connection cable length: 1 x 2000 mm
1 Correx[®] impressed current anode

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 ERR (300-500)

Type		(300)	(400)	(500)
• Volume	dm ³	295	381	471
• Volume (upper battery)	dm ³	110	126	181
• Operating pressure/test pressure	bar	10/13	10/13	10/13
• Max. operating temperature	°C	95	95	95
• Expanded PU hard foam thermal insulation	mm	75	75	75
• Thermal insulation λ	W/mK	0.027	0.027	0.027
• Thermal insulation polyester fleece	mm	-	-	-
• Fire protection class		B2	B2	B2
• Heat loss at 65 °C	W	61	69	78
• Transport weight	kg	128	149	170
• U value	W/m ² K	0.307	0.326	0.316
Heating battery bottom				
• Heating surface	m ²	1.55	2.15	2.15
• Heating water	litres	10.3	15.1	15.1
• Flow resistance ¹⁾ water	z value	10	3.6	3.6
• Flow resistance ¹⁾ water/glycol 50 %	z value	13	3.9	3.9
• Operating pressure/test pressure	bar	10/13	10/13	10/13
• Max. operating temperature	°C	110	110	110
• For flat collectors up to ²⁾	m ²	8	10	11
Heating battery top				
• Heating surface	m ²	0.80	1.00	1.30
• Heating water	litres	5.7	6.95	8.9
• Flow resistance ¹⁾	z value	6	8	9
• Operating pressure/test pressure	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 (m³/h)² x z (1 mbar = 0.1 kPa)

²⁾ Collector surface, related to the heat exchanger heating surface only

Performance figure

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

Reading example
see engineering

T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
1	300/400			300/400		
2	500	300	300	500	300	300
3		400	400		400	400
4		500	500		500	500
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T >	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
NL v						
51						
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100						

T = heating flow

NL = performance figure

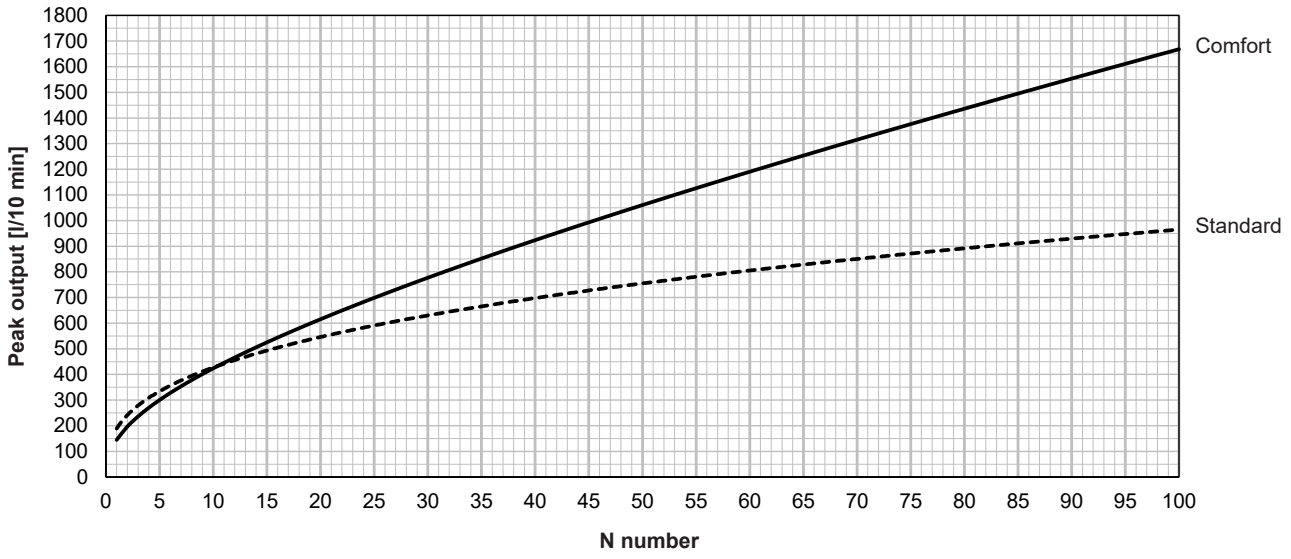
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom - 4 rooms - 3.5 persons)

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)

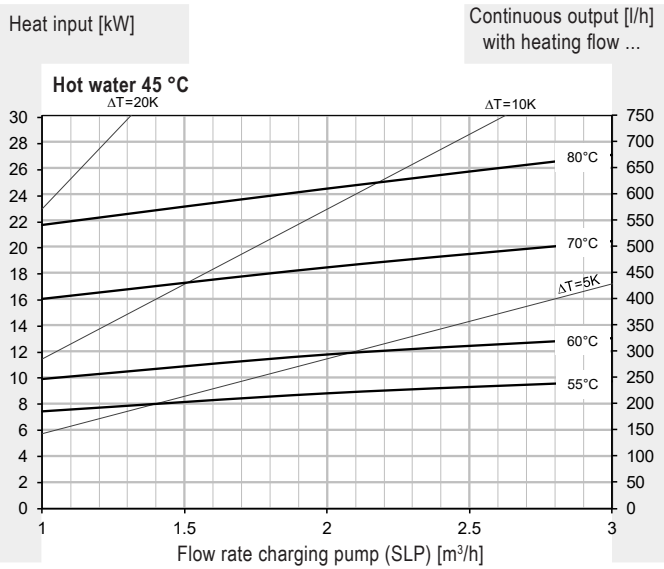
Reading example
see Engineering



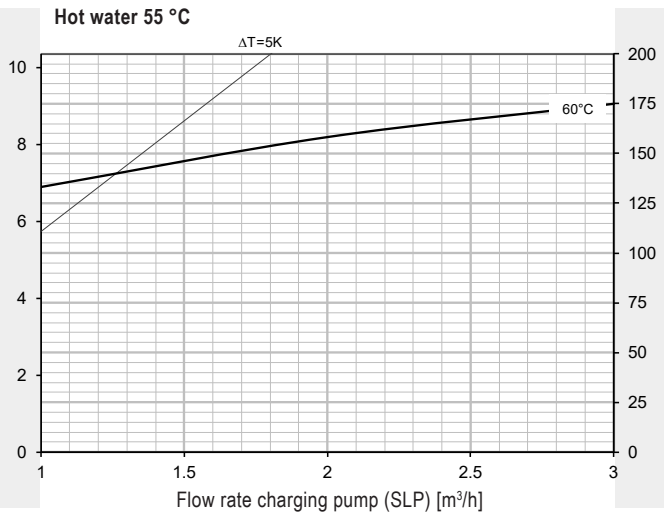
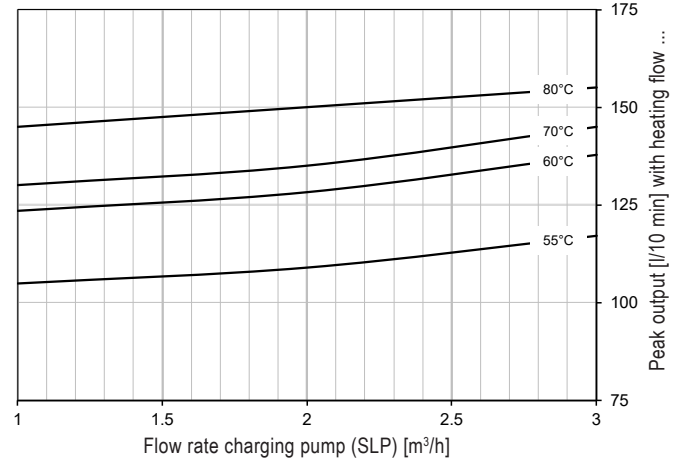
MultiVal ERR (300)

Hot water output
Continuous output

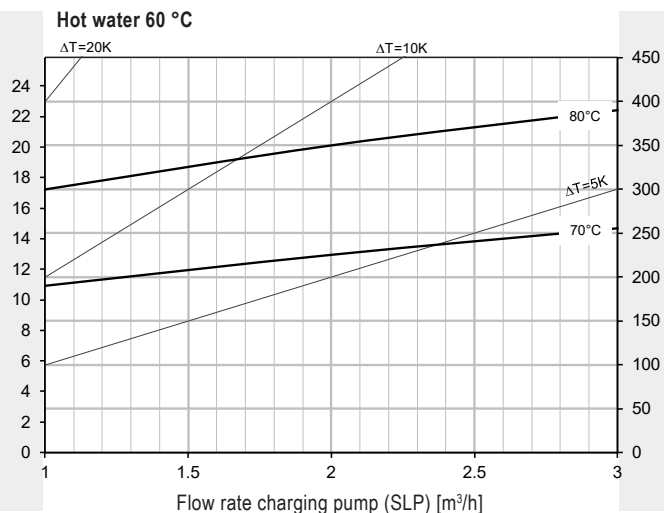
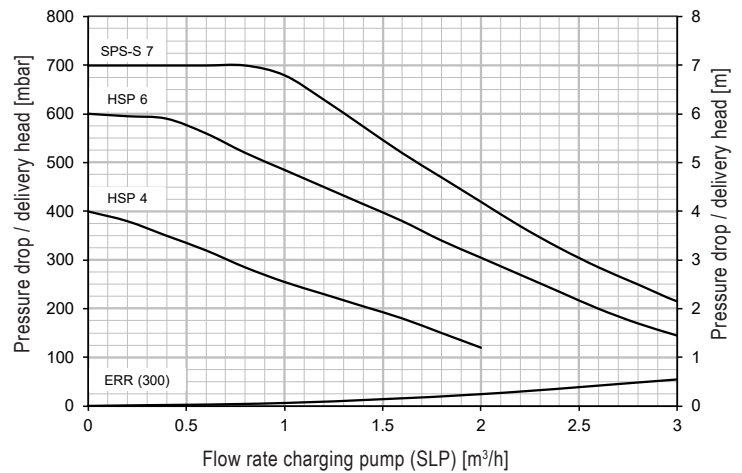
Reading example
see engineering



10 min peak output - hot water 45 °C *



Pressure drop heating coil - delivery head charging pump

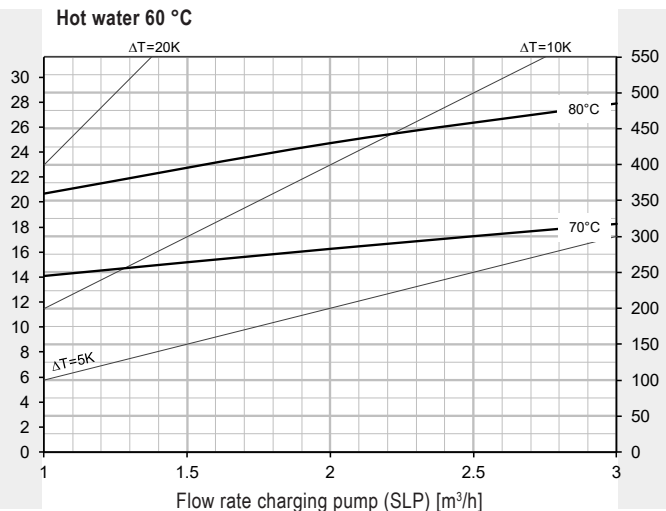
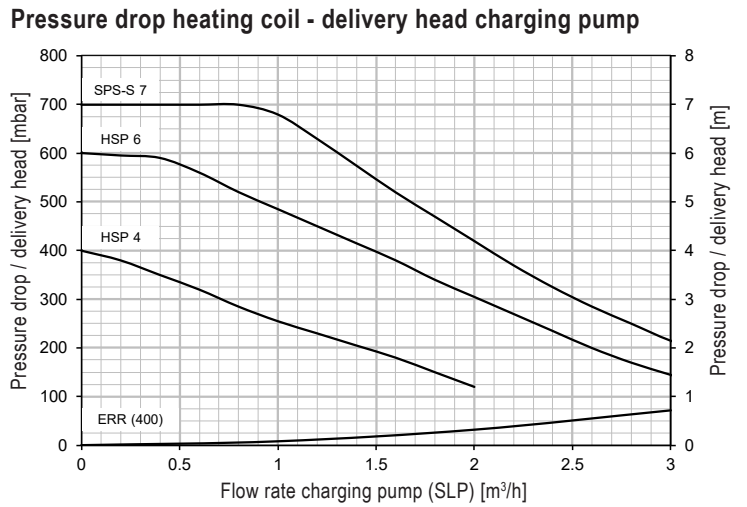
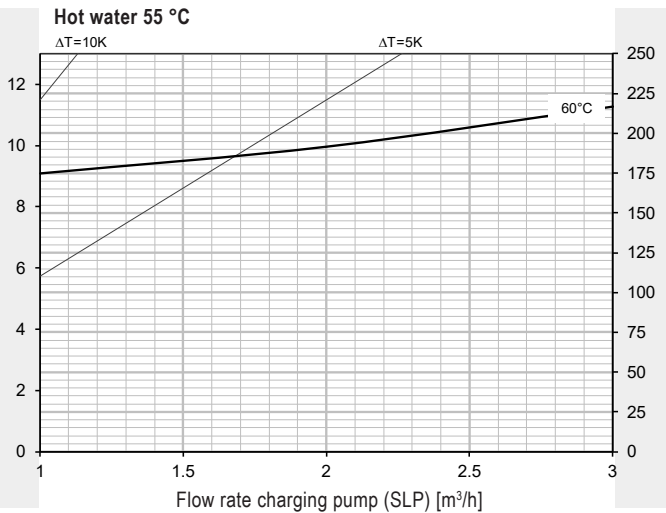
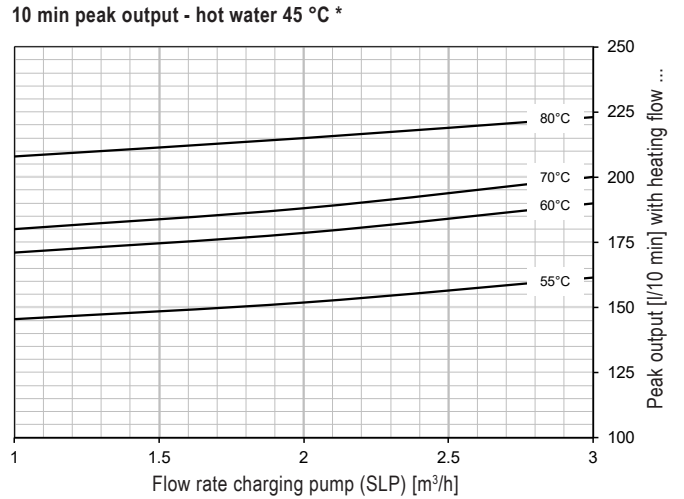
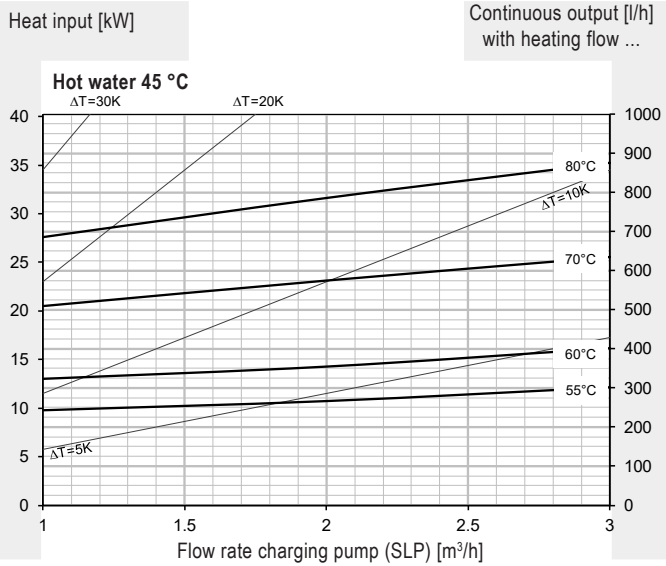


* Calorifier heated to 60 °C

MultiVal ERR (400)

Hot water output
Continuous output

Reading example
see engineering

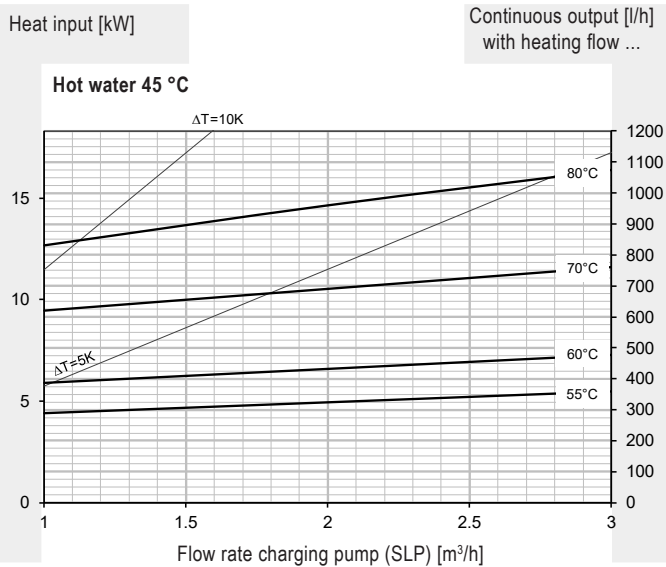


* Calorifier heated to 60 °C

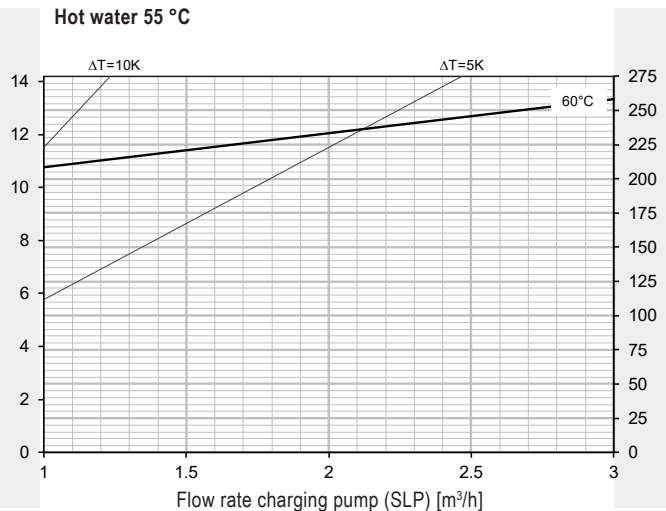
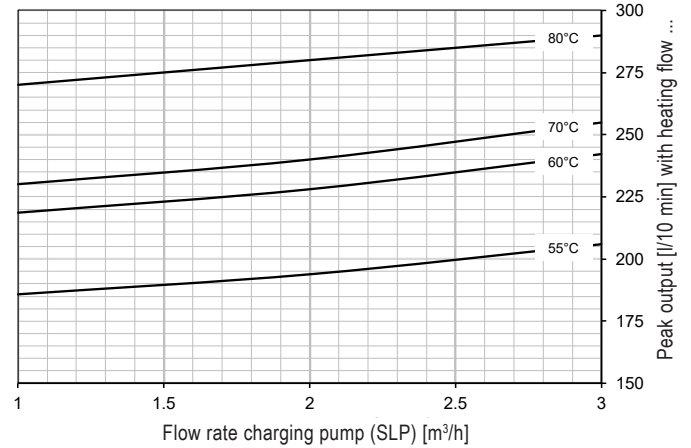
MultiVal ERR (500)

Hot water output
Continuous output

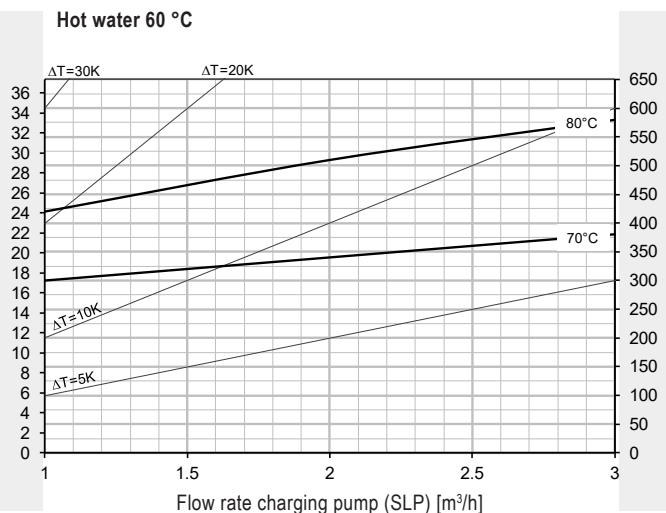
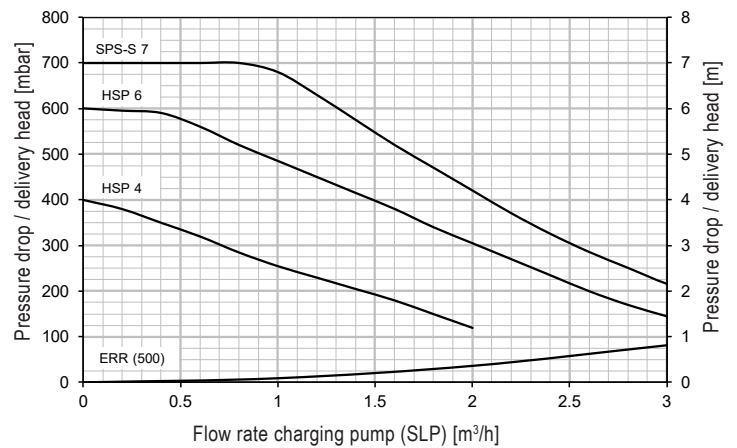
Reading example
see engineering



10 min peak output - hot water 45 °C *

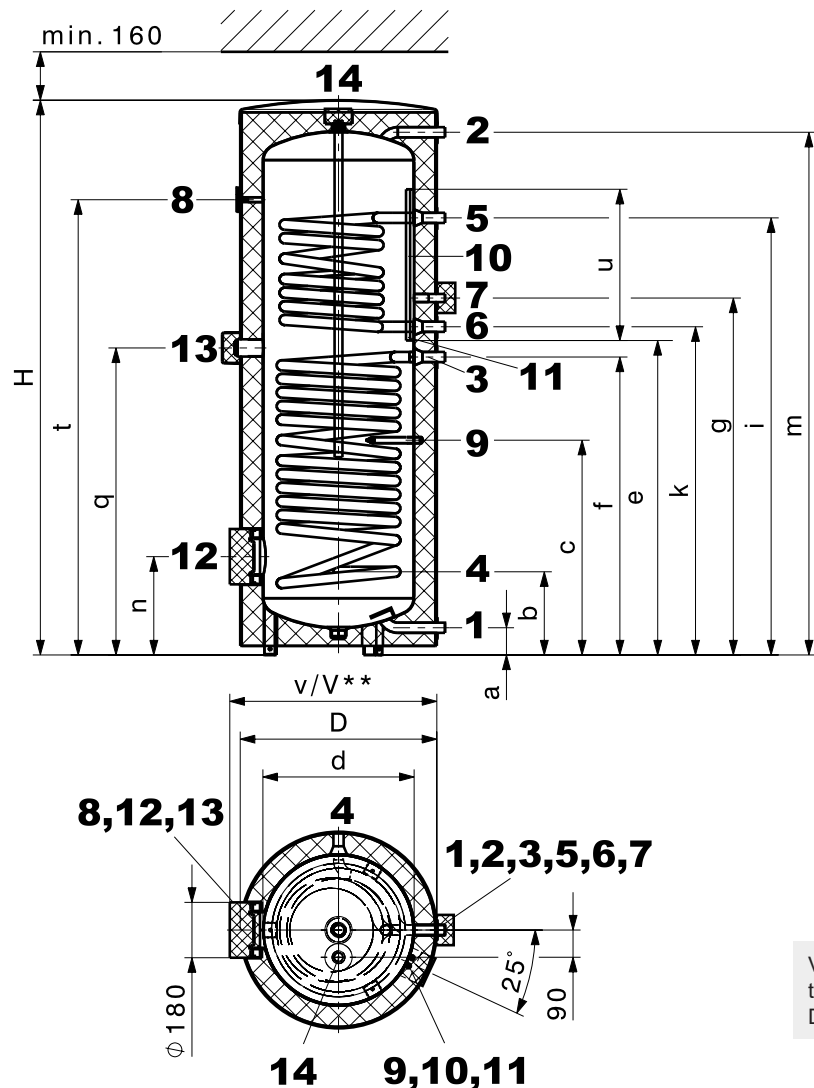


Pressure drop heating coil - delivery head charging pump



* Calorifier heated to 60 °C

MultiVal ERR (300)
(Dimensions in mm)



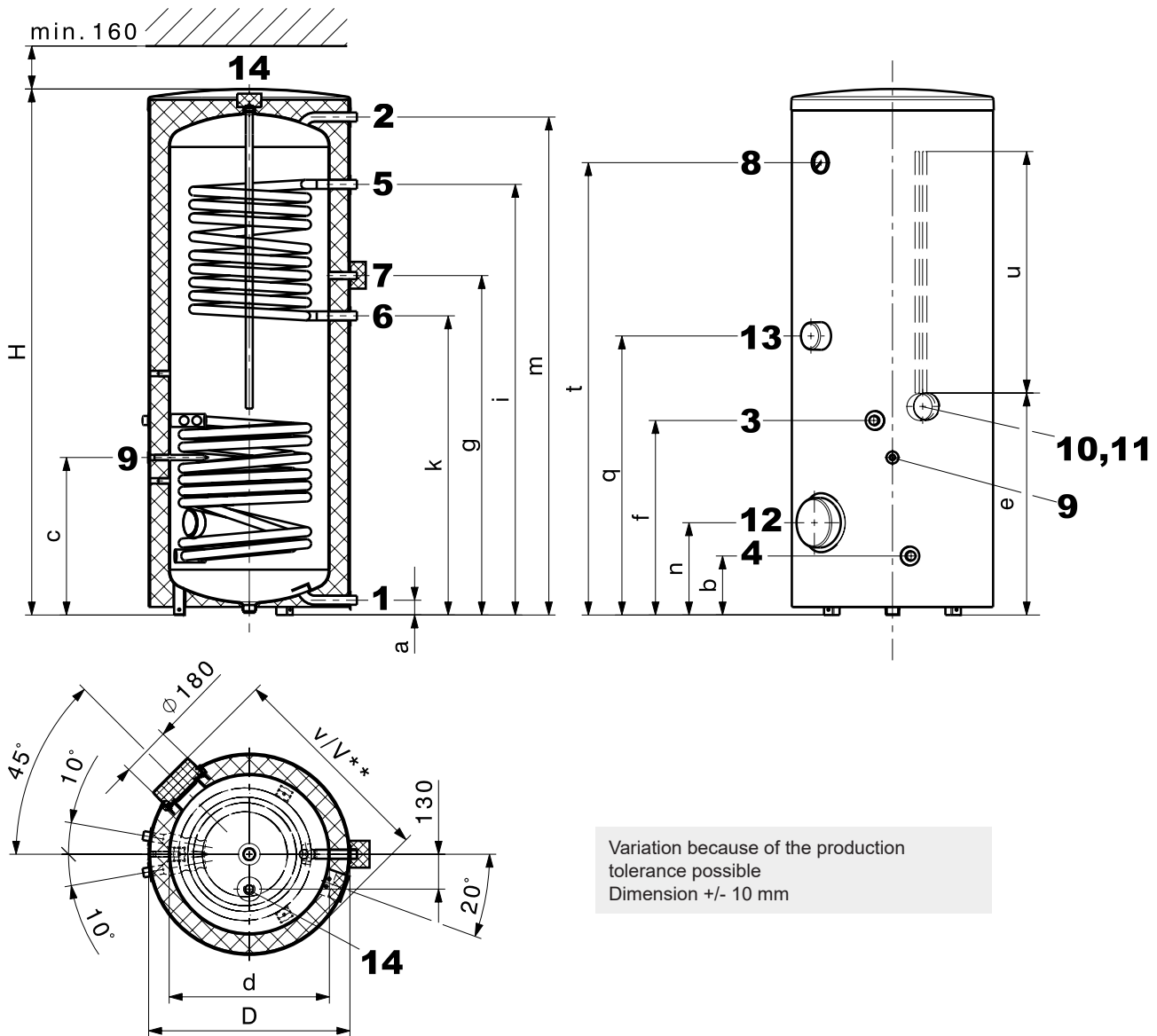
Variation because of the production tolerance possible
Dimension +/- 10 mm

- | | | |
|---|-----------|--|
| 1 Cold water | G 1" (ET) | 10 2 sensor channels inner Ø 11 mm |
| 2 Domestic hot water | G 1" (ET) | 11 Removable cap (Ø 100 mm) for positioning the sensor in the sensor channel |
| 3 Solar circuit flow | G 1" (ET) | 12 Hand-hole flange (flange-mounted electric heating element) Ø 180/120 mm, pitch circle 150 mm, 8 x M10 |
| 4 Solar circuit return | G 1" (ET) | 13 Connection for screw-in electric heating element (cap Ø 100 mm) Rp 1½" (IT) |
| 5 Flow supplemental heating | G 1" (ET) | 14 Anode sleeve Rp 1" (IT) |
| 6 Return supplemental heating | G 1" (ET) | |
| 7 Circulation (removable insulated cap Ø 100 mm) | G ¾" (ET) | |
| 8 Thermometer | | |
| 9 Connection for sensor/thermostat, inner Ø 16 mm (turned through 25° in section) | | |

MultiVal ERR type	D	d	H	a	b	c	e	f	g	i	k	m	n	q	t	u	v	v**	Tilting dimension
(300)	650	500	1835	90	275	710	1040	985	1180	1445	1085	1728	325	1015	1505	500	695	710	2093

** when using a flange-mounted electric heating element

MultiVal ERR (400,500)
(Dimensions in mm)



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

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

MultiVal ERR type	D	d	H	a	b	c	e	f	g	i	k	m	n	q	t	u	v	v**	Tilting dimension
(400)	750	597	1624	55	220	587	862	725	1112	1355	1007	1526	344	958	1356	500	791	831	1731
(500)	750	597	1951	55	220	587	820	725	1265	1605	1115	1856	344	1040	1686	900	791	831	2029

** when using a flange-mounted electric heating element