

Hoval CombiVal ER

Calorifier for combined heating
CombiVal ER (200-1000)



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Hoval calorifier
CombiVal ER (200-500)

- Calorifier made of steel enamelled inside
- Plain-tube coil enamelled, permanently installed
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismantable foil jacket, colour red, ERW (200) colour white
- Including thermometer
- Sensor channel

On request

- Flange-mounted electric heating element

Delivery

- Calorifier with foil jacket completely installed

Hoval calorifier
CombiVal ER (800,1000)

- Calorifier made of steel, enamelled inside
- Plain-tube coil enamelled, permanently installed
- 2 magnesium protection anodes built in
- Flange below as cleaning flange or for the installation as flange-mounted electric heating element or dummy 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, colour red
- 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)	

A* → F

Calorifier



CombiVal ER (200-1000)

Calorifier made of steel enamelled inside.
With built-in, enamelled plain-tube coil.

CombiVal ER type	Content l	Heating surface m ²
(200)	196	0.90
(200) ERW (white)	196	0.95
(300)	302	1.45
(400)	382	1.80
(500)	473	1.90
(800)	735	3.70
(1000)	968	4.50

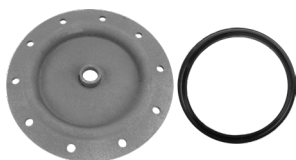
Energy efficiency class
see "Description"

Electric heating elements
see chapter "Electric heating elements"

Part No.

7015 960
7015 961
7015 962
7015 963
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 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 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 protection 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



Services and associated scope of services
see separate catalogue "Hoval Services"

Commissioning by Hoval customer service is a prerequisite for warranty/guarantee activation.

CombiVal ER (200-500)

Type		(200)	(300)	(400)	(500)
• Volume	l	196	302	382	473
• Max. operating/test pressure SVGW	bar	6/12	6/12	6/12	6/12
• Max. operating/test pressure DVGW	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	0.90	1.45	1.80	1.90
• Heating water	l	6.4	9.9	12.2	12.8
• Flow resistance ¹⁾	z value	7	10	12	13
• Max. operating/test pressure SVGW	bar	8/13	8/13	8/13	8/13
• Max. operating/test pressure DVGW	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	l	735	968
• Max. operating/test pressure SVGW	bar	6/12	6/12
• Max. operating/test pressure DVGW	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	0.37
Heating battery (built in)			
• Heating surface	m ²	3.7	4.5
• Heating water	l	34.2	40.6
• Flow resistance ¹⁾	z value	6	8
• Max. operating/test pressure SVGW	bar	8/13	8/13
• Max. operating/test pressure DVGW	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

	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
T >						
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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22		800				
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26		1000				
27						
28				800		
29						
30			800			
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32						
33				1000		
34						
35			1000			
36						
37						
38						800
39						
40						
41						
42						
43						
44						
45						1000
46						
47						
48						
49						
50						

	Comfort ¹⁾			Standard ²⁾		
	60 °C	70 °C	80 °C	60 °C	70 °C	80 °C
T >						
NL v						
51						
52						
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100						

T = Heating flow

NL = Performance figure

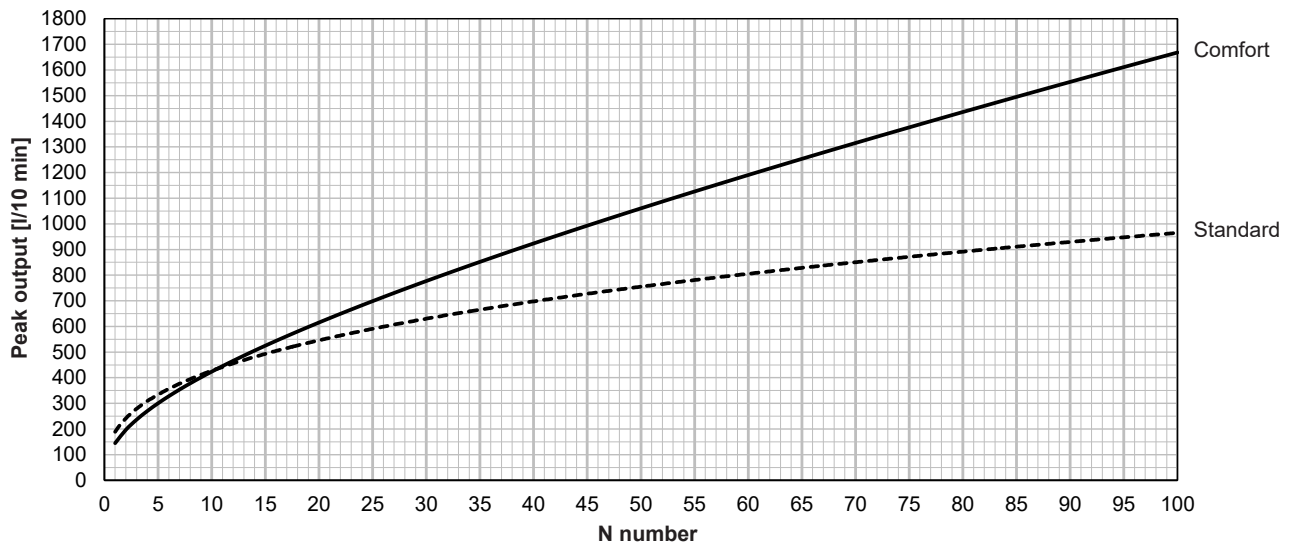
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom – 4 rooms – 3.5 persons)

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)

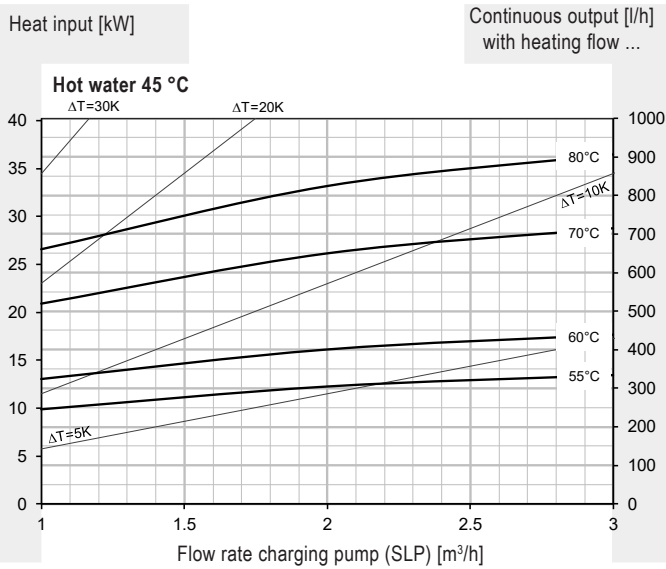
Reading example
see Engineering



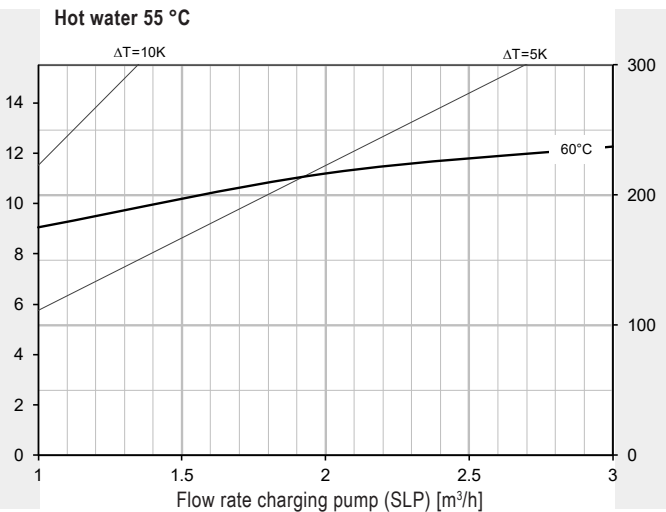
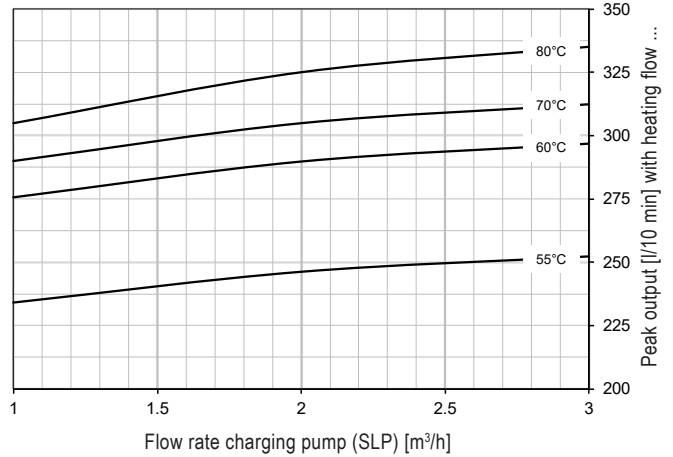
CombiVal ER (200)

Hot water output
Continuous output

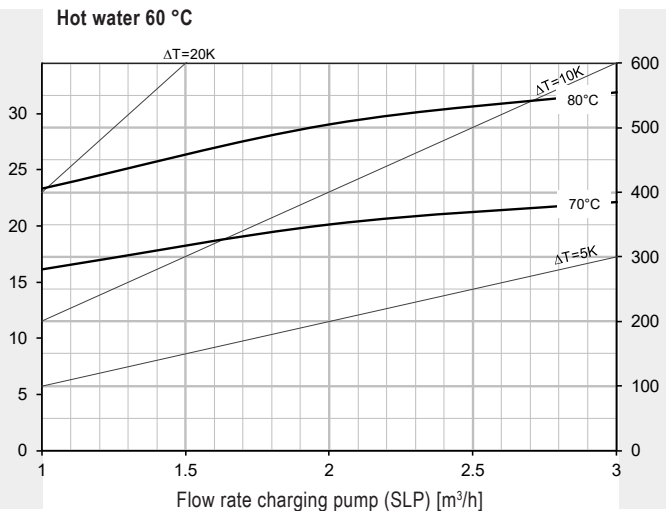
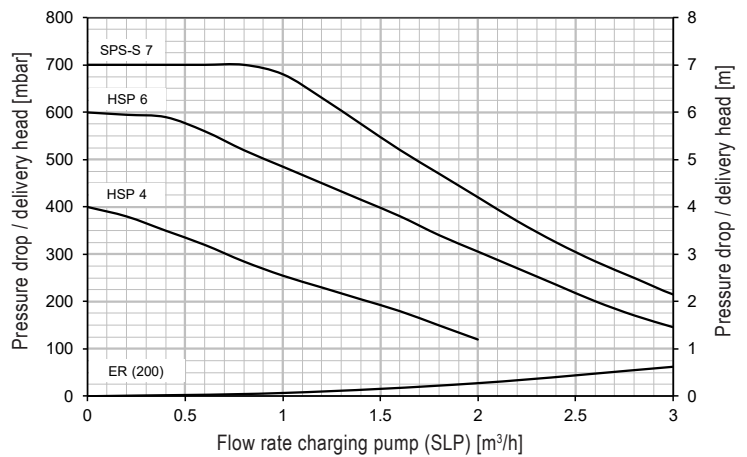
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

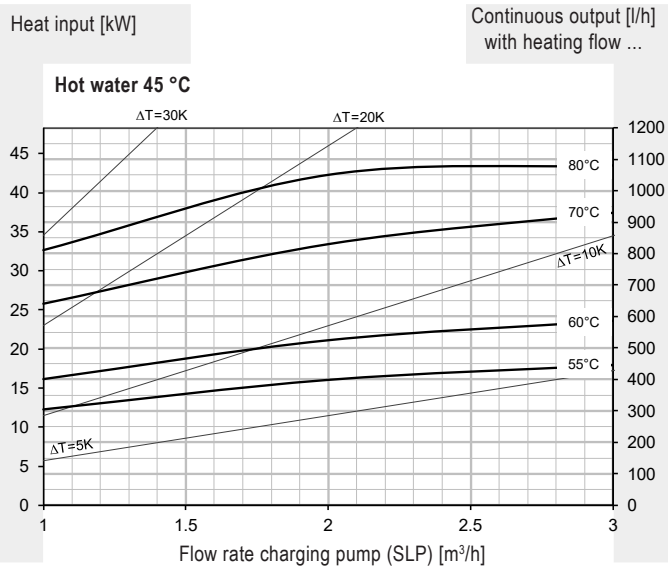


* Calorifier heated to 60 °C

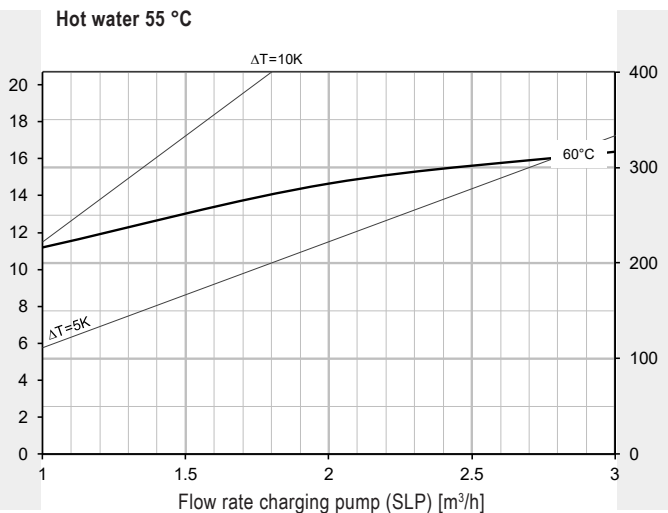
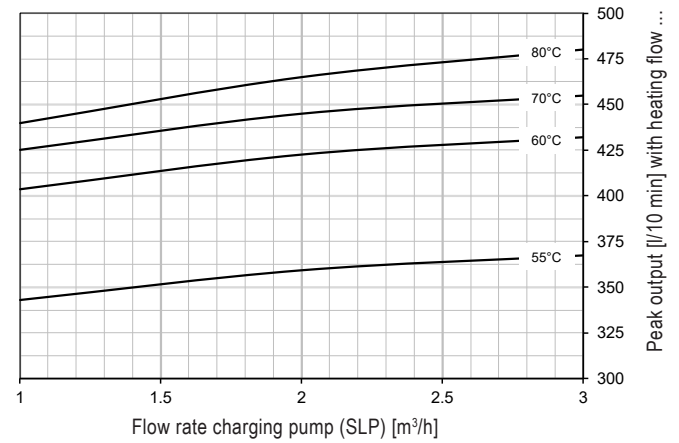
CombiVal ER (300)

Hot water output
Continuous output

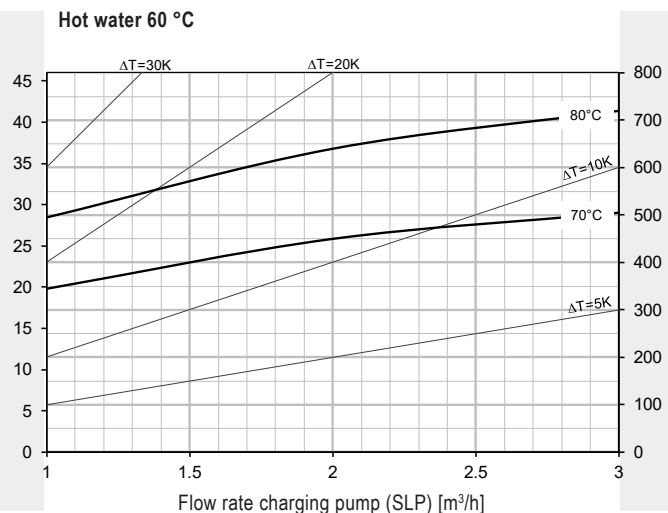
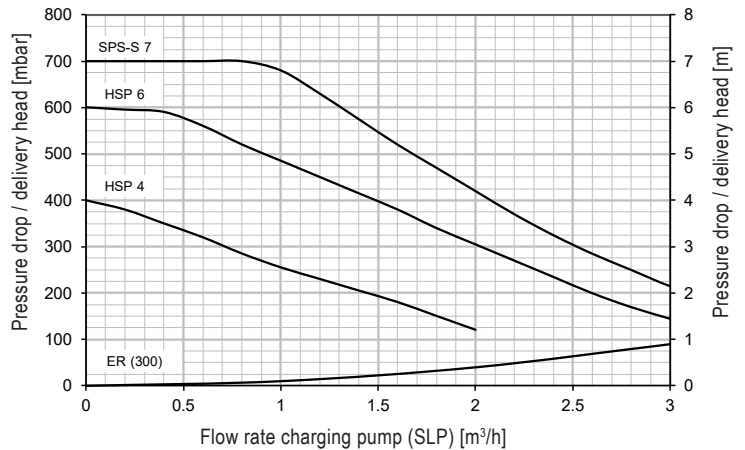
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

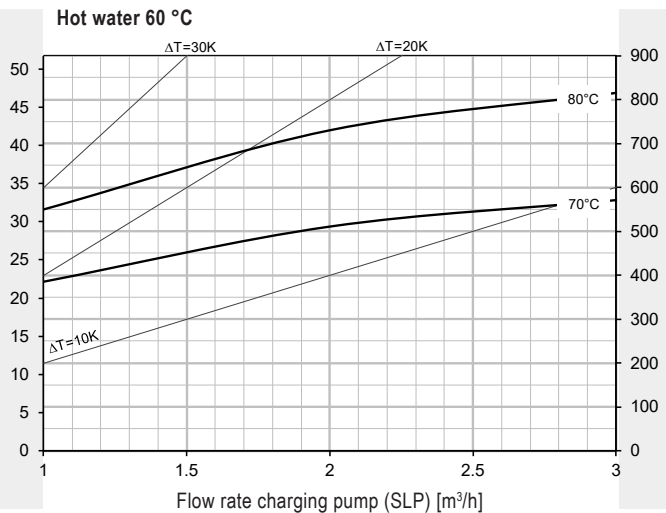
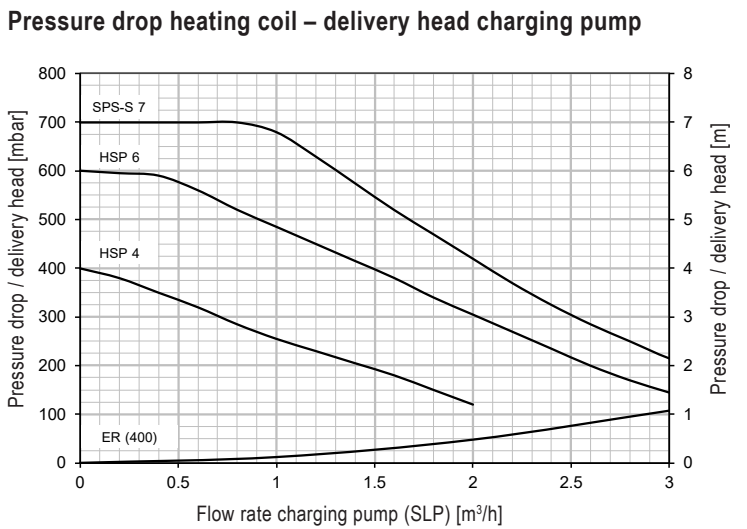
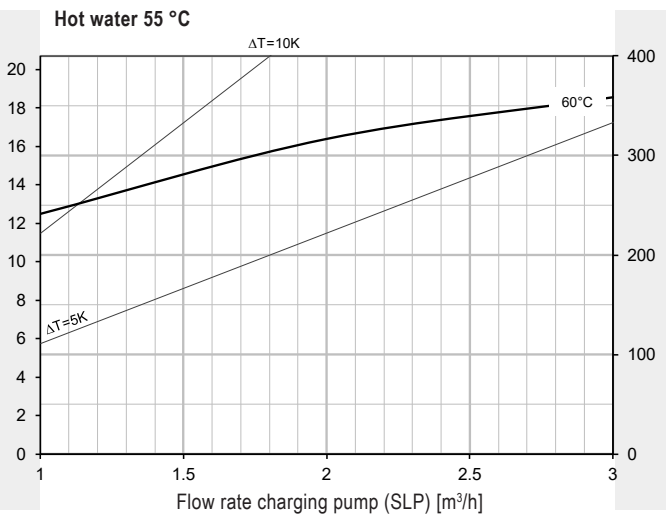
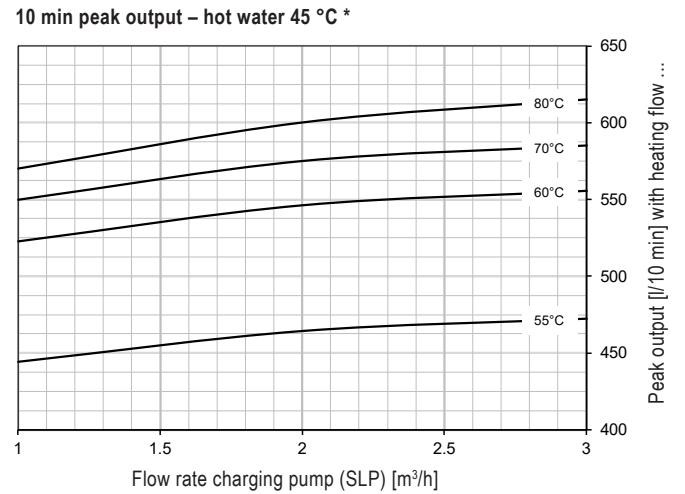
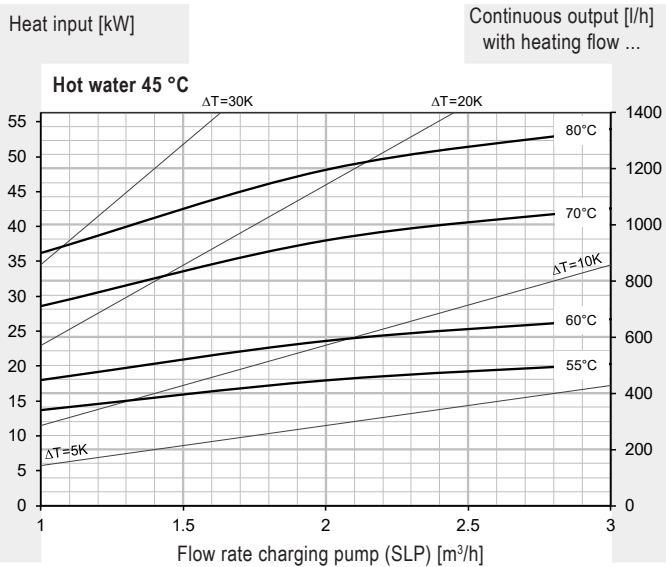


* Calorifier heated to 60 °C

CombiVal ER (400)

Hot water output
Continuous output

Reading example
see engineering

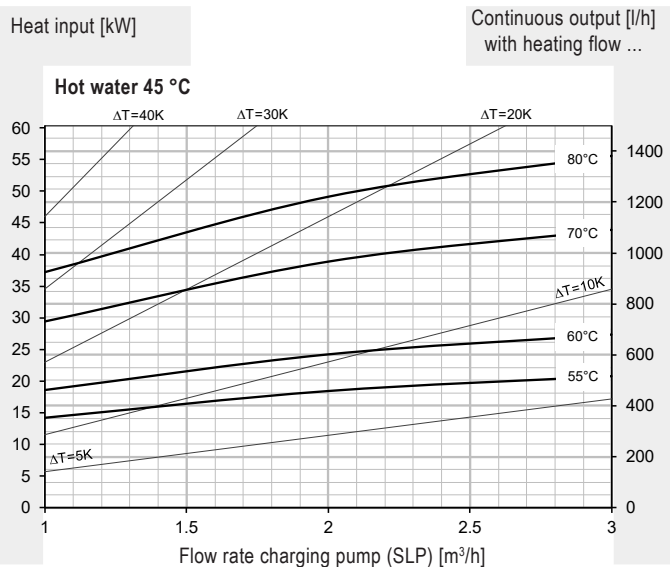


* Calorifier heated to 60 °C

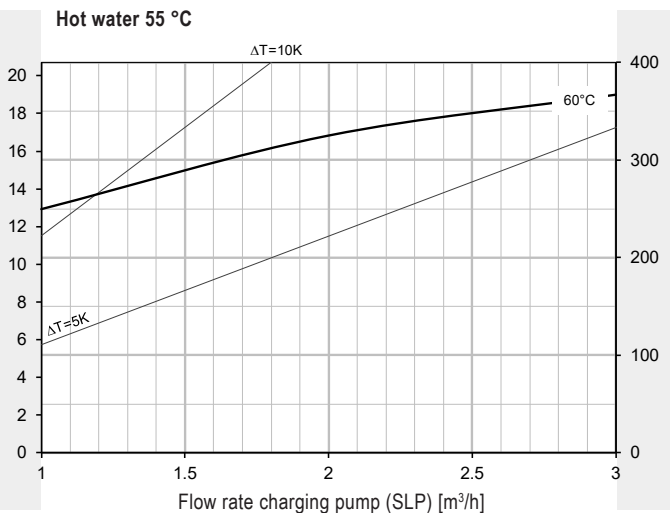
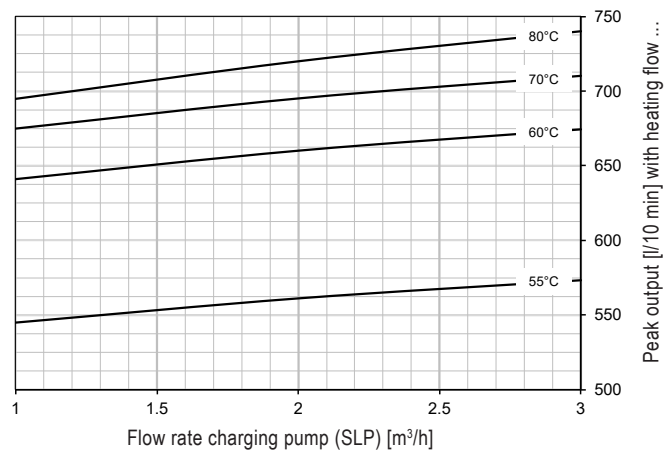
CombiVal ER (500)

Hot water output
Continuous output

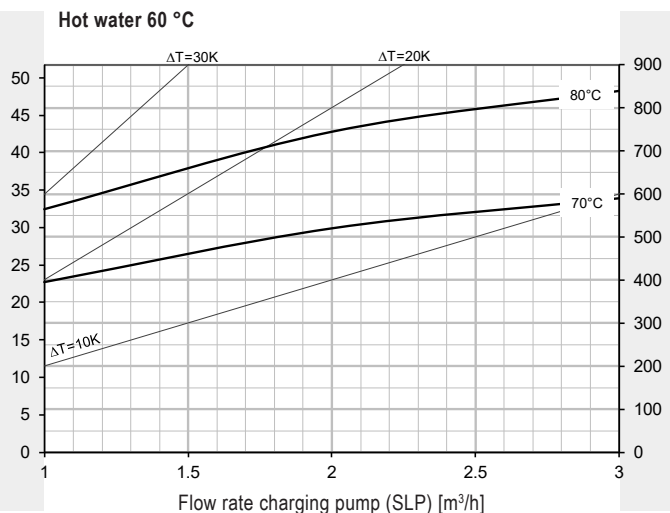
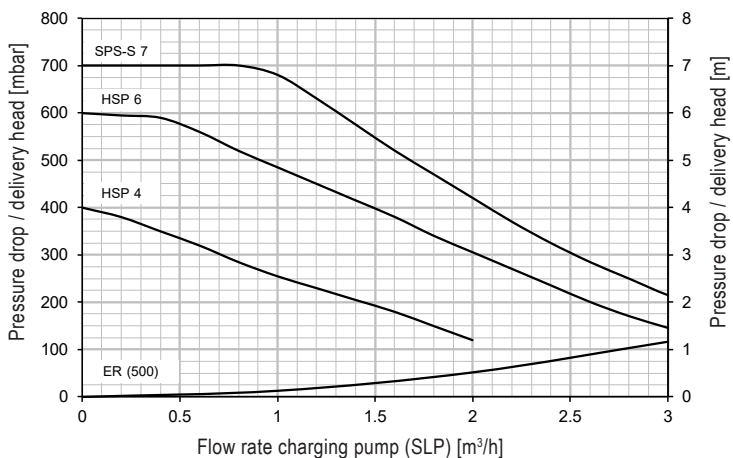
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

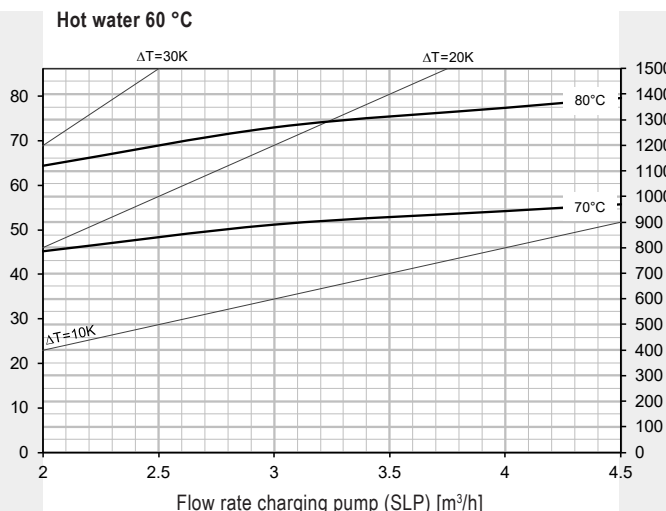
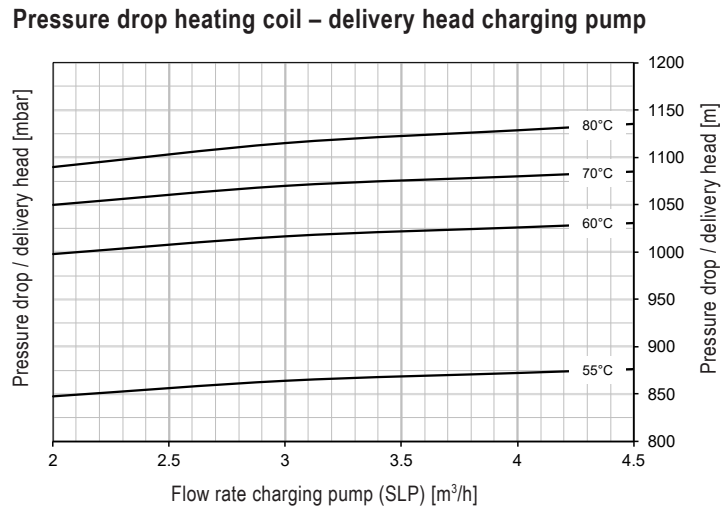
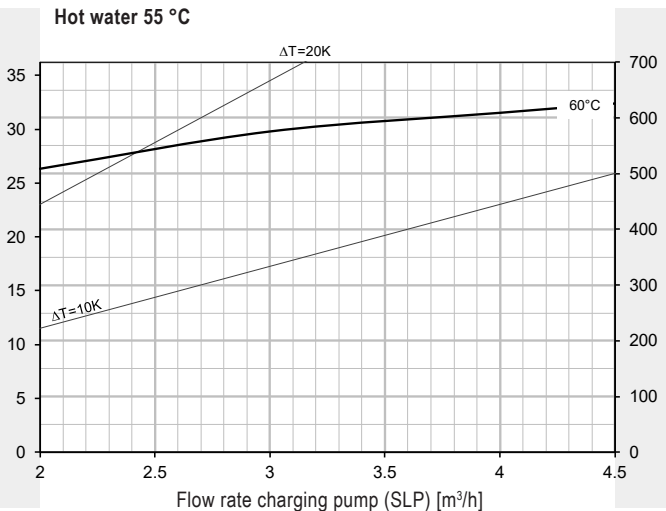
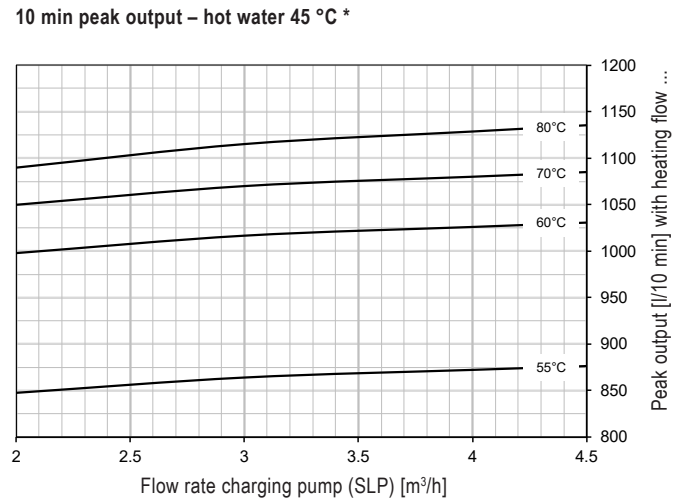
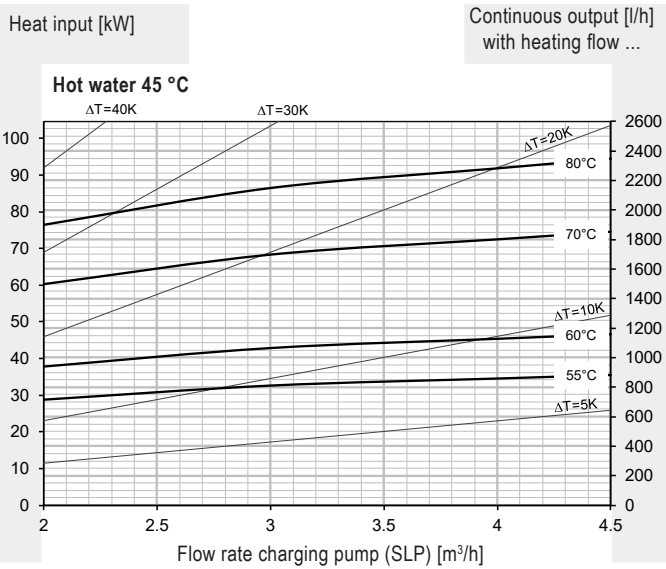


* Calorifier heated to 60 °C

CombiVal ER (800)

Hot water output
Continuous output

Reading example
see engineering

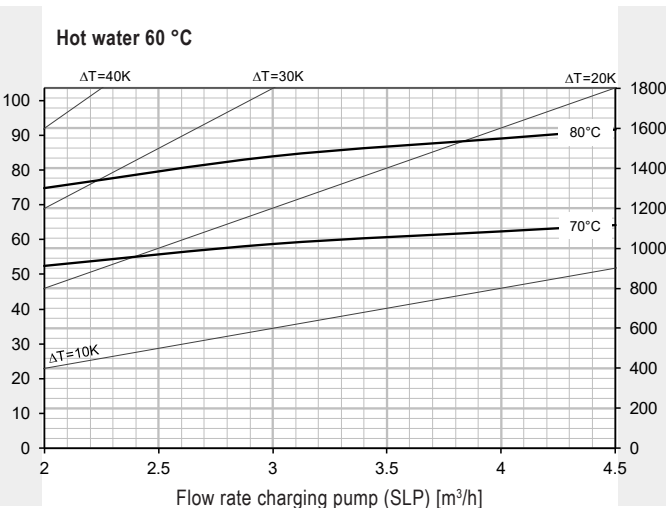
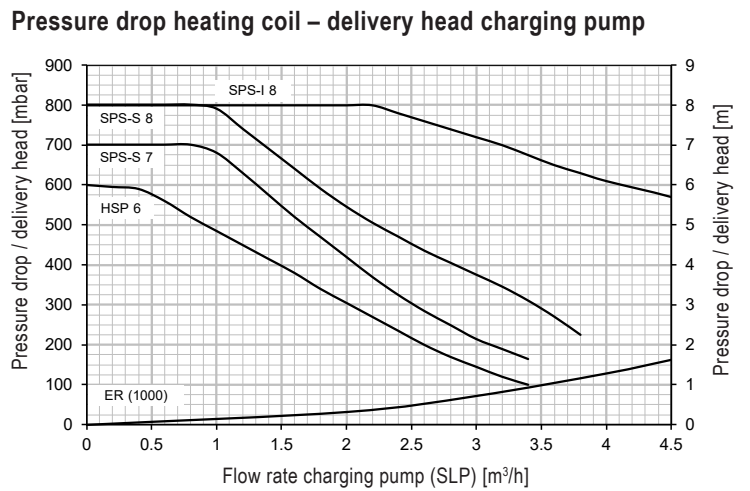
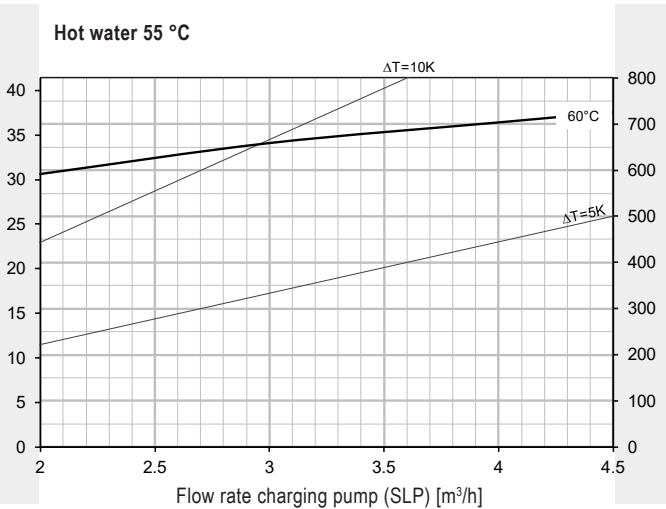
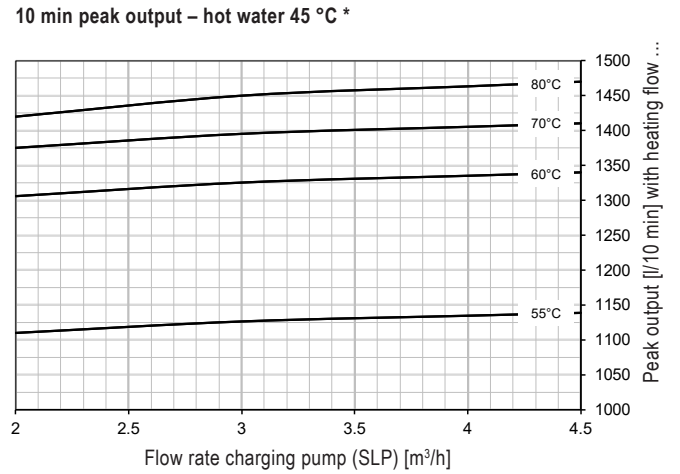
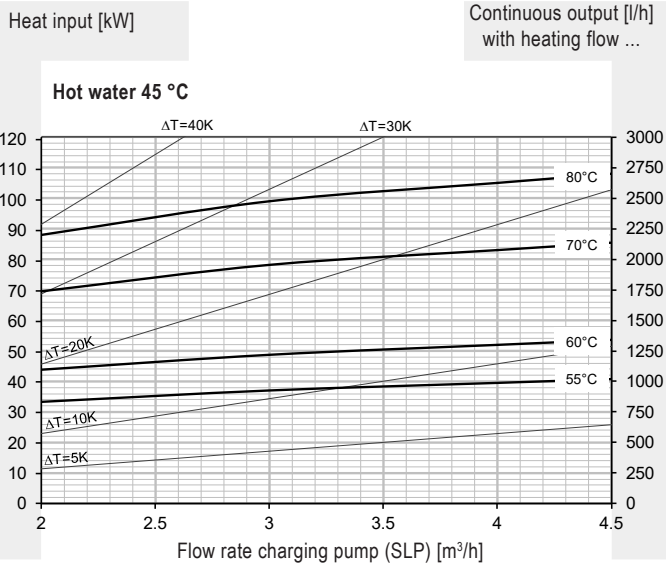


* Calorifier heated to 60 °C

CombiVal ER (1000)

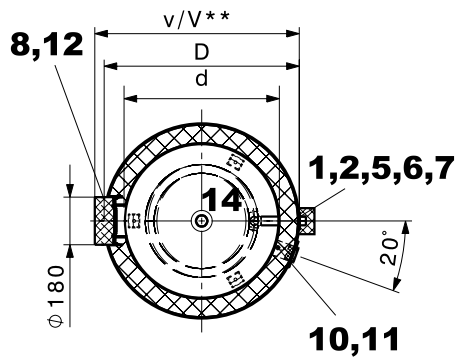
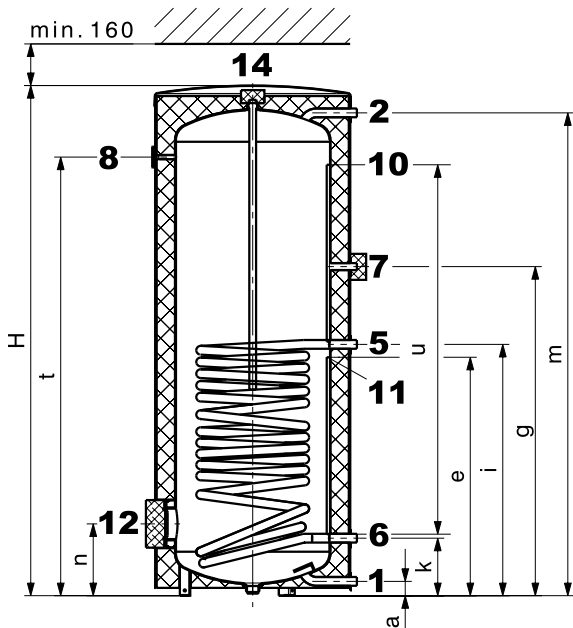
Hot water output
Continuous output

Reading example
see engineering

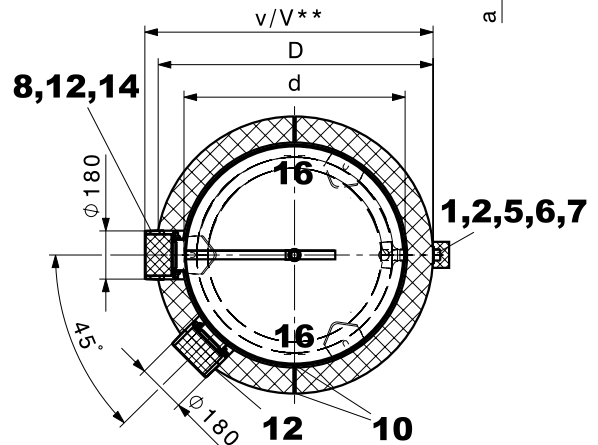
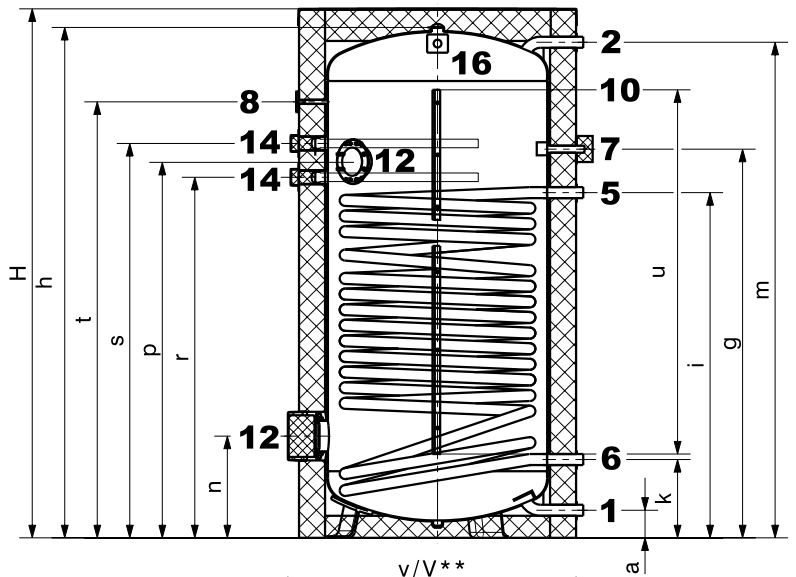


* Calorifier heated to 60 °C

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)
- 11 Removable cap (Ø 60 mm)
for positioning the sensor in the sensor channel
type (800,1000)
- 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.)
type (200-500) Rp 1" (IT)
- 14 Anode sleeve
type (800,1000) Rp 1 1/4" (IT)
- 16 Transport strap
type (800,1000)

Deviations possible as a result of manufacturing tolerances.
Dimensions ± 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 quality.
You can count on us.

Hoval is one of the leading international companies for heating and indoor climate solutions. Drawing on more than 80 years of experience and benefiting from a close-knit team culture, the Hoval Group delivers exciting solutions and develops technically superior products. This leadership role requires a sense of responsibility for energy and the environment, which is expressed in an intelligent combination of different heating technologies and customised indoor climate solutions.

Hoval also provides personal consultations and comprehensive customer service. With around 2500 employees in 15 companies around the world, Hoval sees itself not as a conglomerate, but as a large family that thinks and acts globally.

Hoval heating and indoor climate solutions are currently exported to more than 50 countries.

Responsibility for energy and environment

Your Hoval partner

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Hoval CombiVal ESR

Calorifier with large coil
for combined heating
CombiVal ESR (200-400)



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Hoval CombiVal ESR (200-400)

Calorifier with large coil
for combined heating

Description

Hoval

Hoval calorifier CombiVal ESR (200-400)

- Calorifier made of steel enamelled inside
- Large plain-tube coil enamelled, permanently installed
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismantable foil jacket, colour red
- Including thermometer
- Sensor channel

On request

- Flange-mounted electric heating element

Delivery

- Calorifier with foil jacket completely installed



Range

CombiVal
type

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

A* → F

Calorifier



CombiVal ESR (200-400)

Calorifier made of steel, enamelled inside, with permanently installed plain-tube coil.

CombiVal ESR type	Content l	Heating surface m ²
(200)	193	1.8
(300)	298	2.6
(400)	379	3.8

Authorisation number

CombiVal ESR (200-400)
SVGW test number

0503-4950

Energy efficiency class

see "Description"

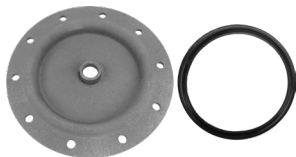
Electric heating elements

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 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 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 protection 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



**Services and associated scope of
services**
see separate catalogue "Hoval Services"

Commissioning by Hoval customer service
is a prerequisite for warranty/guarantee
activation.

CombiVal ESR (200-400)

Type		(200)	(300)	(400)
• Volume	l	193	298	379
• 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-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	l	12.2	16	34
• Flow resistance ¹⁾	z value	13	17	6
• 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 (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						
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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						
52						
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60						
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T = heating flow

NL = performance figure

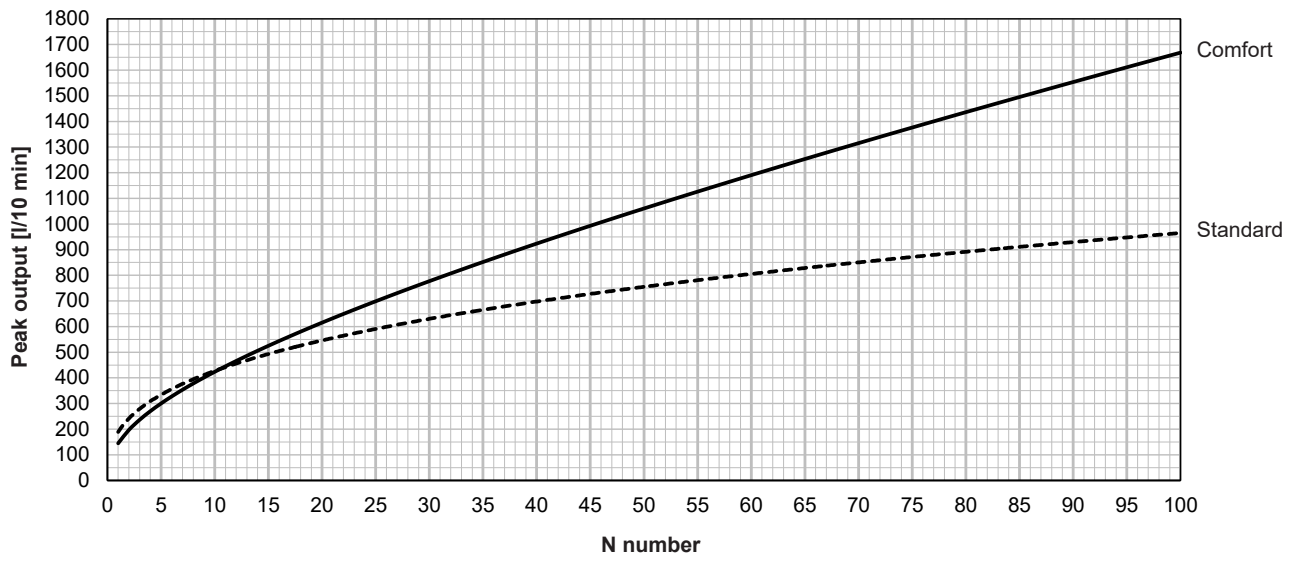
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom – 4 rooms – 3.5 persons)

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)

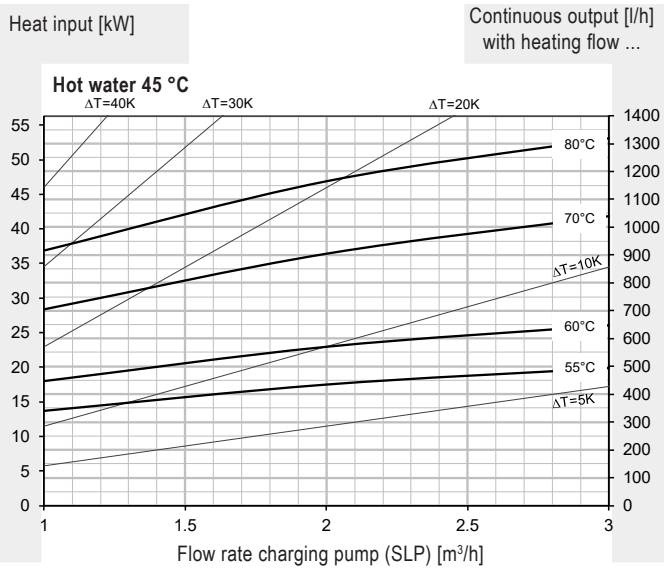
Reading example
 see Engineering



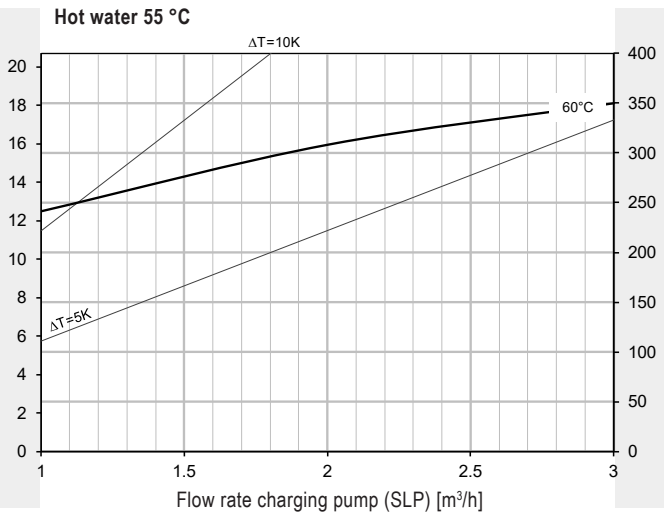
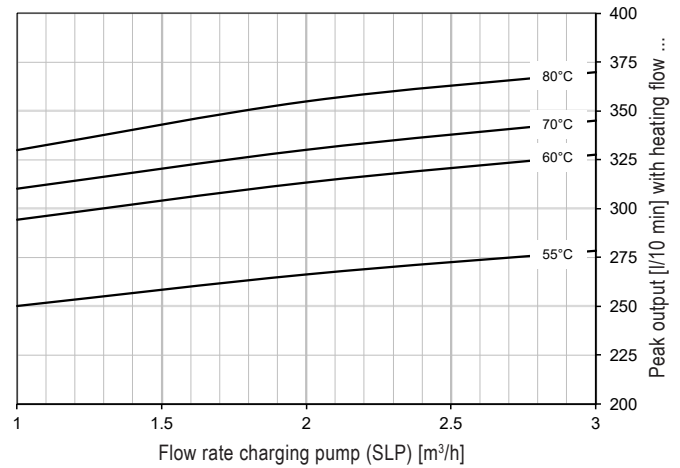
CombiVal ESR (200)

Hot water output
Continuous output

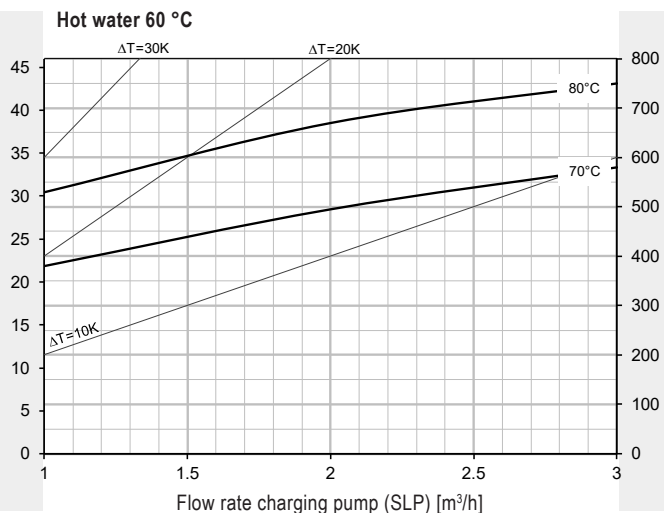
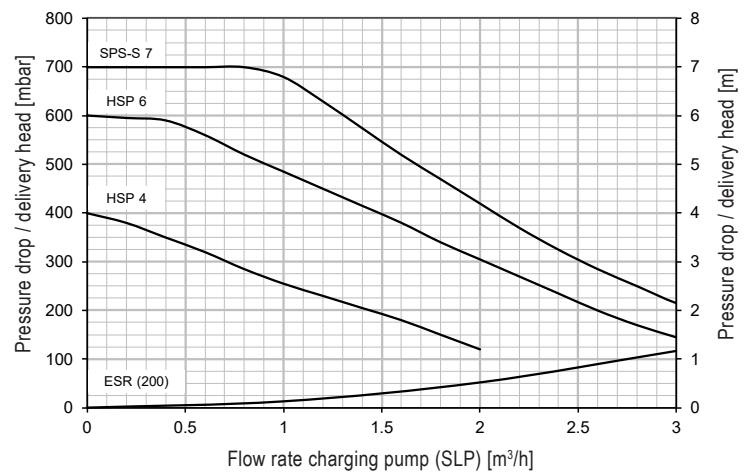
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

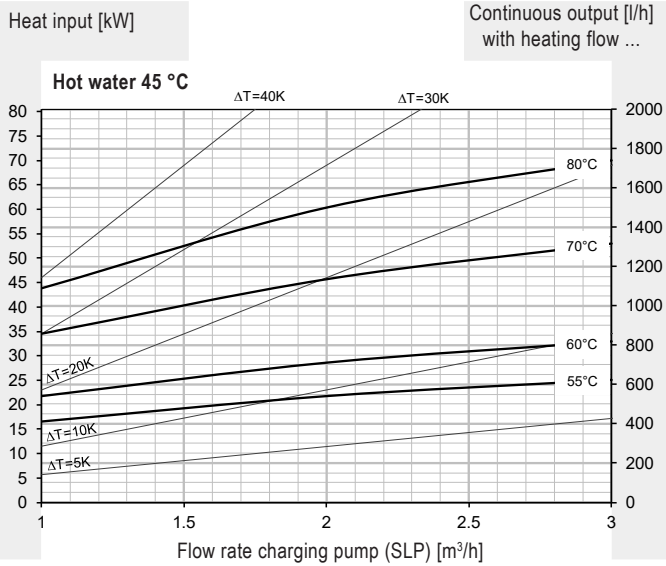


* Calorifier heated to 60 °C

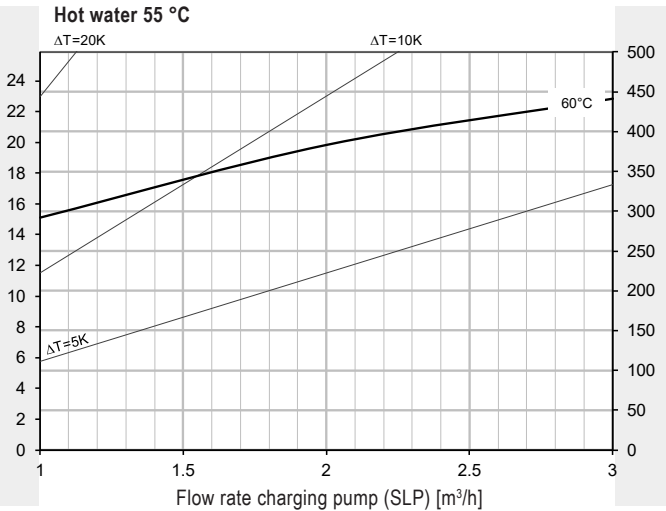
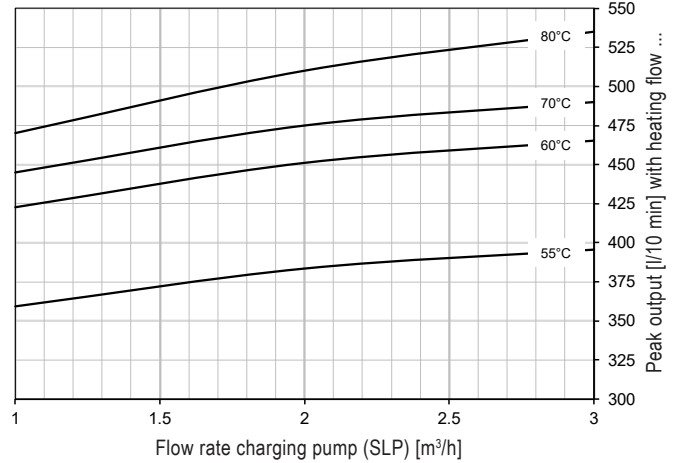
CombiVal ESR (300)

Hot water output
Continuous output

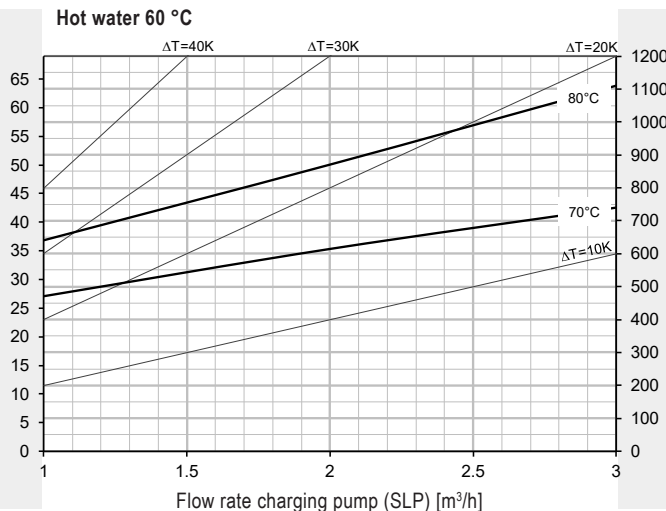
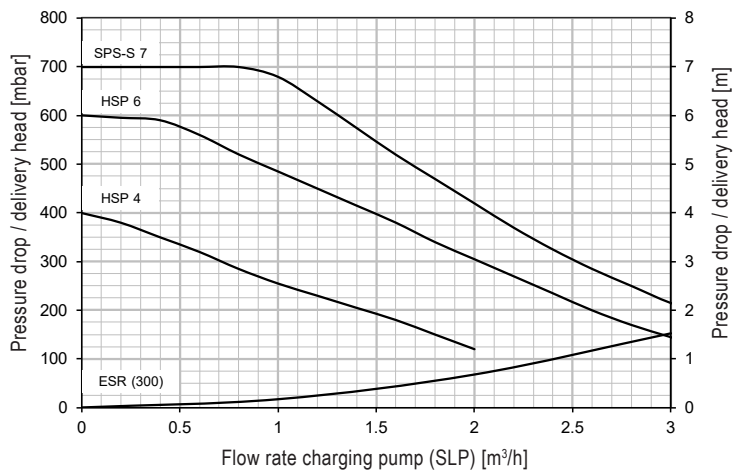
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

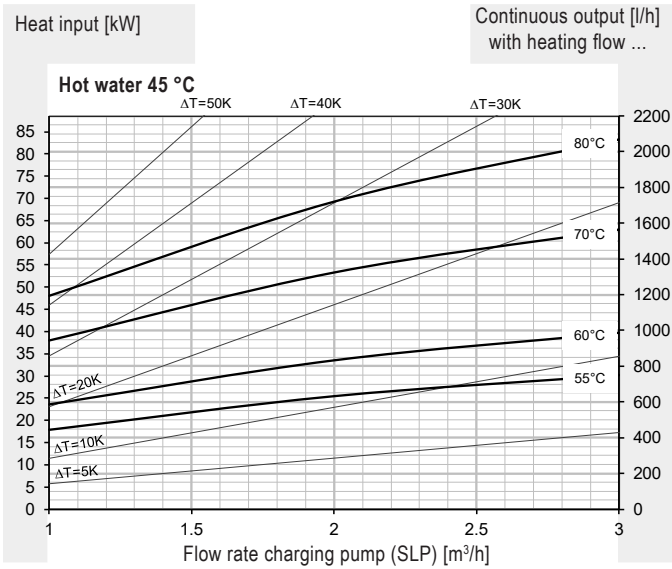


* Calorifier heated to 60 °C

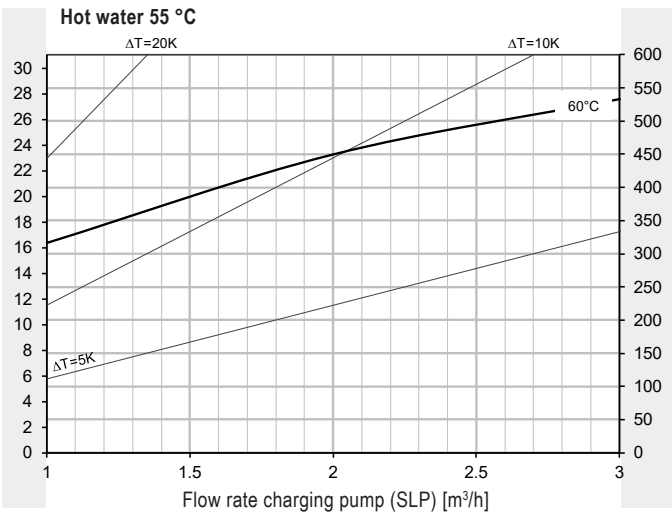
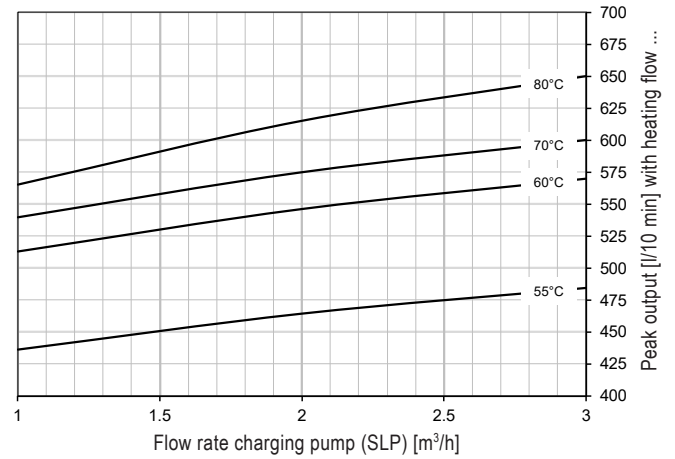
CombiVal ESR (400)

Hot water output
Continuous output

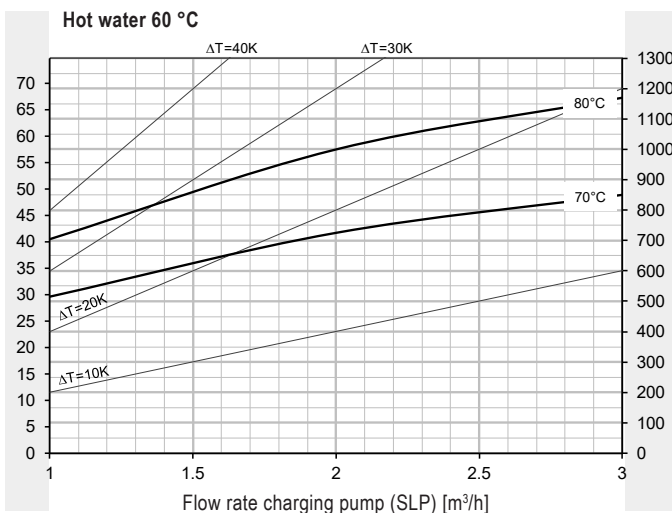
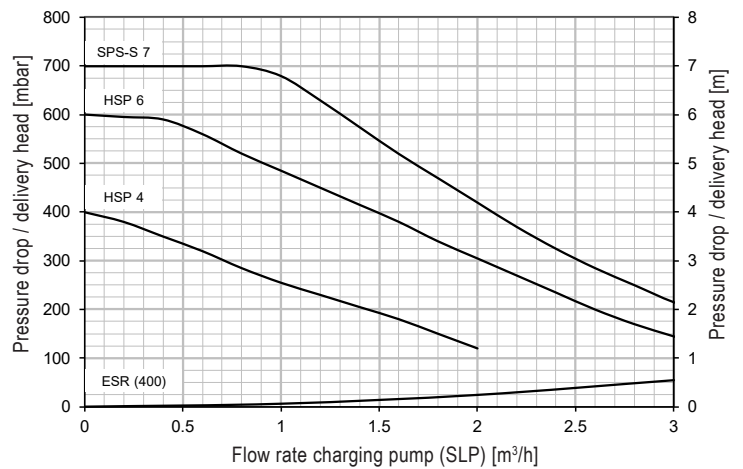
Reading example
see engineering



10 min peak output – hot water 45 °C *

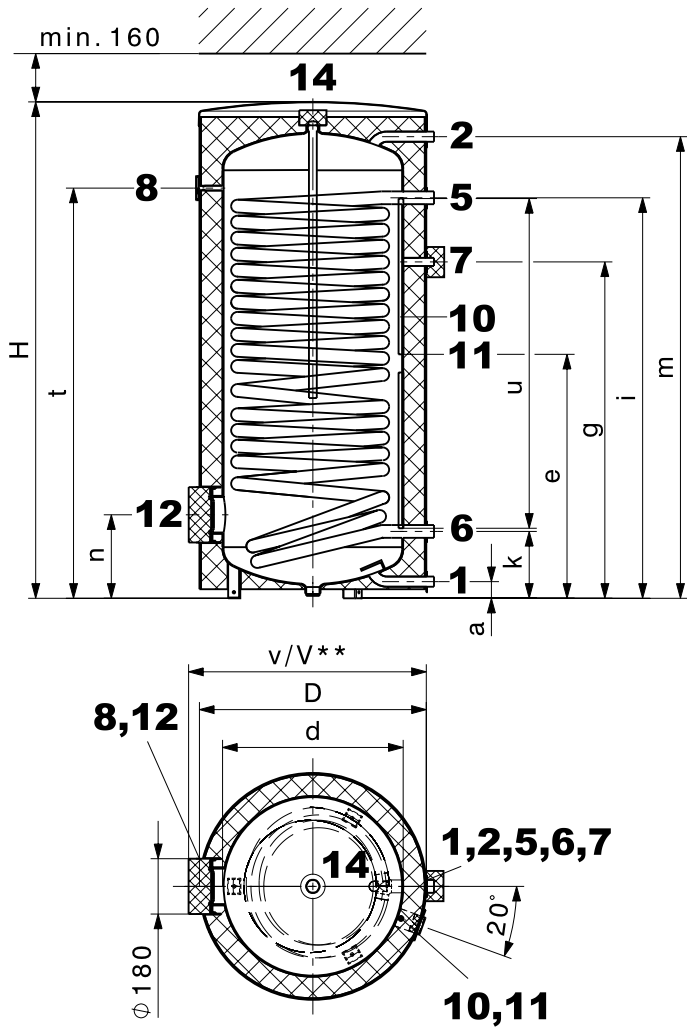


Pressure drop heating coil – delivery head charging pump



* 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) | |
| | type (400) | G 1 1/4" (ET) | |
| 7 Circulation | (removable insulated cap Ø 100 mm) | G 3/4" (ET) | |
| 8 Thermometer | | | |

Deviations possible as a result of manufacturing tolerances.
Dimensions ± 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 quality.
You can count on us.

Hoval is one of the leading international companies for heating and indoor climate solutions. Drawing on more than 80 years of experience and benefiting from a close-knit team culture, the Hoval Group delivers exciting solutions and develops technically superior products. This leadership role requires a sense of responsibility for energy and the environment, which is expressed in an intelligent combination of different heating technologies and customised indoor climate solutions.

Hoval also provides personal consultations and comprehensive customer service. With around 2500 employees in 15 companies around the world, Hoval sees itself not as a conglomerate, but as a large family that thinks and acts globally.

Hoval heating and indoor climate solutions are currently exported to more than 50 countries.

Responsibility for energy and environment

Your Hoval partner

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+423 399 24 00
hoval.com

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Hoval Ltd.
Newark Notts. NG 24 1JN
+44 1636 672 711
hoval.co.uk

Hoval CombiVal ESSR

Calorifier with special coil
for combined heating
CombiVal ESSR (500-1000)



Table of contents

■ Description	5
■ Part numbers	6
■ Technical data	8
■ Dimensions	14

**Hoval calorifier
 CombiVal ESSR (500)**

- Calorifier made of steel enamelled inside
- Plain-tube coil, with large heating surface, enamelled, permanently installed
- Magnesium protection anode built in
- Flange for electric heating element
- Thermal insulation made of polyurethane hard foam foamed on the calorifier
- Dismantable foil jacket, colour red
- Sensor channel
- Including thermometer

On request

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

Delivery

- Calorifier with foil jacket completely installed

**Hoval calorifier
 CombiVal ESSR (800,1000)**

- Calorifier made of steel, enamelled inside
- Plain-tube coil, with large heating surface, enamelled, permanently installed
- 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 dummy 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
- 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)	

A* → F

Calorifier



CombiVal ESSR (500-1000)

Calorifier made of steel enamelled inside.
With built-in, enamelled plain-tube coil.

CombiVal ESSR type	Content l	Heating surface m ²
(500)	465	5.90
(800)	733	7.00
(1000)	961	9.15

Authorisation number

CombiVal ESSR (500-1000)
SVGW test number 0503-4950

Energy efficiency class

see "Description"

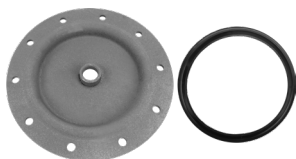
Electric heating elements

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 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 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 protection 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



**Services and associated scope of
services**
see separate catalogue "Hoval Services"

Commissioning by Hoval customer service
is a prerequisite for warranty/guarantee
activation.

CombiVal ESSR (500-1000)

Type		(500)	(800)	(1000)
• Volume	l	465	733	961
• 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 foam, foamed onto calorifier	mm	75	-	-
• Thermal insulation polyester fleece	mm	-	100	100
• Thermal insulation λ	W/mK	0.027	0.027	0.027
• 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	l	41	49.4	64.6
• Flow resistance ¹⁾	z value	10	11	14
• 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 (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						
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31						
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34						
35						
36				1000	500	
37						
38		800				
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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						
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56						
57						800
58			1000			
59						
60						
61						
62						
63					1000	
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T = heating flow

NL = performance figure

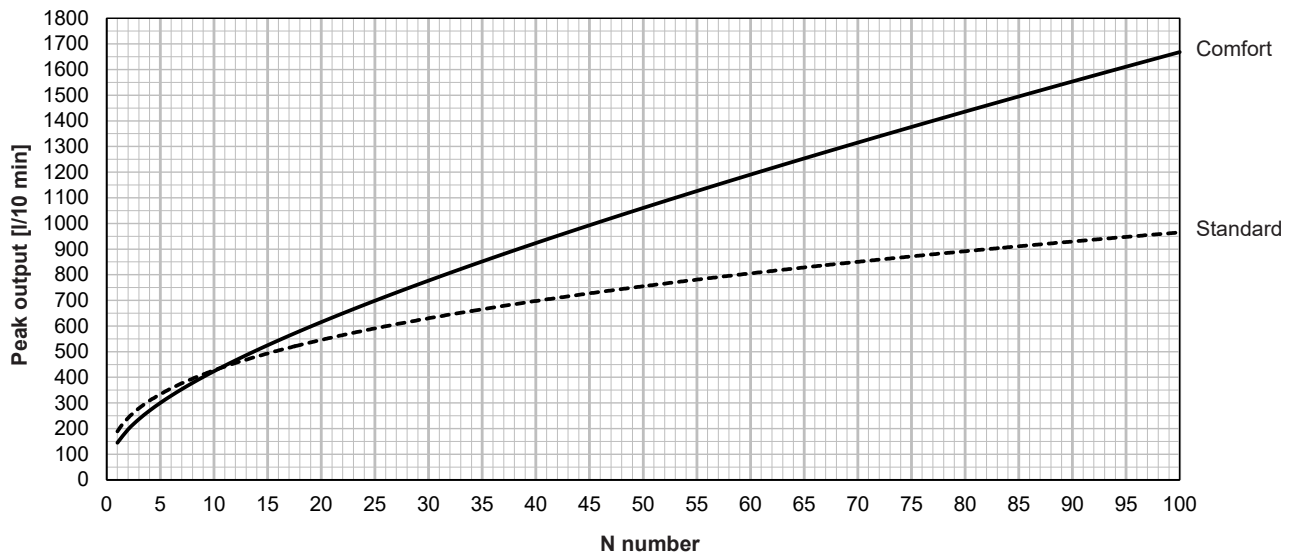
Performance figure NL acc. to DIN 4708 = number of flats which can be supplied with domestic hot water when the calorifier is heated and permanently reheated with the heat generator (standard flat: 1 bathroom – 4 rooms – 3.5 persons)

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)

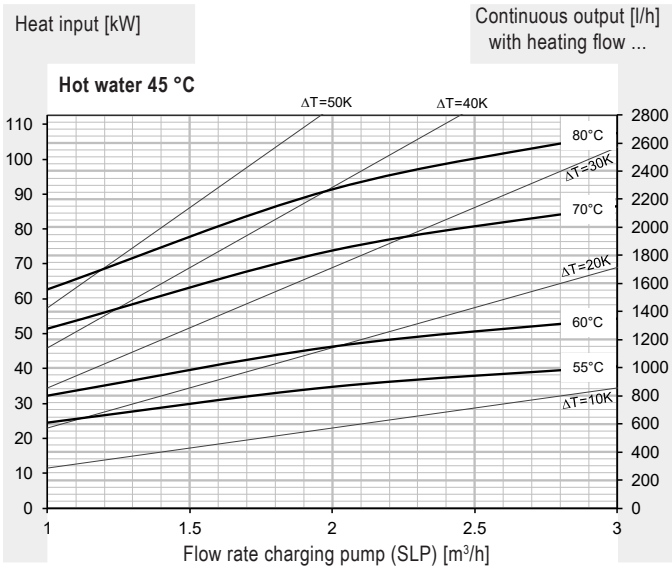
Reading example
 see Engineering



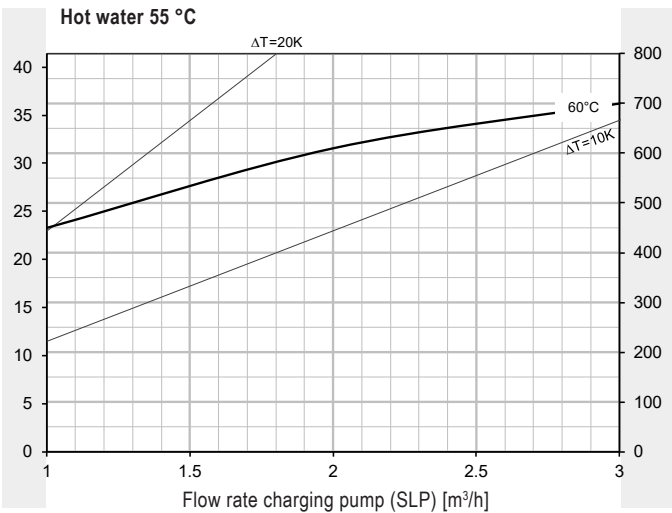
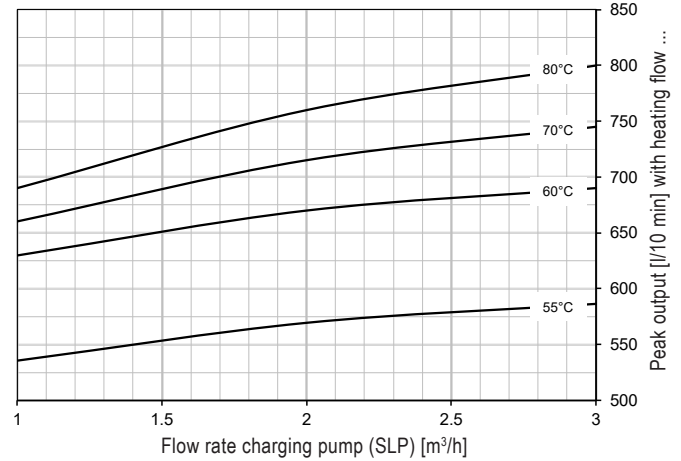
CombiVal ESSR (500)

Hot water output
Continuous output

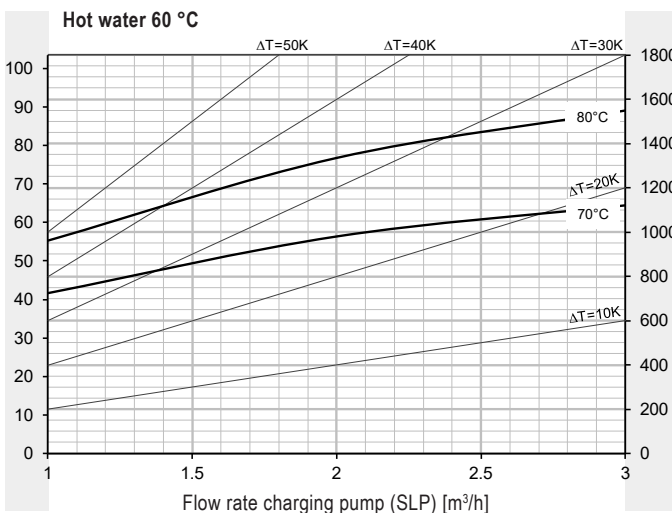
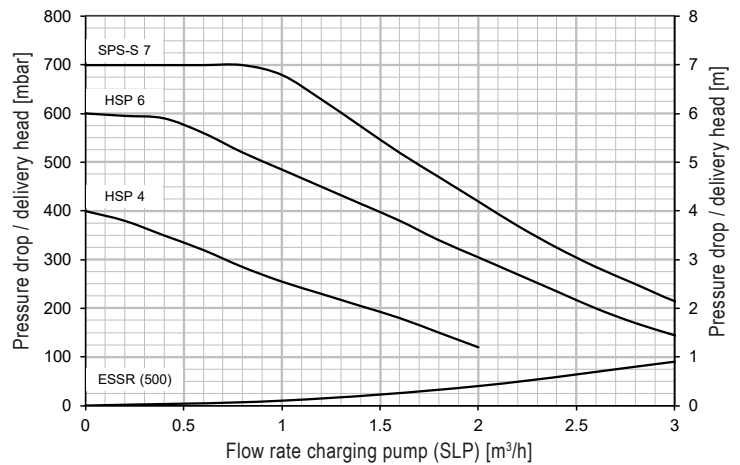
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

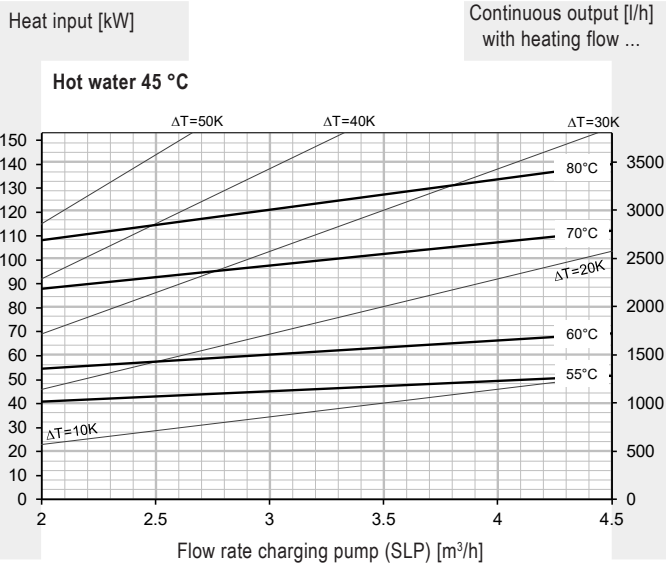


* Calorifier heated to 60 °C

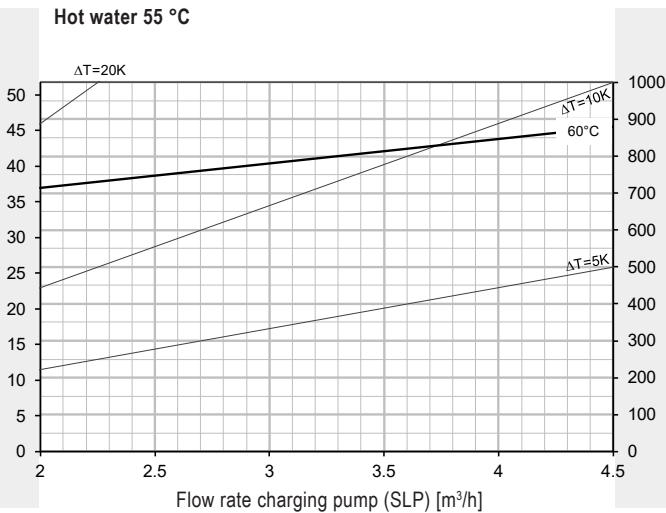
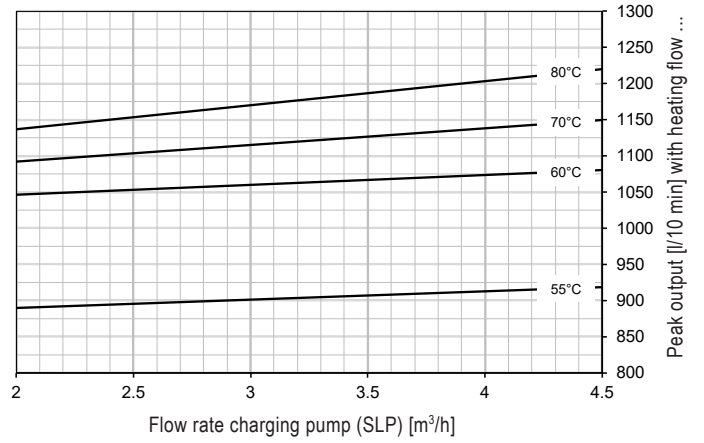
CombiVal ESSR (800)

Hot water output
Continuous output

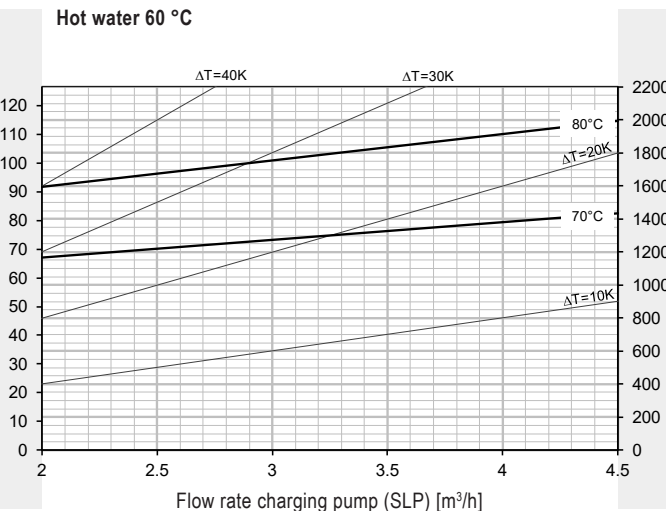
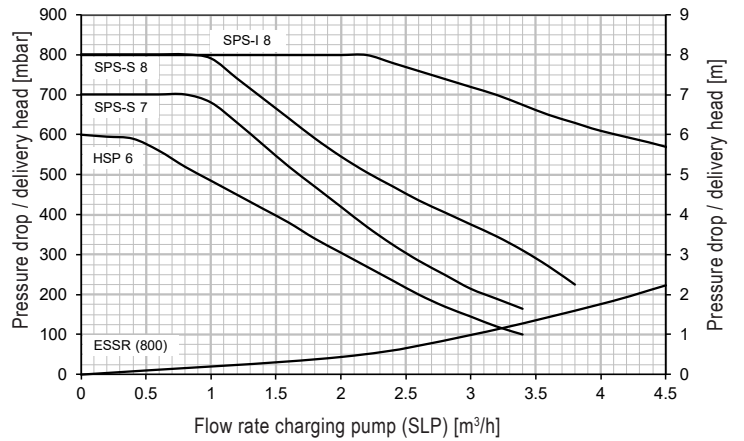
Reading example
see engineering



10 min peak output – hot water 45 °C *



Pressure drop heating coil – delivery head charging pump

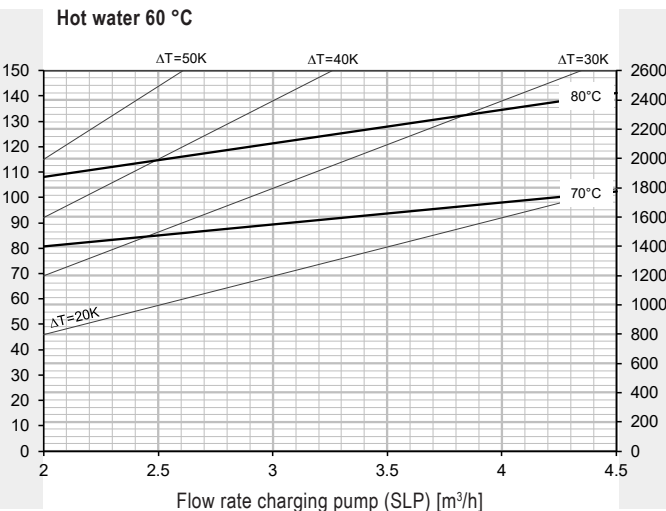
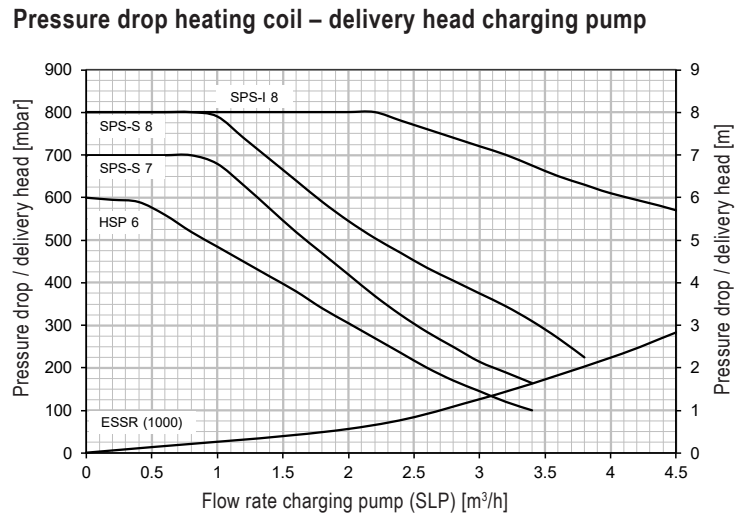
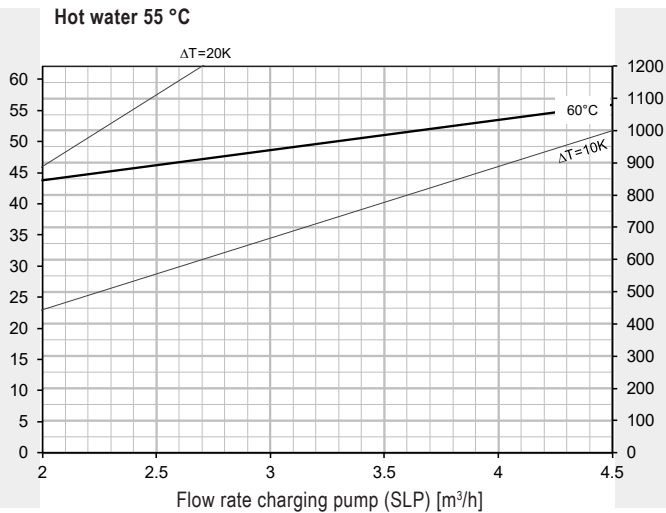
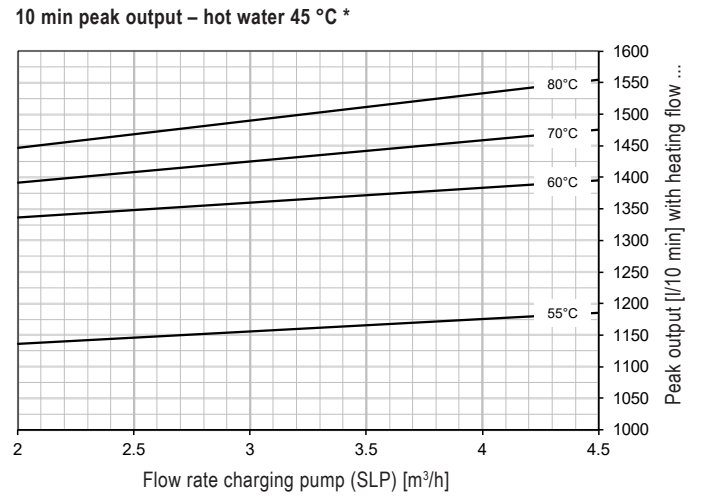
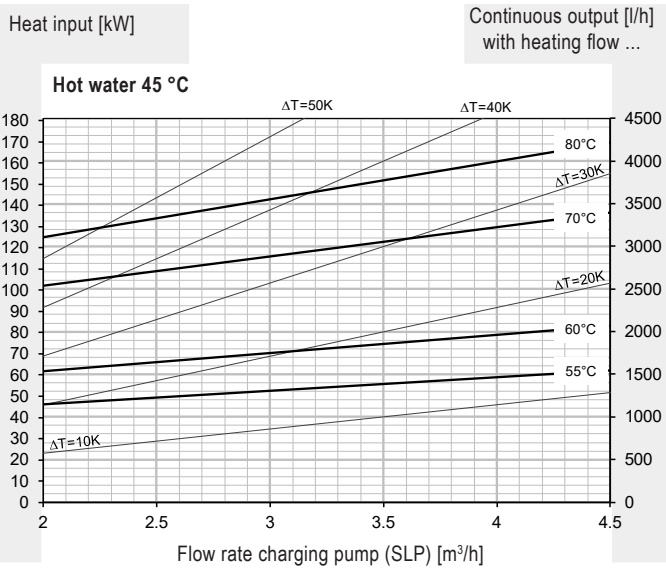


* Calorifier heated to 60 °C

CombiVal ESSR (1000)

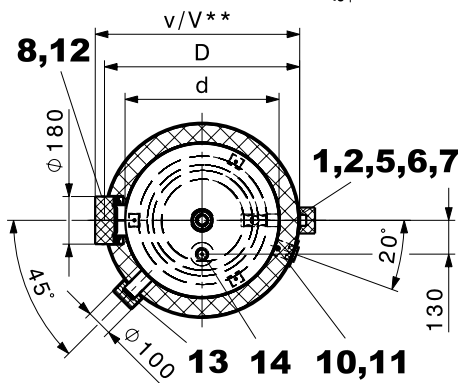
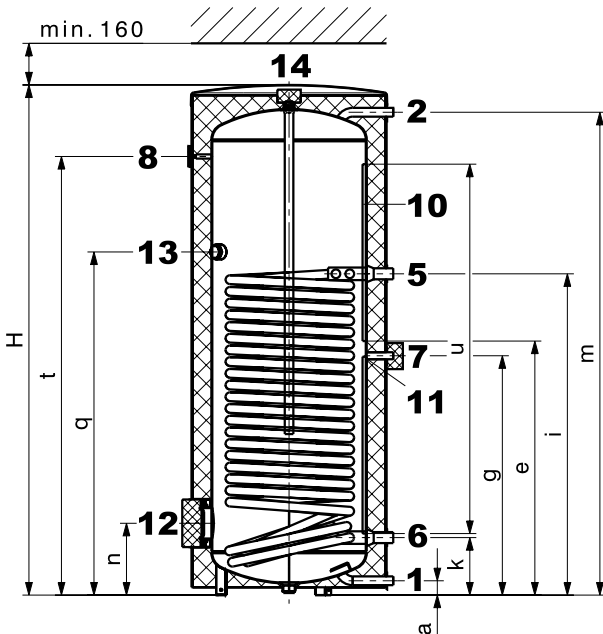
Hot water output
Continuous output

Reading example
see engineering

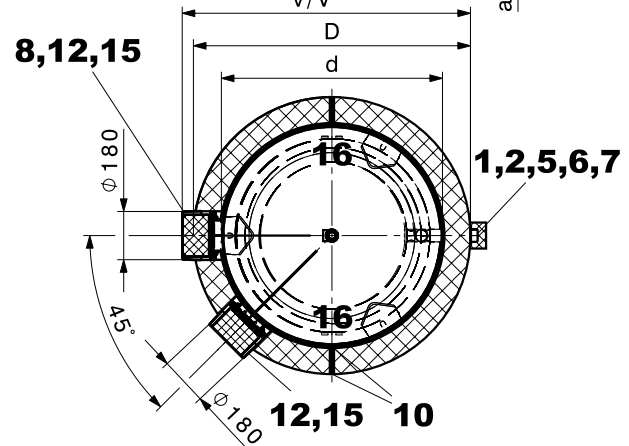
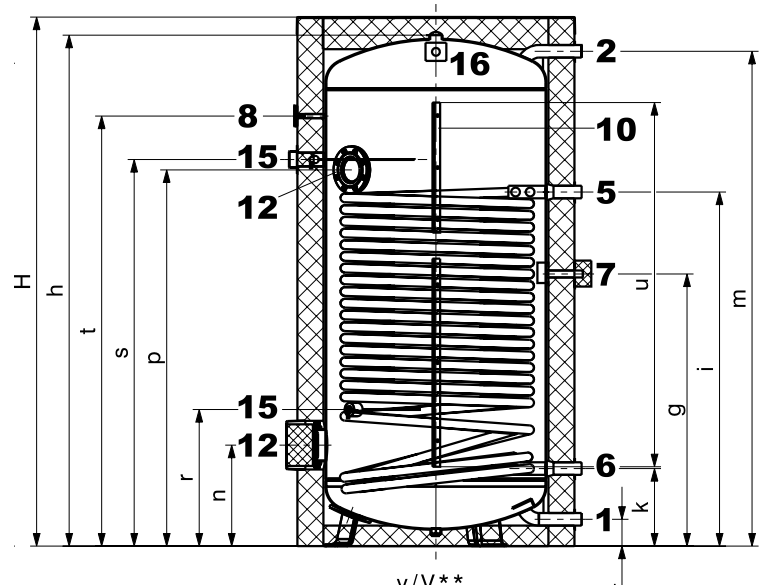


* Calorifier heated to 60 °C

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)
- 15 Correx® impressed current anode sleeve type (800,1000) Rp ¾" (IT)
- 16 Transport strap type (800,1000)

Deviations possible as a result of manufacturing tolerances.
Dimensions ± 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 quality.
You can count on us.

Hoval is one of the leading international companies for heating and indoor climate solutions. Drawing on more than 80 years of experience and benefiting from a close-knit team culture, the Hoval Group delivers exciting solutions and develops technically superior products. This leadership role requires a sense of responsibility for energy and the environment, which is expressed in an intelligent combination of different heating technologies and customised indoor climate solutions.

Hoval also provides personal consultations and comprehensive customer service. With around 2500 employees in 15 companies around the world, Hoval sees itself not as a conglomerate, but as a large family that thinks and acts globally.

Hoval heating and indoor climate solutions are currently exported to more than 50 countries.

Responsibility for energy and environment

Your Hoval partner

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