

Hoval Modul-plus calorifier

- Calorifier made of stainless steel
- Heating water casing made of steel
- Heat exchanger made of modular elements made of steel for hot water output up to 10,000 l/h at 60 °C and heating output from 60 - 720 kW
- Thermal insulation
 - inner polyurethane rigid foam shells
 - middle mineral wool mats (hard), 50 mm
 - External panelling incl. floor with mineral wool mats (soft), 50 mm
 - with EPP hoods on the front
- Casing made of sheet steel, red powder-coated
- Counter flanges, seals and screws on site
- *Normal model:* opening for cleaning at the front side
Special model: openings for cleaning at the front and back side

On request

- Charging pump
- Divided version

Delivery

- Calorifier and casing are delivered separately

Control panel with thermostats

Type EK 107-90

- For installation into the casing of the Modul-plus
- Incl. thermometer 0-150 °C
- Incl. temperature control from 30-90 °C
- Operating temperature max. 90 °C

Type EK 108-110

- For installation in the casing at the Modul-plus
- Incl. thermometer 0-150 °C
- Incl. temperature control 30-90 °C
- Temperature limiter STB 110 °C
- Operating temperature max. 110 °C



Range

Modul-plus

F (21)

F (31)

F (41)

F (51)

F (32)

F (42)

F (52)

F (21) S

F (31) S

F (41) S

F (51) S

F (32) S

F (42) S

F (52) S

FH (21) S

FH (31) S

FH (41) S

FH (51) S

FH (32) S

FH (42) S

FH (52) S

F (21) SM

F (31) SM

F (41) SM

F (51) SM

F (32) SM

F (42) SM

F (52) SM

FH (21) SM

FH (31) SM

FH (41) SM

FH (51) SM

FH (32) SM

FH (42) SM

FH (52) SM

FH (21) SX

FH (31) SX

FH (41) SX

FH (51) SX

FH (32) SX

FH (42) SX

FH (52) SX

F = Standard version with up to 30 mg/l chloride content

F..S = Special version with up to 100 mg/l chloride content

FH..S = Special version max. DHW max. 10 bar Heating max. 8 bar up to 100 mg/l chloride content

F..SM = Special version with magnesium anode up to 200 mg/l chloride content

FH..SM = Special higher-pressure version DHW max. 10 bar Heating max. 8 bar with magnesium anode up to 200 mg/l chloride content

FH..SX = Special higher-pressure version DHW max. 10 bar Heating max. 8 bar with Correx® anode up to 300 mg/l chloride content

Calorifier



Modul-plus

High output calorifier made of stainless steel with heating water casing made of steel.

Delivery

Calorifier and casing delivered separately packed.

Type:

Operating pressure hot water 6 bar, Heating 5 bar.

For domestic water up to max. 30 mg/l chloride content. Opening for cleaning in front.

Modul-plus Type	Height mm	kW ¹	Flats ²	Heating surface m ²
F (21)	1615	76.5	10	2.84
		115.5	18	
F (31)	1615	113.9	18	4.26
		148.5	25	
		187.2	35	
F (41)	1800	136.3	24	5.68
		213.6	43	
		250.2	53	
F(51)	2160	199.4	40	7.10
		268.6	59	
		321.5	74	
F (32)	1615	227.9	49	8.52
		297.0	69	
		329.6	79	
		374.4	93	
F (42)	1800	272.6	64	11.36
		354.0	89	
		427.3	114	
F (52)	2160	398.8	107	14.20
		537.2	157	
		634.8	195	

¹ kW = power input at 45/10 °C, flow temperature at 80 °C

² See technical data for more specific information.

Part No.

7014 740

7014 741

7014 742

7014 743

7014 744

7014 745

7014 746

On-site welding

Same model as above, that means

- operating pressure hot water 6 bar
 - heating 5 bar
for domestic water up to max. 30 mg/l chloride content
 - opening for cleaning in front
- but as welding on site (delivered in parts: module elements, base rail and casing)

The chloride content of the filling and replacement water for the heating system must be < 30 mg/l, otherwise it must be desalinated.

Calorifier



Modul-plus

Special edition:

**Operating pressure hot water 6 bar,
Heating 5 bar.**

**For domestic water up to max. 100 mg/l
chloride content. Opening for cleaning
in front and at the back.**

Modul-plus Type	Height mm	kW ¹	Flats ²	Heating surface m ²
F (21) S	1615	76.5 115.5	10 18	2.84
F (31) S	1615	113.9 148.5 187.2	18 25 35	4.26
F (41) S	1800	136.3 213.6 250.2	24 43 43	5.68
F(51) S	2160	199.4 268.6 321.5	40 59 74	7.10
F (32) S	1615	227.9 297.0 329.6 374.4	49 69 79 93	8.52
F (42) S	1800	272.6 354.0 427.3	64 89 114	11.36
F (52) S	2160	398.8 537.2 634.8	107 157 195	14.20

¹ kW = power input at 45/10 °C,
flow temperature 80 °C

² See technical data for more
specific information

Special model for high-rise buildings:

**operating pressure hot water 10 bar,
heating 8 bar.**

**For domestic water up to max. 100 mg/l
chloride content. Opening for cleaning
in front and at the back.**

Modul-plus Type	Height mm	Heating surface m ²
FH (21) S	1615	2.84
FH (31) S	1615	4.26
FH (41) S	1800	5.68
FH (51) S	2160	7.10
FH (32) S	1615	8.52
FH (42) S	1800	11.36
FH (52) S	2160	14.20

The chloride content of the filling and replacement water for the heating system must be < 100 mg/l, otherwise it must be desalinated.

Part No.

7014 747

7014 749

7014 751

7014 753

7014 755

7014 757

7014 759

7014 748

7014 750

7014 752

7014 754

7014 756

7014 758

7014 769

Calorifier


Modul-plus
Special edition:
Operating pressure hot water 6 bar.
Heating 5 bar.
For domestic water up to max. 200 mg/l chloride content. Opening for cleaning in front and at the back. Butt-welded with magnesium anode.

Modul-plus Type	Height mm	kW ¹	NL index ²	Heating surface m ²
F (21) SM	1615	76.5	10	2.84
		115.5	18	
F (31) SM	1615	113.9	18	4.26
		148.5	25	
		187.2	35	
F (41) SM	1800	136.3	24	5.68
		213.6	43	
		250.2	43	
F (51) SM	2160	199.4	40	7.10
		268.6	59	
		321.5	74	
F (32) SM	1615	227.9	49	8.52
		297.0	69	
		329.6	79	
		374.4	93	
F (42) SM	1800	272.6	64	11.36
		354.0	89	
		427.3	114	
F (52) SM	2160	398.8	107	14.20
		537.2	157	
		634.8	195	

¹ kW = power input at 45/10 °C, flow temperature 80 °C

² See technical data for more specific information

Special model for high-rise buildings:
operating pressure hot water 10 bar,
heating 8 bar.
For domestic water up to max. 200 mg/l chloride content. Opening for cleaning in front and at the back. Butt-welded with magnesium anode.

Modul-plus Type	Height mm	Heating surface m ²
FH (21) SM	1615	2.84
FH (31) SM	1615	4.26
FH (41) SM	1800	5.68
FH (51) SM	2160	7.10
FH (32) SM	1615	8.52
FH (42) SM	1800	11.36
FH (52) SM	2160	14.20

Part No.

7014 770

7014 771

7014 772

7014 773

7014 774

7014 775

7014 776

7014 777

7014 778

7014 779

7014 780

7014 781

7014 782

7014 783

Calorifier


Modul-plus
Special edition:
Operating pressure hot water 10 bar.
Heating 8 bar.
For domestic water up to max. 300 mg/l chloride content. Opening for cleaning in front and at the back. Butt-welded with Correx® anode.

Modul-plus Type	Height mm	NL index ²		Heating surface m ²
FH (21) SX	1615	76.5	10	2.84
		115.5	18	
FH (31) SX	1615	113.9	18	4.26
		148.5	25	
		187.2	35	
FH (41) SX	1800	136.3	24	5.68
		213.6	43	
		250.2	43	
FH (51) SX	2160	199.4	40	7.10
		268.6	59	
		321.5	74	
FH (32) SX	1615	227.9	49	8.52
		297.0	69	
		329.6	79	
		374.4	93	
FH (42) SX	1800	272.6	64	11.36
		354.0	89	
		427.3	114	
FH (52) SX	2160	398.8	107	14.20
		537.2	157	
		634.8	195	

¹ kW = power input at 45/10 °C, flow temperature 80 °C

² See technical data for more specific information

Part No.

7014 784

7014 785

7014 786

7014 787

7014 788

7014 789

7014 790

Accessories



Electrical box EK 107/90
for Modul-plus
Casing with removable front,
made of sheet steel,
red powder-coated.
With thermometer 0-150 °C and
temperature controller 30-90 °C.
Operating temperature heating 90 °C.

6042 308



Electrical box EK 108/110
for Modul-plus
Casing with removable front,
made of sheet steel,
red powder-coated.
With thermometer 0-150 °C and
temperature controller 30-90 °C.
Temperature limiter STB 110 °C.
Operating temperature heating 110 °C.

6042 309



Cover with thermometer
for Modul-plus
for covering if no
electrical box is used,
with thermometer.
Powder-coated sheet steel
Colour: red

6041 091



Blind cover
for Modul-plus
for covering if no
electrical box is used.
Powder-coated sheet steel
Colour: red

6025 189

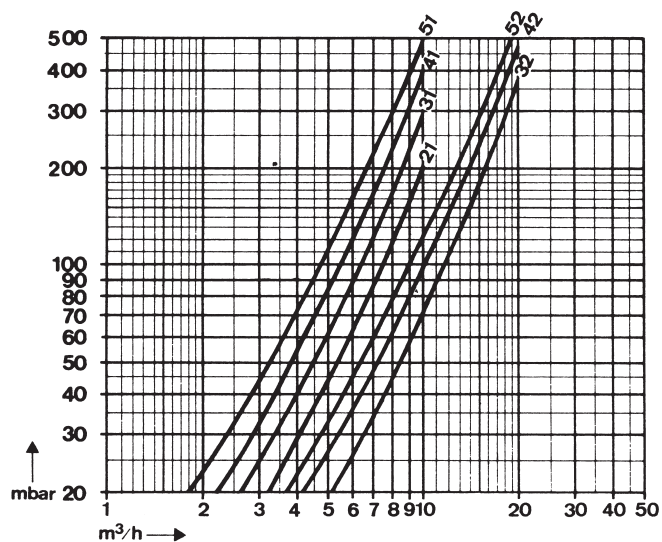
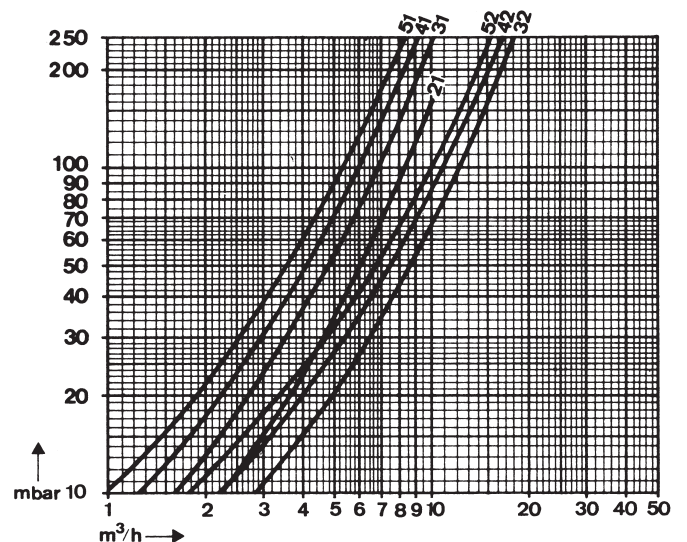
Modul-plus F (21-52), FH (21-52) and F (21-52) S

Type		(21)	(31)	(41)	(51)	(32)	(42)	(52)
• Module numbers		2	3	4	5	6	8	10
Calorifier								
• Content	litres	249	367	485	603	721	957	1193
• Heating surface	m ²	2.84	4.26	5.68	7.1	8.52	11.36	14.2
• Max. hot water temperature	°C	95	95	95	95	95	95	95
• Flow resistance ¹⁾	z value	1.4	2.4	3	3.6	0.74	0.9	1.1
• Heat loss at 65 °C	W	164	188	212	236	417	444	497
• Operating pressure	normal type ²⁾	bar	6	6	6	6	6	6
	type high-rise building ³⁾	bar	10	10	10	10	10	10
• Test pressure	normal type ²⁾	bar	12	12	12	12	12	12
	type high-rise building ³⁾	bar	16	16	16	16	16	16
• Weight without casing	normal type ²⁾	kg	165	215	265	315	470	570
	type high-rise building ³⁾	kg	205	275	345	415	630	770
• Weight casing	kg	104	104	115	140	121	135	160
Heating								
• Heating water content	litres	30	45	60	75	90	120	150
• Max. heating water temperature	°C	110	110	110	110	110	110	110
• Flow resistance ¹⁾	z value	2	2.8	3.6	4.7	0.78	1	1.4
• Operating pressure	normal type ²⁾	bar	5	5	5	5	5	5
	type high-rise building ³⁾	bar	8	8	8	8	8	8
• Test pressure	normal type ²⁾	bar	8	8	8	8	8	8
	type high-rise building ³⁾	bar	12.8	12.8	12.8	12.8	12.8	12.8

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

²⁾ Normal version: F (21-52), F (21-52) S, F(21-52) SM

³⁾ High-pressure version: FH (21-52) S, FH (21-52) SM, FH (21-52) SX

Flow resistance heating

Flow resistance hot water


Hot water output at 70 °C heating flow temperature**Heating flow connected on the top of the calorifier (crosscurrent)**

Modul-plus Type	No. of modules	Volume dm ³	Heating surface m ²			Charging pump Type	mWC ²⁾	Hot water output			kW ⁵⁾	Flats ⁶⁾
								dm ³ /10 min. ³⁾	dm ³ /h ⁴⁾	dm ³ /h ⁴⁾		
				m ³ /h	mbar ¹⁾			45 °C	60 °C	45 °C		
F (21) ⁷⁾	2	230	2.84	3.5	25	SPS-I 8	6.2	434	640	1520	61.8	7
				8	120	SPS-I 12	6.5	488	960	2110	86.2	11
F (31) ⁷⁾	3	345	4.26	4	40	SPS-I 8	5.7	575	700	2100	85.4	12
				7	120	SPS-I 12	7.7	600	900	2800	113.9	18
				12	450	Yonos Maxo plus 40/12	4.5	635	1200	3600	146.5	25
F (41) ⁷⁾	4	460	5.68	4	55	SPS-I 8	5.5	814	1100	2700	109.8	18
				8	240	SPS-I 12	5.3	900	1700	4100	166.8	31
				10.5	440	Yonos Maxo plus 40/12	5.5	942	2000	4850	197.3	39
F (51) ⁷⁾	5	575	7.10	4	75	SPS-I 8	5.3	1028	1250	3750	152.6	29
				8	300	SPS-I 12	4.7	1137	1900	5200	211.6	44
				12	720	Yonos Maxo plus 50/16	7.5	1221	2400	6300	256.3	56
F (32) ⁷⁾	6	690	8.52	8	45	SPS-I 12	7.2	1151	1400	4200	170.9	34
				14	165	Yonos Maxo plus 40/12	6.2	1200	1800	5600	227.9	49
				18	300	Yonos Maxo plus 50/12	4.0	1234	2100	6200	252.3	56
				24	530	Yonos Maxo plus 65/16	7.5	1271	2400	7200	293.0	67
F (42) ⁷⁾	8	920	11.36	8	62	SPS-I 12	6.7	1628	2200	5400	219.7	49
				12	150	Yonos Maxo plus 40/12	7.4	1714	2800	6700	272.6	64
				16	260	Yonos Maxo plus 40/12	4.5	1800	3400	8200	333.7	83
F (52) ⁷⁾	10	1150	14.20	8	82	SPS-I 12	6.9	2057	2500	7500	305.2	77
				16	340	Yonos Maxo plus 40/12	3.7	2274	3800	10400	423.2	116
				21	610	Yonos Maxo plus 50/16	4.9	2391	4500	11800	480.2	136

Hot water output at 80 °C heating flow temperature**Heating flow connected on the top of the calorifier (crosscurrent)**

Modul-plus Type	No. of modules	Volume dm ³	Heating surface m ²			Charging pump Type	mWC ²⁾	Hot water output			kW ⁵⁾	Flats ⁶⁾
								dm ³ /10 min. ³⁾	dm ³ /h ⁴⁾	dm ³ /h ⁴⁾		
				m ³ /h	mbar ¹⁾			45 °C	60 °C	45 °C		
F (21) ⁷⁾	2	230	2.84	3.5	25	SPS-I 8	6.2	478	900	1880	76.5	10
				8	120	SPS-I 12	6.5	542	1300	2840	115.5	18
F (31) ⁷⁾	3	345	4.26	4	40	SPS-I 8	5.7	652	1350	2800	113.9	18
				7	120	SPS-I 12	7.7	706	1800	3650	148.5	25
				12	450	Yonos Maxo plus 40/12	4.5	778	2400	4600	187.2	35
F (41) ⁷⁾	4	460	5.68	4	55	SPS-I 8	5.5	907	1750	3350	136.3	24
				8	240	SPS-I 12	5.3	1042	2700	5250	213.6	43
				10.5	440	Yonos Maxo plus 40/12	5.5	1113	3200	6150	250.2	53
F (51) ⁷⁾	5	575	7.10	4	75	SPS-I 8	5.3	1187	2200	4900	199.4	40
				8	300	SPS-I 12	4.7	1356	3200	6600	268.6	59
				12	720	Yonos Maxo plus 50/16	7.5	1477	3950	7900	321.5	74
F (32) ⁷⁾	6	690	8.52	8	45	SPS-I 12	7.2	1305	2700	5600	227.9	49
				14	165	Yonos Maxo plus 40/12	6.2	1413	3600	7300	297.0	69
				18	300	Yonos Maxo plus 50/12	4.0	1485	4200	8100	329.6	79
				24	530	Yonos Maxo plus 65/16	7.5	1556	4800	9200	374.4	93
F (42) ⁷⁾	8	920	11.36	8	62	SPS-I 12	6.7	1814	3500	6700	272.6	64
				12	150	Yonos Maxo plus 40/12	7.4	1970	4600	8700	354.0	89
				16	260	Yonos Maxo plus 40/12	4.5	2113	5400	10500	427.3	114
F (52) ⁷⁾	10	1150	14.20	8	82	SPS-I 12	6.9	2374	4400	9800	398.8	107
				16	340	Yonos Maxo plus 40/12	3.7	2713	6400	13200	537.2	157
				21	610	Yonos Maxo plus 50/16	4.9	2877	7400	15600	634.8	195

Hot water output at 90 °C heating flow temperature
Use only if high performance is permanently expected (e.g. industry, commercial enterprise).
Heating flow connected on the top of the calorifier (crosscurrent)

Modul-plus Type	No. of modules	Volume dm ³	Heat surface m ²	m ³ /h	mbar ¹⁾	Charging pump		Hot water output			kW ⁵⁾
						Type	mWC ²⁾	dm ³ /10 min. ³⁾	dm ³ /h ⁴⁾	45 °C	
F (21) ⁷⁾	2	230	2.84	3.5	25	SPS-I 8	6.2	550	1360	2250	91.5
				8	120	SPS-I 12	6.5	650	1960	3480	141.6
F (31) ⁷⁾	3	345	4.26	4	40	SPS-I 8	5.7	713	1850	3450	140.4
				7	120	SPS-I 12	7.7	793	2550	4300	175.0
				12	450	Yonos Maxo plus 40/12	4.5	893	3300	5800	236.0
F (41) ⁷⁾	4	460	5.68	4	55	SPS-I 8	5.5	978	2250	4100	166.8
				8	240	SPS-I 12	5.3	1157	3500	6400	260.4
				10.5	440	Yonos Maxo plus 40/12	5.5	1250	4150	7500	305.2
F (51) ⁷⁾	5	575	7.10	4	75	SPS-I 8	5.3	1329	3050	5650	229.9
				8	300	SPS-I 12	4.7	1543	4350	7800	317.4
				12	720	Yonos Maxo plus 50/16	7.5	1692	5250	9100	370.3
F (32) ⁷⁾	6	690	8.52	8	45	SPS-I 12	7.2	1426	3700	6900	280.8
				14	165	Yonos Maxo plus 40/12	6.2	1585	5100	8600	350.0
				18	300	Yonos Maxo plus 50/12	4.0	1671	5800	9800	398.8
				24	530	Yonos Maxo plus 65/16	7.5	1785	6600	11600	472.0
F (42) ⁷⁾	8	920	11.36	8	62	SPS-I 12	6.7	1956	4500	8200	333.7
				12	150	Yonos Maxo plus 40/12	7.4	2142	5800	10400	423.2
				16	260	Yonos Maxo plus 40/12	4.5	2314	7000	12800	520.9
F (52) ⁷⁾	10	1150	14.20	8	82	SPS-I 12	6.9	2658	6100	11300	459.8
				16	340	Yonos Maxo plus 40/12	3.7	3085	8700	15600	634.8
				21	610	Yonos Maxo plus 50/16	4.9	3316	10 000	17500	712.2

¹⁾ mbar = flow resistance in the calorifier

²⁾ mWC = residual overpressure

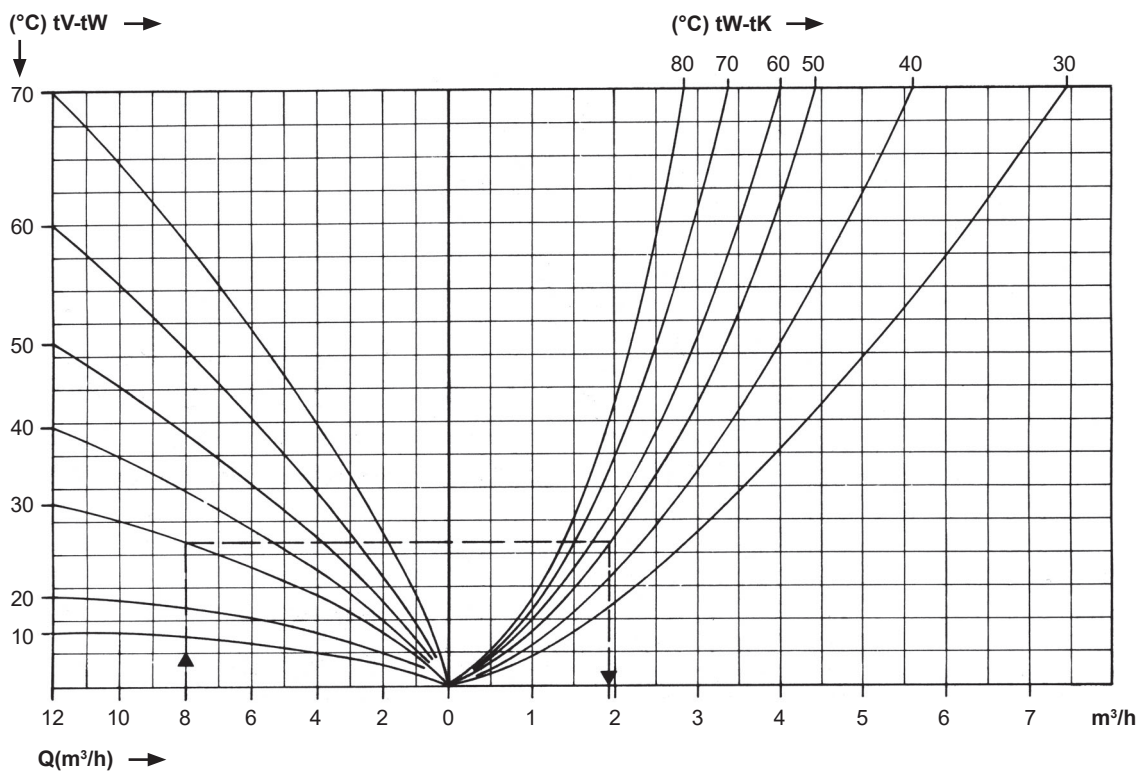
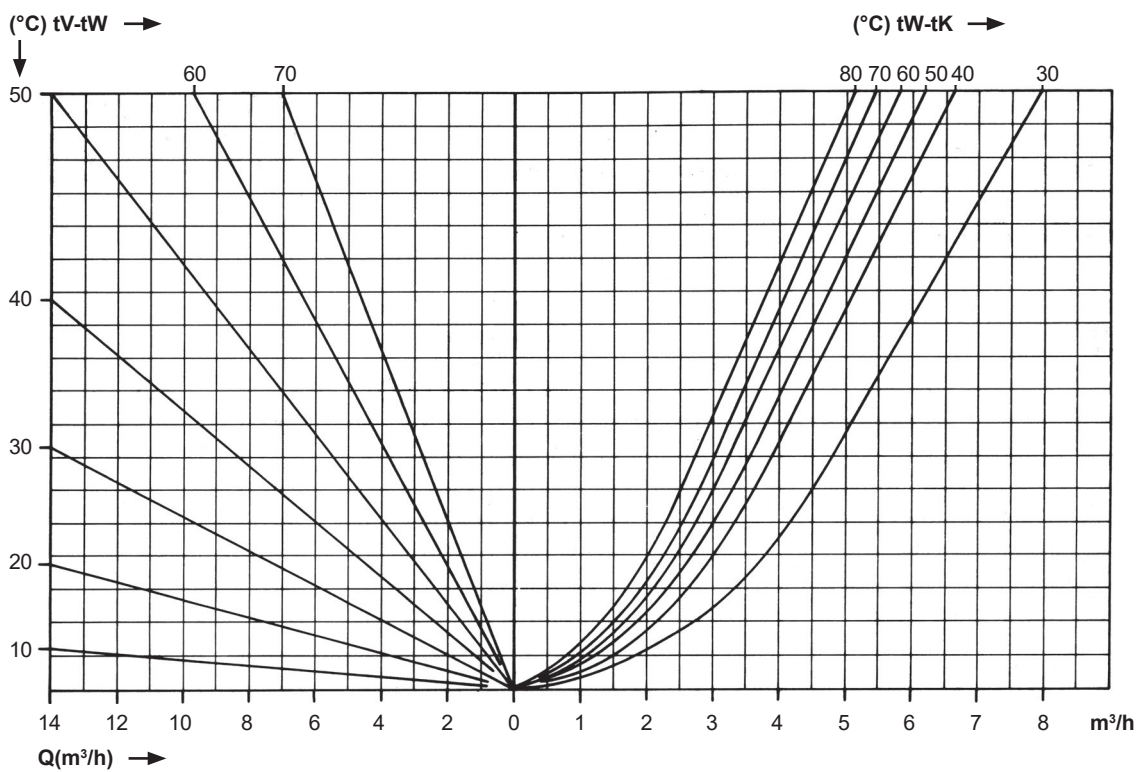
³⁾ dm³/10 min. = calorifier heated up to 60 °C

⁴⁾ dm³/h = continual output per hour, cold water temperature 10 °C.

⁵⁾ kW = power input at 45 °C/ 10 °C

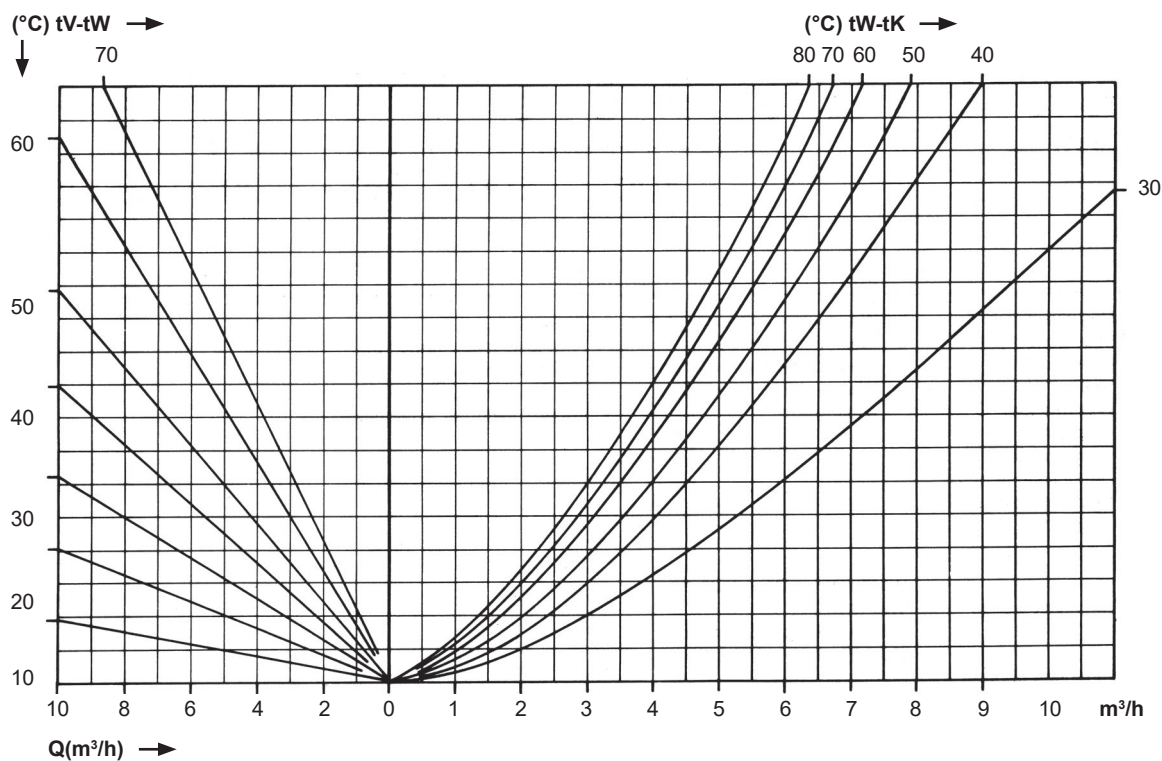
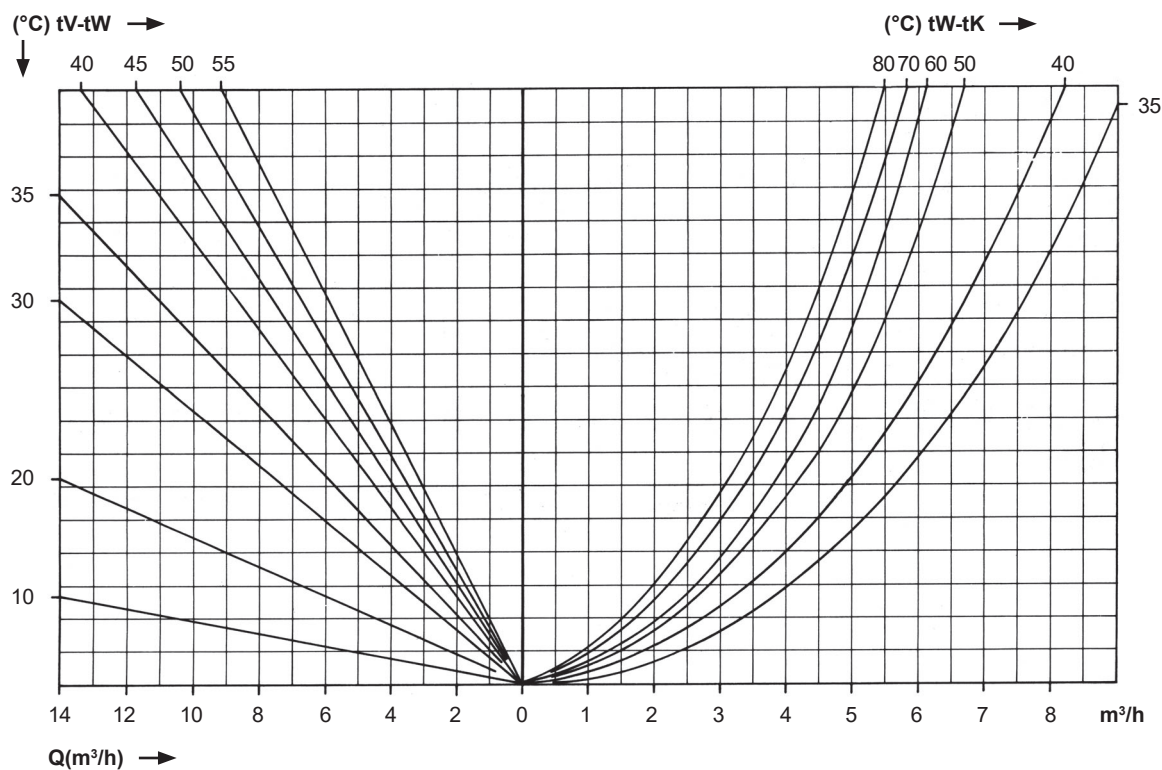
⁶⁾ Flats = performance figure in accordance with DIN 4708 = number of flats which can be supplied with hot water if the water heater is heated with the boiler and is permanently after-heated
(standard flat: 1 bath - 4 rooms - 3.5 persons)

⁷⁾ = valid for all module-plus types F (21-52), FH (21-52), F (21-52) S, FH (21-52) S, F (21-52) SM, FH (21-52) SM, FH (21-52) SX

Modul-plus F (21), FH (21), F (21) S, FH (21) S, F (21) SM, FH (21) SM, FH (21) SX

Modul-plus F (31), FH (31), F (31) S, FH (31) S, F (31) SM, FH (31) SM, FH (31) SX


Q = Heating water flow rate m^3/h
 tV = Heating water flow $^{\circ}\text{C}$
 tW = Hot water $^{\circ}\text{C}$
 tK = Cold water $^{\circ}\text{C}$
 m^3/h = Hot water continuous output m^3/h *
 $\text{dm}^3/10\text{ min.}$ = Top performance in 10 min. *

* = Hot water outputs with counterflow connection
 (heating supply connected at the top of the calorifier)

Modul-plus F (41), FH (41), F (41) S, FH (41) S, F (41) SM, FH (41) SM, FH (41) SX

Modul-plus F (51), FH (51), F (51) S, FH (51) S, F (51) SM, FH (51) SM, FH (51) SX


Q = Heating water flow rate m³/h

t_V = Heating water flow °C

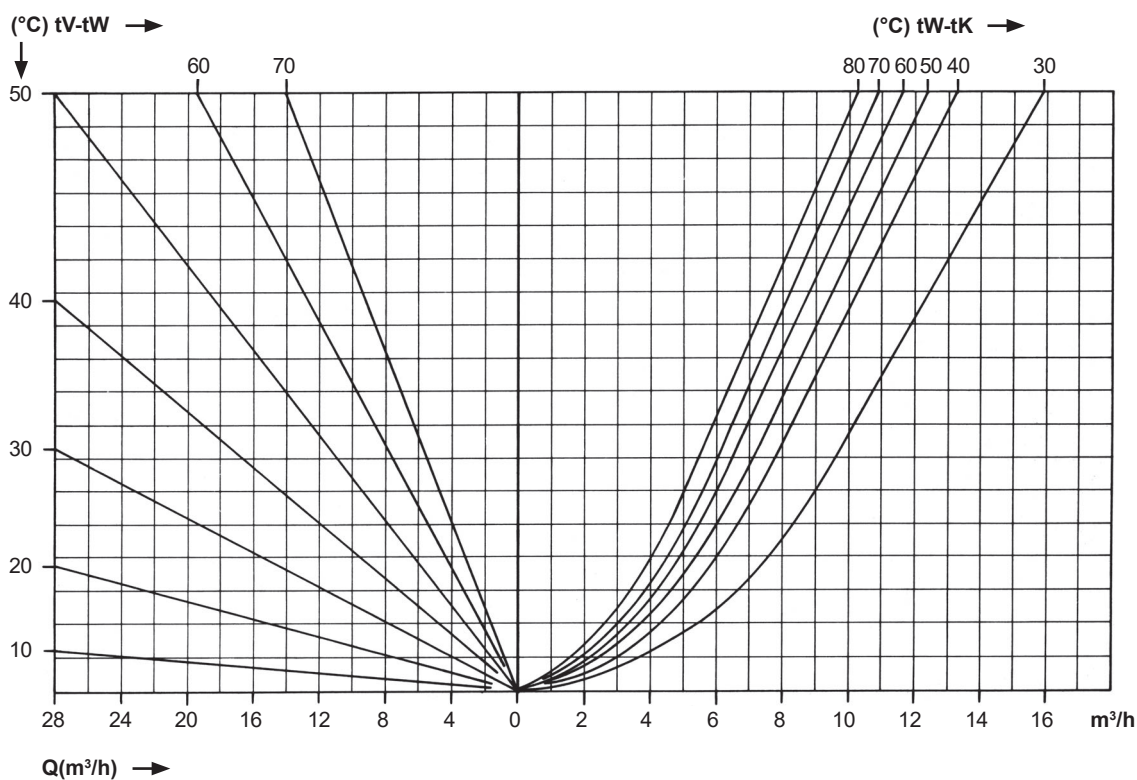
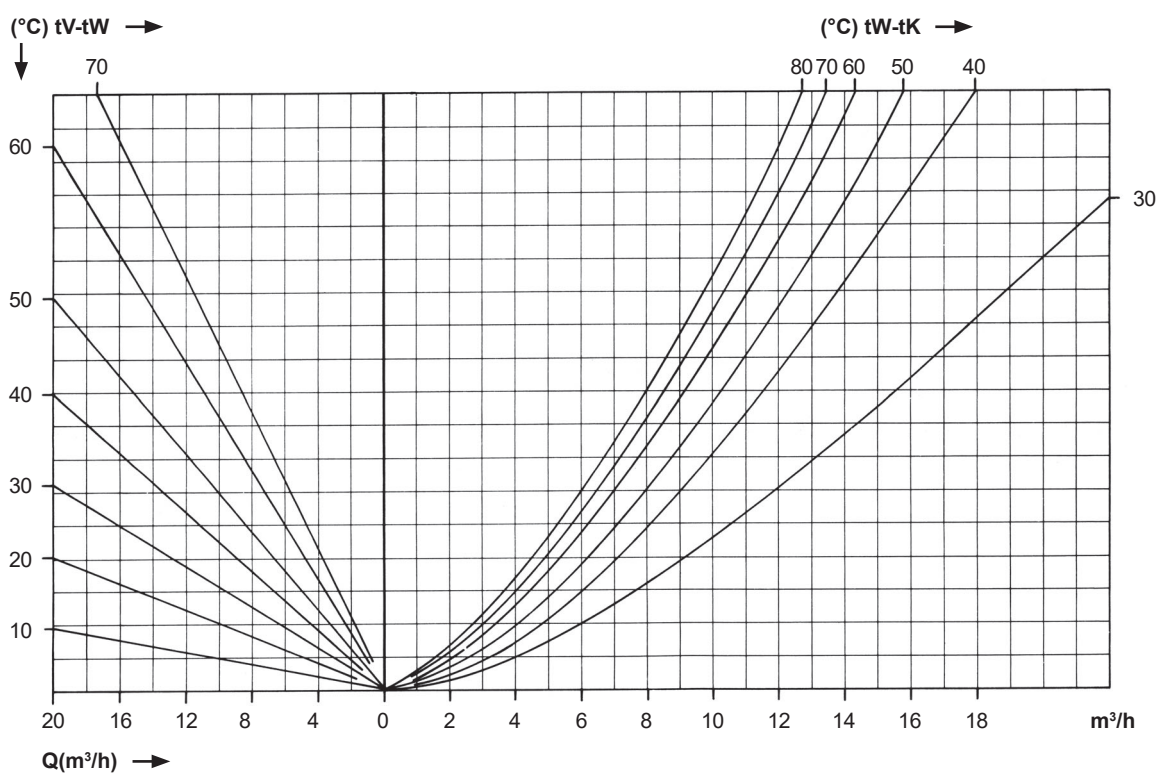
t_W = Hot water °C

t_K = Cold water °C

m³/h = Hot water continuous output m³/h *

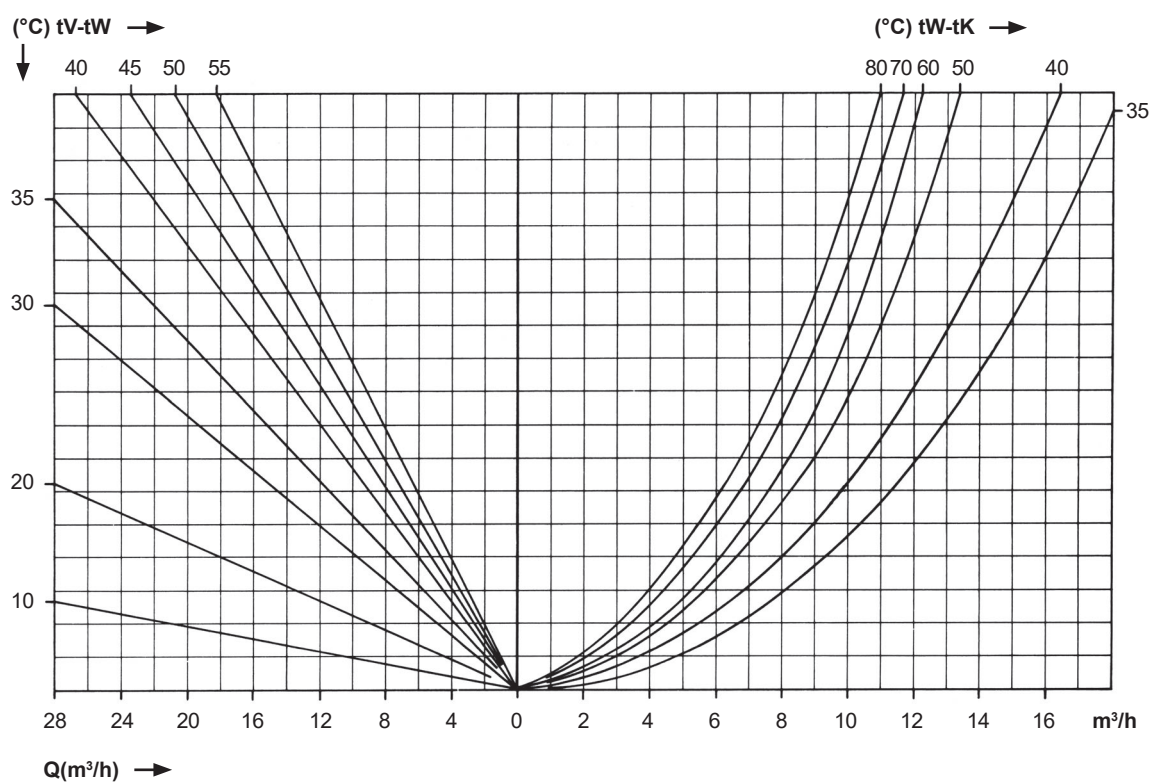
dm³/10 min. = Top performance in 10 min. *

* = Hot water outputs with counterflow connection
(heating supply connected at the top of the calorifier)

Modul-plus F (32), FH (32), F (32) S, FH (32) S, F (32) SM, FH (32) SM, FH (32) SX

Modul-plus F (42), FH (42), F (42) S, FH (42) S, F (42) SM, FH (42) SM, FH (42) SX


Q = Heating water flow rate m^3/h
 t_V = Heating water flow °C
 t_W = Hot water °C
 t_K = Cold water °C
 m^3/h = Hot water continuous output m^3/h *
 $dm^3/10 \text{ min.}$ = Top performance in 10 min. *

* = Hot water outputs with counterflow connection
 (heating supply connected at the top of the calorifier)

Modul-plus F (52), FH (52), F (52) S, FH (52) S, F (52) SM, FH (52) SM, FH (52) SX


Q = Heating water flow rate m^3/h

t_V = Heating water flow $^\circ\text{C}$

t_W = Hot water $^\circ\text{C}$

t_K = Cold water $^\circ\text{C}$

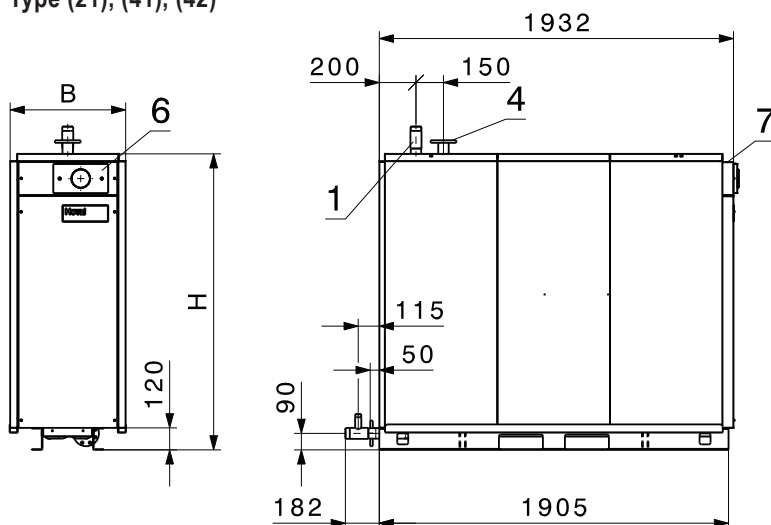
m^3/h = Hot water continuous output m^3/h *

$\text{dm}^3/10 \text{ min.}$ = Top performance in 10 min. *

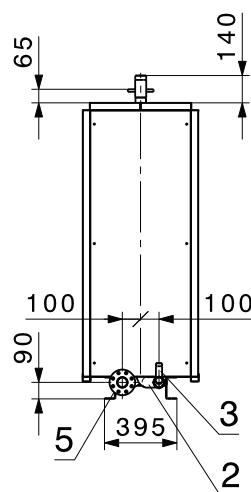
* = Hot water outputs with counterflow connection
(heating supply connected at the top of the calorifier)

Modul-plus F (21-52), FH (21-52), F (21-52) S, FH (21-52) S, F (21-52) SM, FH (21-52) SM, FH (21-52) SX

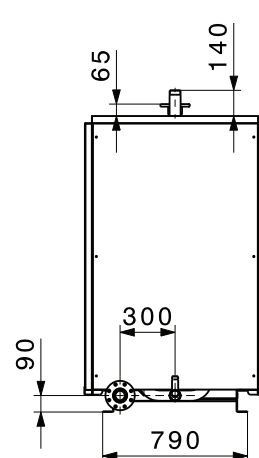
Type (21), (41), (42)



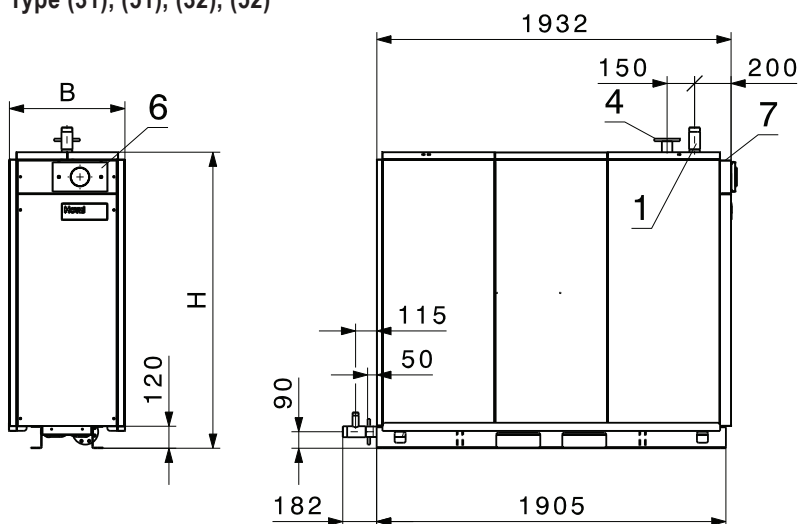
Type (21), (41)



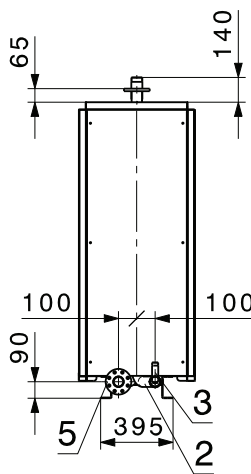
Type (42)



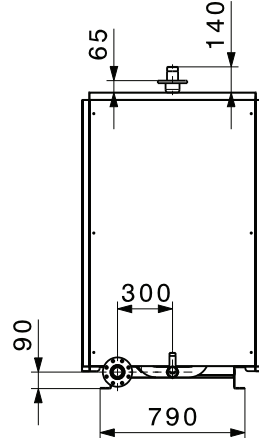
Type (31), (51), (32), (52)



Type (31), (51)



Type (32), (52)



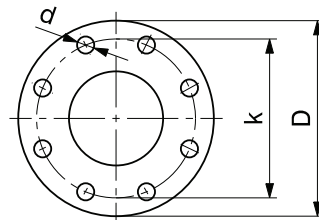
- 1 Hot water 2"
- 2 Cold water 2"
- 3 Circulation 1"
- 4 Heating flow *
- 5 Heating return *
- 6 Control panel
- 7 Electrical connection

* Operating pressure 5 bar = standard flanges PN6

(21 - 51)	DN 50
(32 - 52)	DN 65

* Operating pressure 8 & 10 bar = special flanges

		D	k	d
(21 - 51)	DN 50	140	110	14
(32 - 52)	DN 65	160	130	14



Type	B	H
(21)	630	1615
(31)	630	1615
(41)	630	1800
(51)	630	2160

Type	B	H
(32)	985	1615
(42)	985	1800
(52)	985	2160

With adjustable feet, all dimensions +30 mm

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

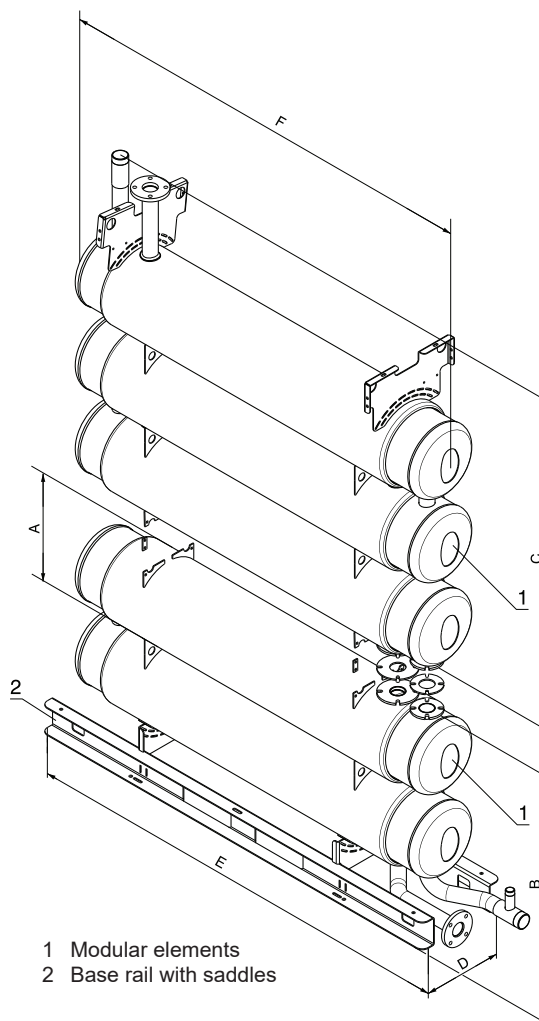
Installation on site Modul-plus

F (31-52), FH (31-52), F (31-52) S,
FH (31-52) S, F (31-52) SM, FH (31-52)
SM, FH (31-52) SX

If it is not possible to install the complete calorifier locally, an on-site installation is possible.

- The calorifier is delivered in two parts: module elements incl. base rail and the casing.
- The calorifier is dismantled by Hoval on site, transported into the installation room in individual parts and reassembled there.

More accurate scope of services
see the end of the section

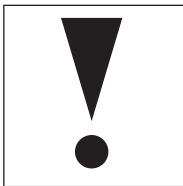


Dimensions of the separate parts

Modul-plus Type	A	B	C	D	E	F
(31) (32)	330	877	878	395 790	1905	1766
(41) (42)	330	877	1063	395 790	1905	1766
(51) (52)	330	877	1423	395 790	1905	1766

Installation on site

Planning hints



Important preparations

- Old calorifier must be removed.
- The heating room, if necessary with boiler base, must be available with beginning of work.



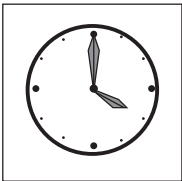
Water connection

A fresh water connection 3/4", for filling and testing the welded calorifier, must be available in the boiler room.



Calorifier material

- The material is delivered in two parts.
- The calorifier is separated for transporting in on site.



Time schedule

Transport	½ day
Installation on site incl. pressure test	½ day
Installation of casing	½ day

Heating room preparation

Required space

In the heating room sufficient space for the assembly of the calorifier must be available (see space requirement below).

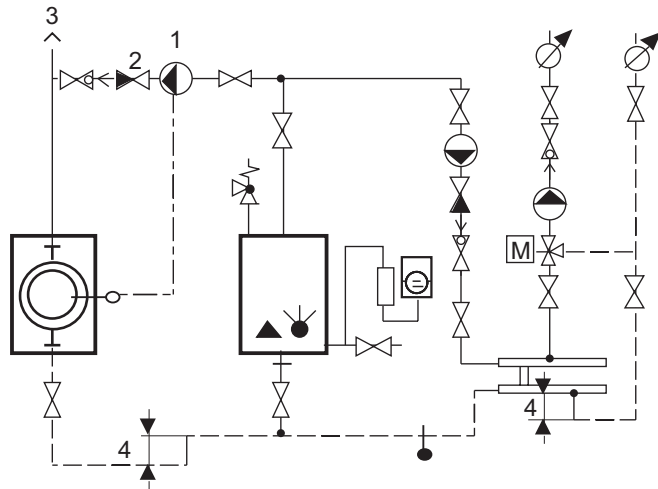
Required space for installation in the boiler room

Min. room dimensions in mm

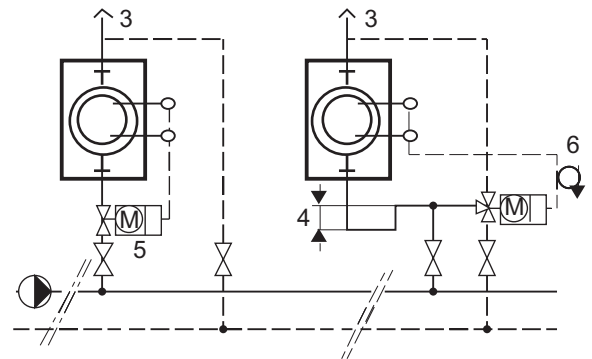
	(31/32)	(41/42)	(51/52)
Length	2.0	2.0	2.0
Width	1.8	1.8	1.8
Height	2.0	2.0	2.5

Diagram of heating

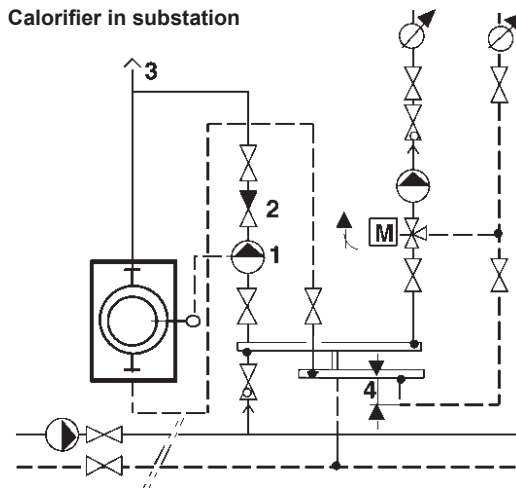
Calorifier in central heating station



Connection to room heating distance pipe max. 110 °C, 8 bar
(the corresponding plant regulations must be observed in the case of district heating supplies).



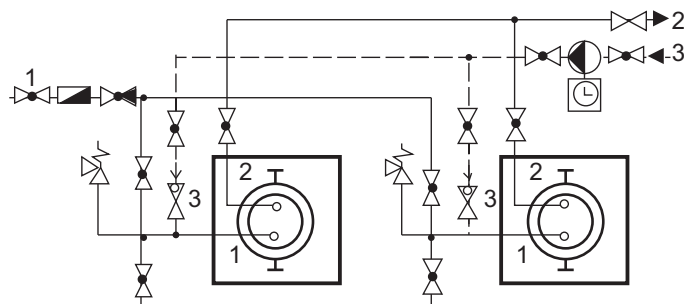
Calorifier in substation



- 1 Charging pump, controlled by the calorifier temperature control
- 2 Backflow preventer, tight shut-off
- 3 Automatic air vent
- 4 Pocket for avoiding single-pipe gravity circulation. Height at least 3 x pipe diameter
- 5 Motor through valve. Operating time max. 2 min., with emergency control function (e.g. spring return)
- 6 Motor three-way valve operating time max. 2 min., with emergency control function

Diagram of DHW connection

2 calorifiers connected in parallel



- 1 = cold water
2 = hot water
3 = circulation