



BV1V - Glass lined calorifier with removable heat exchanger

BV1K - Keramtech lined calorifier with removable heat exchanger

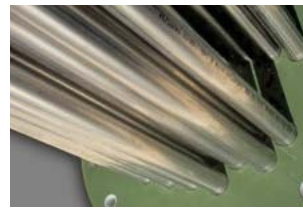
Calorifier for the production and storage of domestic hot water (DHW). The cylinder is made of carbon steel and is internally protected by glass lining (Mod. BV1V for capacities up to 2.000 litres) or with Keramtech ceramic lining (Mod. BV1K for capacities from 2000 to 5000 litres).

The tank is equipped with a stainless steel U tube bundle removable heat exchanger. The heat exchanger is bent down in order to avoid the growth of bacteria in the coldest part of the cylinder. Cylinders are also prepared to host a backup immersion heater (not supplied).

HEAT SOURCE



APPLICATION



TECHNICAL FEATURES

DHW cylinder

Heat exchanger

General features

	BV1V	BV1K
Material	Glass lined S 235 Jr Carbon steel	Keramtech lined S235 Jr Carbon steel
Internal protective treatment	Enamelling according to DIN 4753.3	Alimentary epoxy-ceramic lining
External protective treatment	Anti rust protection + epoxy painting	Anti rust protection + epoxy painting
Rating (P max. / T max.)	8 bar / 95°C	6 bar / 100 °C
Cathodic protection	Magnesium anode	Magnesium anode
Material	Stainless steel	
Type	U tube bundle expanded over a removable plate	
Rating (P max. / T max.)	10 bar / 95°C	
Capacity	200 - 2000 L	2000 - 5000 L
Warranty	5 years (DHW cylinder) - 2 years (heat exchanger)	
Insulation	- Soft insulation with polyester + PVC: Fire retardant class B2 (DIN 4102) - Hard insulation: - up to 2000 L with polyurethane foam + PVC: Fire retardant class B3 (DIN 4102) - from 2500 to 5000 L with polyester (15 mm) + polystyrene (85 mm) + PVC: Fire retardant class B2 (DIN 4102)	
In compliance with	- Pressure Equipment Directive (PED) 2014/68/UE Art. 4 Para 3 - Italian MOH specifications (products suitable to contain potable water) - Energy related Products (Erp) Directive 2009/125/CE	

ACCESSORIES (page 218)



Impressed current electronic anode



Electronic control unit



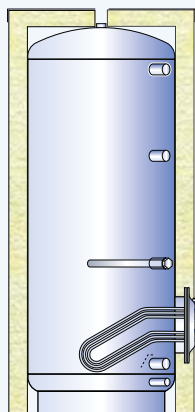
Thermostat



Thermometer



1 1/2 electric immersion heater

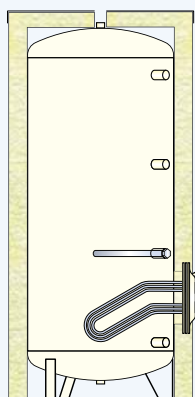


BV1V - Hard insulation with rigid polyurethane foam and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m ²) / (L) *
BV1V 00200 R	50	C	62,2	191,2	0,50 / 2,6
BV1V 00300 R	50	C	73,7	291,7	0,75 / 4,3
BV1V 00500 R	50	C	86,1	501,7	1,00 / 6,1
BV1V 00800 R	100	C	113,8	754,9	1,50 / 6,6
BV1V 01000 R	100	C	117,6	936,6	2,00 / 10,4
BV1V 01500 R	100	C	136,7	1478,0	3,00 / 15,7
BV1V 02000 R	100	C	149,0	1958,6	4,00 / 21,7

BV1V - Soft insulation with polyester and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m ²) / (L) *
BV1V 00800 F	130	C	132,6	754,9	1,50 / 6,6
BV1V 01000 F	130	C	143,9	936,6	2,00 / 10,4
BV1V 01500 F	130	C	169,2	1478,0	3,00 / 15,7
BV1V 02000 F	130	C	182,7	1958,6	4,00 / 21,7



BV1K - Hard insulation and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m ²) / (L) *
BV1K 02000 R	100	C	185,6	1962,5	4,00 / 21,7
BV1K 02500 R	100	-	-	2506,0	5,00 / 27,4
BV1K 03000 R	100	-	-	2970,0	6,00 / 33,1
BV1K 04000 R	100	-	-	3906,9	8,00 / 42,9
BV1K 05000 R	100	-	-	5017,7	10,00 / 51,5

BV1K - Soft insulation with polyester and PVC jacket

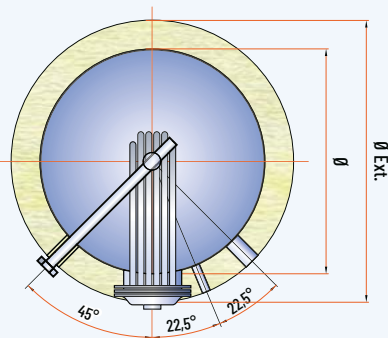
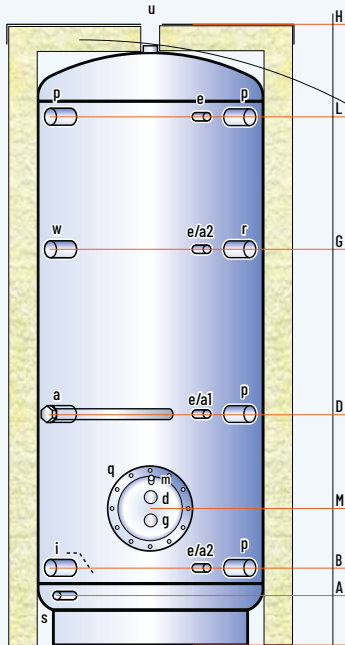
CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m ²) / (L) *
BV1K 02000 F	130	C	151,4	1962,5	4,00 / 21,7
BV1K 02500 F	100	-	-	2506,0	5,00 / 27,4
BV1K 03000 F	100	-	-	2970,0	6,00 / 33,1
BV1K 04000 F	100	-	-	3906,9	8,00 / 42,9
BV1K 05000 F	100	-	-	5017,7	10,00 / 51,5

* Volume occupied by the heat exchanger and its support structure

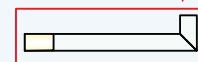
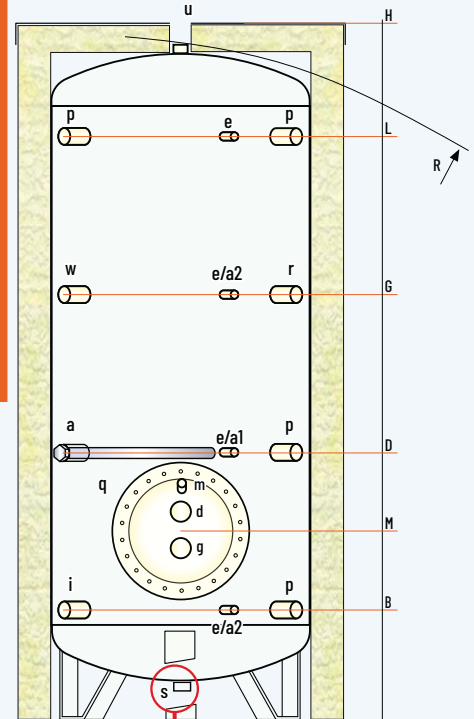
LEGEND

- a . Magnesium anode
- a1-a2. Opening for electronic anode
- d . Boiler flow
- e . Thermometer - Sensor
- g . Boiler return
- i . Domestic cold water inlet
- m. Heat exchanger vent
- p . Free connection
- q . Heat exchanger flange
- r . Recirculation
- s . Drain
- u . Domestic hot water outlet
- w . Opening for immersion heater

BV1V



BV1K



KDS - Drain Kit

MODEL	DIMENSIONS (mm) Ø	H	Ø EXT ** (Hard/Soft ins.)	R *	HEAT EXCHANGER (m²)	Electronic anode (optional)	WEIGHT (kg)
BV1V 00200 R	450	1320	550	1440	0,50	a1 (EPS 375/125)	65
BV1V 00300 R	500	1610	600	1730	0,75	a1 (EPS 375/125)	80
BV1V 00500 R	650	1660	750	1835	1,00	a1 (EPS 375/125)	104
BV1V 00800_	790	1750	990/1050	1745	1,50	a1 (EPS 375/125)	177
BV1V 01000_	790	2110	990/1050	2095	2,00	a1 (EPS 375/125)	203
BV1V 01500_	1000	2115	1200/1260	2145	3,00	a2 (EPS 375/125)	314
BV1V 02000_	1100	2380	1300/1360	2465	4,00	a2 (EPS 375/125)	443
BV1K 02000_	1100	2465	1300/1360	2465	4,00	a2 (EPS 375/125)	301
BV1K 02500_	1200	2595	1400	2640	5,00	a2 (EPS 700/200)	374
BV1K 03000_	1250	2795	1450	2835	6,00	a2 (EPS 700/200)	386
BV1K 04000_	1400	2925	1600	2995	8,00	a2 (EPS 700/200)	564
BV1K 05000_	1600	2955	1800	3090	10,00	a2 (EPS 700/200)	660

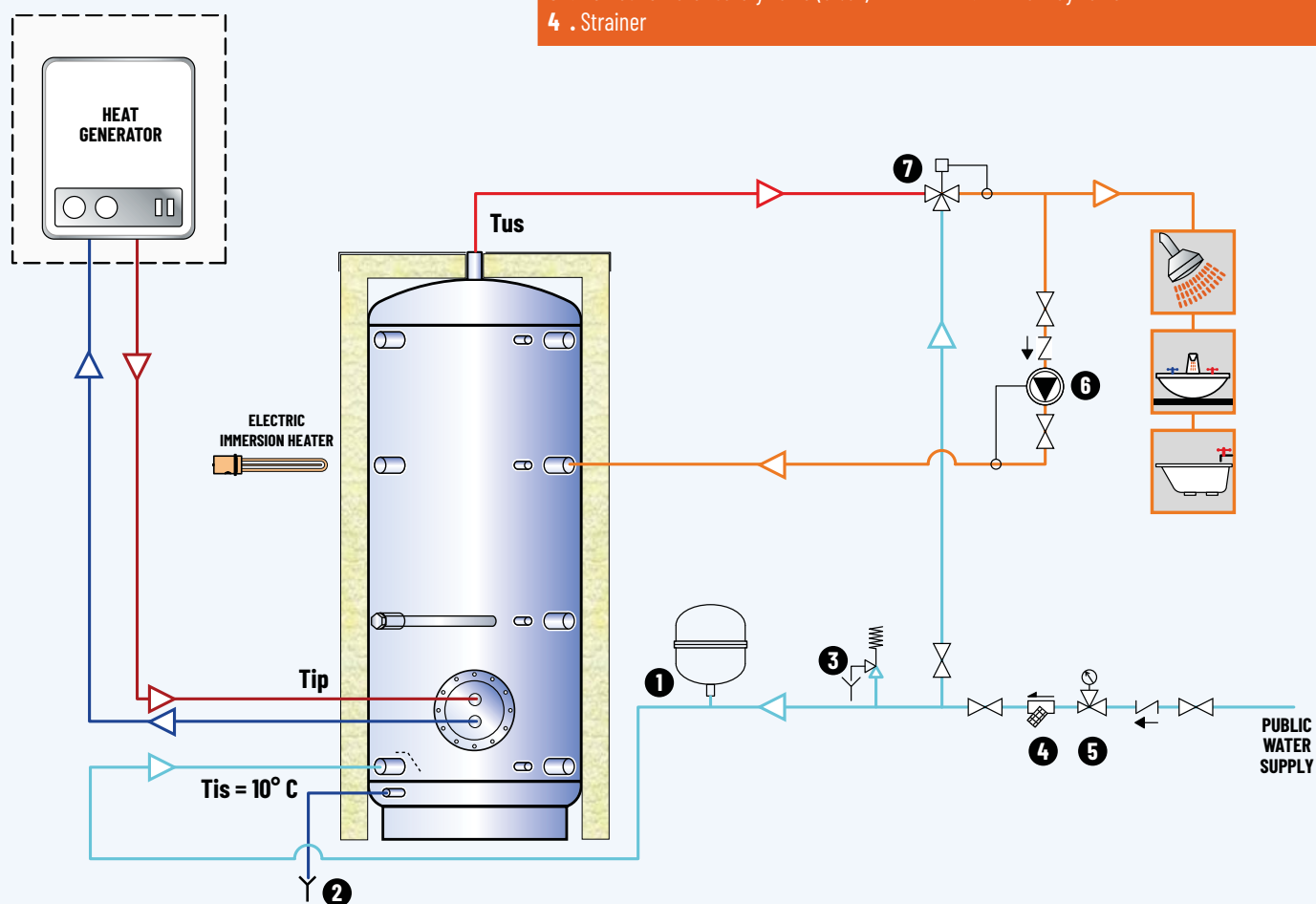
* For capacities from 200 to 500 litres, the tilt height refers to the insulated cylinder
 ** The insulation is removable except for models from 200 to 500 litres

MODEL	HEIGHTS (mm)						CONNECTIONS (GAS)							
	A	B	D	G	L	M	a p r	d g	e	i u	m	s	w	q
BV1V 00200 R	110	190	515	890	1075	350	1"¼	1"	½"	1"¼	¾"	1"	1"½	220/290
BV1V 00300 R	110	215	595	1080	1350	375	1"¼	1"	½"	1"¼	¾"	1"	1"½	220/290
BV1V 00500 R	135	240	615	1105	1375	445	1"¼	1"	½"	1"¼	¾"	1"	1"½	220/290
BV1V 00800_	150	275	655	1145	1410	450	1"¼	2"	½"	1"½	¾"	1"	1"½	300/380
BV1V 01000_	150	275	810	1355	1755	455	1"¼	2"	½"	1"½	¾"	1"	1"½	300/380
BV1V 01500_	235	340	765	1400	1725	520	1"¼	2"	½"	2"	¾"	1"	1"½	300/380
BV1V 02000_	265	370	930	1435	1945	575	1"¼	2"	½"	2"	¾"	1"	1"½	350/430
BV1K 02000_	-	475	1010	1515	1975	680	1"¼	2"	½"	2"	¾"	1"¼	1"½	400/480
BV1K 02500_	-	505	1040	1600	2105	715	1"¼	2"	½"	2"	¾"	1"¼	1"½	400/480
BV1K 03000_	-	515	1100	1730	2300	700	1"¼	2"	½"	3"	¾"	1"¼	1"½	400/480
BV1K 04000_	-	595	1190	1815	2380	780	1"¼	2"	½"	3"	¾"	1"¼	1"½	400/480
BV1K 05000_	-	600	1185	1815	2385	785	1"¼	2"	½"	3"	¾"	1"¼	1"½	400/480

Disclaimer: this layout is purely indicative. It does not replace consultant's design

LEGEND

- | | |
|---|-----------------------------|
| 1 . Domestic water expansion vessel | 5 . Pressure reducing valve |
| 2 . Domestic water drain | 6 . DWH Recirculation pump |
| 3 . Domestic water safety valve (6 bar) | 7 . DWH 3-way valve |
| 4 . Strainer | |



CALORIFIERS WITH
REMOVABLE HEAT
EXCHANGERS

	MODEL	BV1VI 00200R				BV1VI 00300R				BV1VI 00500R				BV1VI 00800_			
	HEAT EXCHANGER (m ²) [L] ¹	0,5 [2,9]				0,75 [3,8]				1,0 [4,7]				1,5 [7,7]			
	PRIMARY FLOW (m ³ /h)	2				3				3				4			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
DHW FROM 10 TO 45 °C	LITRES 10' (L/10') ²	198	210	298	309	302	319	453	468	509	533	758	778	766	801	1139	1169
	LITRES FIRST HOUR ²	281	352	493	554	424	528	739	828	674	814	1142	1261	1011	1219	1711	1888
	CONTINUOUS DRAW (L) ³	105	180	246	310	155	264	361	455	208	355	485	611	310	529	723	909
	POWER (kW)	4,3	7,3	10,0	12,6	6,3	10,8	14,7	18,5	8,4	14,4	19,8	24,9	12,6	21,5	29,4	37,0
	PREHEATING ³ (min)	112	65	47	37	117	68	49	39	149	86	63	50	151	88	64	51
	LITRES 10' (L/10') ²	-	-	201	209	-	-	305	317	-	-	515	531	-	-	774	798
DHW FROM 10 TO 60 °C	LITRES FIRST HOUR ²	-	-	297	346	-	-	447	519	-	-	705	801	-	-	1057	1200
	CONTINUOUS DRAW (L) ³	-	-	121	173	-	-	179	254	-	-	240	341	-	-	358	508
	POWER (kW)	-	-	7	10	-	-	10	15	-	-	14	20	-	-	21	30
	PREHEATING ³ (min)	-	-	96	67	-	-	100	70	-	-	128	90	-	-	130	91
	NL ⁴	0,9				2				5				11			

	MODEL	BV1VI 01000_				BV1VI 01500_				BV1VI 02000_				BV1VI 02500_			
	HEAT EXCHANGER (m ²) [L] ¹	2,0 [9,5]				3,0 [13,0]				4,0 [17,2]				5,0 [20,8]			
	PRIMARY FLOW (m ³ /h)	5				6				7				8			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
DHW FROM 10 TO 45 °C	LITRES 10' (L/10') ²	955	1001	1423	1462	1501	1568	2230	2287	1988	2077	2953	3029	2536	2646	3762	3855
	LITRES FIRST HOUR ²	1281	1557	2183	2418	1984	2390	3351	3696	2627	3161	4430	4883	3329	3989	5591	6151
	CONTINUOUS DRAW (L) ³	412	702	960	1207	610	1037	1416	1779	807	1368	1865	2342	1002	1697	2311	2900
	POWER (kW)	16,8	28,6	39,1	49,1	24,8	42,2	57,6	72,4	32,8	55,7	75,9	95,3	40,8	69,1	94,1	118,1
	PREHEATING ³ (min)	141	82	60	47	152	88	64	51	153	89	65	51	159	92	67	53
	LITRES 10' (L/10') ²	-	-	965	997	-	-	1516	1562	-	-	2008	2069	-	-	2560	2635
DHW FROM 10 TO 60 °C	LITRES FIRST HOUR ²	-	-	1342	1531	-	-	2073	2352	-	-	2745	3110	-	-	3474	3927
	CONTINUOUS DRAW (L) ³	-	-	476	675	-	-	705	997	-	-	931	1315	-	-	1155	1631
	POWER (kW)	-	-	28	39	-	-	41	58	-	-	54	76	-	-	67	95
	PREHEATING ³ (min)	-	-	121	85	-	-	131	91	-	-	132	92	-	-	136	96
	NL ⁴	17				32				38				44			

	MODEL	BV1KI 03000_				BV1KI 04000_				BV1KI 05000_			
	HEAT EXCHANGER (m ²) [L] ¹	6,0 [24,8]				8,0 [31,4]				10,0 [34,3]			
	PRIMARY FLOW (m ³ /h)	10				12				15			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80
DHW FROM 10 TO 45 °C	LITRES 10' (L/10') ²	3009	3141	4466	4579	3960	4135	5878	6026	5079	5297	7531	7716
	LITRES FIRST HOUR ²	3963	4759	6671	7346	5223	6271	8785	9673	6657	7967	11165	12275
	CONTINUOUS DRAW (L) ³	1206	2044	2784	3495	1595	2698	3672	4606	1993	3372	4590	5758
	POWER (kW)	49,1	83,2	113,3	142,3	64,9	109,8	149,5	187,5	81,1	137,3	186,8	234,4
	PREHEATING ³ (min)	156	90	66	52	156	90	66	52	160	93	68	54
	LITRES 10' (L/10') ²	-	-	3038	3129	-	-	3999	4119	-	-	5127	5276
DHW FROM 10 TO 60 °C	LITRES FIRST HOUR ²	-	-	4139	4684	-	-	5454	6172	-	-	6946	7843
	CONTINUOUS DRAW (L) ³	-	-	1391	1965	-	-	1838	2594	-	-	2298	3242
	POWER (kW)	-	-	81	114	-	-	107	151	-	-	134	189
	PREHEATING ³ (min)	-	-	134	94	-	-	134	94	-	-	138	97
	NL ⁴	48				55				60			

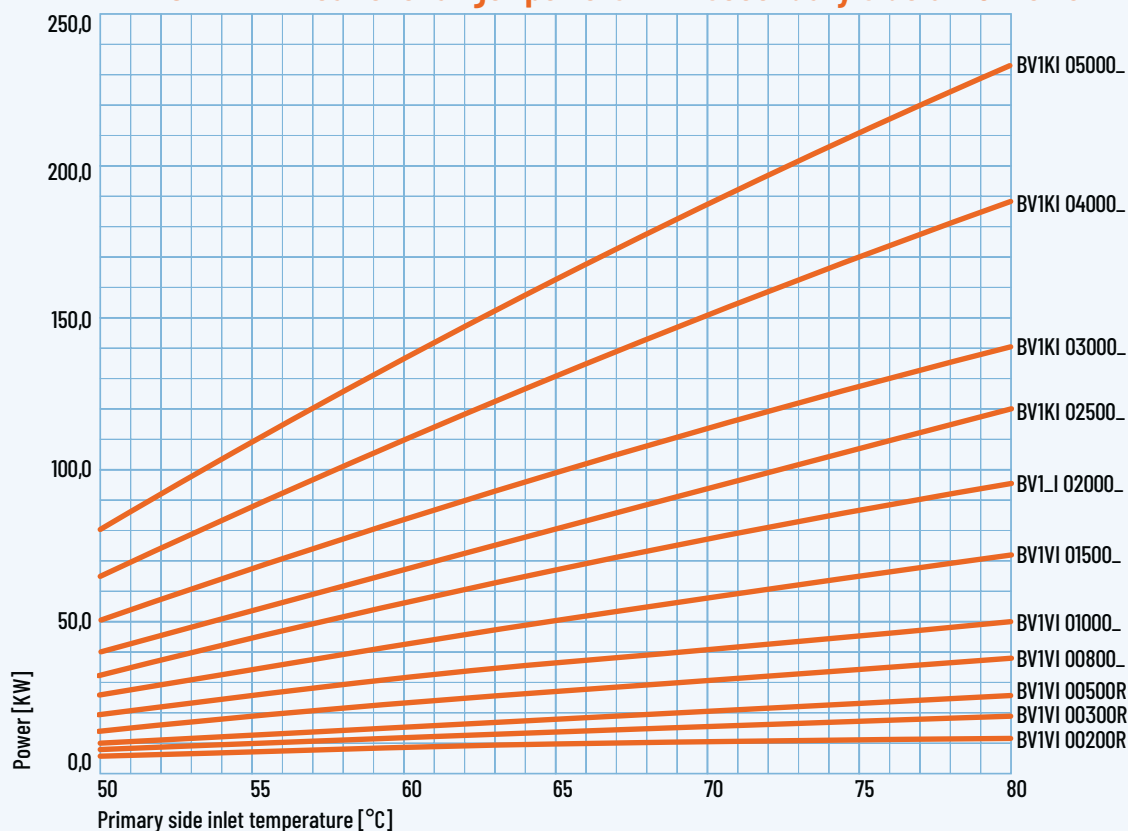
(1) Volume of fluid contained in the heat exchanger

(2) Obtainable with pre-heated cylinder (at 45 °C with primary side set at 50 or 60 °C and pre-heated at 60 °C in the other cases) and a running heat source

(3) With a proper power heat source generator

(4) Primary side 80 °C - Secondary side 10-45 °C

BV1V & BV1K - Heat exchanger powers with secondary side at 10/45 °C



CALORIFIERS WITH
REMOVABLE HEAT
EXCHANGERS

BV1V & BV1K - Heat exchanger pressure drops

