



## BV1VA - Glass lined calorifier with removable copper heat exchanger

## BV1KA - Keramtech calorifier with removable copper heat exchanger

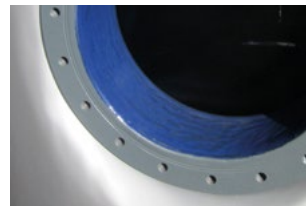
Calorifier for the production and storage of domestic hot water (DHW). The cylinder is made of carbon steel and is internally protected by glass lining (Mod. BV1VA for capacities up to 2.000 litres) or with Keramtech ceramic lining (Mod.

BV1KA for capacities from 2000 to 5000 litres). The tank is equipped with a tinned finned removable heat exchanger. Cylinders are also prepared to host a backup immersion heater (not supplied).

HEAT SOURCE



APPLICATION



BV1VA

BV1KA

### TECHNICAL FEATURES

DHW cylinder

Heat exchanger

General features

<b>Material</b>	Glass lined S 235 Jr Carbon steel	Keramtech lined S235 Jr Carbon steel
<b>Internal protective treatment</b>	Enamelling according to DIN 4753.3	Alimentary epoxy-ceramic lining
<b>External protective treatment</b>	Anti rust protection + epoxy painting	Anti rust protection + epoxy painting
<b>Rating (P max. / T max.)</b>	8 bar / 95°C	6 bar / 100 °C
<b>Cathodic protection</b>	Magnesium anode	Magnesium anode
<b>Material</b>	Tinned finned copper	
<b>Internal protective treatment</b>	None	
<b>External protective treatment</b>	Tinning	
<b>Type</b>	Finned spiral pipe over a removable plate	
<b>Rating (P max. / T max.)</b>	10 bar / 95°C	
<b>Capacity</b>	200 - 2000 L	2000 - 5000 L
<b>Warranty</b>	5 years (DHW cylinder) - 2 years (heat exchanger)	
<b>Insulation</b>	- 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)	
<b>In compliance with</b>	- 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



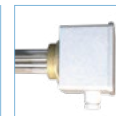
Electronic control unit



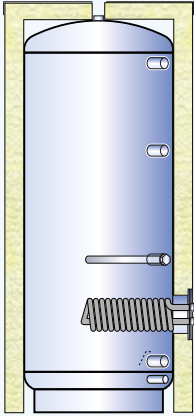
Thermostat



Thermometer



1½ electric immersion heater

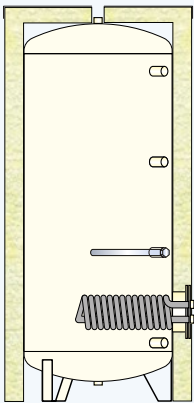


### BV1VA - Hard insulation with rigid polyurethane foam and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m <sup>2</sup> ) / (L) *
BV1VA 00200 R	50	C	62,2	191,2	0,76 / 1,1
BV1VA 00300 R	50	C	73,7	291,7	0,94 / 1,4
BV1VA 00500 R	50	C	86,1	501,7	1,58 / 2,3
BV1VA 00800 R	100	C	113,8	754,9	2,63 / 3,9
BV1VA 01000 R	100	C	117,6	936,6	3,17 / 4,7
BV1VA 01500 R	100	C	136,7	1478,0	4,54 / 6,7
BV1VA 02000 R	100	C	149,0	1958,6	5,26 / 7,8

### BV1VA - Soft insulation with polyester and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m <sup>2</sup> ) / (L) *
BV1VA 00800 F	130	C	132,6	754,9	2,63 / 3,9
BV1VA 01000 F	130	C	143,9	936,6	3,17 / 4,7
BV1VA 01500 F	130	C	169,2	1478,0	4,54 / 6,7
BV1VA 02000 F	130	C	182,7	1958,6	5,26 / 7,8



### BV1KA - Hard insulation and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m <sup>2</sup> ) / (L) *
BV1KA 02000 R	100	C	151,4	1962,5	5,26 / 7,8
BV1KA 02500 R	100	-	-	2506,0	6,34 / 9,4
BV1KA 03000 R	100	-	-	2970,0	6,34 / 9,4
BV1KA 04000 R	100	-	-	3906,9	6,34 / 9,4
BV1KA 05000 R	100	-	-	5017,7	6,34 / 9,4

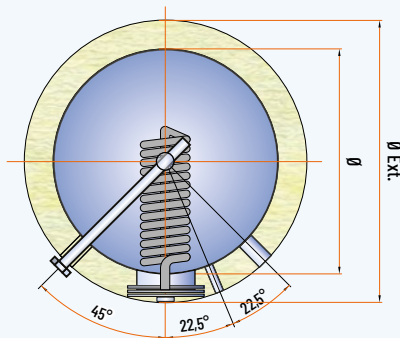
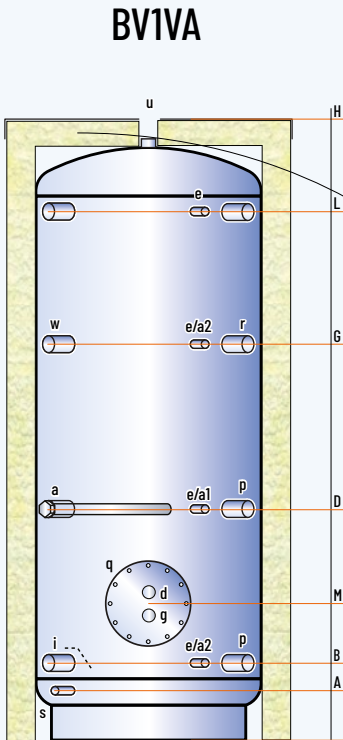
### BV1KA - Soft insulation with polyester and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m <sup>2</sup> ) / (L) *
BV1KA 02000 F	130	C	185,6	1962,5	5,26 / 7,8
BV1KA 02500 F	100	-	-	2506,0	6,34 / 9,4
BV1KA 03000 F	100	-	-	2970,0	6,34 / 9,4
BV1KA 04000 F	100	-	-	3906,9	6,34 / 9,4
BV1KA 05000 F	100	-	-	5017,7	6,34 / 9,4

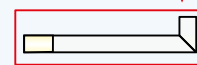
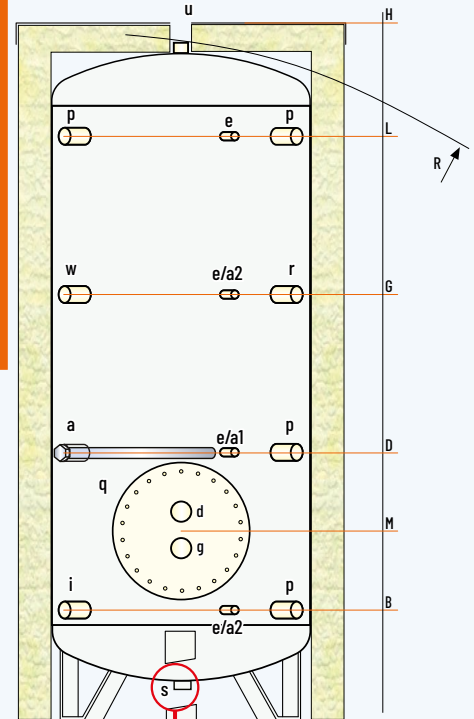
\* Volume occupied by the heat exchanger and its support structure

### LEGEND

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



### BV1KA



KDS - Drain Kit

MODEL	DIMENSIONS (mm)		Ø EXT **	R *	HEAT EXCHANGER	Electronic anode	WEIGHT
	Ø	H	(Hard/Soft ins.)		(m <sup>2</sup> )	(optional)	(kg)
BV1VA 00200 R	450	1320	550	1440	0,76	a1 (EPS 375/125)	61
BV1VA 00300 R	500	1610	600	1730	0,94	a1 (EPS 375/125)	77
BV1VA 00500 R	650	1660	750	1835	1,58	a1 (EPS 375/125)	102
BV1VA 00800_	790	1750	990/1050	1745	2,63	a1 (EPS 375/125)	172
BV1VA 01000_	790	2110	990/1050	2095	3,17	a1 (EPS 375/125)	201
BV1VA 01500_	1000	2115	1200/1260	2145	4,54	a2 (EPS 375/125)	315
BV1VA 02000_	1100	2380	1300/1360	2465	5,26	a2 (EPS 375/125)	436
BV1KA 02000_	1100	2465	1300/1360	2445	5,26	a2 (EPS 375/125)	300
BV1KA 02500_	1200	2595	1400	2640	6,34	a2 (EPS 700/200)	348
BV1KA 03000_	1250	2795	1450	2835	6,34	a2 (EPS 700/200)	377
BV1KA 04000_	1400	2925	1600	2995	6,34	a2 (EPS 700/200)	539
BV1KA 05000_	1600	2955	1800	3090	6,34	a2 (EPS 700/200)	623

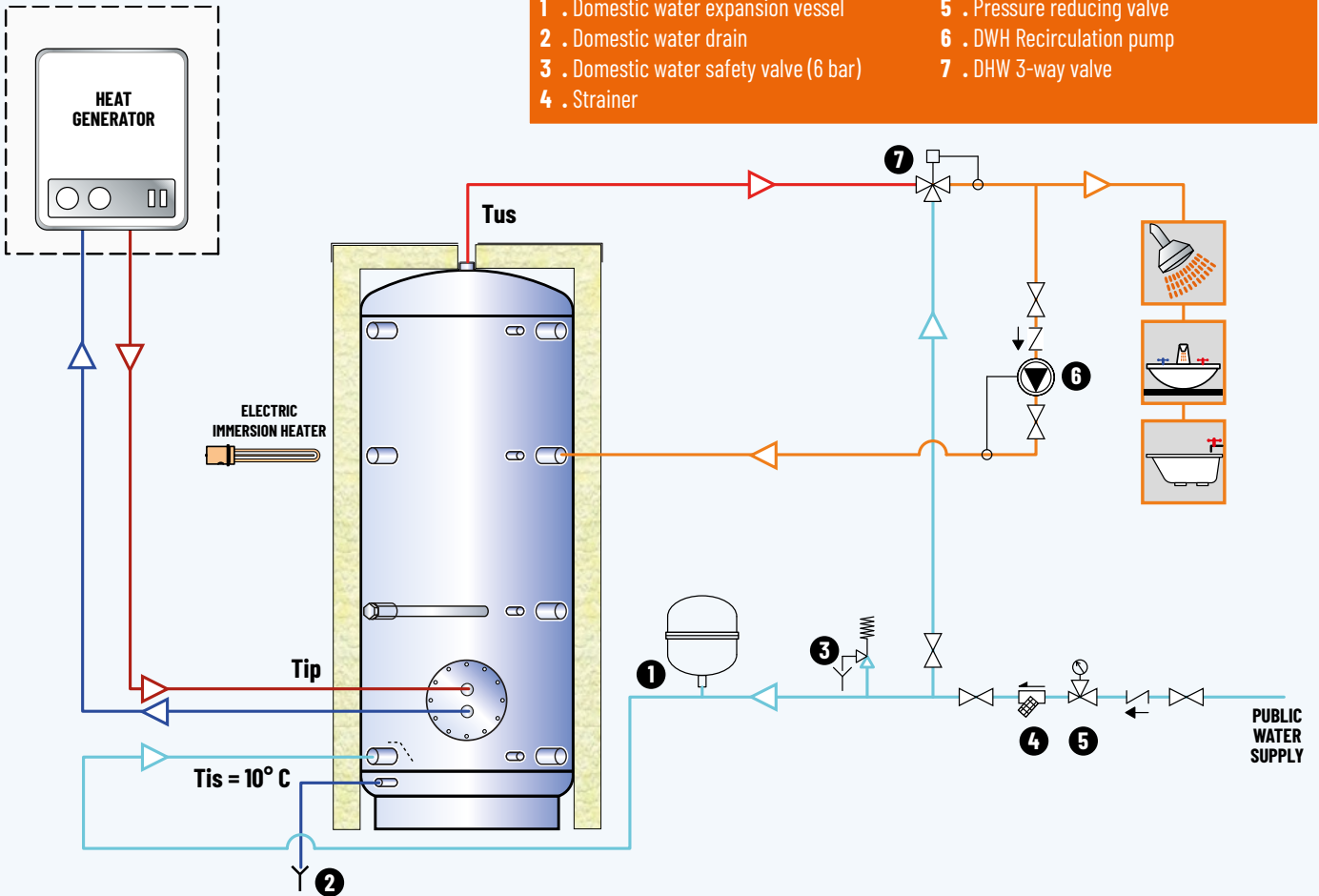
\* For capacities from 200 to 500 litres, the tilt height refers to the insulated cylinder  
 \*\* The insulation is removable except for models from 200 to 500 litres

MODEL	HEIGHTS (mm)						CONNECTIONS (GAS)									
	A	B	D	G	L	M	a	p	d	g	e	i	u	s	w	q
BV1VA 00200 R	110	190	515	890	1075	350	1"¼	¾"	male thread	½"	1"¼	1"	1"½	1"	1"½	220/290
BV1VA 00300 R	110	215	595	1080	1350	375	1"¼	¾"	male thread	½"	1"¼	1"	1"½	1"	1"½	220/290
BV1VA 00500 R	135	240	615	1105	1375	445	1"¼	¾"	male thread	½"	1"¼	1"	1"½	1"	1"½	220/290
BV1VA 00800_	150	275	655	1145	1410	450	1"¼	¾"	male thread	½"	1"½	1"	1"½	1"	1"½	300/380
BV1VA 01000_	150	275	810	1355	1755	455	1"¼	¾"	male thread	½"	1"½	1"	1"½	1"	1"½	300/380
BV1VA 01500_	235	340	765	1400	1725	520	1"¼	1"	male thread	½"	2"	1"	1"½	1"	1"½	300/380
BV1VA 02000_	265	370	930	1435	1945	575	1"¼	1"	male thread	½"	2"	1"	1"½	1"	1"½	350/430
BV1KA 02000_	-	475	1010	1515	1975	680	1"¼	1"	male thread	½"	2"	1"¼	1"½	1"	1"½	400/480
BV1KA 02500_	-	505	1040	1600	2105	715	1"¼	1"	male thread	½"	2"	1"¼	1"½	1"	1"½	400/480
BV1KA 03000_	-	515	1100	1730	2300	700	1"¼	1"	male thread	½"	3"	1"¼	1"½	1"	1"½	400/480
BV1KA 04000_	-	595	1190	1815	2380	780	1"¼	1"	male thread	½"	3"	1"¼	1"½	1"	1"½	400/480
BV1KA 05000_	-	600	1185	1815	2385	785	1"¼	1"	male thread	½"	3"	1"¼	1"½	1"	1"½	400/480

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

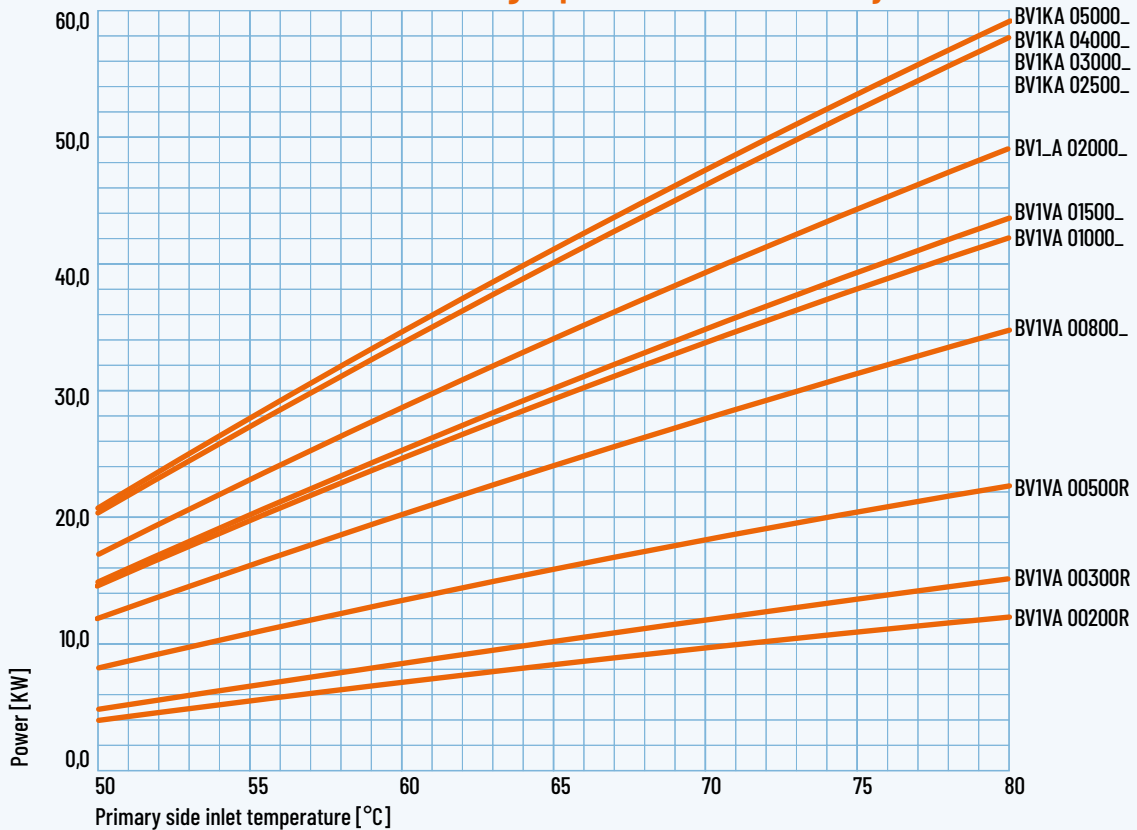
**LEGEND**

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



CALORIFIERS WITH  
REMOVABLE HEAT  
EXCHANGERS

**BV1VA & BV1KA - Heat exchanger powers with secondary side at 10/45 °C**



MODEL		BV1VA 00200R				BV1VA 00300R				BV1VA 00500R				BV1VA 00800_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m <sup>2</sup> ) [L] <sup>1</sup>	0,76 [0,70]				0,94 [3,8]				1,58 [1,40]				2,63 [2,30]			
	PRIMARY FLOW (m <sup>3</sup> /h)	1				1				1,4				1,8			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
	LITRES 10' (L/10') <sup>2</sup>	198	209	297	307	297	311	442	453	507	528	751	769	764	797	1132	1160
	LITRES FIRST HOUR <sup>2</sup>	279	348	486	545	396	479	671	741	659	785	1100	1207	1001	1194	1672	1836
	CONTINUOUS DRAW (L) <sup>3</sup>	103	175	239	300	126	213	290	363	192	325	442	554	299	502	682	854
	POWER (kW)	4,2	7,1	9,7	12,2	5,1	8,7	11,8	14,8	7,8	13,2	18,0	22,5	12,2	20,5	27,8	34,8
	PREHEATING <sup>3</sup> (min)	117	68	49	39	148	86	62	49	167	97	71	56	164	95	69	55
	LITRES 10' (L/10') <sup>2</sup>	-	-	200	208	-	-	300	309	-	-	512	526	-	-	772	794
	LITRES FIRST HOUR <sup>2</sup>	-	-	295	341	-	-	415	471	-	-	687	773	-	-	1044	1176
CONTINUOUS DRAW (L) <sup>3</sup>	-	-	119	168	-	-	145	204	-	-	221	312	-	-	344	483	
POWER (kW)	-	-	7	10	-	-	8	12	-	-	13	18	-	-	20	28	
PREHEATING <sup>3</sup> (min)	-	-	100	70	-	-	127	89	-	-	144	101	-	-	141	99	
NL <sup>4</sup>	0,9				2				5				10				

MODEL		BV1VA 01000_				BV1VA 01500_				BV1_A 02000_				BV1KA 02500_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m <sup>2</sup> ) [L] <sup>1</sup>	3,17 [2,70]				4,54 [3,90]				5,26 [4,50]				6,34 [5,40]			
	PRIMARY FLOW (m <sup>3</sup> /h)	1,8				3,0				3,0				3,0			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
	LITRES 10' (L/10') <sup>2</sup>	948	987	1402	1435	1462	1502	2140	2174	1927	1973	2811	2850	2456	2509	3576	3621
	LITRES FIRST HOUR <sup>2</sup>	1237	1471	2057	2253	1752	1994	2810	3015	2259	2535	3575	3808	2849	3172	4475	4747
	CONTINUOUS DRAW (L) <sup>3</sup>	366	611	827	1034	367	621	846	1062	420	709	965	1210	497	837	1136	1423
	POWER (kW)	14,9	24,9	33,7	42,1	14,9	25,3	34,4	43,2	17,1	28,9	39,3	49,3	20,2	34,1	46,2	57,9
	PREHEATING <sup>3</sup> (min)	170	98	72	57	256	148	108	86	298	173	126	100	326	189	138	109
	LITRES 10' (L/10') <sup>2</sup>	-	-	956	983	-	-	1471	1499	-	-	1937	1969	-	-	2468	2504
	LITRES FIRST HOUR <sup>2</sup>	-	-	1289	1448	-	-	1806	1971	-	-	2320	2509	-	-	2921	3141
CONTINUOUS DRAW (L) <sup>3</sup>	-	-	420	588	-	-	423	597	-	-	484	682	-	-	572	805	
POWER (kW)	-	-	24	34	-	-	25	35	-	-	28	40	-	-	33	47	
PREHEATING <sup>3</sup> (min)	-	-	146	102	-	-	220	154	-	-	257	180	-	-	281	197	
NL <sup>4</sup>	15				25				30				35				

MODEL		BV1KA 03000_				BV1KA 04000_				BV1KA 05000_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m <sup>2</sup> ) [L] <sup>1</sup>	6,34 [5,4]				6,34 [5,40]				6,34 [5,40]			
	PRIMARY FLOW (m <sup>3</sup> /h)	3,0				3,5				3,5			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80
	LITRES 10' (L/10') <sup>2</sup>	2897	2950	4205	4251	3788	3843	5480	5527	4843	4898	6988	7034
	LITRES FIRST HOUR <sup>2</sup>	3290	3613	5105	5377	4187	4517	6398	6677	5242	5573	7905	8184
	CONTINUOUS DRAW (L) <sup>3</sup>	497	837	1136	1423	505	852	1159	1453	505	852	1159	1453
	POWER (kW)	20,2	34,1	46,2	57,9	20,5	34,7	47,2	59,1	20,5	34,7	47,2	59,1
	PREHEATING <sup>3</sup> (min)	387	224	163	129	496	288	209	166	637	369	269	213
	LITRES 10' (L/10') <sup>2</sup>	-	-	2908	2945	-	-	3800	3838	-	-	4855	4893
	LITRES FIRST HOUR <sup>2</sup>	-	-	3362	3582	-	-	4260	4486	-	-	5315	5541
CONTINUOUS DRAW (L) <sup>3</sup>	-	-	572	805	-	-	581	819	-	-	581	819	
POWER (kW)	-	-	33	47	-	-	34	48	-	-	34	48	
PREHEATING <sup>3</sup> (min)	-	-	333	233	-	-	426	299	-	-	548	384	
NL <sup>4</sup>	38				40				43				

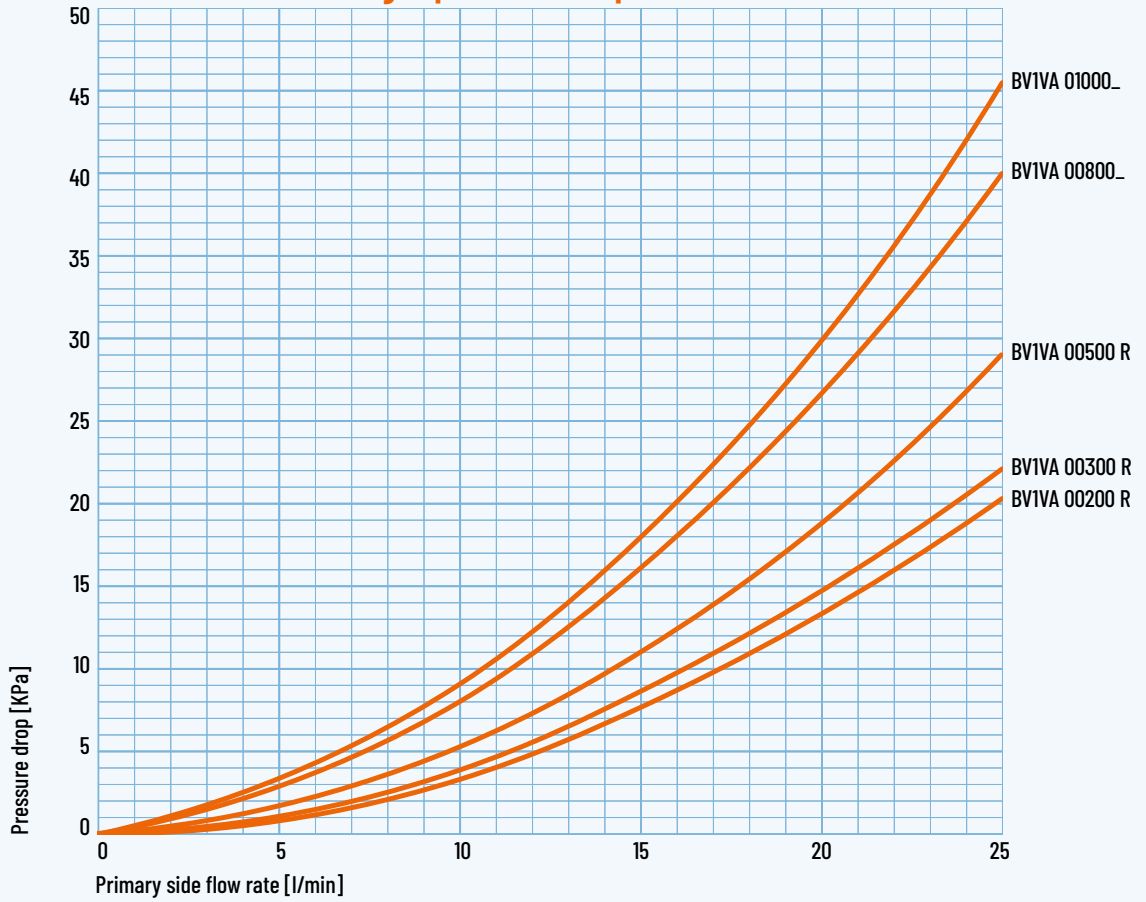
(1) Volume of fluid contained in the heat exchanger

(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

**BV1VA - Heat exchanger pressure drops**



CALORIFIERS WITH  
REMOVABLE HEAT  
EXCHANGERS

**BV1VA & BV1KA - Heat exchanger pressure drops**

