



BV2V - Glass lined calorifier with two removable heat exchangers

BV2K - Keramtech lined calorifier with two removable heat exchangers

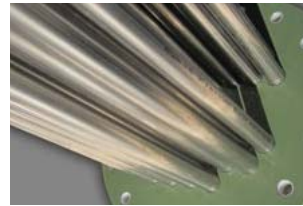
Calorifier for the production and storage of domestic hot water (DHW). The cylinder is made of carbon steel and is internally protected by glass lining (Mod. BV2V for capacities up to 2.000 litre) or with Keramtech ceramic lining (Mod. BV2K for capacities from 2000 to 5000 litre).

The tank is equipped with two stainless steel U tube bundle removable heat exchanger. The lower 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

	BV2V	BV2K
Material	S 235 Jr glass lined	S 235 Jr Keramtech lined
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



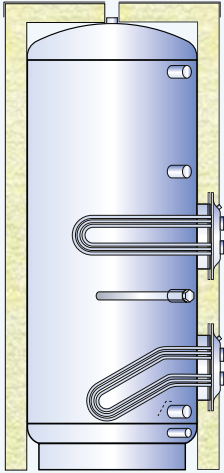
Thermostat



Thermometer



1 1/2 electric immersion heater

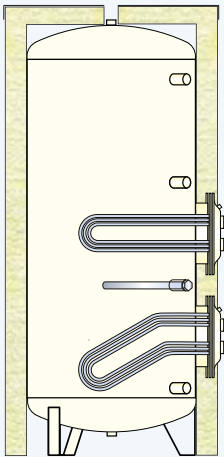


BV2VI - Hard insulation with rigid polyurethane foam and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	LOWER HEAT EXCHANGER (m ²) / (L) *	UPPER HEAT EXCHANGER (m ²) / (L) *
BV2VI 00200 R	50	C	65,7	193,1	0,50 / 2,6	0,50 / 2,6
BV2VI 00300 R	50	C	77,2	293,6	0,75 / 4,3	0,75 / 4,3
BV2VI 00500 R	50	C	89,6	503,6	1,00 / 6,1	1,00 / 6,1
BV2VI 00800 R	100	C	119,7	760,5	2,00 / 10,4	1,50 / 6,6
BV2VI 01000 R	100	C	123,6	942,2	3,00 / 15,7	2,00 / 10,4
BV2VI 01500 R	100	C	142,8	1483,6	3,00 / 15,7	3,00 / 15,7
BV2VI 02000 R	100	C	156,6	1967,2	4,00 / 21,7	4,00 / 21,7

BV2VI - Soft insulation with polyester and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	LOWER HEAT EXCHANGER (m ²) / (L) *	UPPER HEAT EXCHANGER (m ²) / (L) *
BV2VI 00800 F	130	C	134,1	760,5	2,00 / 10,4	1,50 / 6,6
BV2VI 01000 F	130	C	144,4	942,2	3,00 / 15,7	2,00 / 10,4
BV2VI 01500 F	130	C	170,5	1483,6	3,00 / 15,7	3,00 / 15,7
BV2VI 02000 F	130	C	186,2	1967,2	4,00 / 21,7	4,00 / 21,7



BV2KI - Hard insulation and PVC jacket

CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	LOWER HEAT EXCHANGER (m ²) / (L) *	UPPER HEAT EXCHANGER (m ²) / (L) *
BV2KI 02000 R	100	C	159,3	1971,1	4,00 / 21,7	4,00 / 21,7
BV2KI 02500 R	100	-	-	2514,6	5,00 / 27,4	4,00 / 21,7
BV2KI 03000 R	100	-	-	2978,6	6,00 / 33,1	5,00 / 27,4
BV2KI 04000 R	100	-	-	3915,5	8,00 / 42,9	8,00 / 42,9
BV2KI 05000 R	100	-	-	5026,3	10,00 / 34,3	10,00 / 34,3

BV2KI - Soft insulation with polyester and PVC jacket

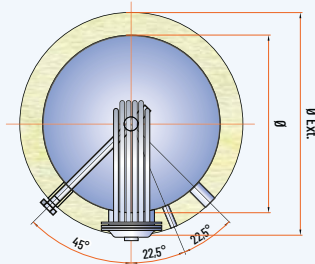
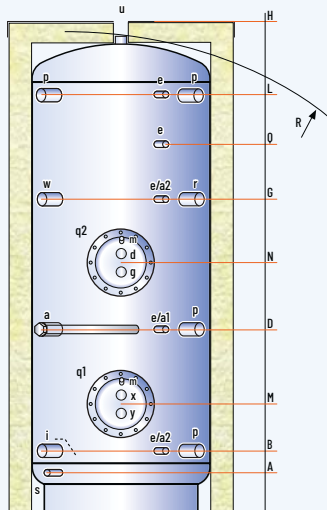
CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	LOWER HEAT EXCHANGER (m ²) / (L) *	UPPER HEAT EXCHANGER (m ²) / (L) *
BV2KI 02000 F	130	C	189,1	1971,1	4,00 / 21,7	4,00 / 21,7
BV2KI 02500 F	100	-	-	2514,6	5,00 / 27,4	4,00 / 21,7
BV2KI 03000 F	100	-	-	2978,6	6,00 / 33,1	5,00 / 27,4
BV2KI 04000 F	100	-	-	3915,5	8,00 / 42,9	8,00 / 42,9
BV2KI 05000 F	100	-	-	5026,3	10,00 / 34,3	10,00 / 34,3

* Volume occupied by the heat exchanger and its support structure

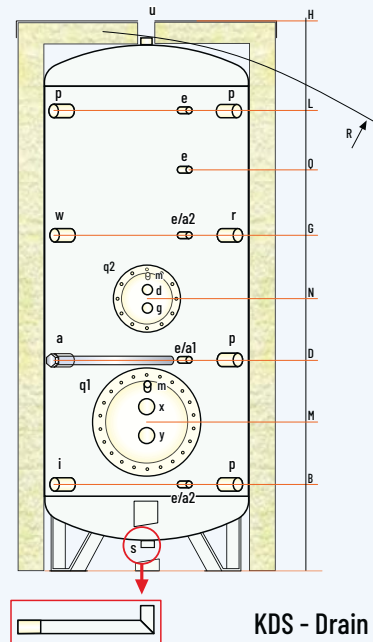
LEGEND

- 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
- q1-q2 . Heat exchanger flange
- r . Recirculation
- s . Drain
- u . Domestic hot water outlet
- x . Solar system flow
- y . Solar system return
- w . Opening for immersion heater

BV2V



BV2K



KDS - Drain Kit

MODEL	DIMENSIONS (mm)		Ø EXT **	R *	LOWER HEAT EXCHANGER (m ²)	UPPER HEAT EXCHANGER (m ²)	Electronic anode (optional)	WEIGHT (kg)
	Ø	H	(Hard/Soft ins.)					
BV2VI 00200 R	450	1320	550	1440	0,50	0,50	a1 (EPS 375/125)	83
BV2VI 00300 R	500	1610	600	1730	0,75	0,75	a1 (EPS 375/125)	99
BV2VI 00500 R	650	1835	750	1835	1,00	1,00	a1 (EPS 375/125)	124
BV2VI 00800_	790	1750	990/1050	1745	2,00	1,50	a1 (EPS 375/125)	218
BV2VI 01000_	790	2110	990/1050	2095	3,00	2,00	a1 (EPS 375/125)	258
BV2VI 01500_	1000	2115	1200/1260	2145	3,00	3,00	a2 (EPS 375/125)	359
BV2VI 02000_	1100	2380	1300/1360	2465	4,00	4,00	a2 (EPS 375/125)	496
BV2KI 02000_	1100	2465	1300/1360	2465	4,00	4,00	a2 (EPS 375/125)	354
BV2KI 02500_	1200	2595	1400	2640	5,00	4,00	a2 (EPS 700/200)	411
BV2KI 03000_	1250	2795	1450	2835	6,00	5,00	a2 (EPS 700/200)	465
BV2KI 04000_	1400	2925	1600	2995	8,00	8,00	a2 (EPS 700/200)	652
BV2KI 05000_	1600	2955	1800	3090	10,00	10,00	a2 (EPS 700/200)	756

* For capacities from 200 to 500 litre, the tilt height refers to the insulated cylinder

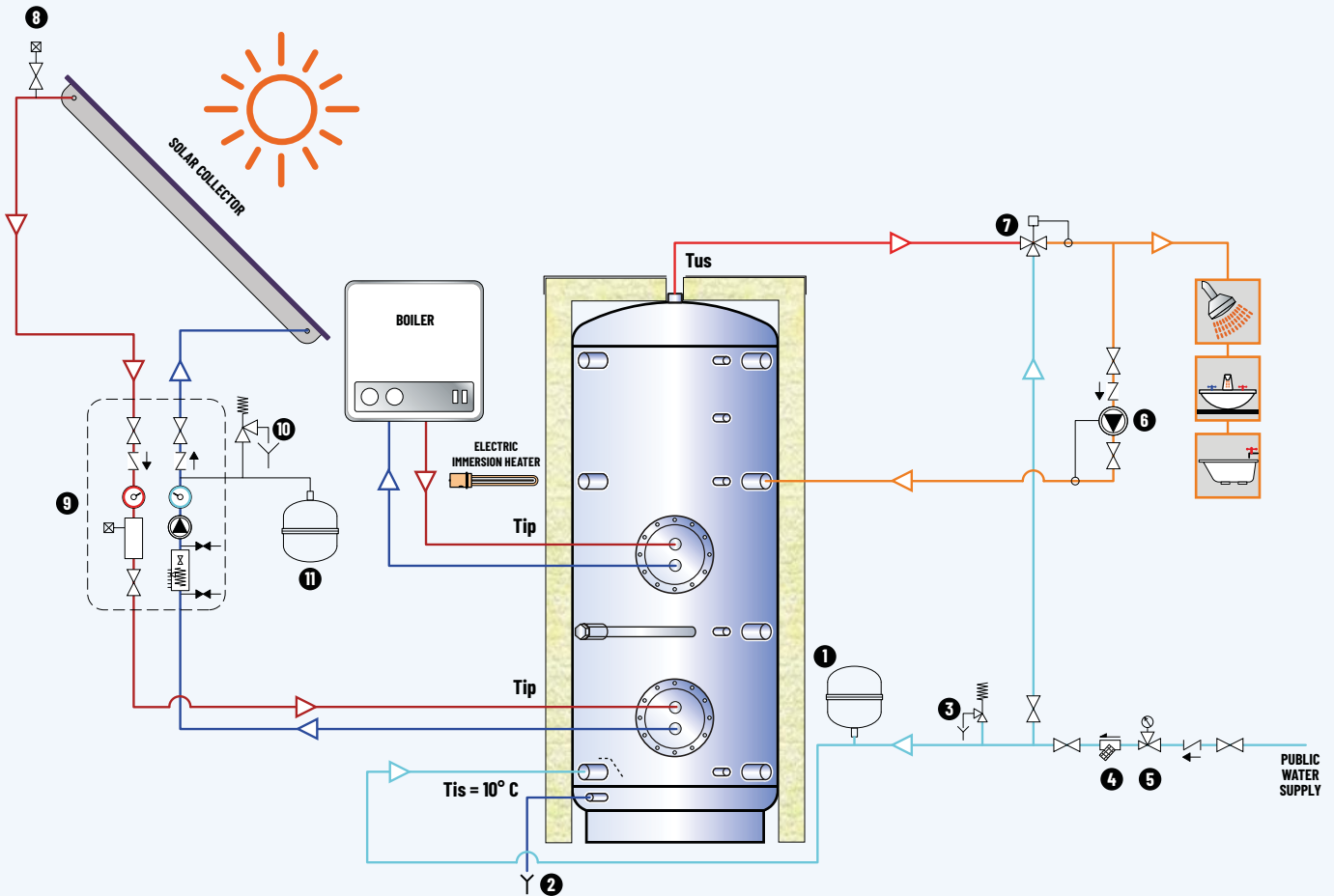
** The insulation is removable except for models from 200 to 500 litre

MODEL	HEIGHTS (mm)								CONNECTIONS (GAS)								
	A	B	D	G	L	M	N	Ø	a pr	d g xy	e	i u	m	s	w	q1	q2
BV2VI 00200 R	110	190	515	890	1075	350	785	975	1 1/4"	1"	1/2"	1 1/4"	3/8"	1"	1 1/2"	220/290	220/290
BV2VI 00300 R	110	215	595	1080	1350	375	870	1215	1 1/4"	1"	1/2"	1 1/4"	3/8"	1"	1 1/2"	220/290	220/290
BV2VI 00500 R	135	240	615	1105	1375	445	890	1240	1 1/4"	1"	1/2"	1 1/4"	3/8"	1"	1 1/2"	220/290	220/290
BV2VI 00800_	150	275	655	1145	1410	450	970	1280	1 1/4"	2"	1/2"	1 1/2"	3/8"	1"	1 1/2"	300/380	300/380
BV2VI 01000_	150	275	810	1355	1755	455	1045	1555	1 1/4"	2"	1/2"	1 1/2"	3/8"	1"	1 1/2"	300/380	300/380
BV2VI 01500_	235	340	765	1400	1725	520	1080	1250	1 1/4"	2"	1/2"	2"	3/8"	1"	1 1/2"	300/380	300/380
BV2VI 02000_	265	370	930	1435	1945	575	1180	1565	1 1/4"	2"	1/2"	2"	3/8"	1"	1 1/2"	350/430	350/430
BV2KI 02000_	-	475	1010	1515	1975	680	1260	1645	1 1/4"	2"	1/2"	2"	3/8"	1 1/4"	1 1/2"	400/480	350/430
BV2KI 02500_	-	505	1040	1600	2105	715	1290	1750	1 1/4"	2"	1/2"	2"	3/8"	1 1/4"	1 1/2"	400/480	350/430
BV2KI 03000_	-	515	1100	1730	2300	700	1415	1880	1 1/4"	2"	1/2"	3"	3/8"	1 1/4"	1 1/2"	400/480	350/430
BV2KI 04000_	-	595	1190	1815	2380	780	1505	1965	1 1/4"	2"	1/2"	3"	3/8"	1 1/4"	1 1/2"	400/480	350/430
BV2KI 05000_	-	600	1185	1815	2385	785	1505	1965	1 1/4"	2"	1/2"	3"	3/8"	1 1/4"	1 1/2"	400/480	350/430

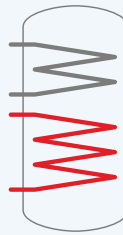
Disclaimer: this layout is purely indicative. It does not replace consultant's design

LEGEND

- | | | |
|---|-----------------------------|--------------------------------------|
| 1 . Domestic water expansion vessel | 5 . Pressure reducing valve | 9 . Solar system control unit |
| 2 . Domestic water drain | 6 . DWH Recirculation pump | 10 . Solar system safety kit (6 bar) |
| 3 . Domestic water safety valve (6 bar) | 7 . DWH 3-way valve | 11 . Solar system expansion vessel |
| 4 . Strainer | 8 . Vent with valve | |



CALORIFIERS WITH
REMOVABLE HEAT
EXCHANGERS



Data related to the lower heat exchanger

MODEL		BV2VI 00200 R				BV2VI 00300 R				BV2VI 00500 R				BV2VI 00800_			
	HEAT EXCHANGER (m ²) [L] ¹	0,5 [2,9]				0,75 [3,8]				1,0 [4,7]				2,0 [9,5]			
	PRIMARY FLOW (m ³ /h)	2				2				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	LITRE 10' (L/10') ²	200	212	301	311	303	321	456	470	511	535	760	780	788	834	1184	1223
	LITRE FIRST HOUR ²	283	354	496	557	426	530	742	830	676	815	1145	1264	1114	1390	1944	2179
	CONTINUOUS DRAW (L) ³	105	180	246	310	155	264	361	455	208	355	485	611	412	702	960	1207
	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	16,8	28,6	39,1	49,1
	PREHEATING ³ (min)	113	65	48	38	117	68	50	39	150	87	63	50	115	67	48	38
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	203	211	-	-	307	319	-	-	516	532	-	-	798	829
	LITRE FIRST HOUR ²	-	-	299	348	-	-	449	520	-	-	707	802	-	-	1175	1364
	CONTINUOUS DRAW (L) ³	-	-	121	173	-	-	179	254	-	-	240	341	-	-	476	675
	POWER (kW)	-	-	7	10	-	-	10	15	-	-	14	20	-	-	28	39
	PREHEATING ³ (min)	-	-	97	68	-	-	101	71	-	-	129	90	-	-	99	69
NL ⁴	0,9				2				5				11				
MODEL		BV2VI 01000_				BV2VI 01500_				BV2VI 02000_				BV2VI 02500_			
	HEAT EXCHANGER (m ²) [L] ¹	3,0 [13,0]				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	LITRE 10' (L/10') ²	992	1059	1503	1560	1506	1574	2238	2295	1988	2087	2968	3043	2547	2658	3779	3872
	LITRE FIRST HOUR ²	1475	1881	2623	2968	1989	2395	3358	3703	2637	3171	4444	4897	3340	4001	5608	6168
	CONTINUOUS DRAW (L) ³	610	1038	1416	1779	610	1038	1416	1779	806	1368	1865	2342	1002	1697	2311	2900
	POWER (kW)	24,8	42,2	57,6	72,4	24,8	42,2	57,6	72,4	32,8	55,7	75,9	95,3	40,8	69,1	94,1	118,0
	PREHEATING ³ (min)	97	56	41	32	152	88	64	51	154	89	65	52	159	92	67	53
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	1007	1053	-	-	1521	1567	-	-	2018	2079	-	-	2572	2647
	LITRE FIRST HOUR ²	-	-	1564	1843	-	-	2079	2357	-	-	2755	3120	-	-	3486	3939
	CONTINUOUS DRAW (L) ³	-	-	705	997	-	-	705	997	-	-	931	1315	-	-	1155	1631
	POWER (kW)	-	-	41	58	-	-	41	58	-	-	54	76	-	-	67	95
	PREHEATING ³ (min)	-	-	83	58	-	-	131	92	-	-	133	93	-	-	137	96
NL ⁴	17				32				38				44				
MODEL		BV2KI 03000_				BV2KI 04000_				BV2KI 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	LITRE 10' (L/10') ²	3021	3153	4483	4596	3972	4147	5895	6043	5091	5309	7548	7733				
	LITRE FIRST HOUR ²	3975	4771	6688	7363	5235	6283	8802	9690	6669	7979	11182	12292				
	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	91	66	52	156	91	66	52	161	93	68	54				
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	3050	3141	-	-	4011	4130	-	-	5139	5288				
	LITRE FIRST HOUR ²	-	-	4151	4696	-	-	5466	6184	-	-	6958	7855				
	CONTINUOUS DRAW (L) ³	-	-	1391	1965	-	-	1838	2594	-	-	2298	3242				
	POWER (kW)	-	-	81	114	-	-	107	151	-	-	134	189				
	PREHEATING ³ (min)	-	-	135	94	-	-	135	94	-	-	138	97				
NL ⁴	48				55				60								

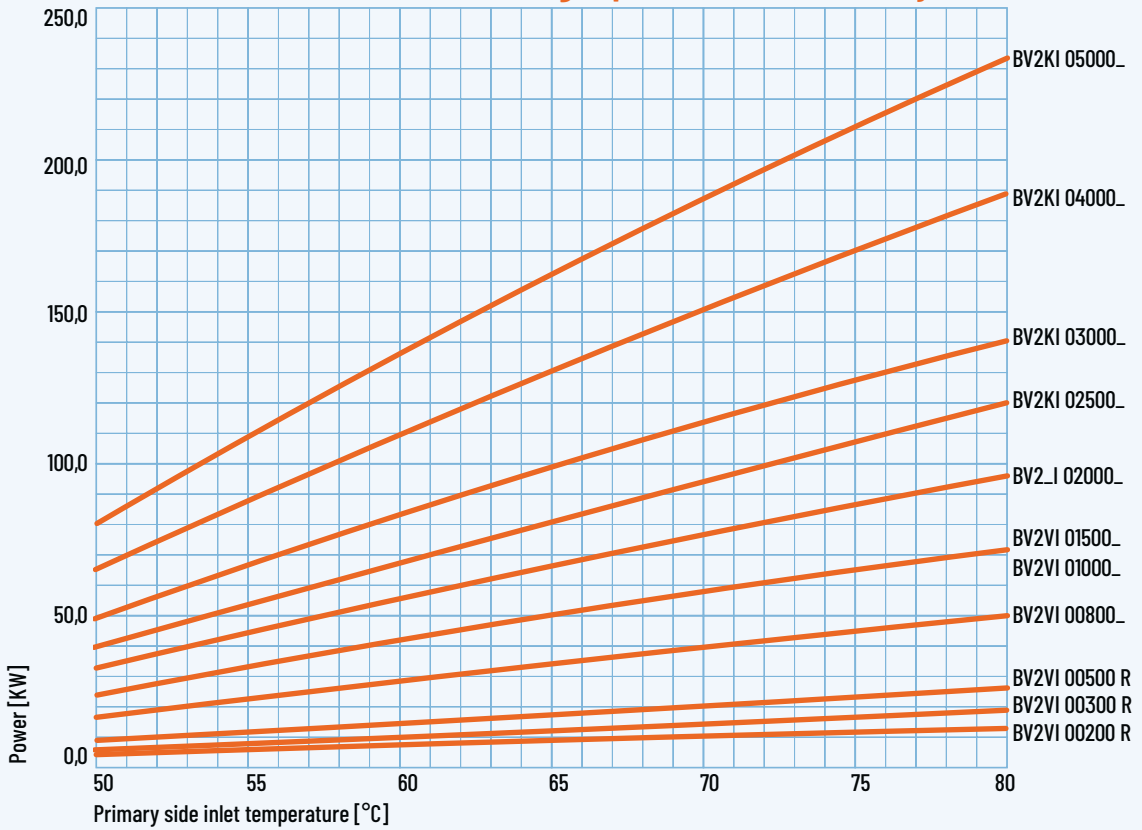
(1) Volume of fluid contained in the heat exchanger

(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

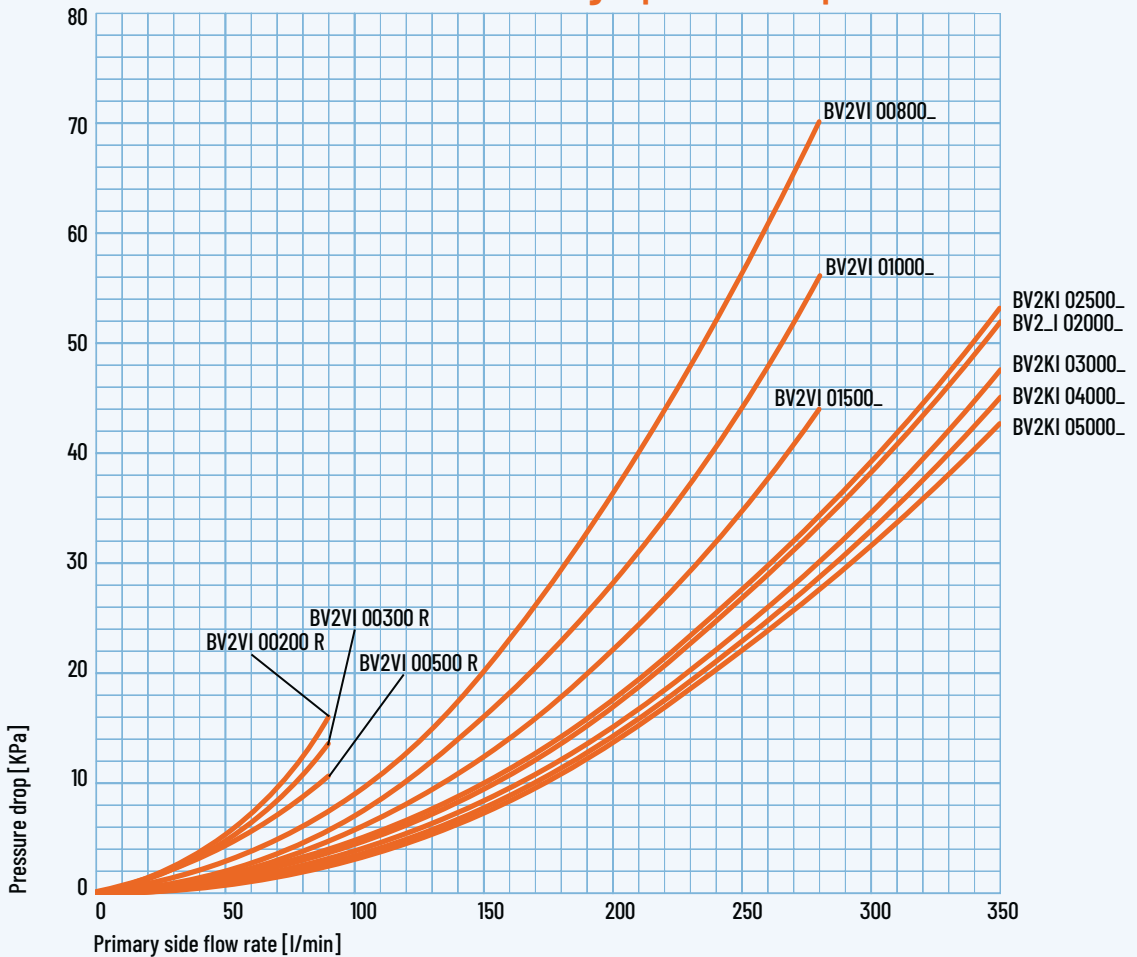
(4) Primary side 80 °C - Secondary side 10-45 °C

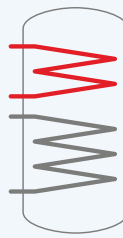
BV2V & BV2K - Lower heat exchanger powers with secondary side at 10/45 °C



CALORIFIERS WITH
REMOVABLE HEAT
EXCHANGERS

BV2V & BV2K - Lower heat exchanger pressure drops





Data related to the upper heat exchanger

The performance values in the chart refer to the partial volume of water affected by the heat exchanger

MODEL		BV2VI 00200 R				BV2VI 00300 R				BV2VI 00500 R				BV2VI 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				2				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	LITRE 10' (L/10') ²	142	154	219	229	196	213	302	317	324	347	492	512	511	546	775	805
	LITRE FIRST HOUR ²	225	297	414	474	319	423	588	677	488	628	1876	996	757	965	1347	1525
	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)	77	45	33	26	72	42	31	24	91	53	38	31	97	56	41	33
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	145	153	-	-	200	212	-	-	329	345	-	-	519	543
	LITRE FIRST HOUR ²	-	-	241	290	-	-	342	413	-	-	519	615	-	-	803	945
	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)	-	-	66	47	-	-	62	44	-	-	78	55	-	-	84	59
NL ⁴	0,9				2				5				11				
MODEL		BV2VI 01000_				BV2VI 01500_				BV2VI 02000_				BV2VI 02500_			
	HEAT EXCHANGER (m ²) [L] ¹	2,0 [9,5]				3,0 [13,0]				4,0 [17,2]				4,0 [17,2]			
	PRIMARY FLOW (m ³ /h)	5				6				7				7			
	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	LITRE 10' (L/10') ²	572	618	876	915	916	984	1395	1453	1216	1305	1850	1925	1474	1563	2219	2294
	LITRE FIRST HOUR ²	898	1174	1636	1871	1399	1805	2516	2861	1854	2388	3326	3779	2113	2646	3696	4149
	CONTINUOUS DRAW (L) ³	412	702	960	1207	610	1038	1416	1779	807	1369	1865	2342	807	1368	1865	2342
	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	32,8	55,7	75,9	95,3
	PREHEATING ³ (min)	81	47	34	27	89	51	37	30	90	52	38	30	111	64	47	37
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	582	614	-	-	931	978	-	-	1235	1296	-	-	1494	1555
	LITRE FIRST HOUR ²	-	-	959	1148	-	-	1489	1767	-	-	1972	2338	-	-	2231	2596
	CONTINUOUS DRAW (L) ³	-	-	476	675	-	-	705	997	-	-	931	1315	-	-	931	1315
	POWER (kW)	-	-	28	39	-	-	41	58	-	-	54	76	-	-	54	76
	PREHEATING ³ (min)	-	-	69	49	-	-	76	53	-	-	77	54	-	-	95	67
NL ⁴	17				32				38				44				
MODEL		BV2KI 03000_				BV2KI 04000_				BV2KI 05000_							
	HEAT EXCHANGER (m ²) [L] ¹	5,0 [20,8]				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	LITRE 10' (L/10') ²	1769	1881	2670	2766	2387	2562	3630	3778	3028	3247	4602	4787				
	LITRE FIRST HOUR ²	2574	3250	4538	5113	3649	4698	6537	7425	4606	5916	8236	9346				
	CONTINUOUS DRAW (L) ³	1017	1729	2359	2965	1595	2698	3672	4607	1993	3372	4590	5758				
	POWER (kW)	41,4	70,4	96,0	120,7	64,9	109,8	149,5	187,5	81,1	137,3	186,8	234,4				
	PREHEATING ³ (min)	104	61	44	35	90	52	38	30	91	53	39	31				
DHW FROM 10 TO 60 °C	LITRE 10' (L/10') ²	-	-	1794	1871	-	-	2425	2545	-	-	3076	3226				
	LITRE FIRST HOUR ²	-	-	2723	3187	-	-	3881	4599	-	-	4896	5793				
	CONTINUOUS DRAW (L) ³	-	-	1174	1662	-	-	1839	2594	-	-	2298	3242				
	POWER (kW)	-	-	68	97	-	-	107	151	-	-	134	189				
	PREHEATING ³ (min)	-	-	90	63	-	-	77	54	-	-	79	55				
NL ⁴	48				55				60								

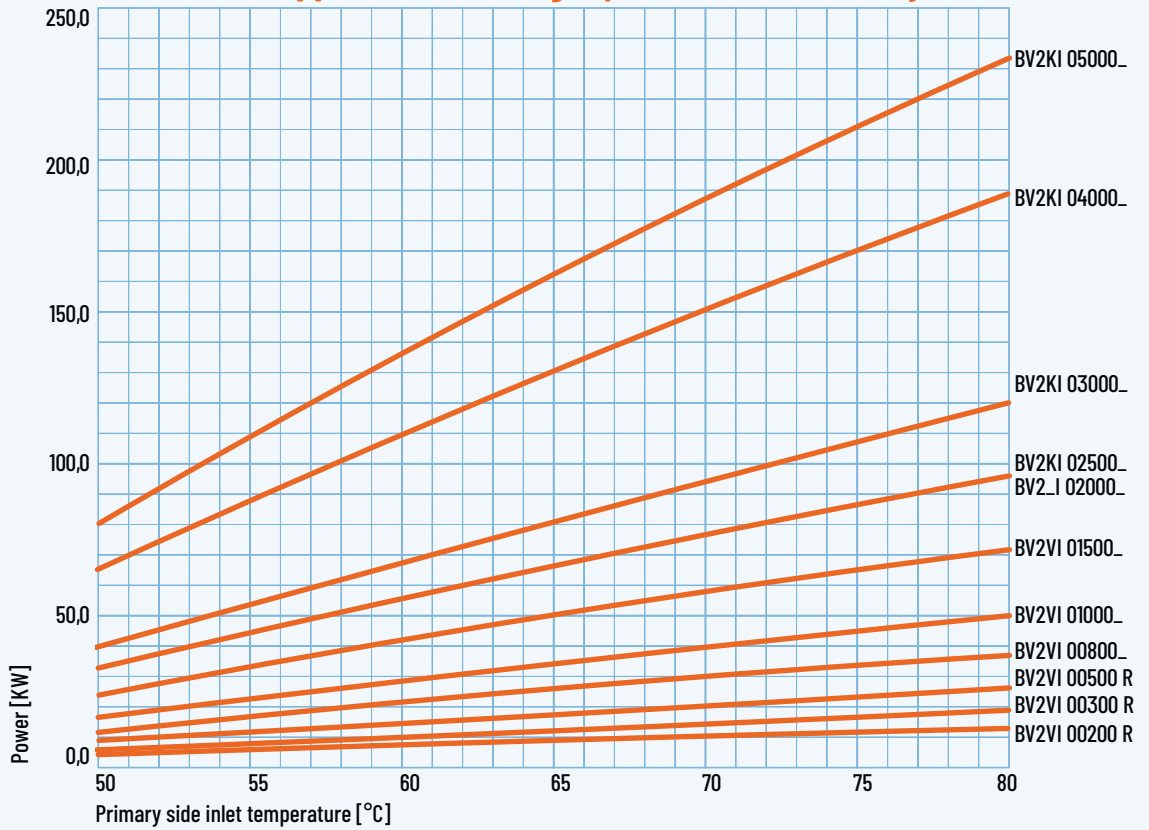
(1) Volume of fluid contained in the heat exchanger

(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

BV2V & BV2K - Upper heat exchanger powers with secondary side at 10/45 °C



CALORIFIERS WITH
REMOVABLE HEAT
EXCHANGERS

BV2V & BV2K - Upper heat exchanger pressure drops

