



BV2VA - Glass lined calorifier with two removable copper heat exchangers

BV2KA - Keramtech calorifier with two removable copper 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. BV2VA for capacities up to 2.000 litres) or with Keramtech ceramic lining

(Mod. BV2KA for capacities from 2000 to 5000 litres). The tank is equipped with two removable tinned finned copper heat exchangers. Cylinders are also prepared to host a backup immersion heater (not supplied).

HEAT SOURCE



APPLICATION



TECHNICAL FEATURES

DHW cylinder

Heat exchanger

General features

	BV2VA	BV2KA
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	Tinned finned copper	
Internal protective treatment	None	
External protective treatment	Tinning	
Type	Finned spiral pipe 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



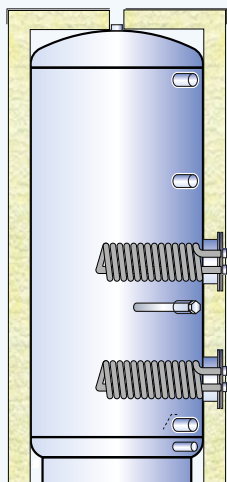
Thermostat



Thermometer



1 1/2 electric immersion heater

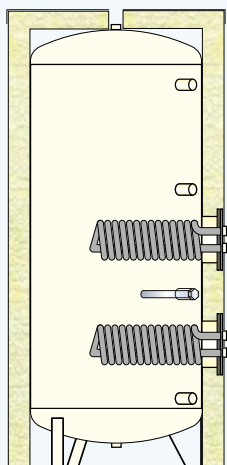


BV2VA - Hard insulation with rigid polyurethane foam and PVC jacket

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) *
BV2VA 00200 R	50	C	65,7	193,1	0,76 / 1,1	0,76 / 1,1
BV2VA 00300 R	50	C	77,2	293,6	0,94 / 1,4	0,76 / 1,1
BV2VA 00500 R	50	C	89,6	503,6	1,58 / 2,3	0,76 / 1,1
BV2VA 00800 R	100	C	119,7	760,5	2,63 / 3,9	0,94 / 1,4
BV2VA 01000 R	100	C	123,6	942,2	3,17 / 4,7	1,58 / 2,3
BV2VA 01500 R	100	C	142,6	1483,6	4,54 / 6,7	2,63 / 3,9
BV2VA 02000 R	100	C	156,6	1967,2	5,26 / 7,8	3,17 / 4,7

BV2VA - 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) *
BV2VA 00800 F	130	C	134,1	760,5	2,63 / 3,9	0,94 / 1,4
BV2VA 01000 F	130	C	144,4	942,2	3,17 / 4,7	1,58 / 2,3
BV2VA 01500 F	130	C	170,5	1483,6	4,54 / 6,7	2,63 / 3,9
BV2VA 02000 F	130	C	186,2	1967,2	5,26 / 7,8	3,17 / 4,7



BV2KA - 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) *
BV2KA 02000 R	100	C	159,3	1971,1	5,26 / 7,8	3,17 / 4,7
BV2KA 02500 R	100	C	-	2514,6	6,34 / 9,4	4,54 / 6,7
BV2KA 03000 R	100	C	-	2978,6	6,34 / 9,4	5,26 / 7,8
BV2KA 04000 R	100	C	-	3915,5	6,34 / 9,4	6,34 / 9,4
BV2KA 05000 R	100	C	-	5026,3	6,34 / 9,4	6,34 / 9,4

BV2KA - 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) *
BV2KA 02000 F	130	C	189,1	1971,1	5,26 / 7,8	3,17 / 4,7
BV2KA 02500 F	100	C	-	2514,6	6,34 / 9,4	4,54 / 6,7
BV2KA 03000 F	100	C	-	2978,6	6,34 / 9,4	5,26 / 7,8
BV2KA 04000 F	100	C	-	3915,5	6,34 / 9,4	6,34 / 9,4
BV2KA 05000 F	100	C	-	5026,3	6,34 / 9,4	6,34 / 9,4

* Volume occupied by the heat exchanger and its support structure

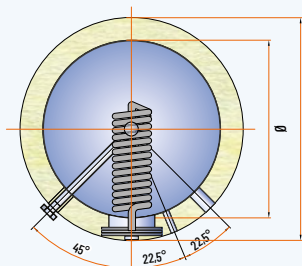
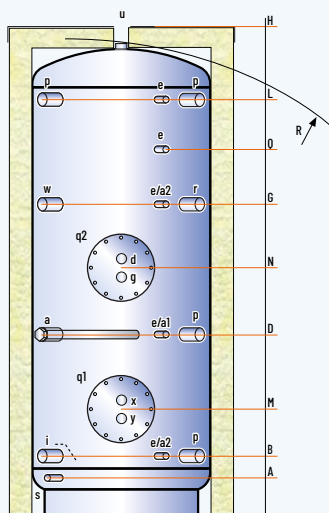
LEGEND

a . Magnesium anode
a1-a2 . Opening for electronic anode
d . Boiler flow
e . Thermometer - Sensor
g . Boiler return

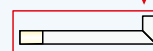
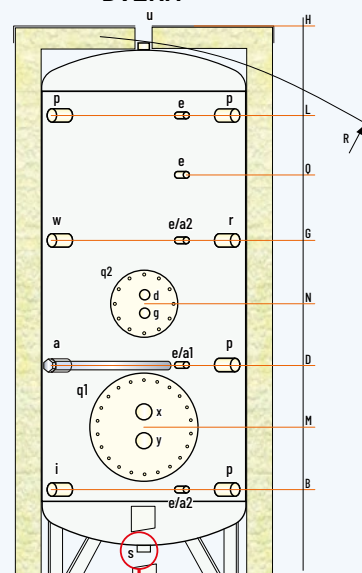
i . Domestic cold water inlet
p . Free connection
q1-q2 . Heat exchanger flange
r . Recirculation
s . Drain

u . Domestic hot water outlet
x . Solar system flow
y . Solar system return
w . Opening for immersion heater

BV2VA



BV2KA



KDS - Drain Kit

MODEL	DIMENSIONS (mm)		Ø EXT **	R *	LOWER HEAT EXCHANGER (m²)	UPPER HEAT EXCHANGER (m²)	Electronic anode (optional)	WEIGHT (kg)
	Ø	H	(Hard/Soft ins.)					
BV2VA 00200 R	450	1320	550	1440	0,76	0,76	a1 (EPS 375/125)	74
BV2VA 00300 R	500	1610	600	1730	0,94	0,76	a1 (EPS 375/125)	93
BV2VA 00500 R	650	1660	750	1835	1,58	0,76	a1 (EPS 375/125)	121
BV2VA 00800_	790	1750	990/1050	1745	2,63	0,94	a1 (EPS 375/125)	205
BV2VA 01000_	790	2110	990/1050	2095	3,17	1,58	a1 (EPS 375/125)	239
BV2VA 01500_	1000	2115	1200/1260	2145	4,54	2,63	a2 (EPS 375/125)	363
BV2VA 02000_	1100	2380	1300/1360	2465	5,26	3,17	a2 (EPS 375/125)	492
BV2KA 02000_	1100	2465	1300/1360	2465	5,26	3,17	a2 (EPS 375/125)	355
BV2KA 02500_	1200	2595	1400	2640	6,34	4,54	a2 (EPS 700/200)	401
BV2KA 03000_	1250	2795	1450	2835	6,34	5,26	a2 (EPS 700/200)	430
BV2KA 04000_	1400	2925	1600	2995	6,34	6,34	a2 (EPS 700/200)	599
BV2KA 05000_	1600	2955	1800	3090	6,34	6,34	a2 (EPS 700/200)	683

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

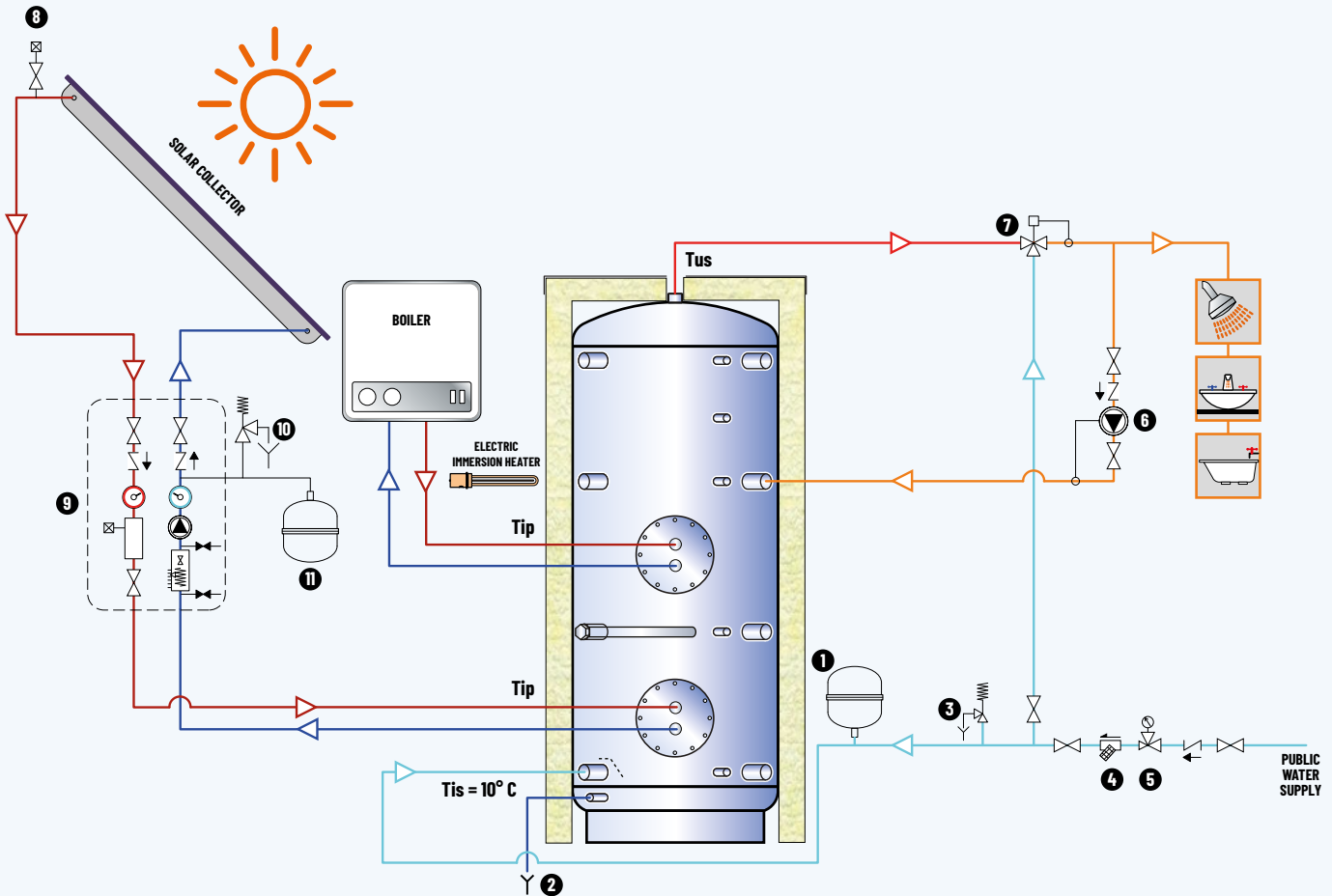
** The insulation is removable except for models from 200 to 500 litres

MODEL	HEIGHTS (mm)								CONNECTIONS (GAS)													
	A	B	D	G	L	M	N	Q	a	p	r	d	g	x	y	e	i	u	s	w	q1	q2
BV2VA 00200 R	110	190	515	890	1075	350	785	975	1"¼	¾"	male thread	½"	1"	1"¼	1"	1"½				1"½	220/290	220/290
BV2VA 00300 R	110	215	595	1080	1350	375	870	1215	1"¼	¾"	male thread	½"	1"¼	1"	1"	1"½				1"½	220/290	220/290
BV2VA 00500 R	135	240	615	1105	1375	445	890	1240	1"¼	¾"	male thread	½"	1"¼	1"	1"	1"½				1"½	220/290	220/290
BV2VA 00800_	150	275	655	1145	1410	450	970	1280	1"¼	¾"	male thread	½"	1"½	1"	1"	1"½				1"½	300/380	300/380
BV2VA 01000_	150	275	810	1355	1755	455	1045	1555	1"¼	¾"	male thread	½"	1"½	1"	1"	1"½				1"½	300/380	300/380
BV2VA 01500_	235	340	765	1400	1725	520	1080	1250	1"¼	1"	male thread	½"	2"	1"	1"	1"½				1"½	300/380	300/380
BV2VA 02000_	265	370	930	1435	1945	575	1180	1565	1"¼	1"	male thread	½"	2"	1"	1"	1"½				1"½	350/430	350/430
BV2KA 02000_	-	475	1010	1515	1975	680	1260	1645	1"¼	1"	male thread	½"	2"	1"¼	1"	1"½				1"½	400/480	350/430
BV2KA 02500_	-	505	1040	1600	2105	715	1290	1750	1"¼	1"	male thread	½"	2"	1"¼	1"	1"½				1"½	400/480	350/430
BV2KA 03000_	-	515	1100	1730	2300	700	1415	1880	1"¼	1"	male thread	½"	3"	1"¼	1"	1"½				1"½	400/480	350/430
BV2KA 04000_	-	595	1190	1815	2380	780	1505	1965	1"¼	1"	male thread	½"	3"	1"¼	1"	1"½				1"½	400/480	350/430
BV2KA 05000_	-	600	1185	1815	2385	785	1505	1965	1"¼	1"	male thread	½"	3"	1"¼	1"	1"½				1"½	400/480	350/430

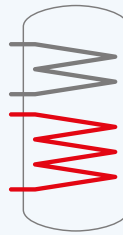
Disclaimer: this layout is purely indicative. It does not replace consultant's design

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 . DHW 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		BV2VA 00200 R				BV2VA 00300 R				BV2VA 00500 R				BV2VA 00800_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	0,76 [0,70]				0,94 [0,80]				1,58 [1,40]				2,63 [2,30]			
	PRIMARY FLOW (m ³ /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') ²	198	209	297	307	297	311	442	453	507	528	751	769	764	797	1132	1160
	LITRES FIRST HOUR ²	279	348	486	545	396	479	671	741	659	785	1100	1207	1001	1194	1672	1836
	CONTINUOUS DRAW (L) ³	103	175	239	300	126	213	290	363	192	325	442	554	299	502	682	854
DHW FROM 10 TO 60 °C	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 ³ (min)	117	68	49	39	148	86	62	49	167	97	71	56	164	95	69	55
	LITRES 10' (L/10') ²	-	-	200	208	-	-	300	309	-	-	512	526	-	-	772	794
	LITRES FIRST HOUR ²	-	-	295	341	-	-	415	471	-	-	687	773	-	-	1044	1176
	CONTINUOUS DRAW (L) ³	-	-	119	168	-	-	145	204	-	-	221	312	-	-	344	483
	POWER (kW)	-	-	7	10	-	-	8	12	-	-	13	18	-	-	20	28
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	100	70	-	-	127	89	-	-	144	101	-	-	141	99
	NL ⁴	0,9				2				5				10			
MODEL		BV2VA 01000_				BV2VA 01500_				BV2_A 02000_				BV2KA 02500_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	3,17 [2,70]				4,54 [3,90]				5,26 [4,50]				6,34 [5,40]			
	PRIMARY FLOW (m ³ /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') ²	948	987	1402	1435	1462	1502	2140	2174	1998	2087	2968	3043	2547	2658	3779	3872
	LITRES FIRST HOUR ²	1237	1471	2057	2253	1752	1994	2810	3015	2637	3171	4444	4897	3340	4001	5608	6168
	CONTINUOUS DRAW (L) ³	366	611	827	1034	367	621	846	1062	806	1368	1865	2342	1002	1697	2311	2900
DHW FROM 10 TO 60 °C	POWER (kW)	14,9	24,9	33,7	42,1	14,9	25,3	34,4	43,2	32,8	55,7	75,9	95,3	40,8	69,1	94,1	118,0
	PREHEATING ³ (min)	170	98	72	57	256	148	108	86	154	89	65	52	159	92	67	53
	LITRES 10' (L/10') ²	-	-	956	983	-	-	1471	1499	-	-	1937	1969	-	-	2468	2504
	LITRES FIRST HOUR ²	-	-	1289	1448	-	-	1806	1971	-	-	2320	2509	-	-	2921	3141
	CONTINUOUS DRAW (L) ³	-	-	420	588	-	-	423	597	-	-	484	682	-	-	572	805
	POWER (kW)	-	-	24	34	-	-	25	35	-	-	28	40	-	-	33	47
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	146	102	-	-	220	154	-	-	257	180	-	-	281	197
	NL ⁴	15				25				30				35			
MODEL		BV2KA 03000_				BV2KA 04000_				BV2KA 05000_							
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	6,34 [5,40]				6,34 [5,40]				6,34 [5,40]							
	PRIMARY FLOW (m ³ /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') ²	2897	2950	4205	4251	3788	3843	5480	5527	4843	4898	6988	7034				
	LITRES FIRST HOUR ²	3290	3613	5105	5377	4187	4517	6398	6677	5242	5573	7905	8184				
	CONTINUOUS DRAW (L) ³	497	837	1136	1423	505	852	1159	1453	505	852	1159	1453				
DHW FROM 10 TO 60 °C	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 ³ (min)	387	224	163	129	496	288	209	166	637	369	269	213				
	LITRES 10' (L/10') ²	-	-	2908	2945	-	-	3800	3838	-	-	4855	4893				
	LITRES FIRST HOUR ²	-	-	3362	3582	-	-	4260	4486	-	-	5315	5541				
	CONTINUOUS DRAW (L) ³	-	-	572	805	-	-	581	819	-	-	581	819				
	POWER (kW)	-	-	33	47	-	-	34	48	-	-	34	48				
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	333	233	-	-	426	299	-	-	548	384				
	NL ⁴	38				40				43							

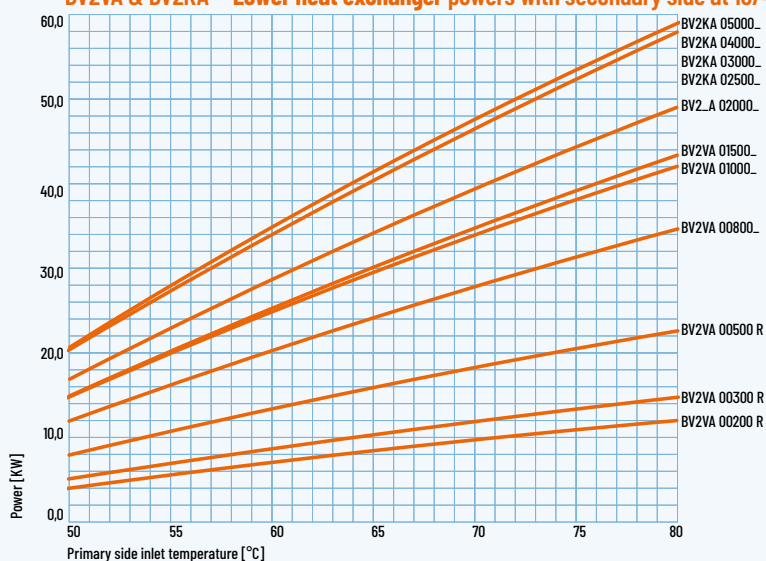
(1) Volume of fluid contained in the heat exchanger

(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

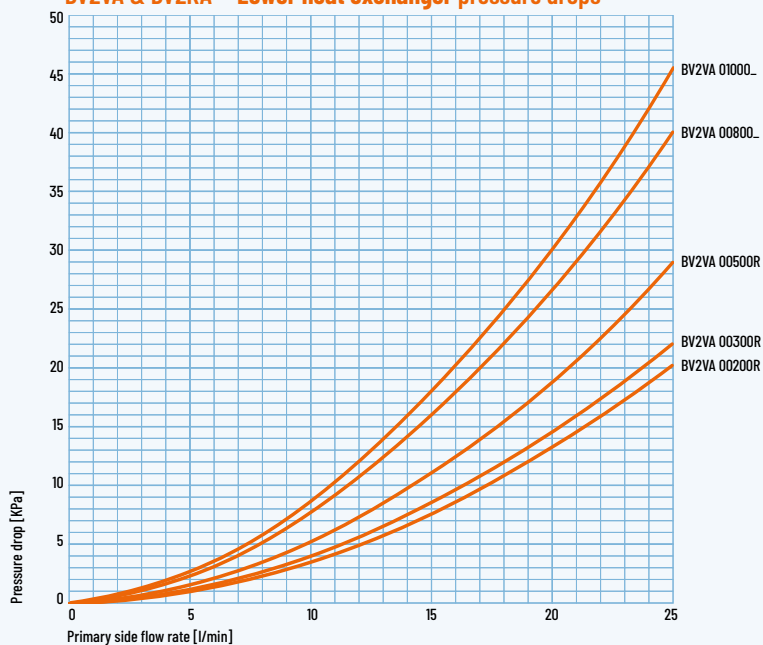
(3) With a proper power heat source generator

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

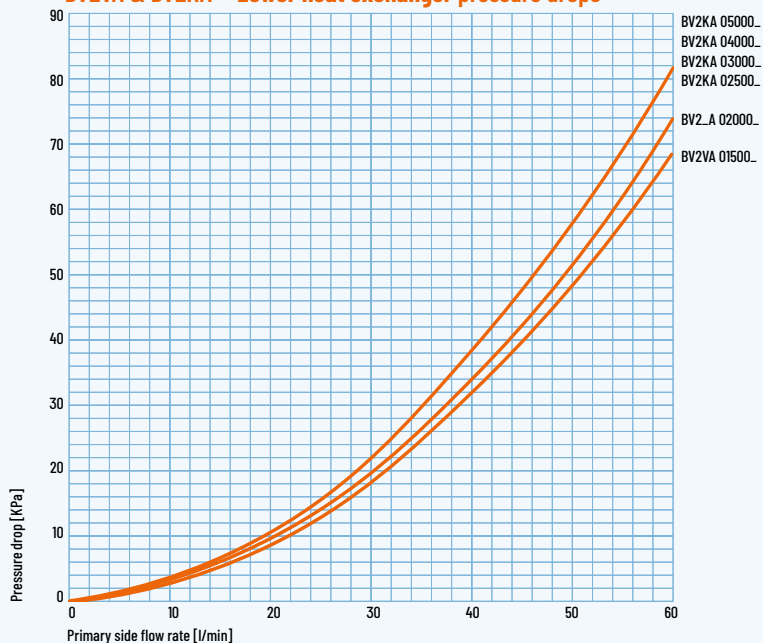
BV2VA & BV2KA - Lower heat exchanger powers with secondary side at 10/45 °C

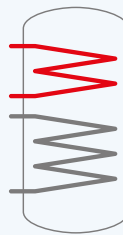


BV2VA & BV2KA - Lower heat exchanger pressure drops



BV2VA & BV2KA - 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		BV2VA 00200 R				BV2VA 00300 R				BV2VA 00500 R				BV2VA 00800_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	0,76 [0,70]				0,76 [0,70]				0,76 [0,70]				0,94 [0,80]			
	PRIMARY FLOW (m ³ /h)	1				1				1				1			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
	LITRES 10' (L/10') ²	141	152	216	225	186	197	280	290	305	316	450	459	482	496	706	718
	LITRES FIRST HOUR ²	222	291	405	463	268	336	469	528	386	454	639	697	582	664	936	1006
	CONTINUOUS DRAW (L) ³	103	175	239	300	103	175	239	300	103	175	239	300	126	213	290	363
DHW FROM 10 TO 60 °C	POWER (kW)	4,2	7,1	9,7	12,2	4,2	7,1	9,7	12,2	4,2	7,1	9,7	12,2	5,1	8,7	11,8	14,8
	PREHEATING ³ (min)	80	46	34	27	109	63	46	37	185	107	78	62	246	143	104	82
	LITRES 10' (L/10') ²	-	-	143	151	-	-	189	196	-	-	307	315	-	-	485	495
	LITRES FIRST HOUR ²	-	-	237	284	-	-	283	330	-	-	401	448	-	-	600	657
	CONTINUOUS DRAW (L) ³	-	-	119	168	-	-	119	168	-	-	119	168	-	-	145	204
	POWER (kW)	-	-	7	10	-	-	7	10	-	-	7	10	-	-	8	12
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	69	48	-	-	94	66	-	-	159	111	-	-	212	148
	NL ⁴	0,5				1,2				3				7			
MODEL		BV2VA 01000_				BV2VA 01500_				BV2VA 02000_				BV2KA 02500_			
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	1,58 [1,40]				2,63 [2,30]				3,17 [2,70]				4,54 [3,90]			
	PRIMARY FLOW (m ³ /h)	1,4				1,8				1,8				3			
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80	50	60	70	80
	LITRES 10' (L/10') ²	537	558	794	812	867	899	1279	1306	1122	1161	1651	1684	1405	1445	2058	2092
	LITRES FIRST HOUR ²	689	815	1144	1250	1103	1297	1819	1982	1411	1645	2306	2502	1695	1937	2728	2933
	CONTINUOUS DRAW (L) ³	192	325	442	554	299	502	682	854	366	611	827	1034	367	621	846	1062
DHW FROM 10 TO 60 °C	POWER (kW)	7,8	13,2	18,0	22,5	12,2	20,5	27,8	34,8	14,9	24,9	33,7	42,1	14,9	25,3	34,4	43,2
	PREHEATING ³ (min)	178	103	75	59	187	109	79	63	203	118	86	68	245	142	103	82
	LITRES 10' (L/10') ²	-	-	542	556	-	-	874	896	-	-	1130	1157	-	-	1413	1441
	LITRES FIRST HOUR ²	-	-	717	803	-	-	1146	1279	-	-	1463	1623	-	-	1748	1914
	CONTINUOUS DRAW (L) ³	-	-	221	312	-	-	344	483	-	-	420	588	-	-	423	597
	POWER (kW)	-	-	13	18	-	-	20	28	-	-	24	34	-	-	25	35
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	153	107	-	-	161	113	-	-	174	122	-	-	211	148
	NL ⁴	8				13				18				19			
MODEL		BV2KA 03000_				BV2KA 04000_				BV2KA 05000_							
DHW FROM 10 TO 45 °C	HEAT EXCHANGER (m ²) [L] ¹	5,26 [4,50]				6,34 [5,40]				6,34 [5,40]							
	PRIMARY FLOW (m ³ /h)	3				3,5				3,5							
	PRIMARY TEMP. (°C)	50	60	70	80	50	60	70	80	50	60	70	80				
	LITRES 10' (L/10') ²	1674	1720	2449	2488	2214	2269	3232	3279	2792	2848	4059	4105				
	LITRES FIRST HOUR ²	2006	2282	3213	3446	2614	2944	4150	4429	3192	3522	4976	5255				
	CONTINUOUS DRAW (L) ³	420	709	965	1210	505	852	1159	1453	505	852	1159	1453				
DHW FROM 10 TO 60 °C	POWER (kW)	17,1	28,9	39,3	49,3	20,5	34,7	47,2	59,1	20,5	34,7	47,2	59,1				
	PREHEATING ³ (min)	258	150	109	86	285	166	121	96	363	210	153	121				
	LITRES 10' (L/10') ²	-	-	1684	1716	-	-	2226	2264	-	-	2805	2842				
	LITRES FIRST HOUR ²	-	-	2067	2256	-	-	2687	2913	-	-	3265	3491				
	CONTINUOUS DRAW (L) ³	-	-	484	682	-	-	581	819	-	-	581	819				
	POWER (kW)	-	-	28	40	-	-	34	48	-	-	34	48				
DHW FROM 10 TO 60 °C	PREHEATING ³ (min)	-	-	222	155	-	-	245	172	-	-	312	218				
	NL ⁴	20				22				23							

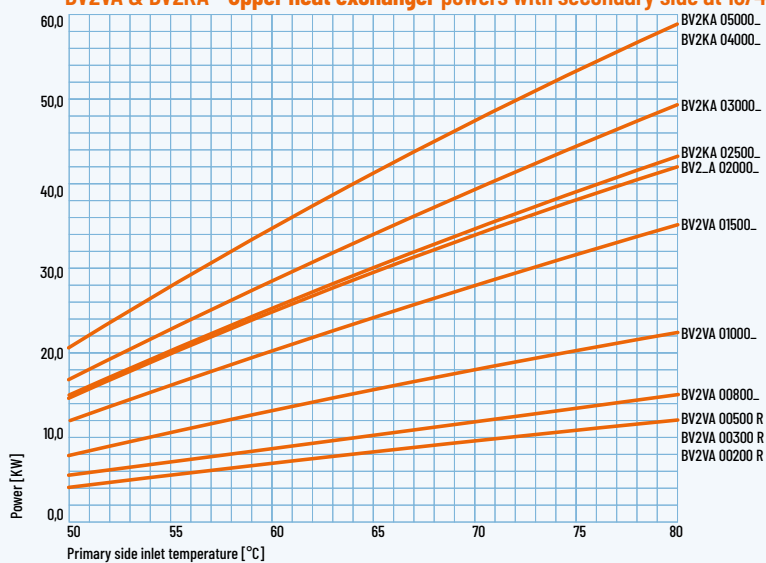
(1) Volume of fluid contained in the heat exchanger

(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

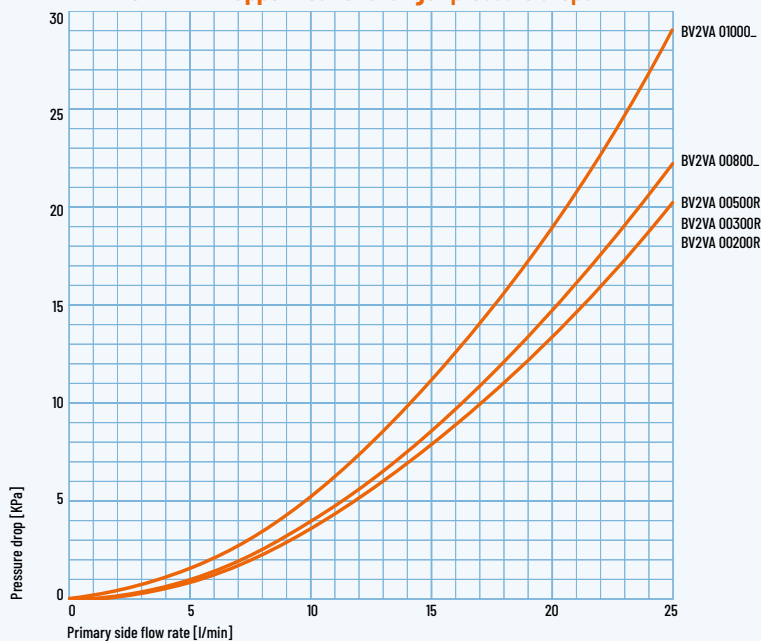
(3) With a proper power heat source generator

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

BV2VA & BV2KA - Upper heat exchanger powers with secondary side at 10/45 °C



BV2VA & BV2KA - Upper heat exchanger pressure drops



BV2VA & BV2KA - Upper heat exchanger pressure drops

