

# BSMJ series self-healing LV Shunt capacitors



## Brief

It is used in an AC power system with rated voltage less than 1.2kV to increase power factor to reduce reactive loss and to improve voltage quality.

## Main Features

### a. Novel in structure, light in weight

It is produced with Zinc-and-aluminum metallized polypropylene film as the medium so the dimension and the weight is respectively only the 1/4 and 1/5 of the old.

### b. Low loss

Because the actual value is less than 0.12%, energy loss of the capacitor itself is few, the raised temperature is low, operation life is long and it has outstanding saving energy result.

### c. Good self-healing performance

Medium partial impulse caused by the over voltage can be healed by itself to operate as before.

### d. Safety

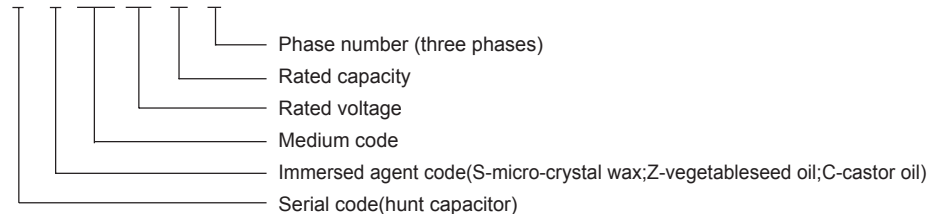
It is very reliable because the discharge and insurance devices are installed in it.

### e. No omitted oil

Its main immersed agent is the micro-crystal wax, which is solid at normal temperature, its drop-point and dissoluble-point are both above 70°C and it won't omit operating, so it won't pollute the surroundings.

## Mode & Implication

B S MJ<sub>2</sub> 0.4 -15 - 3



The subscript 2 of BSMJ<sub>2</sub> represents impedance coil in the capacitor.

## Main Technical Parameter

- Usage environment: surrounding temperature is -25°C ~ +50°C, the humidity is less than 85%, the altitude is below 2000m.
- Rated voltage: 0.23~1.2kV, AC.
- Rated capacity: 1 ~ 60kvar.
- Capacity deviation: 0 ~ +10%.
- Tangent of the dielectric loss angle: In the power frequency rated voltage, 20°C is less than 0.2%.
- Withstand voltage between the poles: the rated voltage is 5s if the voltage between the poles is 2.15.
- Maximum permitted over-voltage: it is 1.10 as the rated voltage.
- Permitted over-current: it is 1.30 as the rated current.
- Automatically discharge: It is less than 50V in 3min after power broke down when the Dc is  $\sqrt{2}U_n$  as the before increased by the capacitors.
- It conforms to the standards GB12747-1991 and IEC60831-1996.

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Table of The Main Specification And the Overall Dimension

The overall dimension of the single-phase products and the products installed impedance coil is equal to the three-phase ones. Order by the contract if the other specification is needed.

Main Specification & Overall Dimension

NO.	Type BSMJ BZMJ BCMJ BGMJ	Rated Volt. age (kV)	Rated Capacity (kvar)	Tatel capacitance ( $\mu$ F)	Rated current (A)	Type & Heiht H(mm)
1	0.23-3-1	0.23	3	180.7	13	A Type 110
2	0.23 $\bar{A}$ 3-3-3	0.23	3	60.2	4.3	A Type 110
3	0.23-5-1	0.23	5	301.2	21.7	A Type 220
4	0.23 $\bar{A}$ 3-5-3	0.23	5	100.4	7.2	A Type 220
5	0.23-7.5-1	0.23	7.5	451.8	32.6	A Type 220
6	0.23 $\bar{A}$ 3-7.5-3	0.23	7.5	150.6	10.8	A Type 220
7	0.23-10-1	0.23	10	602.4	43.5	B Type 220
8	0.23 $\bar{A}$ 3-10-3	0.23	10	200.8	14.5	B Type 220
9	0.23-15-1	0.23	15	903.6	65.2	B Type 270
10	0.23 $\bar{A}$ 3-15-3	0.23	15	301.2	21.7	B Type 270
11	0.4-3-3	0.4	3	59.7	4.3	A <sub>1</sub> Type 105
12	0.4-5-3	0.4	5	99.5	7.2	A <sub>2</sub> Type 110
13	0.4-6-3	0.4	6	119.4	8.7	A <sub>2</sub> Type 130
14	0.4-7.5-3	0.4	7.5	149.2	10.8	A <sub>2</sub> Type 130
15	0.4-8-3	0.4	8	159.2	11.5	A <sub>2</sub> Type 130
16	0.4-10-3	0.4	10	198.9	14.4	A Type 185
17	0.4-12-3	0.4	12	238.7	17.3	A Type 185
18	0.4-14-3	0.4	14	278.5	20.2	A Type 185
19	0.4-15-3	0.4	15	298.4	21.7	A Type 185
20	0.4-16-3	0.4	16	318.3	23.1	A Type 185
21	0.4-18-3	0.4	18	358.1	26	A Type 220
22	0.4-20-3	0.4	20	397.9	28.9	A Type 245
23	0.4-25-3	0.4	25	497.4	36.1	B Type 210
24	0.4-30-3	0.4	30	596.8	43.3	B Type 240
25	0.4-40-3	0.4	40	795.8	57.7	C Type 210
26	0.4-50-3	0.4	50	994.7	72.2	C Type 230
27	0.4-60-3	0.4	60	1193.7	86.6	C Type 270
28	0.415-3-3	0.415	3	55.4	4.2	A <sub>1</sub> Type 105
29	0.415-5-3	0.415	5	92.4	7	A <sub>2</sub> Type 110
30	0.415-6-3	0.415	6	110.9	8.3	A <sub>2</sub> Type 130
31	0.415-7.5-3	0.415	7.5	138.6	10.4	A <sub>2</sub> Type 130
32	0.415-8-3	0.415	8	147.9	11.1	A <sub>2</sub> Type 130
33	0.415-10-3	0.415	10	184.8	13.9	A Type 185
34	0.415-12-3	0.415	12	221.8	16.7	A Type 185
35	0.415-14-3	0.415	14	258.6	19.5	A Type 185
36	0.415-15-3	0.415	15	277.2	20.9	A Type 185
37	0.415-16-3	0.415	16	295.7	22.3	A Type 185
38	0.415-18-3	0.415	18	332.7	25	A Type 220
39	0.415-20-3	0.415	20	369.6	27.8	A Type 245
40	0.415-25-3	0.415	25	462	34.8	B Type 210
41	0.415-30-3	0.415	30	554.5	41.7	B Type 240
42	0.415-40-3	0.415	40	739.3	55.6	C Type 210
43	0.415-50-3	0.415	50	924.1	69.6	C Type 230
44	0.415-60-3	0.415	60	1108.9	83.5	C Type 270
45	0.45-3-3	0.45	3	47.2	3.9	A <sub>1</sub> Type 105
46	0.45-5-3	0.45	5	78.6	6.4	A <sub>2</sub> Type 110
47	0.45-6-3	0.45	6	94.3	7.7	A <sub>2</sub> Type 130
48	0.45-7.5-3	0.45	7.5	117.9	9.6	A <sub>2</sub> Type 130
49	0.45-8-3	0.45	8	125.8	10.3	A <sub>2</sub> Type 130
50	0.45-10-3	0.45	10	157.2	12.8	A Type 185
51	0.45-12-3	0.45	12	188.6	15.4	A Type 185
52	0.45-14-3	0.45	14	220.1	18	A Type 185

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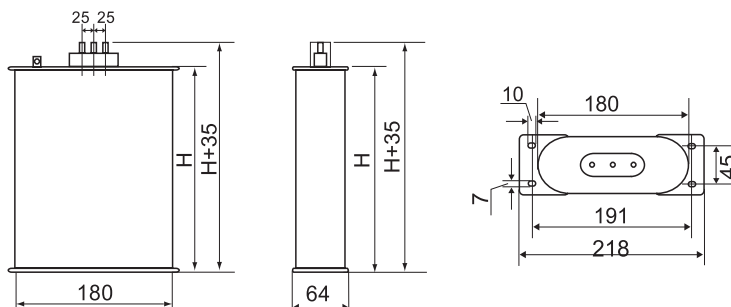


Main Specification & Overall Dimension

NO.	Type BSMJ BZMJ BCMJ BGMJ	Rated Volt. age (kV)	Rated Capacity (kvar)	Tatel capacitance ( $\mu$ F)	Rated current (A)	Type & Heiht H(mm)
53	0.45-15-3	0.45	15	235.8	19.2	A Type 185
54	0.45-16-3	0.45	16	251.5	20.5	A Type 185
55	0.45-18-3	0.45	18	282.9	23.1	A Type 220
56	0.45-20-3	0.45	20	314.4	25.7	A Type 245
57	0.45-25-3	0.45	25	393	32.1	B Type 210
58	0.45-30-3	0.45	30	471.6	38.5	B Type 245
59	0.45-40-3	0.45	40	628.6	51.3	C Type 210
60	0.45-50-3	0.45	50	785.9	64.2	C Type 230
61	0.45-60-3	0.45	60	943.1	77	C Type 270
62	0.525-10-3	0.525	10	115.5	11	A Type 185
63	0.525-12-3	0.525	12	138.6	13.2	A Type 185
64	0.525-14-3	0.525	14	161.7	15.4	A Type 185
65	0.525-15-3	0.525	15	173.2	16.5	A Type 185
66	0.525-16-3	0.525	16	184.8	17.6	A Type 185
67	0.525-18-3	0.525	18	207.9	19.8	A Type 220
68	0.525-20-3	0.525	20	231	22	A Type 245
69	0.525-25-3	0.525	25	288.7	27.5	B Type 210
70	0.525-30-3	0.525	30	346.5	33	B Type 240
71	0.525-40-3	0.525	40	461.9	44	C Type 210
72	0.525-50-3	0.525	50	577.4	55	C Type 230
73	0.525-60-3	0.525	60	692.9	66	C Type 270
74	0.69-10-3	0.69	10	66.9	8.4	A Type 185
75	0.69-12-3	0.69	12	80.2	10	A Type 185
76	0.69-14-3	0.69	14	93.6	11.7	A Type 185
77	0.69-15-3	0.69	15	100.3	12.6	A Type 185
78	0.69-16-3	0.69	16	107	13.4	A Type 185
79	0.69-18-3	0.69	18	120.3	15	A Type 220
80	0.69-20-3	0.69	20	133.7	16.7	A Type 245
81	0.69-25-3	0.69	25	167.1	20.9	B Type 210
82	0.69-30-3	0.69	30	200.6	25.1	B Type 240
83	0.69-40-3	0.69	40	267.4	33.5	C Type 210
84	0.69-50-3	0.69	50	334.3	41.8	C Type 230
85	0.69-60-3	0.69	60	401.1	50.2	C Type 270
86	1.2-12-3	1.2	12	26.5	5.8	A Type 220
87	1.2-15-3	1.2	15	33.2	7.2	A Type 245

Note: the above overall size is for your reference only, we accept special orders of other specifications, and the sizes are subject to change in improved design.

## The installation and size of shape



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