

SYEC Power Capacitors

Shunt Capacitor

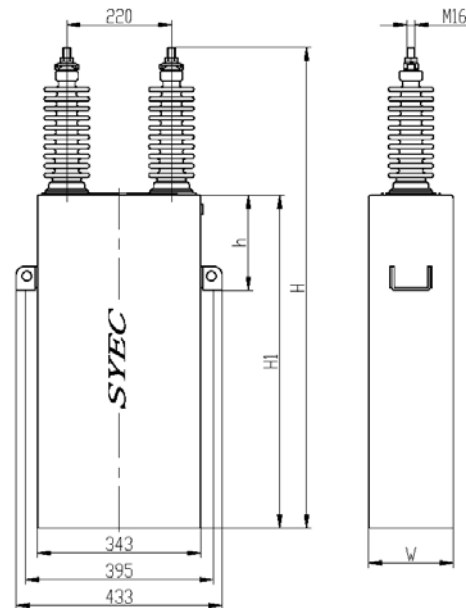
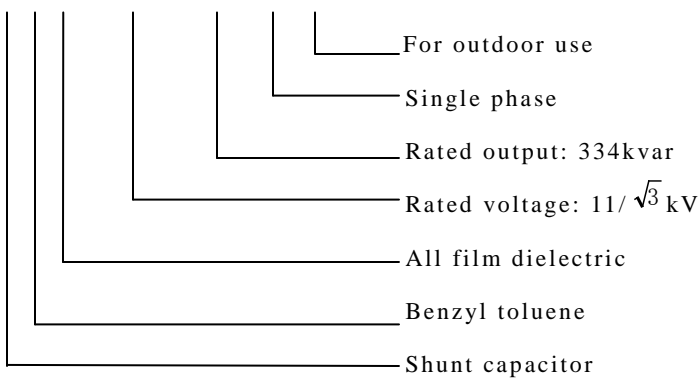


Sieyuan Electric (SYEC) has manufactured a complete range of shunt capacitors. A bio-degradable hydrocarbon compound with excellent electrical properties is used as the impregnation fluids which are totally free from PCB's and other halogenated compounds.

Shunt capacitors reduce the cost by decreasing system capacity, reducing power losses, improving voltage conditions and eliminating power factor penalties. Power losses are directly connected to local load, lowering losses is also local gain. SYEC shunt capacitors are designed, manufactured, and tested to meet or exceed the requirements of applicable NEMA, ANSI/IEEE, IEC and CSA standards.

Ratings and Catalog Numbers

B A M 11/ $\sqrt{3}$ —334—1 W



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Specification of high voltage shunt capacitor (with external fuse)

NO.	Type	Rated voltage (kV)	Rated capacity (kvar)	Rate capacitance (μ F)	Rated current (A)	Dimensions mm(Inch)			
						W	h	H1	H
1	BAM6.6/ $\sqrt{3}$ -100-1W	6.6/ $\sqrt{3}$	100	21.9	26	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
2	BAM6.6/ $\sqrt{3}$ -200-1W	6.6/ $\sqrt{3}$	200	43.8	52	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
3	BAM6.9/ $\sqrt{3}$ -100-1W	6.9/ $\sqrt{3}$	100	20.1	25	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
4	BAM6.9/ $\sqrt{3}$ -200-1W	6.9/ $\sqrt{3}$	200	40.1	50	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
5	BAM7.2/ $\sqrt{3}$ -100-1W	7.2/ $\sqrt{3}$	100	18.4	24	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
6	BAM7.2/ $\sqrt{3}$ -200-1W	7.2/ $\sqrt{3}$	200	36.8	48	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
7	BAM11/ $\sqrt{3}$ -100-1W	11/ $\sqrt{3}$	100	7.9	16	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
8	BAM11/ $\sqrt{3}$ -200-1W	11/ $\sqrt{3}$	200	15.8	31	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
9	BAM11.5/ $\sqrt{3}$ -100-1W	11.5/ $\sqrt{3}$	100	7.2	15	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
10	BAM11.5/ $\sqrt{3}$ -200-1W	11.5/ $\sqrt{3}$	200	14.4	30	138mm (5.4")	100mm (3.9")	475mm (18.7")	805mm (31.7")
11	BAM12/ $\sqrt{3}$ -100-1W	12/ $\sqrt{3}$	100	6.6	14	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
12	BAM12/ $\sqrt{3}$ -200-1W	12/ $\sqrt{3}$	200	13.3	29	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
13	BAM12.5/ $\sqrt{3}$ -100-1W	12.5/ $\sqrt{3}$	100	6.1	14	138mm (5.4")	100mm (3.9")	275mm (10.8")	585mm (23.0")
14	BAM12.5/ $\sqrt{3}$ -200-1W	12.5/ $\sqrt{3}$	200	12.2	28	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
15	BAM11-100-1W	11	100	2.6	9	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
16	BAM11-200-1W	11	200	5.3	18	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
17	BAM11-334-1W	11	334	8.8	30	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
18	BAM11.5-100-1W	11.5	100	2.4	9	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")

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19	BAM11.5-200-1W	11.5	200	4.8	17	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
20	BAM11.5-334-1W	11.5	334	8.0	29	138mm (5.4")	550mm (7.9")	550mm (21.7")	860mm (33.9")
21	BAM12-100-1W	12	100	2.2	8	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
22	BAM12-200-1W	12	200	4.4	17	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
23	BAM12-334-1W	12	334	7.4	28	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
24	BAM12.5-100-1W	12.5	100	2.0	8	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
25	BAM12.5-200-1W	12.5	200	4.1	16	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
26	BAM12.5-334-1W	12.5	334	6.8	27	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
27	BAM13-100-1W	13	100	1.9	8	138mm (5.4")	100mm (3.9")	275mm (10.8")	505mm (19.8")
28	BAM13-200-1W	13	200	3.8	15	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
29	BAM13-334-1W	13	334	6.3	26	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")

Remarks: The products with the voltage level of 11kV, 11.5kV, 12kV, 12.5kV and 13kV are normally used with bushing structure.

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Specification of high voltage shunt capacitor (with internal fuse)

NO.	Type	Rated voltage (kV)	Capacity (kvar)	Capacitance (μ F)	Current (A)	Dimensions mm(Inch)			
						W	h	H1	H
1	BAM6.6/ $\sqrt{3}$ -200-1W	6.6/ $\sqrt{3}$	200	43.8	52	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
2	BAM6.6/ $\sqrt{3}$ -300-1W	6.6/ $\sqrt{3}$	300	65.8	79	178mm (7.0")	550mm (7.9")	525mm (20.7")	835mm (32.9")
3	BAM6.6/ $\sqrt{3}$ -334-1W	6.6/ $\sqrt{3}$	334	73.2	88	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
4	BAM6.9/ $\sqrt{3}$ -200-1W	6.9/ $\sqrt{3}$	200	40.1	50	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
5	BAM6.9/ $\sqrt{3}$ -334-1W	6.9/ $\sqrt{3}$	334	67.0	84	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
6	BAM7.2/ $\sqrt{3}$ -200-1W	7.2/ $\sqrt{3}$	200	36.8	48	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
7	BAM7.2/ $\sqrt{3}$ -334-1W	7.2/ $\sqrt{3}$	334	61.5	80	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
8	BAM11/ $\sqrt{3}$ -200-1W	11/ $\sqrt{3}$	200	15.8	31	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
9	BAM11/ $\sqrt{3}$ -300-1W	11/ $\sqrt{3}$	300	23.7	47	178mm (7.0")	550mm (7.9")	525mm (20.7")	835mm (32.9")
10	BAM11/ $\sqrt{3}$ -334-1W	11/ $\sqrt{3}$	334	26.4	53	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
11	BAM11/ $\sqrt{3}$ -417-1W	11/ $\sqrt{3}$	417	32.9	66	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
12	BAM11/ $\sqrt{3}$ -500-1W	11/ $\sqrt{3}$	500	39.5	79	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
13	BAM11/ $\sqrt{3}$ -667-1W	11/ $\sqrt{3}$	667	52.6	105	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
14	BAM11.5/ $\sqrt{3}$ -200-1W	11.5/ $\sqrt{3}$	200	14.4	30	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
15	BAM11.5/ $\sqrt{3}$ -334-1W	11.5/ $\sqrt{3}$	334	24.1	50	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
16	BAM11.5/ $\sqrt{3}$ -417-1W	11.5/ $\sqrt{3}$	417	30.1	63	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
17	BAM11.5/ $\sqrt{3}$ -500-1W	11.5/ $\sqrt{3}$	500	36.1	75	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
18	BAM11.5/ $\sqrt{3}$ -667-1W	11.5/ $\sqrt{3}$	667	48.2	100mm	178mm	550mm	1025mm	1335mm

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NO.	Type	Rated voltage (kV)	Capacity (kvar)	Capacitance (μ F)	Current (A)	Dimensions mm(Inch)			
						W	h	H1	H
					(3.9")	(7.0")	(7.9")	(40.4")	(52.6")
19	BAM12/ $\sqrt{3}$ -200-1W	12/ $\sqrt{3}$	200	13.3	29	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
20	BAM12/ $\sqrt{3}$ -334-1W	12/ $\sqrt{3}$	334	22.1	48	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
21	BAM12/ $\sqrt{3}$ -417-1W	12/ $\sqrt{3}$	417	27.7	60	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
22	BAM12/ $\sqrt{3}$ -500-1W	12/ $\sqrt{3}$	500	33.2	72	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
23	BAM12/ $\sqrt{3}$ -667-1W	12/ $\sqrt{3}$	667	44.2	96	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
24	BAM12.5/ $\sqrt{3}$ -200-1W	12.5/ $\sqrt{3}$	200	12.2	28	138mm (5.4")	100mm (3.9")	475mm (18.7")	705mm (27.8")
25	BAM12.5/ $\sqrt{3}$ -334-1W	12.5/ $\sqrt{3}$	334	20.4	46	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
26	BAM12.5/ $\sqrt{3}$ -417-1W	12.5/ $\sqrt{3}$	417	25.5	58	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
27	BAM12.5/ $\sqrt{3}$ -500-1W	12.5/ $\sqrt{3}$	500	30.6	69	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
28	BAM12.5/ $\sqrt{3}$ -667-1W	12.5/ $\sqrt{3}$	667	40.8	92	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
29	BAM11/2-334-1W	11/2	334	35.1	61	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
30	BAM11/2-417-1W	11/2	417	43.9	76	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
31	BAM11/2-500-1W	11/2	500	52.6	91	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
32	BAM11/2-667-1W	11/2	667	70.2	121	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
33	BAM11.5/2-334-1W	11.5/2	334	32.2	58	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
34	BAM11.5/2-417-1W	11.5/2	417	40.1	73	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
35	BAM11.5/2-500-1W	11.5/2	500	48.1	87	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")

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NO.	Type	Rated voltage (kV)	Capacity (kvar)	Capacitance (μ F)	Current (A)	Dimensions mm(Inch)			
						W	h	H1	H
36	BAM11.5/2-667-1W	11.5/2	667	64.2	116	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
37	BAM12/2-334-1W	12/2	334	29.5	56	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
38	BAM12/2-417-1W	12/2	417	36.9	70	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
39	BAM12/2-500-1W	12/2	500	44.2	83	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
40	BAM12/2-667-1W	12/2	667	59.0	111	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
41	BAM12.5/2-334-1W	12.5/2	334	27.2	53	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
42	BAM12.5/2-417-1W	12.5/2	417	34.0	67	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
43	BAM12.5/2-500-1W	12.5/2	500	40.7	80	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
44	BAM12.5/2-667-1W	12.5/2	667	54.4	107	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
45	BAM13/2-334-1W	13/2	334	25.2	51	178mm (7.0")	550mm (7.9")	550mm (21.7")	860mm (33.9")
46	BAM13/2-417-1W	13/2	417	31.4	64	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
47	BAM13/2-500-1W	13/2	500	37.7	77	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
48	BAM13/2-667-1W	13/2	667	50.3	103	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
49	BAM10.5-417-1W	10.5	417	12.0	40	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
50	BAM10.5-500-1W	10.5	500	14.4	48	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
51	BAM10.5 - 667-1W	10.5	667	19.3	64	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
52	BAM11-417-1W	11	417	11.0	38	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
53	BAM11-500-1W	11	500	13.2	45	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")

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NO.	Type	Rated voltage (kV)	Capacity (kvar)	Capacitance (μF)	Current (A)	Dimensions mm(Inch)			
						W	h	H1	H
54	BAM11-667-1W	11	667	17.5	61	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
55	BAM11.5-417-1W	11.5	417	10.0	36	178mm (7.0")	550mm (7.9")	700mm (27.6")	1010mm (39.8")
56	BAM11.5-500-1W	11.5	500	12.0	43	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
57	BAM11.5-667-1W	11.5	667	16.1	58	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
58	BAM12-500-1W	12	500	11.1	42	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
59	BAM12-667-1W	12	667	14.7	56	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
60	BAM12.5-500-1W	12.5	500	10.2	40	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
61	BAM12.5-667-1W	12.5	667	13.6	53	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")
62	BAM13-500-1W	13	500	9.4	38	178mm (7.0")	550mm (7.9")	800mm (31.5")	1110mm (43.7")
63	BAM13-667-1W	13	667	12.6	51	178mm (7.0")	550mm (7.9")	1025mm (40.4")	1335mm (52.6")

SYEC Shunt Capacitor Construction

1. The capacitor is composed of case and packet. The stainless steel case is entirely folded and welded by robot. The high strength compress-joint bushings are welded on the cover; a new kind of liquid which has good insulating performance named C101D imported from France is filled into the capacitors.



2. The packet is composed of some elements and insulation components. Both sides hazy PP film imported from Finland is used for solid dielectric. Ultra-thin aluminum foil is adopted for electrodes. The elements have extended foil edges including folds at start and end, so that the products have improved the partial discharge level.



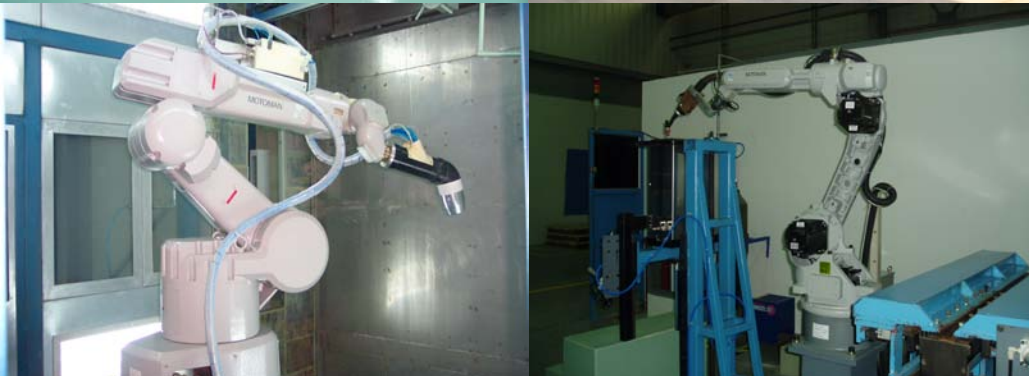
3. Some products with larger capacity have internal fuses, so they have higher reliability.

4. There are internal discharge resistors inside the capacitor.

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Protection

There are mainly two types of capacitor protections, externally fused capacitors or capacitors with integrated self-protection which can be provided with one fuse for each element within the capacitor unit, or be connected in parallel/series strings. According to the application, each variant can be adopted per the customer's requirement.



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