

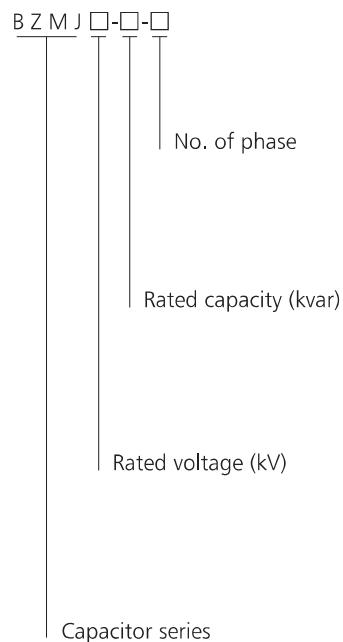


BZMJ Self-healing Shunt Capacitor

1. General

- 1.1 Electric ratings: $\leq AC1000V$;
- 1.2 Application: For improvement of power factor and power quality
- 1.3 Standards: IEC/EN 60831-1:2002

2. Type designation



Capacitor series

3. Operating conditions

- 3.1 Ambient temperature: $-25^{\circ}C \sim +50^{\circ}C$
- 3.2 Relative humidity: $\leq 50\%$ at $40^{\circ}C$, $\leq 90\%$ at $20^{\circ}C$
- 3.3 Altitude: $\leq 2000m$
- 3.4 Environmental conditions:
 - without dangerous gas & steam,
 - insulated and explosive dust
 - and dramatic mechanical vibration.

4. Technical data

- 4.1 Rated voltage: AC($0.23 \sim 1.0$)kV
- 4.2 Rated frequency: 50Hz or 60Hz.
- 4.3 Rated capacity: 1~60Kvar
- 4.4 Capacity error: $-5 \sim +10\%$
- 4.5 Dielectric loss tangent value:
 - $\leq 30\text{kvar } \tan\delta \leq 0.0012$
 - $> 30\text{kvar } \tan\delta \leq 0.0015$at rated power frequency voltage.
- 4.6 Max. Allowed over-voltage: 1.1Un
- 4.7 Max. Allowed over-current: 1.3In
- 4.8 Having Self-discharging property: power off, voltage reduces from $\sqrt{2} Un$ to 75V and below within 3min.
- 4.9 Specific data

| Serial number | Type and Specification | Rated voltage (kV) | Rated capacity (kvar) | Rated frequency (Hz) | Rated capacitor (μF) | Rated current (A) | Enclosure height (mm) | Figure |
|---------------|------------------------|--------------------|-----------------------|----------------------|----------------------|-------------------|-----------------------|--------|
| 1 | BZMJ 0.23-5-3 | 0.23 | 5 | 50 | 301 | 12.5 | 140 | Fig1 |
| 2 | BZMJ 0.23-6-3 | 0.23 | 6 | 50 | 361 | 15.1 | 190 | Fig1 |
| 3 | BZMJ 0.23-7.5-3 | 0.23 | 7.5 | 50 | 451 | 18.8 | 190 | Fig1 |
| 4 | BZMJ 0.23-10-3 | 0.23 | 10 | 50 | 602 | 25.1 | 195 | Fig2 |
| 5 | BZMJ 0.23-12-3 | 0.23 | 12 | 50 | 722 | 30.1 | 220 | Fig2 |
| 6 | BZMJ 0.23-15-3 | 0.23 | 15 | 50 | 903 | 37.7 | 250 | Fig2 |
| 7 | BZMJ 0.23-20-3 | 0.23 | 20 | 50 | 1203 | 50.2 | 250 | Fig3 |
| 8 | BZMJ 0.4-3-3 | 0.4 | 3 | 50 | 60 | 4.3 | 95 | Fig1 |
| 9 | BZMJ 0.4-5-3 | 0.4 | 5 | 50 | 99 | 7.2 | 95 | Fig1 |
| 10 | BZMJ 0.4-6-3 | 0.4 | 6 | 50 | 119 | 8.7 | 120 | Fig1 |
| 11 | BZMJ 0.4-7.5-3 | 0.4 | 7.5 | 50 | 149 | 10.8 | 120 | Fig1 |
| 12 | BZMJ 0.4-8-3 | 0.4 | 8 | 50 | 159 | 11.5 | 120 | Fig1 |
| 13 | BZMJ 0.4-10-3 | 0.4 | 10 | 50 | 199 | 14.4 | 140 | Fig1 |
| 14 | BZMJ 0.4-12-3 | 0.4 | 12 | 50 | 239 | 17.3 | 190 | Fig1 |
| 15 | BZMJ 0.4-14-3 | 0.4 | 14 | 50 | 279 | 20.2 | 190 | Fig1 |
| 16 | BZMJ 0.4-15-3 | 0.4 | 15 | 50 | 298 | 21.7 | 190 | Fig1 |
| 17 | BZMJ 0.4-16-3 | 0.4 | 16 | 50 | 318 | 23.1 | 190 | Fig1 |
| 18 | BZMJ 0.4-18-3 | 0.4 | 18 | 50 | 358 | 26.0 | 220 | Fig1 |
| 19 | BZMJ 0.4-20-3 | 0.4 | 20 | 50 | 398 | 28.9 | 220 | Fig1 |
| 20 | BZMJ 0.4-25-3 | 0.4 | 25 | 50 | 497 | 36.1 | 220 | Fig2 |
| 21 | BZMJ 0.4-30-3 | 0.4 | 30 | 50 | 597 | 43.3 | 250 | Fig2 |
| 22 | BZMJ 0.4-40-3 | 0.4 | 40 | 50 | 796 | 57.7 | 250 | Fig3 |
| 23 | BZMJ 0.4-50-3 | 0.4 | 50 | 50 | 995 | 72.2 | 315 | Fig3 |
| 24 | BZMJ 0.4-60-3 | 0.4 | 60 | 50 | 1194 | 86.6 | 315 | Fig3 |
| 25 | BZMJ 0.45-3-3 | 0.45 | 3 | 50 | 47 | 3.8 | 120 | Fig1 |
| 26 | BZMJ 0.45-5-3 | 0.45 | 5 | 50 | 79 | 6.4 | 120 | Fig1 |
| 27 | BZMJ 0.45-6-3 | 0.45 | 6 | 50 | 94 | 7.7 | 120 | Fig1 |
| 28 | BZMJ 0.45-7.5-3 | 0.45 | 7.5 | 50 | 118 | 9.6 | 120 | Fig1 |
| 29 | BZMJ 0.45-8-3 | 0.45 | 8 | 50 | 126 | 10.3 | 120 | Fig1 |
| 30 | BZMJ 0.45-10-3 | 0.45 | 10 | 50 | 157 | 12.8 | 140 | Fig1 |
| 31 | BZMJ 0.45-12-3 | 0.45 | 12 | 50 | 189 | 15.4 | 190 | Fig1 |
| 32 | BZMJ 0.45-14-3 | 0.45 | 14 | 50 | 220 | 18.0 | 190 | Fig1 |
| 33 | BZMJ 0.45-15-3 | 0.45 | 15 | 50 | 236 | 19.2 | 190 | Fig1 |
| 34 | BZMJ 0.45-16-3 | 0.45 | 16 | 50 | 252 | 20.5 | 190 | Fig1 |
| 35 | BZMJ 0.45-18-3 | 0.45 | 18 | 50 | 283 | 23.1 | 220 | Fig1 |
| 36 | BZMJ 0.45-20-3 | 0.45 | 20 | 50 | 314 | 25.7 | 220 | Fig1 |
| 37 | BZMJ 0.45-25-3 | 0.45 | 25 | 50 | 393 | 32.1 | 220 | Fig2 |
| 38 | BZMJ 0.45-30-3 | 0.45 | 30 | 50 | 472 | 38.5 | 250 | Fig2 |
| 39 | BZMJ 0.45-40-3 | 0.45 | 40 | 50 | 629 | 51.3 | 250 | Fig3 |
| 40 | BZMJ 0.45-50-3 | 0.45 | 50 | 50 | 786 | 64.2 | 315 | Fig3 |
| 41 | BZMJ 0.45-60-3 | 0.45 | 60 | 50 | 943 | 77.0 | 315 | Fig3 |
| 42 | BZMJ 0.525-5-3 | 0.525 | 5 | 50 | 58 | 5.5 | 120 | Fig1 |
| 43 | BZMJ 0.525-10-3 | 0.525 | 10 | 50 | 115 | 11.0 | 140 | Fig1 |
| 44 | BZMJ 0.525-15-3 | 0.525 | 15 | 50 | 173 | 16.5 | 190 | Fig1 |
| 45 | BZMJ 0.525-20-3 | 0.525 | 20 | 50 | 231 | 22.0 | 220 | Fig1 |
| 46 | BZMJ 0.525-25-3 | 0.525 | 25 | 50 | 289 | 27.5 | 220 | Fig2 |
| 47 | BZMJ 0.525-30-3 | 0.525 | 30 | 50 | 346 | 33.0 | 250 | Fig2 |
| 48 | BZMJ 0.525-40-3 | 0.525 | 40 | 50 | 462 | 44.0 | 250 | Fig3 |
| 49 | BZMJ 0.525-50-3 | 0.525 | 50 | 50 | 577 | 55.0 | 315 | Fig3 |
| 50 | BZMJ 0.525-60-3 | 0.525 | 60 | 50 | 693 | 66.0 | 315 | Fig3 |

| Serial number | Type and Specification | Rated voltage (kV) | Rated capacity (kvar) | Rated frequency (Hz) | Rated capacitor (μF) | Rated current (A) | Enclosure height (mm) | Figure |
|---------------|------------------------|--------------------|-----------------------|----------------------|----------------------|-------------------|-----------------------|--------|
| 51 | BZMJ 0.69-5-3 | 0.69 | 5 | 50 | 33 | 4.2 | 95 | Fig1 |
| 52 | BZMJ 0.69-10-3 | 0.69 | 10 | 50 | 67 | 8.4 | 140 | Fig1 |
| 53 | BZMJ 0.69-15-3 | 0.69 | 15 | 50 | 100 | 12.6 | 190 | Fig1 |
| 54 | BZMJ 0.69-20-3 | 0.69 | 20 | 50 | 134 | 16.7 | 220 | Fig1 |
| 55 | BZMJ 0.69-25-3 | 0.69 | 25 | 50 | 167 | 20.9 | 220 | Fig2 |
| 56 | BZMJ 0.69-30-3 | 0.69 | 30 | 50 | 201 | 25.1 | 250 | Fig2 |
| 57 | BZMJ 0.69-40-3 | 0.69 | 40 | 50 | 267 | 33.5 | 250 | Fig3 |
| 58 | BZMJ 0.69-50-3 | 0.69 | 50 | 50 | 334 | 41.8 | 315 | Fig3 |
| 59 | BZMJ 0.69-60-3 | 0.69 | 60 | 50 | 401 | 50.2 | 315 | Fig3 |
| 60 | BZMJ 1.14-10-3 | 1.14 | 10 | 50 | 25 | 5.1 | 220 | Fig1 |
| 61 | BZMJ 1.14-15-3 | 1.14 | 15 | 50 | 37 | 7.6 | 250 | Fig2 |
| 62 | BZMJ 0.4-7.5-3YN | 0.4 | 7.5 | 50 | 149 | 10.8 | 195 | Fig2* |
| 63 | BZMJ 0.4-10-3YN | 0.4 | 10 | 50 | 199 | 14.4 | 195 | Fig2* |
| 64 | BZMJ 0.4-15-3YN | 0.4 | 15 | 50 | 298 | 21.7 | 250 | Fig2* |
| 65 | BZMJ 0.4-20-3YN | 0.4 | 20 | 50 | 398 | 28.9 | 250 | Fig3* |

Note: The specifications marked with "*" are used for compensating the individual phase, the bigger one of the four terminals should be connected to the neutral line.

5. Features

- 5.1 Compact design and reliable quality thanks to advanced technology and excellent imported material;
- 5.2 Available for use in places with higher ambient temperature and voltage variation ;
- 5.3 Having good sealing properties; and outgoing terminals for convenient wiring and reliable connection;
- 5.4 Fixed type, convenient for mounting and elegant appearance due to novel mounting pins;
- 5.5 No painting thanks to coated metal Enclosure used ;

6. Note

- 6.1 Please guarantee that the capacitors are operated under specified conditions, including the proper temperature, voltage and current, as over-voltage and over-current may shorten the life of the capacitor;
- 6.2 Please pay attention to the points following
 - a. For the system of current regulating system and the electric equipments system, the capacitor should not be directly connected;
 - b. Operational current of the capacitor should be less than the off-load current of the shuntly connected motor;
 - c. When the transformer is off-load, the capacitor should stop operating.
- 6.3 Specific switches, contactors and over-current relays should be adopted when the capacitor is shuntly connected in the system.

7. Overall and mounting dimensions (mm)

Figure 1

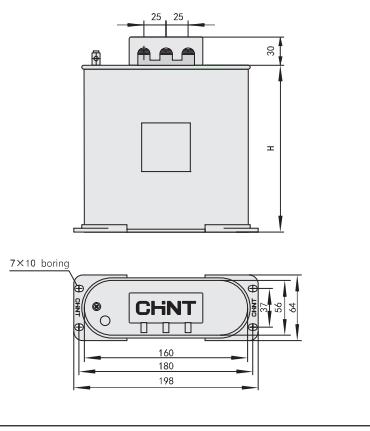


Figure 2

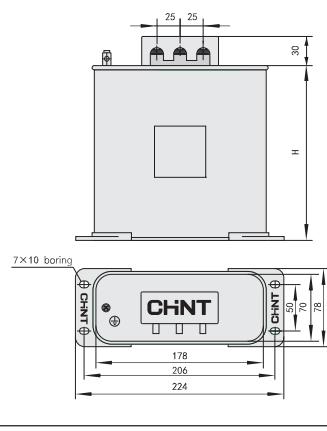


Figure 3

