

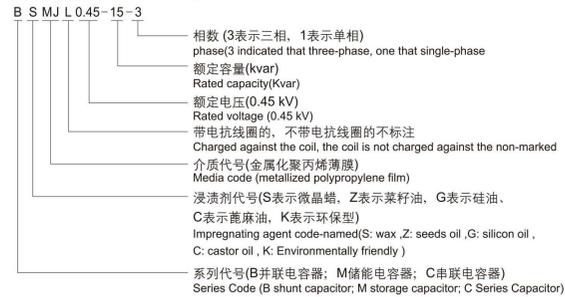
# BSMJ

## 自愈式低电压并联电容器

Low Voltage Shunt Power Capacitor of the self-healing type



### 型号及其含义 Code and implication



### 结构特征

- 体积小、重量轻、安装方便  
采用优质金属化聚丙烯薄膜新材料作为介质, 以及独特的结构设计使电容器体积、重量仅为老产品的1/4和1/5。
- 损耗低、发热少、温升低  
采用新型喷金工艺和独特的金属化膜边缘加厚技术, 使电容器抗涌流能力大大加强, 性能稳定, 工作寿命大大延长, 电容器自身能耗降低, 实际值低于0.08%, 发热少、温升低, 节能效果佳。
- 优良的自愈性能  
介质局部击穿能迅速自愈, 恢复正常工作, 使可靠性大为提高。
- 安全性  
内装自放电电阻和保险装置, 使用安全可靠。
- 不漏油、绿色环保  
采用微晶蜡作为浸渍剂, 常温呈固态, 滴熔点高于70℃, 使用过程中不漏油, 避免了环境污染, 不但具有干式的结构特点, 而且具有浸渍电容器的优点。此外, 独特的浸渍工艺使电容器运行更为可靠。
- 耐腐蚀防仿外壳, 美观牢固  
印铁外壳经特殊双防腐处理, 抗腐蚀性大大提高, 独特防仿设计, 精细美观。

### 适用范围 Application

自愈式低电压并联电容器适用于频率50Hz或60Hz低压电力系统, 主要用于提高功率因数、减少无功损耗、改善电压质量, 挖掘变压器容量等。是国家大力推荐使用的最佳节电产品。

本产品符合: 国家标准GB/T 12747-2004, IEC60831-1996。

Self healing low voltage shunt power capacitor was used in 50Hz and 60Hz power system it mainly improver power factor, reduce reactive power loss, improve voltage quality. Encavate transformer quantity and so on. It is best saving power products which company strong recommend and work.

This product meets the standard: GB/T 12747-2004, IEC60831-1996

### 工作条件 Working conditions

- 电容器从电源切除后一定要保证电容器剩余电压降至10%额定电压才允许再次投入, 通常情况这个时间约需200s, 所以控制器要选用带有切除后再投入有再投锁定时间功能的控制器。如果采用一般控制器, 要另装快速放电设施。对于采用等电位投切开关的可以不受此限。
- 海拔高度不超过2000m。
- 环境温度类别:-25/C, 最低温度-25℃, 最高温度C类, (最高不超过50℃, 24小时内温度平均值不超过40℃, 一年内温度平均值不超过30℃), 电容器应保证在良好的通风条件下工作, 不允许在密闭不通风环境下工作。

- Power capacitor should confirm left voltage reduce to rated voltage 10% to input again after the power was cut off ,normally it will need 200s almost, so it would choose the power controller which has input and reput lock time function after cut off the power. If choose normally power controller, it must install speediness discharge power equipment .it would not limited which use adopting same electric factor input and chip switch.
- Altitude level is not more than 2000m.
- Temperature type:-25/C low temperature, highest temperature is C type (it would not more than 50℃ the average of temperature is not more than 40℃ within 24 hours, one year average of temperature is not more than 30℃ ),power capacitor will work within good ventilate condition .it would not permit within sealing and installation condition

### Structure features

- Volume is small ,weight is light easy installation  
Metalized PPA thin film was adopt for medium ,it only have 1/4 old products ' volume and 1/5 old products ' weight
- Low loss little heating small change the temperature  
New type spray golden craftsmanship and special metalized edge thickness technology was adopted ,it can strength the power capacitor anti surge capacity ,property stability ,working life will prolong ,power capacitor itself power lost will reduce ,practice value is low than 0.08% ,little heating small change the temperature and good saving power effect
- Excellence self healing property  
When medium parts was puncture ,it can self heal quickly and recover normally work ,improving the reliability
- Safety  
There are discharge resister and insure equipment was inside capacitor ,it is reliability to use
- No leakage oil. Green no pollution  
Wax was immersed liquid ,normally it is state .when the temperature is high 70℃ ,it will unfreeze , there is no leakage oil and no pollution when you use this products . not only have try type 's instruction characteristic but also have immersed capacitor advantage .moreover it can make power capacitor work reliability within special immerse craftsmanship
- Anti corrupt and preventing fake cover ,beautiful and substance  
Pressing metal cover we use special double anti corrupt craftsmanship , so it improve the products anti corruption ,special anti fake design ,exquisite artistic.

### 主要技术参数 Main Technical data

- 额定电压: 230V, 250V, 400V, 450V, 525V, 690V, 750V, 1050V, 1200V, 其它电压可特殊定货。
  - 额定容量: 0.4~0.69kV的1~60kvar, 其它电压等级的容量另定。
  - 额定频率: 50Hz或60Hz。
  - 容量公差: -5%~+10%。
  - 损耗角正切值: 20℃时tan δ 0.1%。
  - 耐电压: 极间2.15倍额定电压10秒钟, 极壳间3kV, 取较高值, 10秒, 无永久性击穿或闪络。
  - 最高允许过电压: 1.1倍额定电压时, 每24小时中不超过8小时; 1.15倍额定电压时, 每24小时中不超过30分钟; 1.2倍额定电压时, 不超过5分钟; 1.3倍额定电压时, 不超过1分钟。
  - 最大允许电流: 允许电流不超过1.3倍额定电流下运行。过渡过电流, 考虑过电压, 电容正偏差以及谐波的影响, 过渡过电流最大不超过1.43倍额定电流。
  - 接法: △角接, Y星接, -Y星接中性点引出, III三节段式, 单相式等各种接法, 其它接法根据用户需要商定。
  - 自放电性能: 电容器断电后3分钟剩余电压从 $\sqrt{2}U_n$ 降至50V以下。
  - 符合标准: GB/T12747-2004, IEC60831: 212002。
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- Rated voltage: 230V, 250V, 400V, 450V, 525V, 690V, 750V, 1050V, 1200V, other special voltage please notice it .
  - Rated capacity: 0.4~0.69kV 1~60kvar, other voltage class's capacity ,please notice it .
  - Rated frequency: 50Hz or 60Hz.
  - Capacity tolerance: -5%~+10%.
  - Loss angle  $\tan \delta$  0.1% when the temperature is 20℃.
  - Anti voltage : between two pole 2.15 time rated voltage is 10 s, between two pole 3kV please choose highest value 10 s , there is noperpetuity puncture and flash over.
  - Max permit over voltage: 1.1 time rated voltage ,the high permit over voltage is not more than 8 hours within 24 hours . 1.15 time rated voltage ,it is not more than 30 minute within 24 hours ,1.2 time rated voltage it is not more than 5 minute ,1.3 times rated voltage ,it would not more than 1 minute
  - Max permit over current: it is permit that the over current is not more than 1.3 time rated current ,interim over current it should consider over voltage, capacity positive tolerance and harmonic effect .interim over current is not more than 1.43 time rated current .
  - Connection: △ Y type ,Y type should draw out through neuter ,III three section ,single phase type ,and all kind of connection way .other connection way it will notice when you order it
  - Discharge property: the-left voltage will reduce from $\sqrt{2}U_n$  to below 50V within 3 minutes when the power cut off.
  - Standard: GB/T12747-2004, IEC60831: 212002.

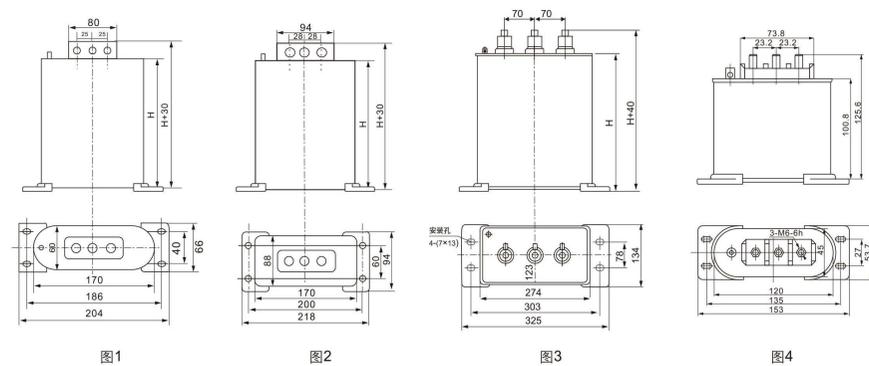
主要型号规格、数据及外形尺寸(三相) Main technical data & out line dimensions data(Three-phase)

产品型号 Model BSMJ、BCMJ、 BZMJ	额定电压 Rated Volt. (KV)	额定容量 Rated Capacity (Kvar)	额定电容 Rated Capacity ( $\mu$ F)	额定电流 Rated Current (A)	高度 H (mm)	出线端子 Outgoing terminal	图号 Drawing No.
0.4-1-3	0.4	1	19.9	1.4	105	M6	4
0.4-2-3	0.4	2	39.8	2.9	105	M6	4
0.4-3-3	0.4	3	59.7	4.3	105	M6	4
0.4-4-3	0.4	4	79.6	5.8	105	M6	4
0.4-5-3	0.4	5	99.5	7.2	105	M6	4
0.4-6-3	0.4	6	119.4	8.7	105	M6	4
0.4-7.5-3	0.4	7.5	149.2	10.8	125	M6	1
0.4-8-3	0.4	8	159.2	11.6	125	M6	1
0.4-10-3	0.4	10	198.9	14.4	180	M6	1
0.4-12-3	0.4	12	238.7	17.3	180	M6	1
0.4-14-3	0.4	14	278.5	20.2	210	M6	1
0.4-15-3	0.4	15	298.4	21.7	210	M6	1
0.4-16-3	0.4	16	318.3	23.1	210	M6	1
0.4-18-3	0.4	18	358.1	26.0	245	M6	1
0.4-20-3	0.4	20	397.9	28.9	245	M6	1
0.4-22-3	0.4	22	437.7	31.8	210	M8	2
0.4-24-3	0.4	24	477.4	34.6	210	M8	2
0.4-25-3	0.4	25	497.4	36.1	210	M8	2
0.4-28-3	0.4	28	557.3	40.4	260	M8	2
0.4-30-3	0.4	30	596.8	43.3	260	M8	2
0.4-35-3	0.4	35	696.3	50.5	260	M8	2
0.4-40-3	0.4	40	796.2	57.7	330	M8	2
0.4-45-3	0.4	45	895.2	65.0	330	M10	2
0.4-50-3	0.4	50	995.2	72.2	345	M10	2
0.4-55-3	0.4	55	1094.2	79.4	220	M10	3
0.4-60-3	0.4	60	1194.3	86.6	220	M10	3
0.45-1-3	0.45	1	15.7	1.3	105	M6	4
0.45-2-3	0.45	2	31.4	2.6	105	M6	4
0.45-3-3	0.45	3	47.2	3.8	105	M6	4
0.45-4-3	0.45	4	62.9	5.1	105	M6	4
0.45-5-3	0.45	5	78.6	6.4	105	M6	4
0.45-6-3	0.45	6	94.3	7.7	105	M6	4
0.45-7.5-3	0.45	7.5	117.9	9.6	105	M6	4
0.45-8-3	0.45	8	125.8	10.3	105	M6	4
0.45-10-3	0.45	10	157.2	12.8	125	M6	1
0.45-12-3	0.45	12	188.6	15.4	180	M6	1
0.45-14-3	0.45	14	220.1	18.0	210	M6	1
0.45-15-3	0.45	15	235.8	19.2	210	M6	1
0.45-16-3	0.45	16	251.5	20.5	210	M6	1
0.45-18-3	0.45	18	282.9	23.1	210	M6	1
0.45-20-3	0.45	20	314.4	25.7	210	M6	1
0.45-22-3	0.45	22	345.8	28.3	245	M8	2
0.45-24-3	0.45	24	377.3	30.8	245	M8	2
0.45-25-3	0.45	25	393.2	32.1	210	M8	2
0.45-28-3	0.45	28	440.3	35.9	210	M8	2
0.45-30-3	0.45	30	471.8	38.5	210	M8	2
0.45-35-3	0.45	35	550.2	44.9	260	M8	2
0.45-40-3	0.45	40	629.1	51.3	260	M8	2
0.45-45-3	0.45	45	707.7	57.7	330	M10	2

主要型号规格、数据及外形尺寸(三相) Main technical date & out line dimensions data(Three-phase)

产品型号 Model BSMJ、BCMJ、 BZMJ	额定电压 Rated Volt. (KV)	额定容量 Rated Capacity (Kvar)	额定电容 Rated Capacity ( $\mu$ F)	额定电流 Rated Current (A)	高度 H (mm)	出线端子 Outgoing terminal	图号 Drawing No.
0.45-50-3	0.45	50	786.3	64.2	330	M8	2
0.45-55-3	0.45	55	864.5	70.6	330	M10	2
0.45-60-3	0.45	60	943.6	77.5	345	M10	2
0.525-5-3	0.525	5	57.7	5.5	125	M6	1
0.525-10-3	0.525	10	115.5	11.0	180	M6	1
0.525-15-3	0.525	15	173.2	16.5	210	M6	1
0.525-16-3	0.525	16	184.8	17.6	210	M6	1
0.525-18-3	0.525	18	207.9	19.8	210	M6	2
0.525-20-3	0.525	20	231.0	22.0	210	M6	2
0.525-25-3	0.525	25	288.9	27.5	210	M8	2
0.525-30-3	0.525	30	346.6	33.0	260	M8	2
0.525-40-3	0.525	40	462.2	44.0	330	M8	2
0.525-50-3	0.525	50	577.7	55.0	345	M10	2
0.525-60-3	0.525	60	693.3	66.0	220	M10	3
0.69-5-3	0.69	5	33.4	4.2	125	M6	1
0.69-10-3	0.69	10	66.9	8.4	180	M6	1
0.69-15-3	0.69	15	100.3	12.6	210	M6	1
0.69-16-3	0.69	16	107.0	13.4	210	M6	1
0.69-20-3	0.69	20	133.8	16.7	210	M6	2
0.69-25-3	0.69	25	167.2	20.9	210	M6	2
0.69-30-3	0.69	30	200.7	25.1	260	M8	2
0.69-40-3	0.69	40	267.4	33.5	330	M8	2
0.69-50-3	0.69	50	334.3	41.9	345	M10	3
0.69-60-3	0.69	60	401.4	50.2	220	M10	3
1.2-5-3	1.2	5	11.0	2.4	180	M6	1
1.2-10-3	1.2	10	22.0	4.8	210	M6	1
1.2-15-3	1.2	15	33.2	7.2	220	M6	1
1.2-20-3	1.2	20	44.2	9.6	260	M6	2
1.2-25-3	1.2	25	55.3	12	260	M6	2

注：其它特殊规格型号产品根据用户要求供货  
Note: Other special specification models supply according to user requirements



# CJ19

## 系列切换电容器接触器

Series AC contactor for switching shunt capacitor

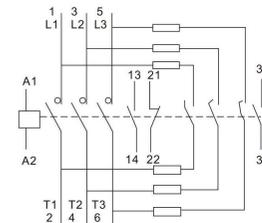
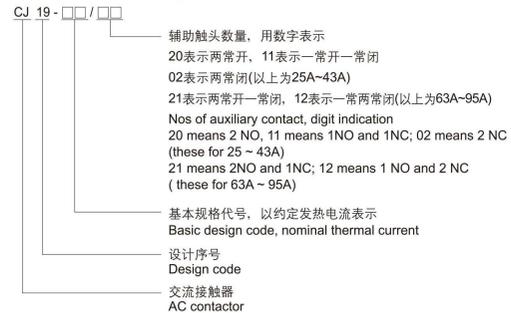


### 适用范围 Application

CJ19系列切换电容器接触器(以下简称接触器)主要用于交流50Hz或60Hz、额定工作电压至380V的电力线路,供低压无功功率补偿设备投入或切除低压并联电容器之用。接触器带有抑制涌流装置,能有效地减小合闸涌流对电容的冲击和抑制开断时的过电压。

CJ19 series AC contactor for switching shunt capacitor (hereinafter call -contactor) is mainly used in the system of Ac 50 or 60Hz, rated voltage up to 380V, for switching on / off shunt capacitor in the low voltage reactive compensating bank. If the contactor with surge restrained device, it can effectively prevent surging current when closing and over voltage during opening.

### 型号及其含义 Code and Implication



### 结构特点 Structure

接触器为直动式双断点结构,触头系统分上下两层布置,上层有三对触头与限流电阻构成抑制涌流装置,当合闸时它先接通经数毫秒之后工作触头接通,限流触头中永久磁块在弹簧反作用下释放,断开限流电阻,使电容器正常工作,接触器内部电路连接图(见图)。

CJ19-25-43的接触器有两对辅助触头,CJ19-63-95的接触器有三对辅助触头。接触器接线端有绝缘罩覆盖,安全可靠,线圈接线端带有标出电压数据可防止接错。CJ19-25-43接触器可用螺钉安装,也可借底部的滑块扣装在35mm标准卡轨上。面罩上有一个可拆卸的长方形小牌,用户可用它打印项目代号等。CJ19-63-95可用35mm或75mm标准卡轨安装。

The contactor is of direct-action double break structure, the contact system consists of upper and downward layout, upper part has 3pairs of contacts and current limiting resistance what become surge restrained device, when closing current limiting contacts will make several millise conds at firstly, then working contact is made closed later, current limiting contact will be released under the action of everlasting magnet and spring, current limiting resistance is switched off, capacitor then operate normally, inner wiring diagram as Drawing 4  
CJ19 25~43 contactor has 2 pairs of auxiliary contacts, CJ19 63~95 contactors have 3 pairs of auxiliary contacts, the terminals have provided insulating cover for safety, coil terminals have been marked clearly. CJ19 25 ~ 43 can be mounted by screw or by 35mm railway, a dismount able square blank card in cover is provided for spare when required to print something as user. CJ19 63~95 can be mounted on 35 or 75 mm railway.

**主要技术参数 Main Technical data**

参数名称 Item	CJ19-25	CJ19-32	CJ19-43	CJ19-63	CJ19-95
电寿命(万次) Electrical life (10 <sup>4</sup> )	10	10	10	10	10
额定电流Ie(380V)A Rated current (380V) A	17	23	29	43	63
可控电容量(kvar) Controllable capacity (kvar)	220V	6	9	10	15
	380V	12	18	20	30
额定绝缘电压(V) Rated insulating voltage (V)	500	500	500	500	500
抑制涌流能力 Surge limiting capacity	20Ie	20Ie	20Ie	20Ie	20Ie
动作条件 Operating conditions	吸合Absorbing: (85%~110%)Us; 释放releasing: (20%~75%)Us				
线圈功率(VA) 启动/保持 Coil burden (startup/lasting) (VA)	70/8	110/11	110/11	200/20	200/20
辅助触头控制容量 Control capacity of auxiliary contact	AC-15 360VA; DC-13 33W				
质量(kg) Weight (kgs)	0.44	0.63	0.64	1.4	1.5

**主要型号规格及数据 Main model and specifications**

接触器型号 Contactor model	Amax	Bamx	Cmax	Dmax	E	F	备注 Notes
CJ19-25	80	47	124	76	34/35	50/60	除螺钉安装外, 还可用于35mm安装轨安装 Screw mounting and 35mm railway available
CJ19-32	90	58	132	86	40	48	
CJ19-43	90	58	136	86	40	48	
CJ19-63	132	79	150	126.5	40	43	
CJ19-95	135	87	158	126.5	40	43	除螺钉安装外, 还可用于35mm、75mm 安装轨安装 Screw mounting and 35 or 75mm railway available
CJ19-115	200	120	156	155	40	43	
CJ19-150	200	120	156	155			
CJ19-170	200	120	156	155			

**正常工作条件和安装条件  
Normal working condition and mounting conditions**

- 周围空气温度为: -5℃~+40℃, 24小时内其平均值不超过+35℃;
- 海拔高度: 不超过2000m;
- 大气条件: 在+40℃时空气相对湿度不超过50%; 在较低温度下可以有较高的相对湿度。最湿月的月平均最低温度不超过+25℃, 该月的月平均最大相对湿度不超过90%, 并考虑因温度变化发生在产品上的凝露;
- 污染等级: 3级;
- 安装类别: 3级;
- 安装条件: 安装面与垂直面倾斜度不大于±5°;
- 冲击振动: 产品应安装和使用在无显著振动、冲击和振动的地方;
- 主要参数及技术性能
- Ambient temperature: -5℃~40℃, daily average over 35℃
- Altitude not more than 2000m;
- Ambient conditions: relative humidity not more than 50% at 40, if lower temperature humidity can be higher, on the month when maxi average humidity occurs the temperature shall be not more than 25℃, on this month the maxi average humidity shall not more than 90%, and there has considered the mist covering the product
- Polluted class: 3 grade
- Installation class: 3 grade
- Mounting conditions: the mounting inclined angle shall not more than±5°
- Impact vibration: there shall have no severe vibration, impact and vibration.
- Main technical data

**外形及安装尺寸  
Outline and mounting sizes**

