Product Overview

The TBB series high-voltage parallel capacitor device (hereinafter referred to as the device) is suitable for AC 50HZ, three-phase 10kV power series, used to improve power factor and adjust network voltage, thereby increasing active output of power supply equipment and reducing line losses. This device is of indoor (outdoor) type

产品型号说明

T BB □ □ / □ □

① ② ③ ④ ⑤ ⑥

①	装置代号
②	并联电容器装置
③	装置额定电压（kV）
④	装置额定容量（kvar）
⑤	单台电容器额定容量（kvar）
⑥	电容器组接线和保护方式：AC- 单星型电压差动保护 AK- 单星型开口三角保护 BL- 双星型不平衡电流保护

Main technical data

The rated working voltage is 10kV and can operate for a long time at 1.1 times the rated voltage

The device can operate continuously at rated frequency, rated sine voltage, and current without transition state, with a root mean square value not exceeding 1.3Un

The device is equipped with overcurrent, overvoltage, undervoltage and other protections for system faults

The device provides protection against internal faults in capacitors. In addition to single unit fuse protection, different relay protections are also provided depending on the main wiring form

The device design and processing comply with GB50227-2995 "Design Specification for Parallel Capacitor Devices" and JB711-1993 "High Voltage Parallel Capacitor Devices" **Structure Introduction**

The structure of this device is divided into two types: cabinet type and assembly type. Assembly type can be divided into sheet type and fully disassembled type. The cabinet structure is first installed in the factory, and then the components are removed, numbered, and transported to the site for assembly according to the drawings. From an indoor perspective, the film style is mainly convenient for transportation. Fully detachable for outdoor use, mainly convenient for hot-dip galvanizing. This device is mainly composed of a reactor cabinet, a discharge cabinet, and a capacitor cabinet

• Reactor Cabinet

The main function of the reactor cabinet is to limit the inrush current during closing and suppress harmonics. When limiting the inrush current during closing, the reactor XL=(0.1~1)% XC; When suppressing more than 5 harmonics, XL=(5-6)% XC; When suppressing more than 3 harmonics, XL=(12~13)% XC

Discharge cabinet

It mainly consists of discharge coils or voltage transformers, zinc oxide lightning arresters, and grounding isolating switches. The discharge coil is connected in parallel with the capacitor bank. When the power supply of the capacitor bank is disconnected, its discharge performance reduces the residual voltage on the capacitor bank from the peak rated voltage to below 50V within 5 seconds. Metal zinc oxide lightning arrester is used to limit the operating overvoltage caused by switching capacitor banks. The grounding isolation switch is used for grounding the busbar during power outage maintenance. The above configuration can be adjusted according to user requirements. If the wiring method of the circuit is double star, the capacitor cabinet should be double row or double-layer structure, and a current transformer should be installed inside the cabinet

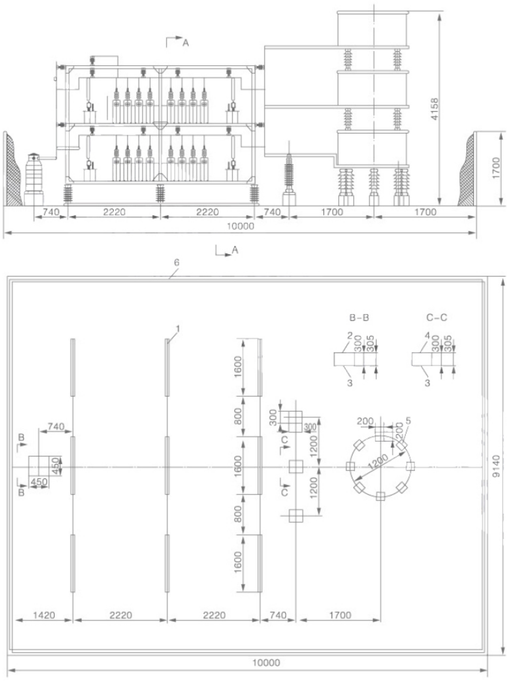
• Capacitor cabinet

The capacitor cabinet is mainly composed of fuses and capacitors. When the internal breakdown of the capacitor reaches 50%~70%, the fuse melts and the faulty capacitor is disconnected from the power circuit, preventing the expansion of the accident

Modular parallel capacitor device

This device mainly combines integrated capacitors, discharge coils, lightning arresters, grounding switches, reactors, etc. Collective capacitors are individual capacitors with internal fuses installed in a fully insulated enclosure, which is equipped with pressure relief valves and temperature controllers with alarm and trip contacts. It has the advantages of small footprint, easy installation, and convenient operation and maintenance

电容器装置布置



1、6- 预埋 10# 槽钢及弯钩且开口向下；

2、4 预埋钢板和弯钩；

3、混凝土镫；

4、预埋钢板和弯钩；

5、预埋钢板和弯钩在圆周上均布。

一次线路方案

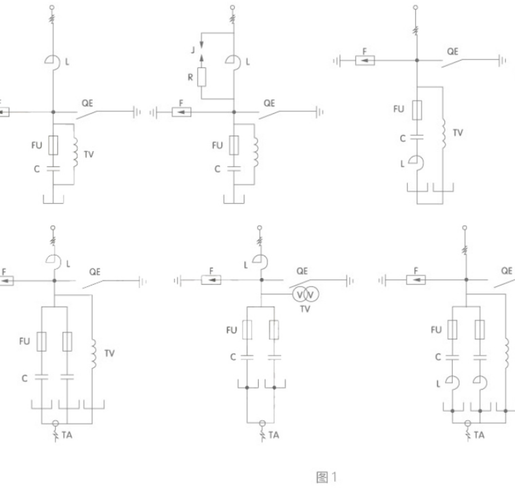


图 1

The typical primary circuit scheme of this device is shown in Figure 1, where the grounding switch is installed according to user requirements. When installing, place it inside the discharge cabinet and change the depth dimension of the cabinet to 1200mm

Ordering Notice

System capacity (kVA) and main wiring scheme, system load situation and working mode

Harmonic frequency, voltage and current content of each harmonic (manufacturers can measure on behalf of users)

System power factor, compensated power factor, and total compensation capacity (manufacturers can design on behalf of users)

Installation site plan, installation method, and device inlet and outlet wiring method

Requirements for cabinet size and color