



Reactive Compensation

TBBZ High-Voltage Automatic Reactive-Power Compensation Device

TBBZ series high-voltage automatic reactive-power compensation device tracks and switches capacitor banks through its control system according to the grid and load conditions on 6kV / 10kV feeders, automatically compensating reactive power and raising the power factor to 0.9 or above. It greatly improves power quality, reduces losses and increases the transmission capacity of the distribution system.

MODEL DESIGNATION

TBBZ□-□()□□□

TBBZ parallel-capacitor compensation assembly, grouped auto-switching

□ compensation capacity (kVar)

□□□ connection & protection suffix 1 / 2 / 3

□ rated voltage (kV)

() groups & capacity per group (G = fixed)

Example TBBZ10 = 10 kV, 1600 kVar total, two auto-switched groups (800 + 800 kVar), single-star, open-delta voltage protection

TECHNICAL SPECIFICATIONS

Rated voltage	6 / 10 kV
Rated frequency	50 Hz
Compensation capacity	grouped, up to 1600 kVar
Switching	group automatic (auto-tracking)
Connection	single-star
Corrected power factor	≥ 0.9

KEY FEATURES

- Runs continuously at 1.1× rated voltage (steady over-voltage) and up to 1.3× rated current (rms)
- Discharge coils reduce residual voltage to ≤ 50V within 5 seconds
- Each capacitor fused; arrester for switching & lightning over-voltage protection
- Vacuum-contactor switching — suitable for frequent operation
- Per-group protection: over-current, voltage imbalance, under / over-voltage; faulty group isolatable
- LCD controller with real-time V / I / PF display, RS232 / RS485 and 'four-remote' capability

NORMAL OPERATING ENVIRONMENT

- Altitude ≤ 2000 m
- Relative humidity ≤ 85%
- Ambient temperature -25 °C to +55 °C
- No explosive media; free of corrosive or insulation-damaging gases, conductive media, steam and heavy mould