

LV Capacitor Banks

Automatic Power Factor Correction Panels

A capacitor bank is a grouping of several identical capacitors interconnected in parallel or in series with one another. These groups of capacitors are typically used to correct or counteract undesirable characteristics, such as power factor lag or phase shifts inherent in alternating current (AC) electrical power supplies.

Intact Automatic Power factor Control & Relay panels are supplied in the voltage range of 208 VAC to 600VAC. KVAR rating of Capacitor banks varies from 10 to 1200, depending of Electrical system requirement of customers. The Panel consists of Power Factor Controller, Switchgears, Capacitors, Reactors, Meters, lamps etc.

Use of high quality capacitors with a specially designed ventilation system allows Intact capacitor banks to reach a maximum reactive power within a minimum volume.

FEATURES:

- Power factor correction by multi step design
- Standard & detuned capacitor banks (with Reactors)
- Capacitor units are metal encapsulated of temp Class D
- Capacitors are Self-healing, pressure sensitive disconnections & fitted with discharge resistors
- Microprocessor based power factor controller with various switching sequences
- Special Contactors for power factor correction capacitors; equipped with limiting resistance for the inrush current
- Easy installation & maintenance

Technical Specifications:

- Nominal voltage and frequency : 208 up to 600V – 60Hz (standard range)
- Maximum kvar size 1200 kvar @ 480V / 600V
- Connection : Three phase
- Starting current setting (C/k) : From 0.01 A to 5 A for the RVT
- Operation : Automatic or manual setting of the controller with indication of:
 - ✓ The number of active outputs.
 - ✓ The inductive or capacitive power factor.
 - ✓ Alarm conditions.
 - ✓ Overvoltage and under voltage protection.
 - ✓ Over temperature.



- ✓ Demand for switching on/off of a capacitor step.
- Losses : Dielectric losses: less than 0.2 Watt/kvar.
- Capacitor total losses : less than 0.5 Watt/kvar (discharge resistors included).
- Automatic bank total losses :
 - ✓ without reactors : less than 1.5 Watt/kvar (including losses from all accessories),
 - ✓ with reactors : less than 5.5 Watt/kvar (including accessories losses).
- Capacitors : Dry type, self-healing, according to EN 60831-1&2.
- Voltage test : 2.15 times Line to line voltage between terminals for a duration of 10 sec. at the rated frequency
- Acceptable overloads:
 - ✓ Overvoltage tolerance: 10% max. Intermittently.
 - ✓ Overcurrent tolerance: 30% permanently.
- Temperature range : -25°C / class D according to IEC 60831-1&2.
- Ventilation : Forced
- Enclosure:
 - ✓ Wall mounting
 - ✓ Modular free-standing cubicle.
- Protection : Type 1 / Type 12 / Type 3R
- Ambient temperature: -10°C/+50°C

Series	Max. Stages	Max. kvar/Step	Max. kvar	Voltage	Dimension (mm)	Type	Aprox. Weight	Cable entry
ICB-01	3	15	45	480/ 600	610 x 510 x 255	1, 12, 3R	40 kg	Top
ICB-02	3	50	150	480 / 600	915 x 760 x 405	1, 12, 3R	90 kg	Top / Side
ICB-03	5	50	250	480 / 600	1525 x 915 x 405	1, 12, 3R	136 kg	Top / Side
ICB-04	5	100	500	480 / 600	1830 x 1065 x 510	1, 12, 3R	227 kg	Top / Side
CB-02N	3	50	150	480 / 600	1525 x 915 x 405	1, 12, 3R	181 kg	Top / Side
CB-03N	5	50	250	480 / 600	1830 x 1065 x 510	1, 12, 3R	295 kg	Top / Side

Note: Specification subject to change without prior notice. Custom Design Capacitor Banks with different electrical and mechanical specifications are available on request.