iPFC

POWER FACTOR CONTROLLER

Current | Voltage | Frequency | PF | VAR | 6/8/12 stage control

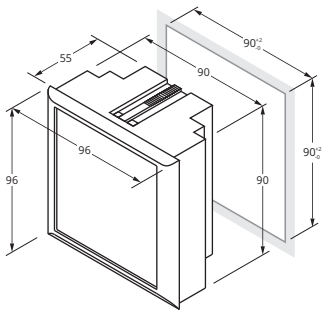
INTELLIGENT DEVICE TO MAINTAIN THE POWER FACTOR IN REQUIRED RANGE!

Features :

- Three phase sensing with Three CT or single CT (Balanced Load)
- Intelligent Power Factor Controlling based on the capacitor bank switching history (Number of operations, ON time) improves the capacitor life time.
- 6 or 8 or 12 switching relay outputs.
- Automatic or manual control (manual control with power backup option).

  User programmable:
  - Star/Delta.
  - Lead and Lag limits.
  - PT and CT ratios.
  - CT secondary.
  - Minimum switch ON time (4-999 seconds) default 20s.
  - Minimum discharge time (4-999 seconds) default 50s.
  - Minimum capacitor on time (4-999 seconds) default 20s.
  - Minimum sensing current for controlling operation 100mA - 500mA.
  - User programmable capacitor value.
- Fault detection (Over compensation, Under compensation, Over voltage, Over current, Under voltage, Under current, Over harmonics for voltage and current).
- Displays VLL, VLN, Amps (Average and Phasewise) Frequency, W, PF, VAR (Total and Phasewise) Wh, PF Avg.
- Four quadrant operation.
- RS 485 communication interface (Optional).

Mechanical Specification:



**Note: Depth will be 10 mm more based on the relay/connector accommodation.*

Advantages

- Three phase sensing gives accurate measurement of PF.
- Fault Detection (Over compensation, Under compensation, Over voltage, Over current, Under voltage, Under Current, Over harmonics for voltage and current).
- Automatic or Manual Control (manual control with power backup option).
- Increased capacitor life - capacitor switching based on history - ON time / number of switching.

Applications:

- In all Incomers.
- Fixed power factor corrections individual (e.g. motor, transformers, lighting, etc.)
- Group fixed power factor correction (several equipments connected in a group).
- Capacitor banks of tuned and detuned.
- Harmonic trap applications (e.g. UPS, Frequency Drives and Converters, etc.)

Technical Specification:

Specification	Description
Input current:	Current inputs (A_1 A_2 A_3) 50mA - 6A (Field configurable 1A or 5A). Primary Programmable up to 99 kA. Overload: 10A max continuous, 50A max for 3 Sec. Burden: 0.2VA Max. per phase.
Input voltage:	4 Voltage inputs (V_1 V_2 V_3 V_N) Programmable 110 or 415V LL Nominal (Range 80 to 550V LL) Primary Programmable up to 999 kV. Burden: 0.2VA Max. per phase.
Input Frequency:	45-65 Hz
Sensing/ Measurement:	True RMS, 1 Sec update time. 4 Quadrant Power & Energy.
Accuracy:	Class 1.0 (default) as per IEC 62053-21, Class 0.5 as per IEC 62053-22 (Optional).
Aux-Supply :	Control Power: 180 - 300V AC/DC, 40-70Hz. Burden: 10VA Max.
CT PT Ratio Max:	2000 MVA Programmable.
Relay contact rating:	SPST, 2A @ 240V.
Display Resolution:	1 row, 4 Digits for instantaneous and 6 Digits for integrated (10mm height).
Weight:	Unpacked: 350 gms, Packed: 450 gms.
Communication RS485 interface:	*Parity: Odd, Even, None (Prefered Even)* *Baud rate:* 4800 bps to 19200 bps. (Preferred 9600 bps). *Isolation:* 2000 volts AC isolation for 1 minute between communication and other circuits.
Torque	1 N-m
Wire gauge	11 AWG

Note: *Additional error of 0.1% of full scale, for meter input current below 500mA*