



Power Technology Perfect & Precise

APFC PANELS



Most of the commercial and Industrial installations in the country have large electrical loads which are mostly inductive in nature, such as motors, large machines, air conditioners, drives etc. Which results in a severely lagging power factor. This means loss and wastage of energy and heavy penalties by electricity boards. In case of fixed loads this can be taken care by manual switching of capacitors.

However in case of rapidly varying and scattered loads it becomes difficult to maintain a high power factor by manually switching on/off the capacitors in proportion to variation of load within an installation. This drawback is overcome by using an APFC panel (Automatic Power Factor Correction Panel) which not only maintains a high power factor but also eliminates the need for constant manual intervention.

Advantages

- ✘ Economical with faster payback period
- ✘ Ability to maintain a constant high power factor
- ✘ Eliminates low power factor penalties levied by Electricity Board
- ✘ Reduces the KVA demand charges
- ✘ Improves efficiency of the system by reducing losses
- ✘ Prevents leading power factor in the installation during low load conditions

Salient Features

- ✘ Designed with the concept of modularity which allows upgrading of KVAR rating as and when required
- ✘ Incomer ACB / MCCB for connection to the mains.
- ✘ Advanced microprocessor based relay used to ensure real time power factor correction in the installation
- ✘ Current limiting contractors specially designed for capacitor switch (Optional).
- ✘ Specifically designed, user friendly and dust & vermin proof modules.
- ✘ Flush mounted meters to indicate line voltage & current.
- ✘ Provision of incomer cable from top / bottom.
- ✘ Efficient performance trans air exhaust fans for cooling.
- ✘ Low loss single/three phase MPP capacitors housed in aluminum cans.
- ✘ Also low loss three phase APP capacitors housed in CRCA cans (Optional).
- ✘ Heavy Duty capacitors for jerking loads.

Technical data	Automatic Power Factor correction unit
Mechanical Structure	Sheet steel, protected against corrosion by a Phosphating treatment. Structure powder painted, Siemens grey, Orange fire, colour (other colours on request)
Wiring	Fire retardant copper wire /cables.
Fuses/MCB/MCCB	All capacitors are protected.
Rated Voltage	380/400/415/440/460V AC or as per requirement.
Frequency	50 Hz.± 3%
Auxiliary voltage	230 Vac
Contactors	Each bank of capacitors is controlled by a three-pole contactor.
Capacitors	Self-healing Metallized Polypropylene equipped with over pressure safety device and discharge resistor. Filling: biodegradable non toxic dry type, PCB free. Capacitance tolerance: - 5 % to + 10 % , Dielectric losses: <0.2W/kvar
Protection degree	External protection degree : IP 45 or as per requirement
Cooling	Exhaust fans (where required)
Temperature Range	-10°C to + 50°C
Power factor controller	User friendly intelligent Microprocessor based APFC Relay
Reference Standards	IS 13585 (Part-I)/1994
Rated Capacity	20 - 1000 KVAR or as per Customer's requirement
Configuration	Delta / Star Floating / Star Grounding

PRODUCTS

TRANSFORMERS (OIL/DRY) | VCBs / LBS | VOLTAGE CONTROLLERS / AVRS | PANELS | COMPACT SUB-STATIONS

APPROVALS & REGISTRATIONS ✦ E-in-C (Defence) ✦ MAP ✦ Railways ✦ BSNL ✦ MTNL & more



Indian Transformers and Electricals Pvt. Ltd.

38th Km. Stone, Delhi-Jaipur Highway, Behrampur Road, Sector-34, Post Box#44, **GURGAON** - 122004

Phone : +91-124-4031900 (5 lines), 2372100, 2372200 Fax : +91-124-2372300

E-mail: info@indiantransformers.com, sales@indiantransformers.com Website : www.indiantransformers.com

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