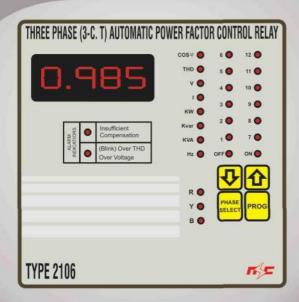
## THREE PHASE (3-C. T) AUTOMATIC POWER FACTOR CONTROL RELAY TYPE 2106



The controller senses the total resultant power factor of the system and switches the capacitors to correct the power factor to the required level.

Voltage Input Current Input CT Ratio

- : 160 to 260 V AC 50 Hz on R-N, Y-N, B-N.
- : 0-5 Amps through CTs on R, Y and B Phases
- : Programmable from 5/5 to 9000/5 in increments of 1 Amp

**Relay Output** 

 Each Stage Switching Contact is rated for maxima of 230V, 5 Amps AC resistive Load.

**Control Range** 

: Power Factor: Setting 0.5 Lag to 0.5 Lead C/K Setting: The Kvar of smallest Capacitor at stage 1 is to be programmed

Measurement & Display

 Power Factor: of each Phase to Neutral and Total System Power Factor.

Voltage:of Each Phase to Neutral (R-N,Y-N,B-N) and Phase to Phase (R-Y, Y-B, B-R).

Total Harmonic Disortion (THD).

Current:Though CTs on R, Y, B Phases.

KW/Kvar/KVA:of each Phase to Neutral and

Total KW/Kvar/KVA of all the Three Phases

Hz: Frequency of the Supply.
Class of Accuracy: 1.0
Front Bezel: 144x144 mm

Panel Cutout: 138 x 138 mm

Depth Behind Panel: 100 mm

## Features :

**Dimensions** 

- Programmable upto 12 stages.
- Alarm Output for Insufficient Compensation, Over THD & Over Voltage.
- Three Phase Four Wire Triple Element Measurements (3 C.T) for balanced / unbalanced loads.
- Bright 4 Digit 14.2mm LED Display.
- Built-in Power Analyser: Displays V, A, Hz, COS O, KW, Kvar, THD, KVA of each phase & Total.
- Available for Thyristor Switching Systems.
- Sensitivity better than 1%
- Standard DIN Flush Mounting
- Size : 144mm X 144mm X 100mm.

## INTELLIGENT AUTOMATIC POWER FACTOR CONTROL RELAY TYPE 1350

The controller is the centre of the Automatic Power Factor Control System. The Controller is "Truly Intelligent", there are no settings to make. The Controller first measures the Capacitors under its contr 'Learn Mode', and switches them on or off automatically as required, to maintain the Power Factor with 0.95 lead.

Once it knows that the panel is correctly connected in the system, if measures all capacitors under its control by switching them one by one, and stores their values and location (stage nos.) in memory, it then measures the Kvar at the main incomer and calculates the 'best fit'-i.e. The stages that when switched on would provide the best possible power factor without allowing it to go leading.

1350 then proceeds to switch them on one by one, all the time assessing the effect on the system, and Calculating the Kvar requirements. The largest capacitor among those destined to be on is switched on first so that the power factor Is brought up as quickly as possible. It switches off the capacitors by one in like fashion, if the Power factor goes leading, but this time switching the smallest capacitor off first. Each stage of the 1350 has a corresponding software timer in memory. Thus wherever a stage Is switched off the times begins counting 60 seconds.

Manual Control of the 1350 is also unique. You can select any stage and switch only that stage on or off without affecting other stages.

## Features:

- Field Proven Design.
- Truly Intelligent Kvar base APFC Relay.
- Self Learning, No Site Programmimg.
- Automatically senses the Capacitor values connected at stage .
- Four digit digital P.F. Meter for accurate measurement.
- Sensitivity better than 1% (50m A)
- Equalise the duty cycle on same value capacitor.
- Built in software timer for Fast correction yet ensuring capacitor
- Unique built in Manual Control to enable selection of the Precise step to switch On or Off.
- Special version available for fast discharge capacitor.
- Available in 4, 8, 12 and 16 steps models.
- Compact DIN Std. flush mounting 144 x 144 case, with case, with 100mm depth.

