POWER FACTOR CONTROLLER

INTELLIGENT POWER FACTOR CONTROLLERS

Affordable, Accurate, Precise & Reliable instruments... since 1982!

Pioneers and Experts in Test and Measuring Instruments...

GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI

INTELLIGENT AUTOMATIC POWER FACTOR CONTROLLER / CORRECTION RELAY

Model: R-APFC 06

Model: R-APFC 12

INTRODUCTION:

MECO-G has introduced a unique 8-in-1 meter for the first time. It has simultaneous measurements of Volt, Current, Frequency, Power Factor (LAG / LEAD), KVAR and Temperature with Alarm function in all the Ranges
This reduces the cost of using 4 separated meters and saves space on the panel. Wiring of cables is also reduced thus effecting tremendous saving in cost.
The instrument works on the principal of First-In-First-Out (FIFO) method, making sure the relay contacts are used more evenly to extend the life of relay contacts thus making the correction of Power Factor more accurate.

FEATURES:

* Micro controller based design to give accurate correction of Power Factor.
* Automatic K/C value calculating.
* Multiple data display, including Power Factor (Lag/Lead), KVAR value, Voltage, Current, Frequency and Temperature.
* KVAR value can be set directly for each stage. Each stage can have different KVAR values, enabling precise control.
* Capacitor connection is cyclical, using First In First Out principle and is used according to average utilization principle prolonging the relay connection point life.
* Alarm relay output. Can be set to give alarm for abnormal Voltage, Current, KVAR, Power Factor, Frequency and Temperature.
* CT and PT value can be set to display real KVAR, Voltage and Current value.

SPECIFICATION

Measuring Method	:**TRMS** using Micro controller
Sampling Time	:2.5 Samples Per Second
Display Type	:Red LED Super Bright Display
Maximum Display	:9999 Counts
Resolution	:0.001 to 1 Count Depending on range
Polarity Indication	:"-" is indicated for Negative Input
Decimal Selection	:Auto
Over Range Indication	:"1" or "-1"
Maximum Overload	:Voltage: 1.2 times continuous :Current: 2 times continuous
Frequency Response	:50-60Hz Standard.
Environment	:Calibration: 27°± 5°C :Operating: 0° ~ 50°C, RH < 95% :Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical)	: <15VA
Dielectric Strength	: 2kV at 50Hz for 1 min. between input and Power terminals. : 2kV at 50Hz for 1 min. between all terminals to case.
Aux. Supply	: Self Powered.

TYPE	MODEL
6 STAGES / RELAYS	R-APFC06
12 STAGES / RELAYS	R-APFC12

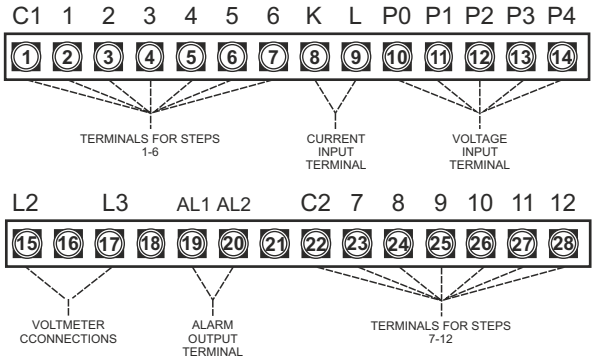
INTELLIGENT AUTOMATIC POWER FACTOR CONTROLLER / CORRECTION RELAY

Working Voltage	110V / 230V / 380V / 440V ± 10%, 15VA Max.
Phase (Panel Set)	1Phase / 3Phase
Input Current	5A (CTR can be set directly on the panel)
No. Of Relays	6 Relays
Programmable Alarm Output	High and Low alarm with LED blinking and alarm on relay output
Output Relay Capacity	AC 220V / DC30V 3A
Installable Capacity	0-250KVAR / Stage
Capacitor Relay Contacts Switching Mode	Relay contacts are connected on First-In-First-Out (FIFO) Principal so that the relay contacts may be used more evenly. This extends the life of relay contacts. (The relay contacts with no capacitors will not be connected.)
Delay Time	10-240 seconds - programmable. (To be set by the user)
Mode of Operation	Automatic / Manual
Power Out Memory	All the data stored is preserved for atleast 2 months in the Event of a power failure.

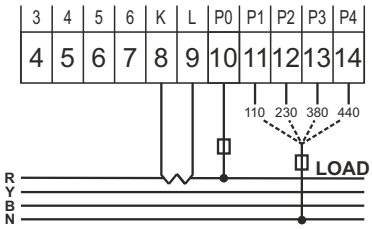
Ranges	**Specifications**	**Accuracy**
Voltage (V)	110 / 230 / 380 / 440V	± 0.5% of rdg.+2dgts
Current (A)	0-5A	± 0.5% of rdg.+2dgts
Power Factor (P.F.)	0.00~1.00 (Lag / Lead)	± 2° Electrical
KVAR	0-9999KVAR	± 0.5% of rdg.+2dgts
Frequency (Hz)	40-70 Hz	± 0.05 Hz
Temperature (°C / °F)	0-70°C	± 1.0°C

Phase Order Alarm	Error Message displayed.
Operating Condition	Temperature: -0°C ~ 55°C, Relative Humidity: 0-90%RH. Non condensing.

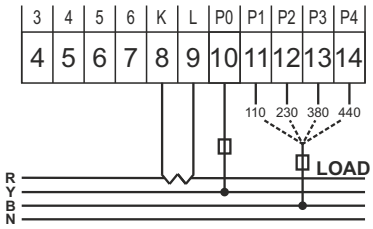
General Connection Diagram



1Phase / 3Phase, 3Wire



3Phase, 4Wire



DIMENSIONS

SIZE (In mm)	
A	144
B	144
C	80
D	8
E	136
F	5
G	8
H	150
I	70