EURELECS

Power Factor Controller

CBR 30XX plays its role as the brain of capacitor bank which make decision to switch in and out the capacitor stages to achieve required power factor. Thanks to its high performance micro-computer and also large LCD, CBR 30XX combines the benefits of measuring device with the function of power factor control relay.

Construction

Intelligent controller to maximize availability

Advanced harmonic calculation

Self identification capability

Up to 30 parameters setting

User friendly

Features

6 & 12 output stages

One output alarm relay

Advanced alarm system

Temperature measurement

Detection of defective stages (e.g. fuse failure or contactor welded)

Target power factor change over the input

Capacitor harmonic over current calculation (di%)

Measure & display of V, A, P, Q, Qc, temperature, di%

Monitoring & recording of switching Numbers & gain of each step

Typical applications
Automatic power factor controller
(normal or filter type capacitor banks)

Terminals
Plug in terminals

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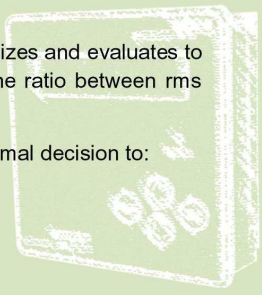
Power Factor Controller

Technical characteristics

Characteristics	
Rated voltage	400 volt
Rated frequency	50 & 60Hz
Number of stages	1~12
Alarm relay	Included
Interface	RS232 (optional)
Tariff cos Φ changeover	Included
Output data	
Number of relays	6 or 12
Switching voltage	250 VAC
Switching power	2000 VA
Measurement data	
Measurement voltage range	Phase to Phase 380V
Measurement current	1 & 5 A (self configurable)
Min. measuring current	20 mA
Max. measuring current	5.5 A
Fundamental frequency	50 & 60 Hz available
Operation data	
Supply voltage	400 VAC ±10%
Frequency	50 & 60 Hz
Power consumption	7VA
Ambient data	
Operation temperature	Min. Temp. -10 ˚C Max. Temp. +65 ˚C
Over-voltage class	3
Pollution degree	2
Mounting position	138*138 mm
Operation height	Max. 2 000m over NN
Humidity class	15% to 95% without dew
Protection class	Front plate IP65 (IEC529) Rear side IP20 (IEC529)
Mechanical data	
Weight	1.1 Kg
Dimension	140*140*71mm

Main Function

CBR 30XX continuously takes samples of voltage and current in all 4 quadrants, digitalizes and evaluates to obtain: active and reactive power, voltage and current true RMS, power factor, di% (the ratio between rms values of capacitors current to its 1st harmonic) and required reactive power.



CBR 30XX uses the result of its calculation as well as the current of stages to make optimal decision to:

- ✓ Achieve the required power factor.
- ✓ Minimize the number of switchings to reactive power compensation.
- ✓ Use different stages homogenously.

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