HPR

Power Factor Controller

PERFORMANCE DATA

Rated voltage	90 – 550 Vac
Rated frequency	50 / 60 Hz self-determined
Power absorbed	5 VA
Capacitor Bank insertion time	Adjustable
Control algorithm	Automatic (Best fit), LIFO, Progressive, Combined filter

The **HPR** controller is able to guarantee accurate measurements and processing of the main electrical parameters of the system. The capacitor steps are self-configurable, minimizing initial configuration tasks.

QUALITY AND TESTING

Regulations	EC 61010-1; IEC 61006-2; IEC 61006-4: level B IEC 61326-1; UL 61010.
European directives	Low voltage: 2014/35/CE; Electromagnetic compatibility: 2014/30/CE.

TECHNICAL DATA

Main features	- Automatic initialization - Automatic bank detection and automatic disconnection of defective banks - CT ratio programmable from 1 to 9600 (CT up to 48000/5 A or 9600/1 A) - Current and voltage measurement with true effective value - Measurement of THD% in current, up to the 19th odd harmonic - Measure of the cosϕ between voltage and current using the waveform of the fundamental - Manual and Automatic operation mode - Digital input: choice between target cosϕ1 and cosϕ2, external alarm / low current signaling - Temperature sensor: internal NTC - Alarm memory: Storage of the last ten alarms - In manual each battery can be forced (ON / OFF), ON is used for a fixed compensation
Alarms	Voltage measurement out of tolerance, low / high current alarm <5mA e >6A, Target compensation not achieved, Capacitor bank power loss below 75%, Threshold limits THDu and THDi exceeded, Max. Hours of operation achieved, Insertions and maximum hours reached by each Bank
Displayed values	Cosφ, VL-L, VL-N, I, Power Factor, Ambient temperature, THD% in voltage and current, maximum values (temperature, voltage, THD), powers (active, reactive and apparent), number of battery insertions. It can also provide useful maintenance warnings, such as the loss of power on the benches, the number of insertions, the actual working time of the capacitor banks.
Display / LED	The unit is equipped with a backlit LCD display, to ensure easy data reading in all environmental conditions; Status of capacitor banks, MAN / AUT, line status IND / CAP
Functioning	Automatic 4 quadrants / Manual.
Amperometric input	0.015 .. 6 A, absorbed power < 1 VA, CT ratio 1 .. 9600.
P.F. regulation	From + 0,7 (inductive) to -0,7 (capacitive).
Relay contacts	5 A / 250 Vac; 1 A / 400 Vac.
Degree of protection	IP 41 (with cover IP 54) front; IP 20 back.
Operating temperature Storage temperature	-20 / + 70 °C -40 / + 85 °C

CONFIGURATIONS

Table

Code	Type	N° controllable Banks	Dimensions b x h x p
75993061	HPR 6 – MB (ModBus)	6	144 x 144 x 58
75993121	HPR 12 – MB (ModBus)	12	144 x 144 x 58