HPR

Electronic Controllers



The **HPR** controller is able to guarantee accurate measurement and processing of the main electrical quantities. The capacitor steps are self-configurable, minimising initial configuration need.

PERFORMANCE DATA

Supply and measuring voltage	90 - 550 Vac
Rated frequency	50 / 60 Hz
Power consumption	3 VA
Output	Relay Tyrystor (on request)
Operating mode	4 quadrant
Stage outputs	6 o 12

QUALITY

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

TECHNICAL DATA

Main features	- Automatic initialisation - Automatic detection and disconnection of defective stages - CT ratio programmable from 1 to 9600 (i.e. CT up to 48000 / 5 A or 9600 / 1 A) - Current and voltage measurement with true rms value - THD% measurement in current, up to the 19th odd harmonic - Measurement of cosϕ between voltage and current using the fundamental waveform - Operation in Manual or Automatic - Digital input: choice between cosϕ1 and cosϕ2 target, external alarm / low current signalling - Temperature sensor: internal NTC - Alarm memory: last ten alarms - RS485 serial output with Modbus-RTU protocol
Alarms	Voltage measurement out of tolerance, Low/high current alarm<5mA and >6A, -Target correction not reached, Bank power loss below 75%, THD(U) and THD(I) thresholds exceeded,, Max. operating hours reached, Max. inserts and hours reached by each bank
Displayed quantities	Cosφ, Voltage, Current, Power Factor, ambient temperature, THD% in voltage and current, maximum values (temperature, voltage, THD), powers (active, reactive and apparent), no. of bank insertions. It can also provide useful alerts for maintenance, such as power loss on banks, number of insertions, actual working time of capacitor banks.
Display / LED	The unit is equipped with a backlit LCD display to ensure easy reading of data in all environmental conditions; capacitor bank status, MAN/AUT, IND/CAP line status
Operation	Automatic 2 or 4 quadrant / Manual.
Amperometric input	0.015 .. 6 A, power consumption < 1 VA, CT ratio 1 ... 9600.
P.F. setting	From + 0.7 (inductive) to -0.7 (capacitive).
Relay contacts	5 A / 250 Vac; 1 A / 400 Vac.
Degree of protection	IP front; IP 20 rear. On request with IP 54 cover
Operating temperature	-20 / + 70 °C
Storage temperature	-40 / + 85 °C



Code	Type	Stage Outputs	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

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