



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.

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 $\cos\phi$ between voltage and current using the fundamental waveform
- Operation in Manual or Automatic
- Digital input: choice between $\cos\phi 1$ and $\cos\phi 2$ 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 ≤ 5 mA and > 6 A, -Target correction not reached, Bank power loss below 75%, THDu and THDi thresholds exceeded, Max. operating hours reached, Max. inserts and hours reached by each bank

Displayed quantities

$\cos\phi$, VL-L, VL-N, I, 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 41 (with IP 54 cover) front; IP 20 rear.

Operating temperature

-20 / + 70 °C

Storage temperature

-40 / + 85 °C

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 or 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.



MODELS

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