PGR96M .../5A

PGR96M .../5A, Vattmeter

Code: M14721.

> U/I: 110/√3 ... 500 V .../5 A
> Scale: 90°, P2
> System: Single-phase
> Accuracy: 1,5
> Measurement Range (A): .../5 A
> Measure: 110/√3 ... 500 V
> Device: CW-M
> Modules: 96x96

Description

Electronic instrument on the front panel (96x96) used to protect generators against overloads and inverse power. The instrument is composed of a power converter with an analogue output connected to the needle indicator with 2 relays. The unit measures and indicates the system's power constantly (measurement in 4 quadrants), sending an alarm signal when the power exceeds the set trip values. The alarm is indicated by activating the output relays. The two LEDS on the front panel can be used to view the status of output relays. The scale is exchangeable.

Application

The instrument has two independent relays: an overload and an inverse power relay.

Overload protection
The protection has these characteristics:

- Trip point adjustable between 0 and 100% of the scale base power
- Hysteresis adjustable between 1 and 50% of the scale base
- Delay adjustable between 0 and 30 s
- Inverse power protection. With various generators connected in parallel, one can start consuming power and working as a motor, under determined situations ("motorization"). The relay is activated when the circumstances are met.
- The protection system has the following characteristics:Trip point adjustable between 0 and 20% of the scale base power
- Relay interlocking* (latch): when the alarm condition is met, the relay is activated until the instrument's auxiliary power supply is not shut down (even when the alarm conditions disappear)
- Fault security: the relay bypass position is the same as when the alarm is triggered. Therefore, when the auxiliary power supply is shut down, the unit sends an alarm.

* The system can be supplied with no relay interlocking (latch), on demand.

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Protection ammeters and vatmeters

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Specifications

AC power supply

Consumption	2,5 VA
Frequency	40 ... 80 Hz
Nominal voltage	115 / 230 / 400 Vca

DC power supply

Consumption	2,5 VA
Nominal voltage	9-18 / 18-36 / 36-72 / 90-140 Vdc

Mechanical characteristics

Size (mm) width x height x depth	96 x 96 x 77.2 (mm)
Weight (kg)	0,435

Environmental characteristics

Protection class	DIN rail: IP 52 (front), IP 00 (terminals)
Storage temperature	-25 ... +70 °C
Working temperature	+5 ... + 55 °C

Standards

Certifications	CE
Electrical safety, Maximum height (m)	2000
Standards	BS 89, UNE-EN 60051, IEC 144, UL 94, DIN 43780, IEC 51, UNE 21318

Current measurement circuit

Nominal current (In)	0 ... 20 mAdc
Phase current measuring range	0 ... 130 % In
Allowable overload	5 In permanent

Voltage measurement circuit

Input impedance	3 Ω

Measurement accuracy

Accuracy	1,5

PGR
Protection vatmeters

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CODE	TYPE	Scale	Accuracy	Measurement Range (A)	Modules	Device	Measure
Single-phase							
M14721.	PGR96M .../5A	90°, P2	1,5	.../5 A	96x96	CW-M	110/√3 ... 500 V
Balanced three-phase							
M14722.	PGR96E .../5A	90°, P2	1,5	.../5 A	96x96	CW-TE	110 ... 500 V
Three-phase 3 wire (ARON)							
M14724.	PGR96A .../5A	90°, P2	1,5	.../5 A	96x96	CW-TA	110 ... 500 V
Three-phase 4 wire							
M14723.	PGR96AN .../5A	90°, P2	1,5	.../5 A	96x96	CW-TAN	110 ... 500 V

SELECT ALL OTHER PARAMETERS FROM THE TABLE BELOW.
Assembly made up of a transducer + analogue instrument
Indicate: voltage and current of the primary and secondary of the measuring transformers, fullscale power and operating voltage.
Exchangeable scale, included. Standardised scales.

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Dimensions

Connections