

RELAY

MEDIUM VOLTAGE PROTECTION RELAY AM4



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Description

The protection relay for medium voltage applications is an essential device in medium voltage electrical systems, designed to detect and respond to abnormal conditions that may occur in the system, such as short circuits, overloads, ground faults, among others.

This relay is responsible for sending open commands to switching devices, such as circuit breakers, in the event of a fault, to quickly isolate the affected part of the system and prevent more severe damage.

The relay can be configured with adjustable parameters related to its protection functions, allowing precise adaptation to the specific characteristics of the electrical system in which it is installed.

Additionally, the medium voltage protection relay offers advanced features such as local and remote communication; status indicator LEDs, alarms, programmable and trip; interlocking parameterization; and real-time monitoring for more efficient and safe management of the electrical system.

Features

Applications:

- Feeder Protection;
- Transformer Protection.

Measurements:

- RMS Voltage and Current;
- Frequency;
- Power Factor;
- Active Power RMS.

Control Functions:

- Local / Remote Control;
- Programmable Interlocking.



Technical Specifications

Power Supply	220 VAC/DC	$\pm 20\%$
	110 VAC/DC	$\pm 20\%$
	48 VDC	$\pm 20\%$
	Consumption	$\leq 10 \text{ W}$
Voltage Inputs	4	
Nominal Voltage	Input	100 VAC / $100/\sqrt{3}$ VAC
	Range	1 ~ 120 V
	Consumption	$\leq 0,5 \text{ VA}$ (Single-phase)
Current Inputs	4	
Nominal Current	Input	5A / 1A AC
	Range	0,04In to 15In
	Consumption	$\leq 0,5 \text{ VA}$ (Single-phase)
Current Capacity	Continuous	$\geq 5 \text{ A}$
	Short duration (200 ms)	$\geq 30 \text{ A}$
Frequency	Nominal	50Hz or 60 Hz
	Range	45 to 55 Hz or 55 to 65 Hz ($\pm 0,1 \text{ Hz}$)
Communication Ports	1 RS485	
	1 RS232	

Technical Specifications

Communication Protocols	IEC60870-5-103	
	Modbus-RTU	
Digital Inputs	Quantity	12
	Nominal Voltage	220 VAC/DC, or 110 VAC/DC, or 48VDC
	Range	Nominal voltage * (1± 20%)
	Consumption	≤ 1 W (220 VDC single channel)
Digital Outputs	Quantity	5
	Mechanical life	≥ 10000
	Switching capacity	≥ 1000 W, L/R = 40 ms
	Interrupting capacity	≥ 30 W, L/R = 40 ms
Records	Event Sequence	200 Event Sequence
	Logs	400 Logs
	Trip Data	10 s (Trip Data)
Environmental Conditions	Temperature	-10 °C to +55 °C
	Humidity	5% to 95% (non-condensing)
	Altitude	≤ 4000 m

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