PRIORITY RELAY PPM-05

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DESCRIPTION

The PPM-05 device is used to control current value in a circuit with priority loads or/and non priority loads. In case the adjusted current value is exceeded in measuring terminals (1, 2), the system switches off the non-priority load with the adjusted time delay. Current threshold values and switch off time delay can be adjusted by a user. The system realizes overload protection but it does not replace the circuit-breakers.

FEATURES

- Control of priority and non-priority loads, three different product types, depending on the level of measured current,
- supply voltage control indicator,
- current threshold exceeding indicator,
- fluent switch off delay time adjustment,
- fluent current threshold adjustment,
- galvanic separation between measure circuit,
- voltage relay output - 1 change over contact max 16 A capacity,
- TH 35 rail mounting.

TECHNICAL DATA

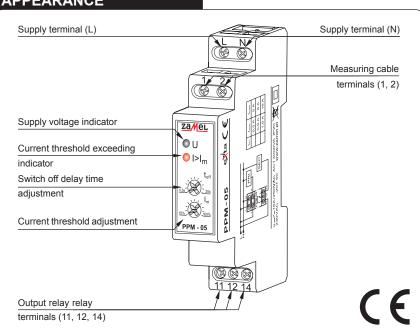| PPM-05	
Supply terminals:	L, N
Nominal supply voltage:	230 VAC
Supply voltage tolerance:	-15 ÷ +10 %
Nominal frequency:	50 / 60Hz
Nominal power consumption:	34 mA
Measuring cable terminals:	1, 2
Current threshold adjustment:	0,5 ÷ 5 A (his. ~5%) - for PPM-05/5 0,8 ÷ 8 A (his. ~5%) - for PPM-05/8 1,6 ÷ 16 A (his. ~5%) - for PPM-05/16
Current measuring tolerance:	≤ 20%
Switch off delay time: from 0,5 ÷ 20 sec.	from 0,5 ÷ 20 sec.
Supply voltage control indicator:	LED green
Current threshold exceeding indicator:	LED red
Output relay parameters:	1NO/NC - 16 A / 250 V AC1 4000 VA
Number of terminal clamps:	7
Section of connecting cables:	0,2 ÷ 2,5 mm^2
Operating temperature range:	-20 ÷ +60 °C
Operating position:	free
Mounting:	TH35 rail (acc. to PN-EN 60715
Protection degree:	IP20 (PN-EN 60529)
Protective class:	II
Overvoltage category:	II
Pollution degree:	2
Dimensions:	monomodular (17,5 mm) 90x17,5x66 mm
Weight:	0,08 g
Reference standards:	PN-EN 60730-1; PN-EN 60730-2-1 PN-EN 61000-4-2,3,4,5,6,11

⚠ CAUTION

The device is designed for a single-phase installation and must be installed in accordance with standards valid in a particular country. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the instruction manual and the device functions. In case of casing dismantling, the guarantee is lost and an electric shock may occur. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 3,5 mm should be used to install the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to install the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.

The symbol means selective collecting of electrical and electronic equipment.
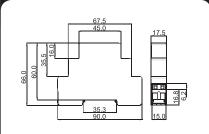*It is forbidden to put the used equipment together with other aste*

APPEARANCE

Supply terminal (L)

Supply terminal (N)

Measuring cable terminals (1, 2)

Supply voltage indicator

Current threshold exceeding indicator

Switch off delay time adjustment

Current threshold adjustment

Output relay relay terminals (11, 12, 14)

MOUNTING

1. Disconnect power supply by the phase fuse, the circuit-breaker or the switch-disconnector combined to the proper circuit.
2. **Check if there is no voltage on connection cables by means of a special measure equipment.**
3. Mount the PPM-05 device in a distribution board on the TH35 rail.
4. Connect the cables with the terminals in accordance with the installing diagram.
5. Switch on the power supply from the mains.
6. Adjust the required switch off time by means of the toff potentiometer.
7. Adjust the required current threshold by means of the Im potentiometer.

After the system has been switched on, it controls the current value in the measuring cable terminals. If the current value exceeds the adjusted value, the device switches off the output relay (open contacts 11-14), and at the same time separates the non priority (load) receiver after the set time is over. In case current value drops below the adjusted threshold during the switch off time is measured, the system does not switch off the output relay. It is also resistant to momentary current drops. The manufacturer suggests two ways of connection: with direct current control in the priority and non-priority circuits or direct current control in the priority circuit only. The exact adjustment of current threshold should be carried out only after forty-minute system operation.
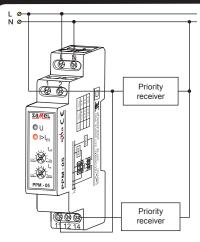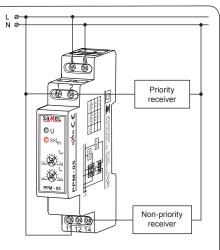
CASING DIMENSIONS

PRODUCT FAMILY

PPM-05 priority relay belongs to Pxx relay product family.

PPX - xx/x

Maximum current available only for PPM-05:
5 – 5 A (hysteresis – 0,2 A)
8 – 8 A (hysteresis – 0,4 A)
16 – 16 A (hysteresis – 0,8 A)

Device type:
01 – basic
05 – processor

Casing type:
M – monomodular

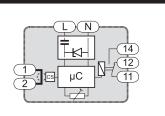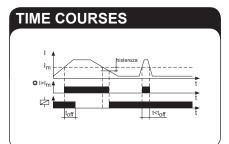| Device symbol: |
| --- |
| PP – current and priority relay |

CONNECTION

System with a direct current control in the priority and non-priority circuits.

System with a direct current control in the priority and non-priority circuits.

INNER DIAGRAM

TIME COURSES

APPLICATION

Current water heating system.

Water heater has been installed in the system as a priority output load and a boiler as a non-priority output load. With the adjusted power and current PPM-05 controls its level. Water is heated by means of a boiler operating permanently. When the water heater is switched on, the boiler is switched off to use running water.

WARRANTY CARD

There is a 24-month guarantee on the product

Salesman stamp and signature, date of sale