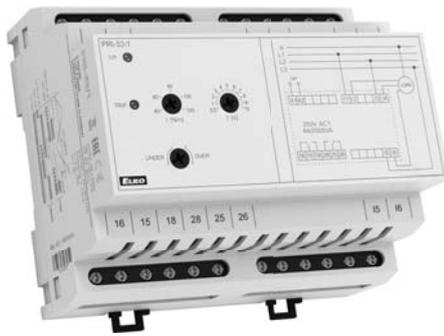


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PRI-53/1 PRI-53/5

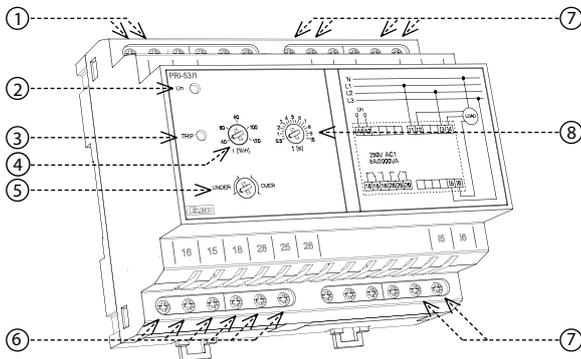
Three-phase current monitoring relay



Characteristics

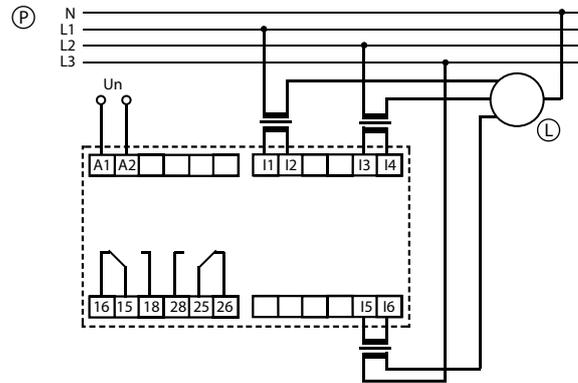
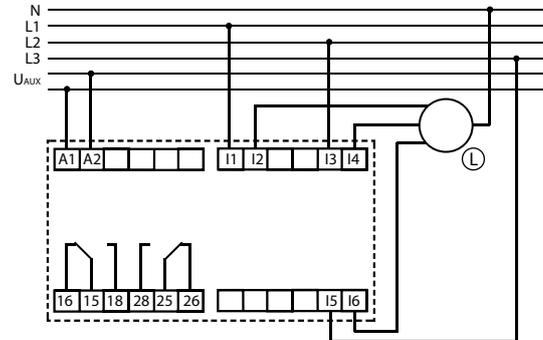
- It is intended for monitoring the current in three-phase devices (e.g. cranes, motors, etc.)
- 24-240 V AC/DC power supply galvanically separated from the circuit of the monitored current
- Adjustable current level in % of I_n :
- Fixed difference level
- Adjustable delay level (when exceeding the preset limit)
- Adjustable function:
 - UNDER - monitors the drop in the strength of current below the preset value I
 - OVER - exceeding the preset value I
- 2 types depending on the strength of rated current I_n (1A, 5A)
- 6-MODULE, DIN rail mounting
- Output relay with 2 changeover contacts
- Option of connecting via the current transformers to increase the value of the monitored current by up to 600 A

Description



1. Supply voltage terminals
2. Supply voltage indication
3. Indication of exceeding the preset limit
4. Current level setting
5. UNDER / OVER function setting
6. Output contacts
7. Current monitoring terminals
8. Delay setting

Connection



L - load

P - Connection: PRI-53 with current conversion transformer to increase the monitored current level

Type of load	$\cos \varphi \geq 0.95$								
Mat. contacts AgNi, contact 8A	250V / 8A	250V / 3A	250V / 2A	230V / 1.5A (345VA)	x	300W	x	250V / 1A	250V / 1A
Type of load									
Mat. contacts AgNi, contact 8A	x	250V / 3A	250V / 3A	24V / 8A	24V / 3A	24V / 2A	24V / 8A	24V / 2A	x

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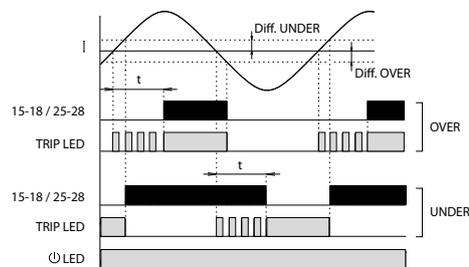
Supply terminals:	A1, A2	
Current monitoring terminals		
1st phase:	I1, I2	
2nd phase:	I3, I4	
3rd phase:	I5, I6	
Supply voltage:	24 - 240V AC/DC	
Tolerance of voltage range:	± 10%	
Operating AC frequency:	45 - 65 Hz	
Burden (max):	3VA / 1.2W	
Max. dissipated power (Un + terminals):	2.5 W	
Rated current In:	AC 1A	AC 5A
Current level - I:	adjustable 40 - 120 %In	
Overload capacity		
- continuous:	2A	10A
- max.3s:	20A	50A
Difference:	fix 1 % In	
Delay (until failure):	adjustable 0.5 - 10s	
Output relay - contact:	2x schangeover / DPDT (AgNi) gilded	
AC contact capacity:	250V / 8 A, max. 2000VA	
DC contact capacity:	30V / 8A	
Mechanical life:	3x10 ⁶ at rated load	

Other information

Operating temperature:	-20 °C to +55 °C (-4 °F to 131 °F)
Storing temperature:	-30 °C to +70 °C (-22 °F to 158 °F)
Electrical strength (power supply – relay contact):	4 kV / 1 min.
Overvoltage category:	III.
Pollution level:	2
Protection degree:	IP40 from font panel / IP20 terminal
Max. cable size (mm ²):	max. 2 x 1.5 / 1 x 2.5
Dimensions:	90 x 105 x 64 mm (3.5 x 4.1 x 2.52")
Weight:	213 g (7.5 oz)
Standards:	EN 60255-6, EN 60255-27, EN 61000-6-2, EN 61000-6-4

Warning

The device is constructed to be connected into 3-phase main and must be installed in accordance with regulations and norms applicable in a particular country. Installation, connection and setting can be done only by a person with an adequate electro-technical qualification who has read and understood this instruction manual and product functions. The device contains protections against over-voltage peaks and disturbing elements in the supply main. To ensure correct function of these protection elements it is necessary to front-end other protective elements of higher degree (A, B, C) and screening of disturbances of switched devices (contactors, motors, inductive load etc.) as it is stated in a standard. Before you start with installation, make sure that the device is not energized and that the main switch is OFF. Do not install the device to the sources of excessive electromagnetic disturbances. By correct installation, ensure good air circulation so the maximum allowed operational temperature is not exceeded in case of permanent operation and higher ambient temperature. While installing the device use screwdriver width approx. 2 mm. Keep in mind that this device is fully electronic while installing. Correct functioning of the device is also dependent on transportation, storing and handling. In case you notice any signs of damage, deformation, malfunction or missing piece, do not install this device and claim it at the seller. After operational life treat the product as electronic waste.



After connecting of supplying voltage, green LED shines.

Function UNDER:

If is the size of monitored current in all phases higher than set level I, relay is closed and red LED does not shine. If the monitored current in any phase decreases under the level I, relay will open after set delay time and red LED shines. During delay time, red LED is flashing. If the monitored current returns back above I + difference level, relay will close without delay and red LED switches off.

Functions OVER:

If is the size of monitored current in all phases lower than set level I, relay is opened and red LED does not shine. If the monitored current in any phase crosses over the level I, relay will close after set delay time and red LED shines. During delay time, red LED is flashing. If the monitored current returns back under I - difference level, relay will open without delay and red LED switches off.