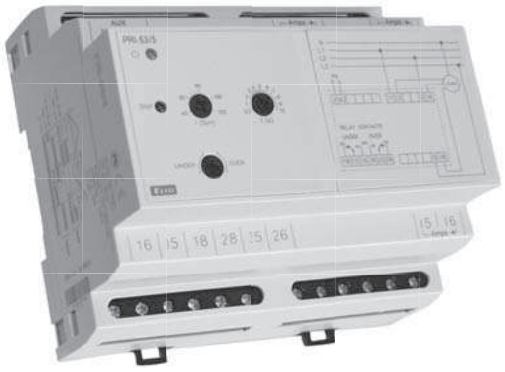
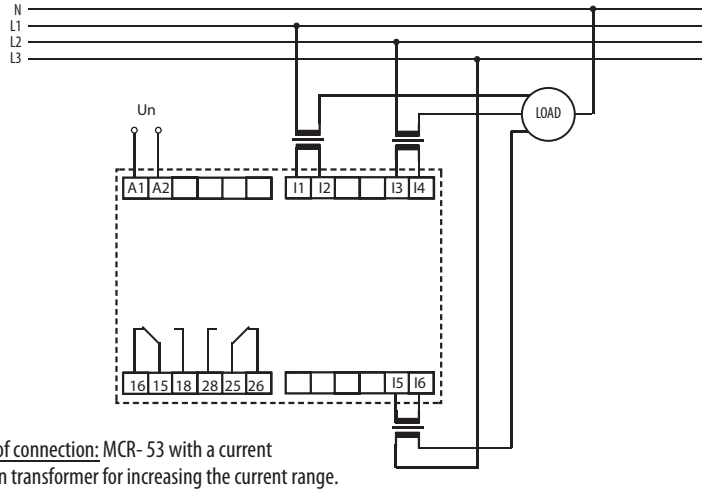
6M



- 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 In:
- 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 In (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

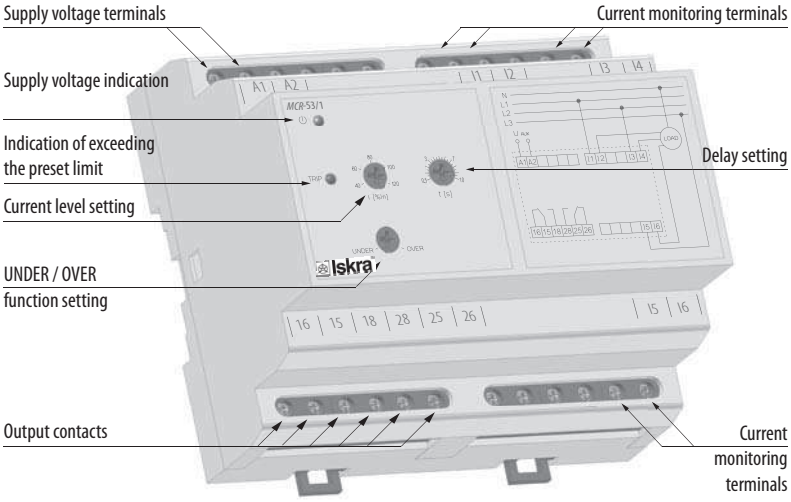
Technical parameters	MCR-531	MCR-535
Supply terminals:	A1, A2	
Current monitoring terminals		
1st phase:	I1, I2	
2nd phase:	I3, I4	
3rd phase:	I5, I6	
Supply voltage:	24 - 240V AC/DC	
Tolerance of voltage range:	± 10%	
Operating AC frequency:	45 - 65 Hz	
Burden: (max):	3VA / 1.2W	
Rated current In:	AC 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.. +55 °C	
Storing temperature:	-30.. +70 °C	
Electrical strengh		
(power supply – relay contact):	4 kV / 1 min.	
Overvoltage category:	III.	
Pollution level:	2	
Protection degree:	IP 40 from font panel / IP 20 terminal	
Max. cable size (mm^2):	max 2 x 1.5 / 1 x 2.5	
Dimensions:	90 x 105 x 64 mm	
Weight:	208 g	208 g
Standards:	EN 60255-6, EN 60255-27, EN 61000-6-2, EN 61000-6-4	

Connection

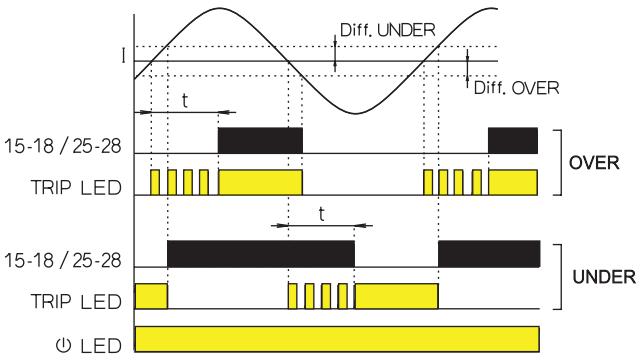


Example of connection: MCR- 53 with a current conversion transformer for increasing the current range.

Device describtion



Functions



After the supply voltage is connected the green LED is on.

UNDER function:
If the strength of the monitored current in all phases exceeds the preset level I, the relay is triggered and the red LED is off. If the strength of the monitored current drops in any phase below the level I, the relay is disconnected after the preset delay timing elapses and the red LED goes on. The red LED flashes during the delay.
If the strength of the monitored current returns above the level I + difference, the relay is triggered without delay and the red LED goes off.

OVER function:
If the strength of the monitored current is lower in all phases than the preset level I, the relay is disconnected and the red LED is off.
If the strength of the monitored current exceeds in any phase the level I, the relay is triggered after the preset delay timing elapses and the red LED goes on. The red LED flashes during the delay.
If the strength of the monitored current again drops below the level I - difference, the relay is disconnected without delay and the red LED goes off.