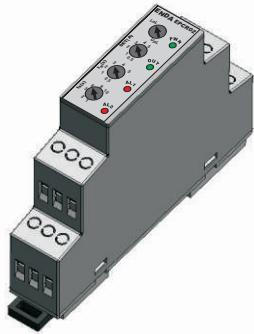




Read this document carefully before using this device. The guarantee will be expired by device damages if you don't attend to the directions in user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA EPCR02 CURRENT PROTECTION RELAY

Thank you for choosing **ENDA EPCR02** Rail mounted current protection relays.



- * Low-current protection
- * Current set value can be adjusted
- * Start, error condition time can be adjusted
- * Contact output for system control (OUT)
- * Rail mounted, screw-terminal connection
- * CE marked according to European Norms

ORDER CODE

EPCR02 - Current Protection Relay



RoHS
Compliant

Technical Specifications

OPERATING

ENDA Current protection relays are designed for in order to protecting the attached systems from overcurrent or low-current loads. Before device is turned on, timing, set and mode values must be set.

- 1- Overcurrent Protection :** For this mode potentiometer must be on UpL position. When device is powered, output relay status will be ON. During the first operation, system will loaded overcurrent at momentary. For this reason, in order to avoid the device from entering the error mode, start delay time activated. At the end of this period, if the measured current greater than adjusted set value, error condition activated. During this time, current value does not below the set value, output relay status will be OFF. Device restarts after 5 sec delay time but the start button must be pressed for running the system.
- 2- Low-current Protection :** For this mode potentiometer must be on LoL position. When device is powered, output relay status will be ON. During the first operation, in order to avoid the device from entering the error mode, start delay time activated. At the end of this period, if the measured current lower than adjusted set value, error condition activated. During this time, current value does not upper the set value, output relay status will be OFF. Device restarts after 5 sec delay time but the start button must be pressed for running the system

CONTROL

Start delay time (t _s)	1, 2, 6, 8, 10 sec, can be selected on device.
Error delay time (t _e)	0.5, 1, 2, 3, 4, 5 sec, can be selected on device.
Current set value (A)	0.5, 1, 2, 3, 4, 5 A AC can be selected on device.
Overcurrent protection	Mode potentiometer must be on UpL position.
Low-current protection	Mode potentiometer must be on LoL position.
Current frequency range	45-65 Hz.

ALARM CONDITIONS

LEDx	LED Status	Description
PWR	ON	Device running
	OFF	Device not running
OUT	ON	Relay activated
	OFF	Relay deactivated
AL1/AL2	AL1 OFF, AL2 OFF	System running normally (No faulty condition)
	AL1 ON, AL2 OFF	Low current
	AL1 OFF, AL2 ON	Overcurrent
	AL1 and AL2 Blinking slowly	Start delay time activated
	AL1 and AL2 Fast blink	Repeated start delay time (5 seconds) activated



While the Relay LED in ON state and if, the AL1 and/or AL2 alarm LEDs are in ON state, delay time is active. When delay time is over, out Relay and LED state turns off.

ELECTRICAL CHARACTERISTICS

Supply voltage	125-310V AC +%10 -%10	
Operating frequency	45-65 Hz	
Power consumption	Max. 10VA.	
Connection	Screw-terminal connection.	
Reset time	Max. 0.01 seconds.	
Accuracy	Depending on the effect of voltage	: Max. %1
	Measurement error	: Max. %5
	Depending on the effect of temperature	: Max %1
EMC	EN 61326-1: 2012	
Safety requirements	EN 61010-1: 2010 (pollution degree 2, overvoltage category II)	
Insulation test voltage	3kV AC min. 1 minute, 4,2kV DC min. 1 minute.	

ENVIRONMENTAL CONDITIONS

Ambient/storage temperature	0 ... +50°C/-25 ... +70°C (With no condensation and icing).
Max. relative humidity	Max. humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C. (With no condensation and icing).
Rated pollution degree	IP20, According to EN 60529
Height	Max. 2000m



Do not use the device in locations subject to corrosive and flammable gasses.

OUTPUTS

Control output (OUT)	Relay: 250V AC, 10A (for resistive load), NO+NC
Life expectancy for relay	Without load 10.000.000 operation; 250V AC, 10A resistive load 50.000 operation.
Control output state	Out LED control output (OUT) lights up when device is powered.

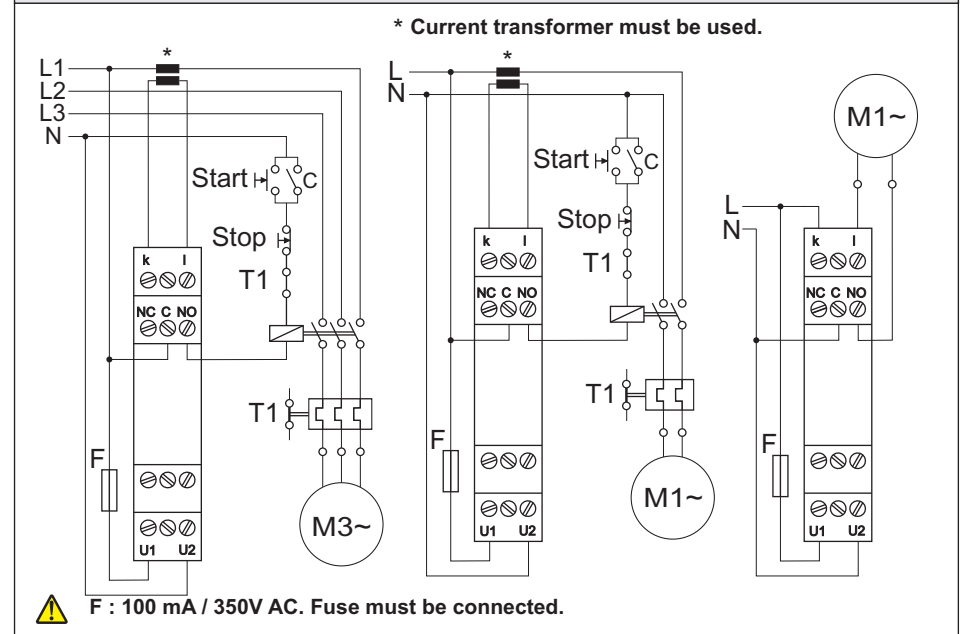
CONTROL

Mounting	Rail mounted (EN 60715, Th35)
Dimensions	W18xH84xD62mm
Weight	Approx. 90g (after packaging)
Enclosure material	Self extinguishing plastics.



While cleaning the device, solvents (thinner, benzene, acid etc.) or corrosive materials must not be used.

CONNECTION DIAGRAM

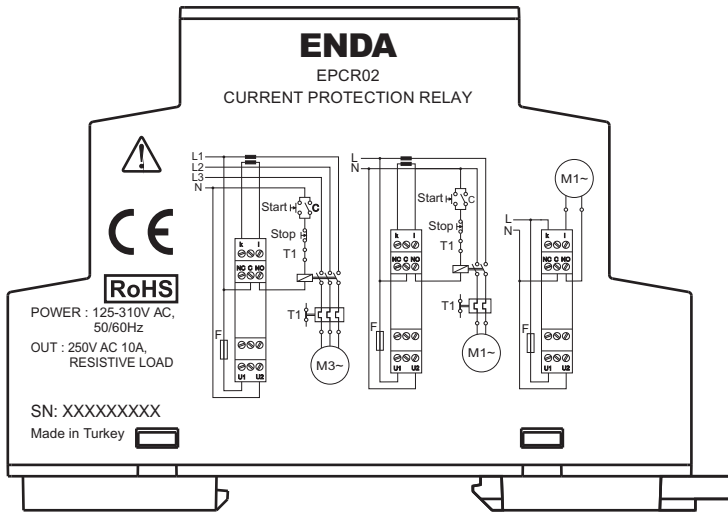


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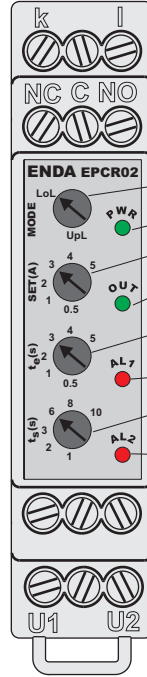


EPCR02-E-02-180726

CONNECTION DIAGRAM




ENDA EPCR02 Series current protection relays are rail mounted devices. Make sure that the device is used only for intended purpose. The shielding must be grounded on the instrument side. During an installation, all of the cables that are connected to the device must be free of energy. The device must be protected against inadmissible humidity, vibrations, severe soiling and make sure that the operation temperature is not exceeded. All input and output lines that are not connected to the supply network must be laid out as shielded and twisted cables. These cables should not be close to the power cables or components. The installation and electrical connections must be carried on by a qualified staff and must be according to the relevant locally applicable regulations.

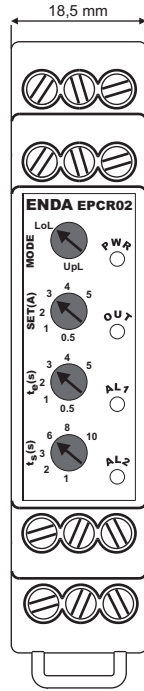
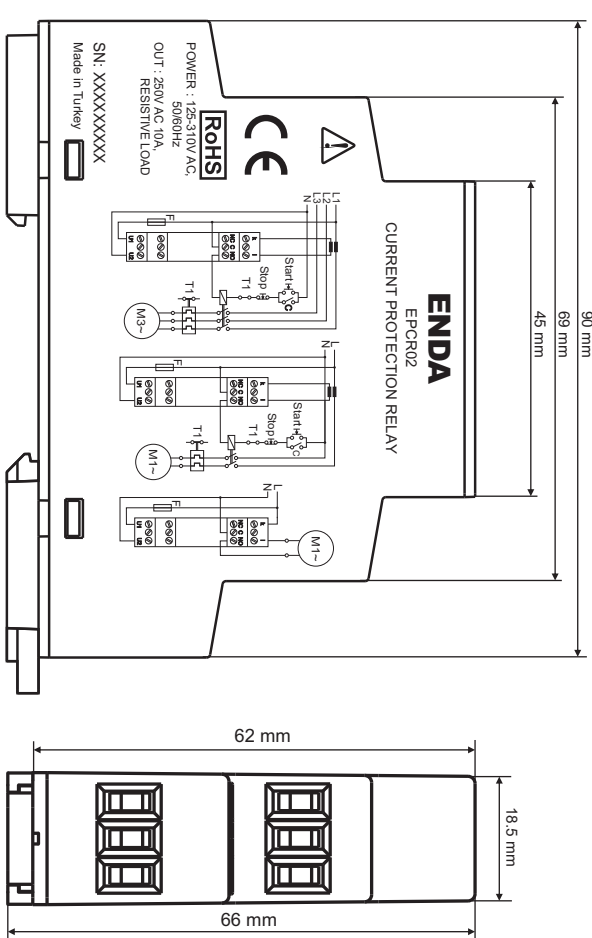


- 1) Mains supply cords shall meet the requirements of IEC 60227 or IEC 60245.
- 2) In accordance with the safety regulations, the power supply switch shall bring the identification of the relevant instrument and it should be easily accessible by the operator.

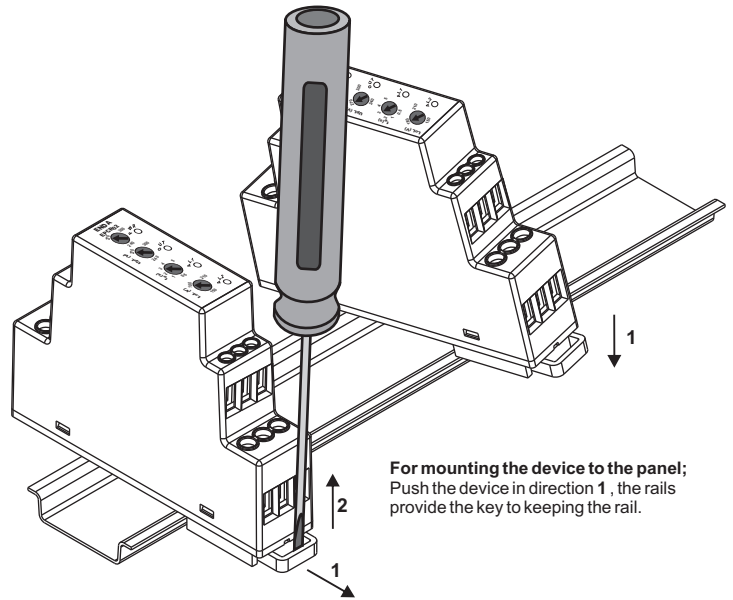
- Running mode selection. (High or Low current protection)
- Supply indicator.
- Current limit selection.
- Relay status LED. (When OUT relay is turned on, OUT LED lights.)
- Alarm status, delay time selection for relay.
- AL1 LED (See Alarm Condition table)
- Start delay time selection.
- AL2 LED (See Alarm Condition table)

 Holding screw
0.4-0.5Nm.

DIMENSIONS



MONTAGE



For mounting the device to the panel; Push the device in direction 1, the rails provide the key to keeping the rail.

For removing the device from rail; Push the rail lock in direction 1 with a screwdriver and pull the device in direction 2.



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