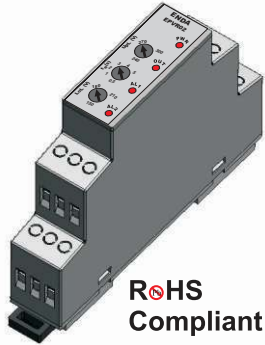




Read this document carefully before using this device. The guarantee will be expired by device damages if you don't attend to the directions in user manual. Also we don't accept any compensations for personal injury, material damage or capital disadvantages.

ENDA EPVR02 VOLTAGE PROTECTION RELAY

Thank you for choosing **ENDA EPVR02** Rail mounted voltage protection relays.



RoHS Compliant

- * Single and 3 Phase monitoring
- * "Phase Failure" (Loss Phase) monitoring
- * "Phase Sequence" monitoring
- * Adjustable "Voltage" protection
- * Overvoltage and/or Low Voltage protection
- * Contact output for system control (OUT)
- * Rail mounted, screw-terminal connection
- * CE marked according to European Norms



ORDER CODE EPVR02 - T10

Product Basic Code	EPVR02	Gecikme Süresi	Blank 0,1, 1, 2, 6, 8, 10 sec.
Voltage Protection Relay	T10		1, 10, 20, 60, 80, 100 sec.

Technical Specifications

OPERATING		
ENDA voltage protection relays are designed in order to protect systems from surges, imbalance between the phase sequence of the disturbances and overloads.		
1- Phase Failure	At least one of the phase is disconnected, output relay status will be OFF immediately. With the return to the normal state of the phases, the output relay status will be ON immediately.	
2- Phase Sequence	in case of incorrect phase sequence connection, relay status will be OFF immediately. With the return to the normal state of the phase sequences, the output relay status will be ON immediately.	
3- Adjustable Voltage Protection	When the upper and lower limit values exceeds, output relay status will be OFF end of the set delay time. Little voltage fluctuations of the mains changes is not considered. System has 3% (6V) hysteresis protection for harmful conditions.	
4- Overvoltage and/or very low Voltage protection	If the nominal voltage of the input phase exceeds 40% and/or fall to 40%, output relay status will be OFF immediately. With the return to the normal operating voltage, output relay status will be ON immediately.	
* Priority alarm sequences :	Phase failure, phase sequence, overvoltage and very low voltage, high voltage, low voltage.	
CONTROL		
Delay time (t_d) adjustment	0.1, 1, 2, 6, 8, 10 or 1, 10, 20, 60, 80, 100sec. (for EPVR02-T10) can be selected on device.	
Voltage lower limit (LoL) adjustment	150, 180, 210 VAC can be selected on device.	
Voltage upper limit (UpL) adjustment	240, 270, 300 VAC can be selected on device.	
Hysteresis (V)	6 VAC.	
Overvoltage (V)	308 VAC.	
Low voltage (V)	132 VAC.	
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 voltage
	AL1 OFF, AL2 ON	High voltage
	AL1 ON, AL2 ON	Low and High voltage
	AL1 Blinking slowly, AL2 OFF	Voltage very low
	AL1 OFF, AL2 Blinking slowly	Voltage very high
	AL1 and AL2 Blinking slowly	Phase sequence faulty
	AL1 and AL2 Fast blink	No Phase
<p>! 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.</p>		

ELECTRICAL CHARACTERISTICS		
Supply voltage	125-410V 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.	

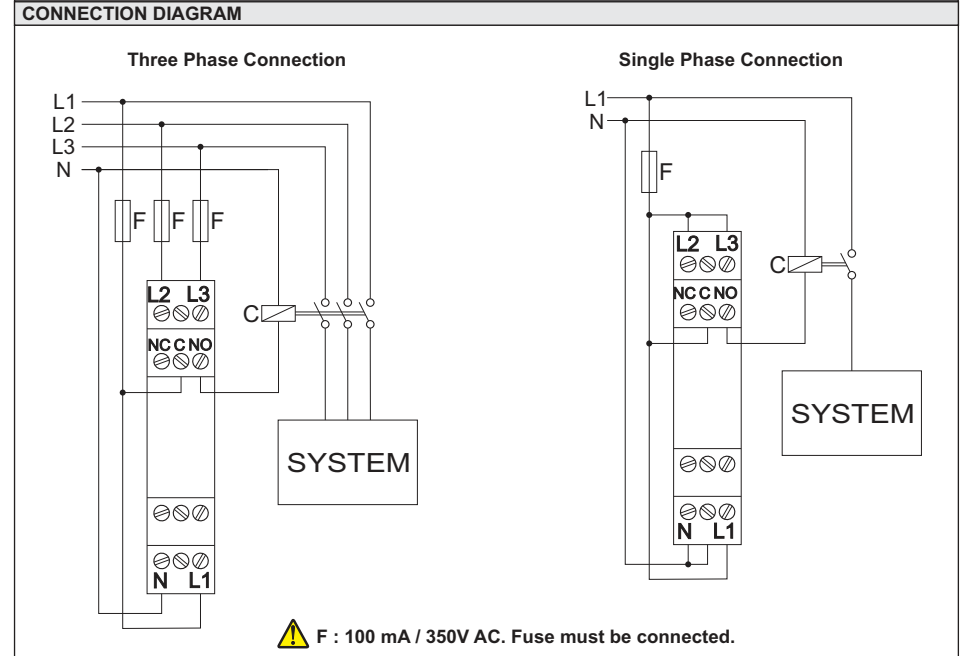
ENVIRONMENTAL CONDITIONS	
Ambient/storage temperature	0 ... +50°C/-25 ... +70°C (With no condensation and icing).
Max. relative humidity	Max. humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C. (With no condensation and icing).
Rated pollution degree	IP20, According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

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

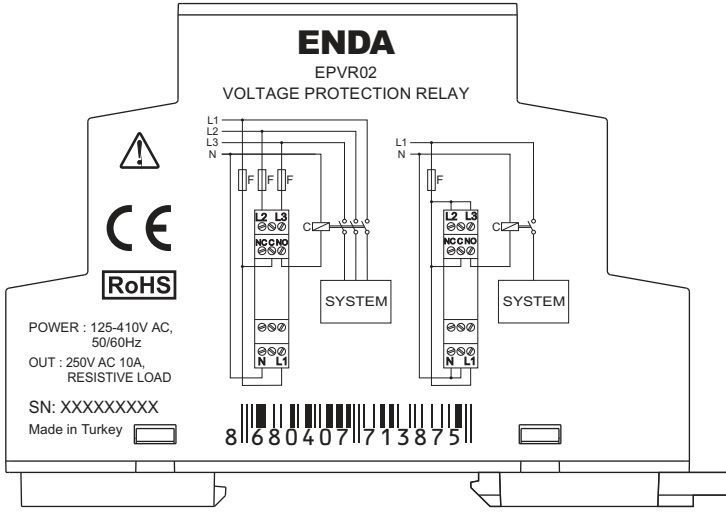
OUTPUTS	
Control output (OUT)	Relay: 250V AC, 10A (for resistive load), NO+NC
Life expectancy for relay	Without load 10.000.000 operation; 250V AC, 10A resistive load 50.000 operation.
Control output state	Out LED control output (OUT) lights up when device is powered.

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

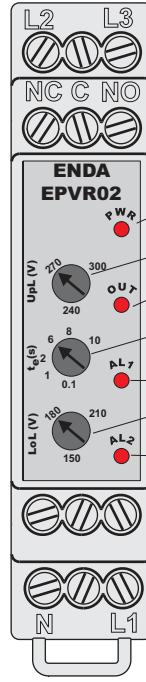
! While cleaning the device, solvents (thinner, benzene, acid etc.) or corrosive materials must not be used.



CONNECTION DIAGRAM




ENDA EPVR02 Series voltage 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.

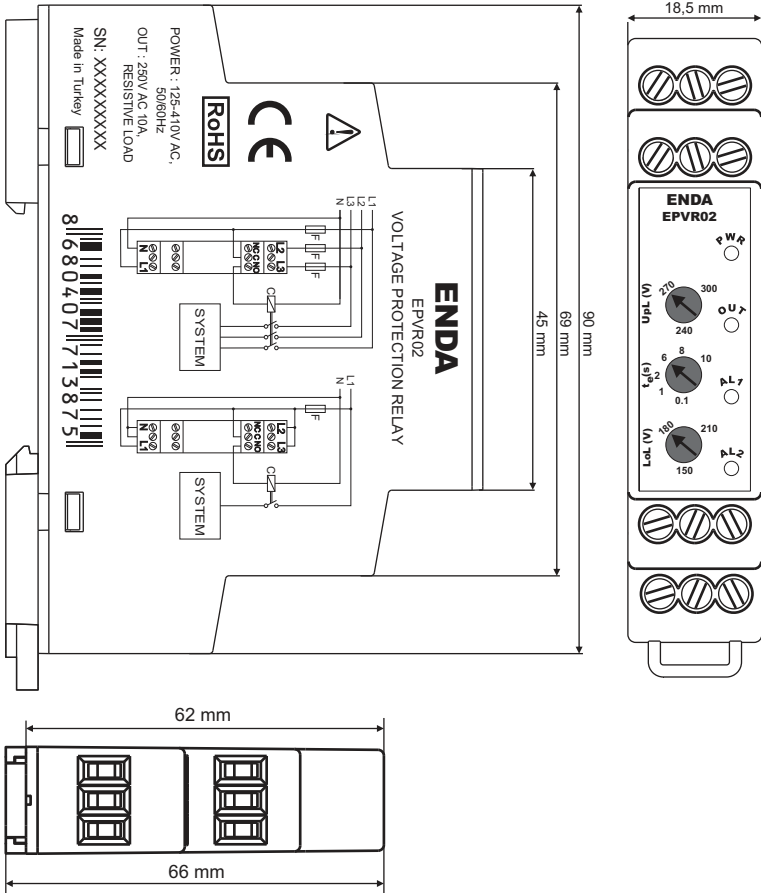


- 1) Mains supply cords shall meet the requirements of IEC 60227 or IEC 60245.
- 2) In accordance with the safety regulations, the power supply switch shall bring the identification of the relevant instrument and it should be easily accessible by the operator.

- Supply indicator.
- Voltage upper 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)
- Voltage lower limit selection.
- AL2 LED (See Alarm Condition table)

 Holding screw
0.4-0.5Nm.

DIMENSIONS



MONTAGE

