

# Phase Sequence / Thermistor Relay

FR-02 / PT-01



FR-02

PT-01

## FR-02

FR-02 Phase Sequence Relay controls the order of 3 phases feeding motors. If R, S and T phases are in correct order, the OUT LED on the front panel is turned on. If the phase order is wrong, the OUT LED is turned off and the output relay is switched to OFF.

## PT-01

PT-01 Thermistor Relay is developed to protect motors with PTC. If coil temperatures in the motor exceed the value of PTC temperature limit, the output relay is automatically switched to OFF. Please refer to the following graph to see the heat characteristics of PTC at 3 different turnoff temperature degrees (110°C, 120°C, and 130°C).



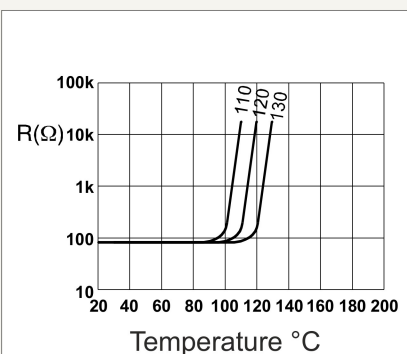
## PRODUCT SELECTION TABLE

Product Code		Neutral Failure	Phase Failure	Phase Seq. Failure	PTC Protection	1 C/O Contact	DIN2 Rail Mounting	Pcs. / Box
FR-02	Phase Sequence Relay	●	●	●		●	●	16
PT-01	Thermistor Relay				●	●	●	16
PTC-3	Triple Thermistor Group							

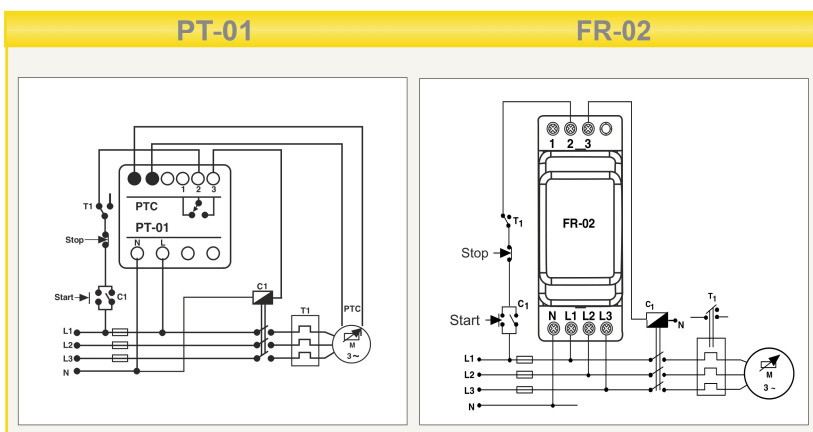
## SPECIFICATIONS

Operating Voltage	230 VAC;
Operating Frequency	50/60 Hz
Operating Range	(0,9-1,1) x Un
Connection	3-phase / neutral (FR-02) / 1-phase/neutral (PT-01)
Output Contact	1 CO contact, 8 A, 2000 VA (FR-02) 5A, 1250 VA (PT-01)
Protection Class	IP 20
Ambient Temp. Range	-5 - +50°C
Dimensions	PK28 (FR-02, PT-01)
Mounting	Rail Mounting; Terminal with screw
Enclosure Weight	0,15 kg / pcs (FR-02) 0,2 / pcs (PT-01)

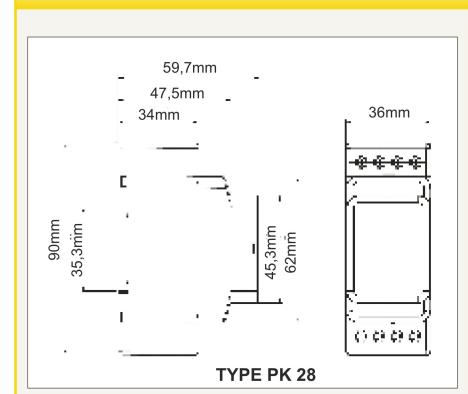
Typical resistance of PTC vs \* temperature characteristics graph



## Connection Diagrams



## Dimensions



Connection diagrams are given for reference. Please always check the latest user manual given with product or download from [www.entec.com.tr](http://www.entec.com.tr)