

RESISTANCE RELAY

**CR-810  
DUO**

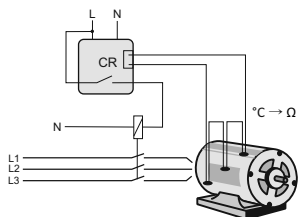
**WARRANTY.** The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us. More information how to make a complaint can be found on the website: [www.fif.com.pl/reklamacje](http://www.fif.com.pl/reklamacje)



Do not dispose of this device in the trash along with other waste! According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.

**Purpose**

The resistance relay protects electrical equipment against any undesirable temperature increases by means of PTC resistors in serial connection (1-6 pieces).



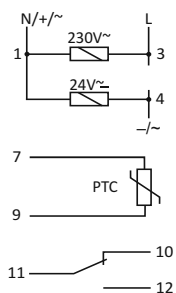
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**Technical data**

power supply	230V AC / 24V AC/DC
contact	separated 1xNO/NC
current load	<8A
contact opening resistance	R>3000Ω, R<70Ω
contact closure resistance	110Ω<R<1800Ω
max resistance of sensor loop in the cold mode	R=1500Ω
power indication	green LED
damage indication	2x red LED
terminal	2.5mm <sup>2</sup> screw terminals
working temperature	-25÷50°C
dimensions	1 module (18mm)
mounting	on rail TH-35
ingress protection	IP20

**Wiring diagram**



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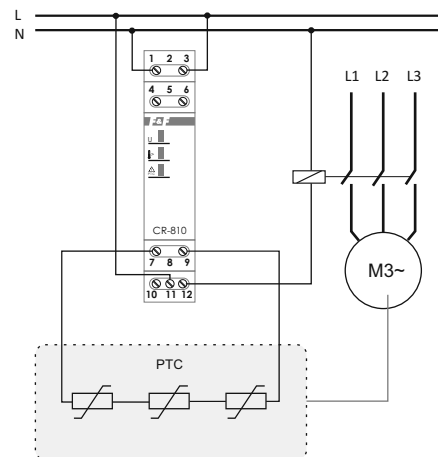
**Functioning**

Proper operation (closed contacts 11-12) is indicated by the green LED U (proper supply voltage, correct temperature of a controlled device, effective circuit of connected PTC sensors). Temperature rise of at least one of the sensors over the rated value increases its resistance above 3000 Ω. The relay is activated (opening of contacts 11-12 and turning on the red LED >). System will be activated automatically if the resistance of the PTC sensor loop falls below 1800 Ω (lowering of the controlled device temperature). The contact of the executive relay will also be opened when the loop resistance will decrease to 70 Ω, for example at short circuit of PTC sensor wires (indicated by red LED  $\Delta_{PTC}$ ), or the power supply voltage of the relay will switch off.

**Assembly**

1. Take OFF the power.
2. Put on the relay to on rail in the switchgear box.
3. Supply cable connect with marks; voltage 230V to contacts 1-3, voltage 24 V to contacts 1-4.  
ATTENTION! Connect only one chosen voltages.
4. To supply system of coil of contractor which enclose protected receiver connect in line contact 10-12.

**Wiring of protect three-phase motor**



D160420

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