

RW Series – Thermal Overload Relays



Bi-metallic Technology

RW Series Thermal Overload Relays

Bi-metallic protection solutions for motors in the event of overload or phase failure. WEG offers thermal overload relays 3-pole version up to 840A and 2-pole version up to 80A. RW series thermal overload relays can be mounted directly on WEG contactors up to 105A and mounted separately from 112A to 800A.



UL File No. E189202

Standard Features

- 2-pole and 3-pole versions available
- Trip class 10
- Adjustable current setting ranges
- Isolated N.C “Trip” and N.O “Alarm” auxiliary contacts
- Phase failure/unbalance sensitivity protection
- Selectable Manual/Auto RESET button with or without TEST
- Ambient temperature compensation from -13°F to +140°F

Wide Range of Accessories

- Panel mounting brackets
- External RESET pushbuttons
- Connector links
- Spare lugs

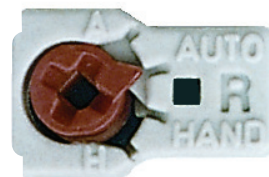


Multifunction Reset / Test Button

The thermal overload relay has a multifunction **RESET / TEST** button that can be set in four different positions:

- A** - Automatic **RESET** only;
- AUTO** - Automatic **RESET / TEST**;
- HAND** - Manual **RESET / TEST**;
- H** - Manual **RESET** only.

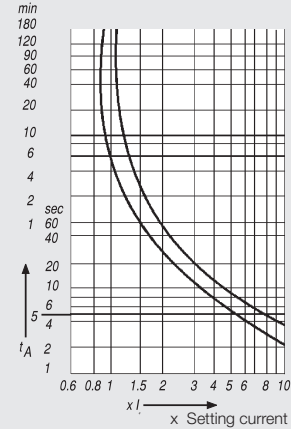
In **HAND** and **AUTO** positions, when **RESET** button is pressed, both NO (97-98) and NC (95-96) contacts change states.



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RW Tripping Characteristics

These tripping characteristics show the tripping of RW in relation to the current. They show the mean values of the tolerance ranges at on ambient temperature of 68°F (20°C), starting from cold stats. The tripping time of the overload releases at operational temperature is reduced to approximately 25% of the values shown. Under normal operational conditions, all three phases of the RWs should be loaded.



Altitude & Temperature Derating

The derating of a RW overload relay has two possible factors:

1) Ambient temperature

- Temperature compensation considers a factor according to which the rated current must be reduced when ambient temperature is higher than 60°C (140°F).

2) Altitude

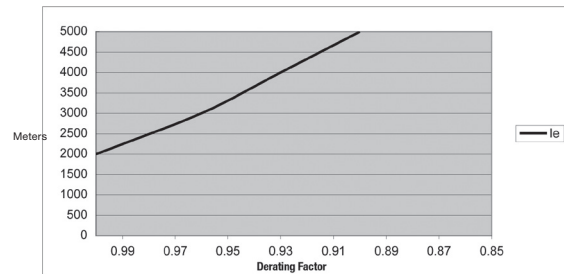
- Altitude compensation involves both, rated current and voltage.
- Current compensation considers a factor according to the rated current must be reduced.
- For voltage, altitude limits the higher operating voltage the overload relay can be used.

The derating of the permissible operating current for installation altitudes above 2,000m (6,667 ft) and ambient temperatures over 60°C (140°F) is calculated according to:

Total derating = Derating altitude x Derating ambient temperature

Temperature Compensation		Current Correction factor
149°F	(65°C)	0.94
158°F	(70°C)	0.87
167°F	(75°C)	0.81
176°F	(80°C)	0.73

Altitude	Voltage Correction [Ue]
Up to 2,000m (6,667ft)	690
Up to 3,000m (10,000ft)	550
Up to 4,000m (13,333ft)	480
Up to 5,000m (16,667ft)	420



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