

# EOCR-AR xx S Electronic Overload Relay with Auto Reset



- ▶ Adjustable Auto Reset Time (R-TIME 0.2–120 seconds / OFF)
- ▶ Single Timer for starting and Trip Delay O-TIME 0,5-30s.
- ▶ Overload and Phase Loss Protection
- ▶ Visual Current Setting Aid and Trip Indication(LED)
- ▶ Flexible Power Supply(24-240V AC/DC)
- ▶ Fail-safe Protection selection N / R DIP S/W.

## Description

Two of three phase motor currents are monitored by current transformers. The CTs form integral part of the relay and external CTs are required for currents above 60Amps. Internal solid-state circuitry compares the actual motor current with the preset load current, set by the LOAD knob (LOAD). When current level is greater than the preset point, due to overload or single phasing, red LED illuminates and after the elapse of the preset delay time, SPDT relay switches contact. The red LED remains illuminated, indicating an overload trip has occurred.

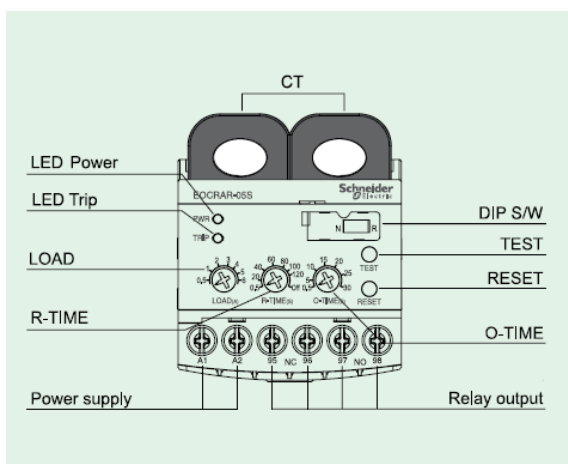
After the elapse of preset RESET Delay Time (maximum 120sec), it resets automatically. Immediate reset with of RESET button or remote electrical reset by interrupting control power, is possible. In OFF position, Auto Reset function is disabled.

The starting delay and trip delay times are simultaneously set with single O-Time Knob and these timing functions are not independent. TEST button provides means of testing the operation and integrity of the device with or without motor running. The actual load current can be determined with visual aid of LED (no Ammeter required). Simply adjust the Load Knob slowly anti-clockwise until red LED flickers. The flickering red LED indicates 100% of actual motor current. Recommended settings 110-120%.

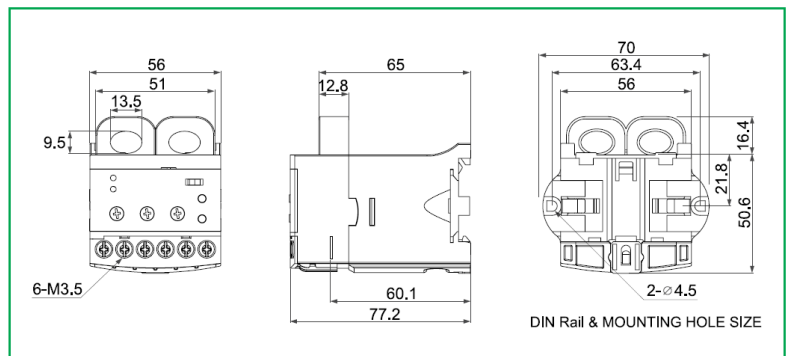
## How to set up

- 1) Set the trip delay time at the O-Time Knob, not less than normal run-up time of the motor.
- 2) Set the desired Reset time on the Reset Time Knob(R-Time).
- 3) With the control power on, depress TEST button, and hold. Verify the red LED illuminates and tripping of the relay after the preset time. Red LED remains on until relay reset automatically after the preset delay.
- 4) When commissioning relay or motor, set the load knob current to the full load amperes, and engage the load. The turn load knob slowly CCW, until the LED flashes, where the 100% of actual load current is indicated. Set the Load Knob to the desired trip current.
- 5) Periodic testing of TEST facility is required to ensure full protection and regularly as a Preventive Maintenance.

## Construction



## Dimensions



## Specifications

MODEL	EOCR-AR	
Current Range	05) 0.5 – 6A 30) 3 – 30A 60) 5 – 60A	
	Over 60A to 800A, 05 fitted w/external CTs	
Operating Time	O-TIME	0.2 – 30 seconds
Operating Time	Auto Reset TIME	0.2 – 120 seconds, OFF – Auto Reset disabled
Accuracy	Current	±10%
Accuracy	Time	±15% of max. time set value
Time Characteristics	Definite Time	
Control Voltage	(S) 24-240V AC/DC 0-60Hz (W) 380 – 440VAC, 50/60Hz * Other Voltage optional. Specify Voltages.	
	Ue 690VAC, 50/60Hz	
Rated Voltage	Ue 690VAC, 50/60Hz	
Current Sensing	2 CTs	
Output Mode	Relay energized in normal state(N Type, fail-safe)	
Output contacts	SPDT, 3A/250VAC, resistive. Fail-safe Protection selection N / R front DIP S/W.	
Expected relay life	Mechanical : 20,000,000 operations Electrical : 100,000 min at rated load	
Environment	Temp. Run	-20 + 70 deg. °C
Environment	Temp. Store	-30 + 80 deg. °C
Environment	Humidity	45 ~ 85% RH, Non-condensing
Insulation	Between casing and circuits : over 10M Ohms with DC500V megger	
Dielectric Strength	1)Between casing and circuits : AC 2000V, 60Hz, 1 min, Uimp 4kV	
	2)Between contacts : AC 1000V, 60Hz, 1 min	
	3)Between circuits : AC 2000V, 60Hz, 1 min, Uimp 6kV	
Power Consumption	Under 2W	
Mounting	Din Rail(35mm) standard, panel adapter provided.	
Weight	approximately 159g	

## Typical Application

Connection for one phase motor.

