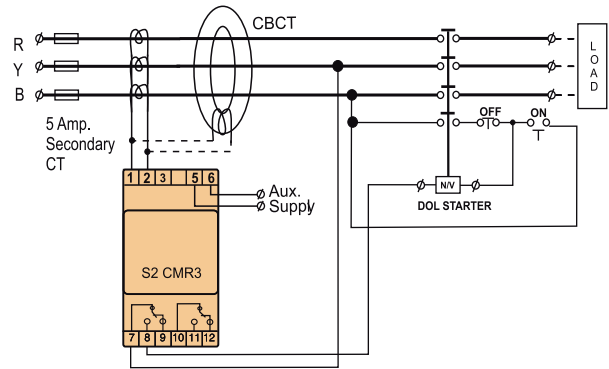


## TECHNICAL DATA SHEET FOR S2 CMR3



T1 : Trip Delay

T2 : Unit is resetted by pressing MANUAL / REMOTE reset push button switch.

S2 CMR3 operates on current sensing principle and is used in electrical circuits & systems where EARTH FAULT protection is required. S2 CMR3 relay is more accurate, easy to set, compact and easy to install at panel facia .This relay offers ( 2CO) relay contact of 5Amps at 240VAC rating.

### TECHNICAL SPECIFICATION OF S2 CMR3

1. <b>Supply Volatge</b>	100-120/220-240/380-440 VAC ±20%, 48-63 Hz
<b>Auxilliary supply</b>	100-120/220-240/415 VAC/24 VDC±20%
2. <b>Rated current input</b>	5A/1A (selection via terminals)
3. <b>Frequency</b>	48-63 Hz
4. <b>Output relay contact</b>	2CO
5. <b>Trip setting</b>	
<b>EF Trip setting</b>	10%-100% of rated current input (variable)
<b>Under current</b>	NA
<b>Over current</b>	NA
6. <b>Power on delay</b>	1-10 Sec. (Adjustable)
7. <b>Trip time delay</b>	0.1-1 Sec. (Adjustable)
8. <b>Resetting</b>	Manual
9. <b>Dimension (mm)</b>	Overall - 90 X 35 X 60mm Mounting - 35 mm Rail Mounting
10. <b>Weight (approx)</b>	140 gms.

### Suitable for following application:

- 1) Generator Panels
- 2) Synchronizing Control Panels
- 3) AMF Panels, MCC panels
- 4) Air Circuit Breakers (With shunt Trip Coil)
- 5) MCCB (With Shunt Trip Coil)
- 6) Motor Control Panels

### SETTING OF EARTH FAULT RELAY S2 CMR3

Typical Earth fault Relay setting for electrical low voltage system of 415 VAC,3phase, 50Hz,maximum demand of 150 KW at lagging power factor of 0.85 are shown bellow.

$$\text{Power} = 3 \sqrt{V} \times I \times \cos \phi$$

$$\text{Load current} = \frac{150 \times 1000}{1.732 \times 415 \times 0.85}$$

$$\text{Load current} = 245.50 \text{ Amps.}$$

$$\text{Current transformer selected} = 300 / 5A, 15 \text{ VA, Class 5P10.}$$

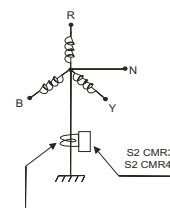
Minilec make S2 CMR3 is provided with Earth Fault current settingbetween 10% to 100%.

$$\text{Hense Earth Fault at 10\% setting} = 10\% \times 300A = 30 \text{ Amps.}$$

$$\text{Similarly Earth fault at 30\% setting} = 30\% \times 300A = 90 \text{ Amps.}$$

These are typical Earth fault current calculations and setting given as an Example. Individual user can make the earth fault settings as per their requirements.

For Generator and transformer application, with 3P-4 Wire system, connection of CT can be made as follows



External CT having 5Amp or 1Amp secondary For S2 CMR3