




DIN 35mm

## Features :

- Earth Fault Monitoring in 1Ø and 3Ø Systems
- True RMS Measurement (AC)
- Power ON Delay, Trip Time Delay & Recovery Time Delay
- Adjustable Switching Hysteresis
- Two Alarm Relays with NC or NO Operation Selectable
- Test and Reset Function via Front / Remote
- LCD With Backlight
- DIN Rail Mount

Certification : 

### Display Specifications

|                    |                                       |
|--------------------|---------------------------------------|
| Type               | Digital                               |
| Display            | Liquid crystal display with backlight |
| No. of LED         | 2                                     |
| No. of Push Button | 3                                     |

### LED Indications Chart

| Condition         | 'R1' LED | 'R2' LED |
|-------------------|----------|----------|
| Nominal Condition | OFF      | OFF      |
| Fault Condition   | ON       | ON       |
| Pre-Alarm         | OFF      | ON       |

### Input Specifications

| Functions                  |  |
|----------------------------|--|
| Measurements               | Earth Fault Monitoring   |
| Time Settings              | Power ON delay, Trip time delay, Recovery time delay, Response Time                                      |
| Alarm Indications          | Trip   |
| Latching                   | Selectable   |
| Reset                      | Auto / Manual (Remote & Front)   |
| Electrical Connections     | 1Ø - 2 wire, 3Ø - 3 wire, 3Ø - 4 wire  |
| Frame Rating (CT Primary)  | 160A, 250A, 630A   |
| M.C.C.B Rating             | Depends on Frame rating  |
| Trip Setting (Earth Fault) | 10% to 80% of selected MCCB Frame Rating   |
| Trip Time Settings         |  |
| Power ON Delay             | 0.5 - 99.9 sec   |
| Trip Time Delay            | 0 - 99.9sec  |
| Recovery Time Delay        | 0 - 99.9sec (In Auto Reset Mode)   |
| Response Time              | < 100ms  |
| Hysteresis                 | 1 to 10% of fault current setting  |
| Resolution                 |  |
| Current                    | 0.1A (When fault current is less than or equal to 99.9A)<br>1A (When fault current is greater than 100A) |
| Accuracy                   |  |
| Current                    | ±5% of Setting ±2 digits   |
| Time                       | ±5% of Setting ±100ms  |

### Output Specifications

|                          |                                    |
|--------------------------|------------------------------------|
| No. of Relays            | 2                                  |
| Type of Output (Relay 1) | 1 C/O SPDT                         |
| Type of Output (Relay 2) | 1 C/O SPDT                         |
| Relay Rating             | NO / 5A@250V AC<br>NC / 3A@250V AC |

### Auxiliary Supply Specifications

|                              |                    |
|------------------------------|--------------------|
| Supply Voltage (Factory Set) | 85 to 270V AC / DC |
| Frequency                    | 50 / 60Hz          |

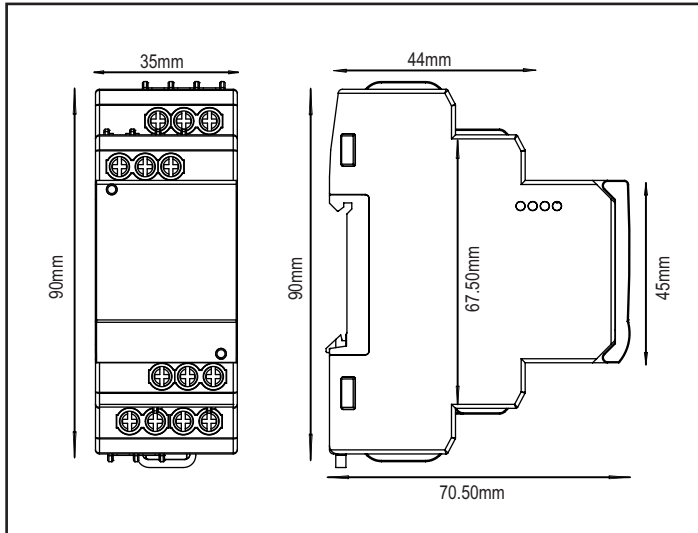
### Environmental Specifications

|                              |  |
|------------------------------|--|
| Temperature                  | Operating Temperature : 0° to +50°<br>Storage Temperature : -20° to +75° |
| Humidity (non-condensing)    | Upto 95% RH  |
| Pollution Degree             | 2  |
| Degree of Protection Devices | IP20   |

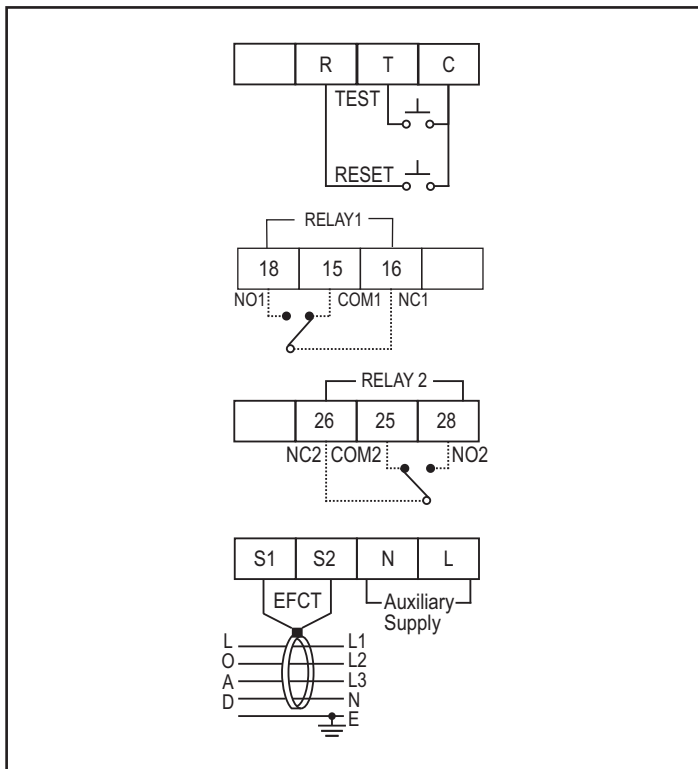
### Mechanical Specifications

|                         |          |
|-------------------------|----------|
| Mounting                | DIN Rail |
| Weight                  | 150gms   |
| Screw Tightening Torque | 0.5 NM   |
| Wire Size (Max)         | 4sq.mm   |

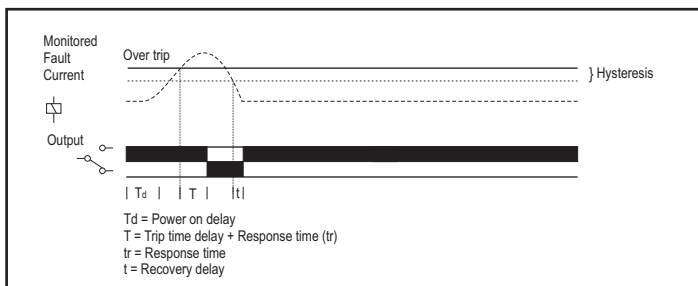
Dimensions



Terminal Connection



Timing Diagram



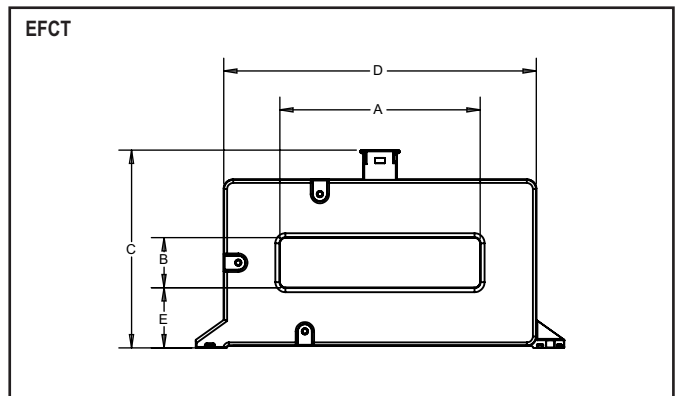
Compliance

| Applicable EMI / EMC Standards    |                     |               |
|-----------------------------------|---------------------|---------------|
| Product Standard : IEC 60947-2    |                     |               |
| Category                          | Reference Standards | Testing Level |
| Electrostatic Discharge           | IEC 61000-4-2       | Level-3       |
| Electrical Fast Transient / Burst | IEC 61000-4-4       | Level-3       |
| Electromagnetic Field             | IEC 61000-4-3       | Level-3       |
| Surge                             | IEC 61000-4-5       | Level-3       |
| Conducted RF                      | IEC 61000-4-6       | Level-2       |
| Rated Power Frequency             | IEC 61000-4-8       | Level-4       |
| Voltage Dip / Short Interruptions | IEC 61000-4-11      | Level-3       |
| Conducted Emissions               | CISPR-11            | Class-B       |
| Radiated Emission                 | CISPR-11            | Class-A       |
| Emission & Immunity               | IEC 61326-1         |               |
| Safety                            | IEC 61010-1         |               |

Ordering Information

| Product Code   | Supply Voltage     | Certification |
|----------------|--------------------|---------------|
| 900EFR-BL-U-CE | 85 to 270V AC / DC | CE            |

ACCESSORIES



| EFCT TYPE   | Dimensions (mm) |    |     |     |    |
|-------------|-----------------|----|-----|-----|----|
|             | A               | B  | IC  | D   | E  |
| EFCT 100X25 | 100             | 25 | 100 | 156 | 30 |
| EFCT 140X35 | 140             | 35 | 114 | 201 | 32 |
| EFCT 180X35 | 180             | 35 | 109 | 236 | 30 |
| EFCT 220X50 | 220             | 50 | 128 | 276 | 32 |

Ordering Information

| Product Code               | Dimension in mm | Current Transformer Ratio |
|----------------------------|-----------------|---------------------------|
| EFCT 100/25 160/1A VAL CL1 | 100 x 25        | 160/1A                    |
| EFCT 140/35 160/1A VAL CL1 | 140 x 35        | 160/1A                    |
| EFCT 140/35 250/1A VAL CL1 | 140 x 35        | 250/1A                    |
| EFCT 180/35 250/1A VAL CL1 | 180 x 35        | 250/1A                    |
| EFCT 180/35 630/1A VAL CL1 | 180 x 35        | 630/1A                    |
| EFCT 220/50 630/1A VAL CL1 | 220 x 50        | 630/1A                    |