





Special features

- **──** Wide power supply range from 90-270V AC/DC
- Programmable Earth Fault Relays with Dynamic BAR Graph Indicator
- User Selectable Dual Time Delay Range of 0.1-1S & 1-10S
- Designed using latest Micro controllers
- True RMS Measurement
- Only EFR with user selectable High Set & Low Set point in 2C/O.
- User Selectable Auto & Manual REST Facility with TEST Function
- RS 232/485 output-(Optional)
- 0-5V Analog output-(Optional)

Technical Specifications

INPUTS

Aux Supply Voltage 90-270V AC/DC (STD)

Burden

5A/1A -from CBCT/CTs Signal Input

Output

Relay contacts 1 C/O - 2 C/O

6A @ 230V AC or 24V DC Switching Duty

Electrical Life 10⁵ Operation @ design switching capacity **Relay Status** De-Energised in Normal condition

Mode of Reset Auto / Manual

Range

Tripping Range 10-100% (Resolution of display /setting -10 Steps)

0.1-1.0 Sec / 1-10 Secs Time Delay Range

Measurement Accuracy Class III

Mechanical

Dimensions 96MM X 96mm X 80MM(D)

Mounting 92MM X 92MM Cutout - Door Mounting

Approximate Weight 180 gms Type of Enclosure **ABS**

Conductor cross section - Flexible 2.5 Sq.mm Conductor cross section - Solid 4.0 Sq.mm **Screw Tightning Torque** 0.6 Nm

Environmental

-10°C, +55°C up to 80% Operating Temperature & RH Storage Temperature & RH -25°C, + 70°C up t0 95%

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N96-EFR

(Earth Fault Relay)

Operation:

PROTIME's latest N96-EFR-X/i Earth Fault Relay senses Earth fault current for any equipment like L.T Panels Switch boards, Generators, Motors, Transformers, etc. The Fault current if goes above the selected range on the current dial, the relay energies after the time delay selected on the Time dial. The CBCT/CT is to be connected externally as per connection details below.

The N96 series is most easy to set the fault current threshold (Trip) level & Time delay. Its one of the most user friendly & flexible EFR having Easy Setting of Auto or Manual RESET & better time delay setting resolution due to dual range on same dial. The N96-EFR-2C/i has advance feature of 2 set points (High & Low set point) Where is High set point is in Multiple of 1X to 10X of Low set point with normal inverse trip delay.

The 'Test' button provides facility to stimulate the fault condition & thus checks the system tripping.

The 'Reset' button provides manually resetting the relay. When link between A/M terminals is connected.

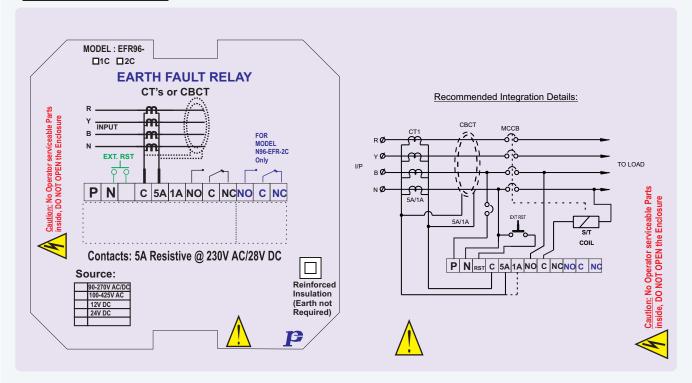
Auto/Manual Reset:

User can configure Auto or Manual RESET in N96-EFR-1C/i model by entering Configuration mode.

N96-EFR-2C/i comes with by default Manual RESET mode. Facility to connect External RESET button is provided in both the models.

A dynamic BAR Graph indicator is provided to show fault current status in % of set TRIP level.

Connection Details:



How to Order:

Series	Type of Relay	Variant	Range	Aux Supply	System Supply	Time Delay	Optionals
N96	EFR	1C/i 2C/i	X: 10-100%		C:100-750V AC	105	-COM
				2: 230V AC			
				3: 90-270V AC/DC			
				4: 415V AC			
				5: 12V DC			
				6: 24V DC			

For Example: N96-EFR-1C/i-X-3-C-10S is N96 Series Earth Fault Relay with 1 C/O output

having Aux supply of 90-270V AC/DC & System Supply of 100-750V AC

* COM= with RS-485 output

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