

PROTIME[®]



N45 Series Earth Monitoring Relay

N45 - EMR

Special Features

- 🔑 Micro controller based True RMS Measurement
- 🔑 Two Time delay ranges
- 🔑 User selectable Normal/Fail safe Modes
- 🔑 User selectable Auto/Manual Reset
- 🔑 Wide power supply range from 90-270V AC/DC
- 🔑 Dynamic 5 LED Bar Graph status indicator
- 🔑 RS 232/485 output-(Optional)
- 🔑 0-5V Analog Output-(Optional)

Technical Data

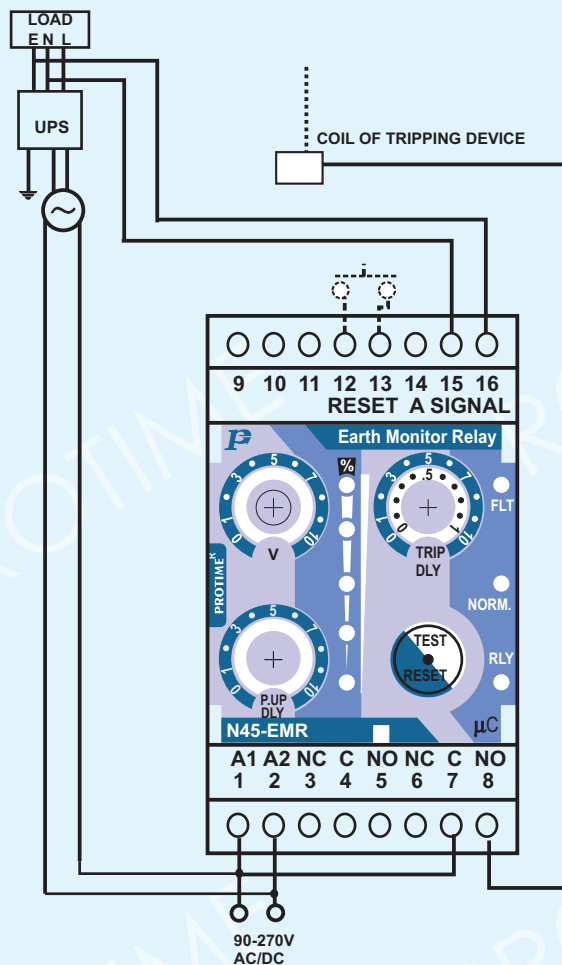
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|------------------------|----------------------------------------------------------------------------------------------|
| 1) supply Voltage | - 90-270V AC/DC |
| 2) Output Contacts | - Two change over (potential free) |
| 3) Switching duty | - 6A resistive at 250V AC or 24V DC |
| 4) Electrical Life | - 10 ⁵ operation at designed switching duty |
| 5) Relay Status | - Normal - De-energised in normal conditions
Fail Safe - De-energised in fault conditions |
| 6) Signal | - From Neutral & Earth |
| 7) Ranges | - A = 0-10V |
| 8) Time Delays | - Trip= 0.1 - 1 Sec / 1 - 10Sec
- Pick up = 1 - 10Sec |
| 9) Mode of operation | - Over Voltage |
| 10) Reset | - User selectable Auto/Manual Reset |
| 11) Mounting | - Din channel |
| 12) Approximate Weight | - 150gm |
| 13) Dimension | - 45mm(W) X 110(D) X 73.5mm(H) |

OPERATION:

A common feature of all computers & other electronic equipment is the sensitivity to supply Voltage fluctuations like Spikes etc. These may damage the hardware or corrupt the data on software. To ensure clean supply, computers are frequently installed on dedicated clean circuits. They also have inbuilt suppression & filtering circuitry. These Filters leak the unwanted components of electric supply to earth. In a facility/installation, Where computers & similar Equipments are an appreciable part of electrical load, the earthing is required to carry a significant amount of continuous leakage current. Any break in earth connection will mean that the isolated section will rise to potentially lethal voltage. This will also render the filter circuits ineffective making the computers prone to failures due to voltage spikes. Therefore as recommended in IS 3043(Section 39.2.4.2), It is necessary to provide a protective device to monitor the continuity of the protective earth connection & provide means of automatic disconnection in case of failure or at least give an audio alarm to user.

PROTIME's N45-EMR senses the rise in voltage between earth & Neutral Conductor to detect the integrity of the earthing connection. It is advisable to install such relays at the UPS supply points & couple of user points. N45-EMR is also available with option of digital output or RS232/485 connectivity. The relay has **unique dynamic fault level bar graph indications**.

Connection Details



HOW TO ORDER ?

Ordering Pattern (example)- **N45-EMR-1**

N45-EMR - 1

Code

Tripping Range
A- 0-10V