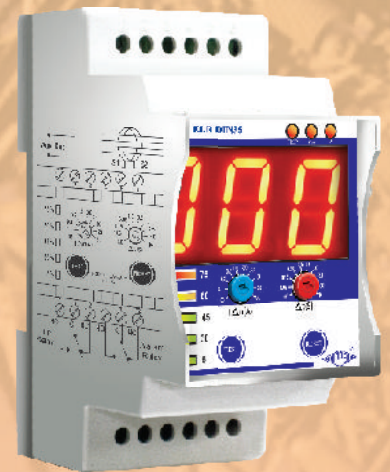




EARTH LEAKAGE RELAYS



CBCT

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EARTH LEAKAGE RELAYS

The NIPPEN ELR(Earth Leakage Relay) model has a high performance microcontroller based 3 digit, 7 segments bright LED display.

NIPPEN'S ELR detects leakage current well before it crosses threshold limits and isolates the supply instantly with help of a MCCB/ACB/OCB/Contactor.

The unit ELR consists essentially of two parts.

a) Basic Relay b) Core Balance Current Transformer (CBCT).

Only NIPPEN's ELRs have the unique feature of a digital display. We provide two types of ELRs –Modular Din Rail and Panel mountable (96 x 96mm)

FEATURES

- Digital display in both DIN RAIL (ELR DIN35) and Panel Models (ELR 96)
- Monitors true RMS earth fault currents
- Bar Graph to indicate leakage current as a percentage
- Test and Reset function
- CBCT open circuit detection

TECHNICAL SPECIFICATIONS

- Auxiliary supply: 230V / 110V AC (-20% +15%)
- Frequency: 50/60Hz
- VA Burden: 3VA max.
- Current: CBCT Secondary
- Overload: x2 continuously, x 10 for 3 secs as per BS6253
- Alarm relay output: 50% of set value
- Trip relay: 80-90% of set value
- Status: Normally Energised
- Built-in Relay Contact: 5Amp.
- User settable wide time delay range
(0, 0.06, 0.15, 0.25, 0.5, 0.8, 1, 2.5, 5, 10 sec)
- Leakage current range: 0.03, 0.1, 0.3, 0.5, 1.0, 3.0, 5.0, 10, 20, 30 A
with CT Ratio on 1000:1
- CBCT sizes (I.D): 35mm or 70mm or 120mm (210mm optional)

MECHANICAL SPECIFICATIONS

- Dimension: 45 x 90 x 75mm (W x H x D)
: 96 x 96 x 54mm (W x H x D)

- Weight:

ELR 96	295 gm(approx.)
ELR DIN35	245 gm(approx.)

ENVIRONMENT

- Relative humidity: <90% Non condensing
- Operating temperature:-10°C to 55°C

USER SETTABLE PARAMETERS

- Range & Delay

APPLICATION

- Generator control panels
- Distribution control panels
- Protection Systems

MECHANICAL DIMENSIONS

Front	96 x 96mm (Depth 54 mm- behind Bezel)
Panel Cut out	91 x 91mm (±0.1mm)
Casing	Flame retardant ABS
Connectors	Terminal block ABS
Protection	IP 52 front IP 20 Terminal block

RELEVANT STANDARD

EMC	IEC 61326
Immunity	IEC 61000-4-3
Safety	IEC 61010-1-2001

CORE BALANCE CURRENT TRANSFORMER (CBCT)

MODEL OF CBCT

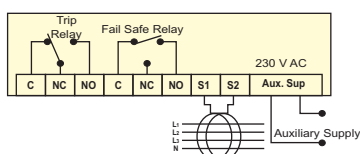
- NCB 35mm NCB 70mm NCB 120mm
- Note: NCB 210mm optional on request

CBCT SPECIFICATIONS

- System voltage: 720Vmax
- Insulation Voltage: 3KV for 1 minute
- System frequency: 50Hz / 60Hz
- Maximum Load: 1KA continuous, 5KA for 1.5 seconds
- Terminal conductor: 2.5mm²
- Current ratio: 1 /1000 (any other ratio on request)
- Distance between Toroid and relay: < 50 metres
- Operating Temperature: - 20°C to +70°C
- Relative Humidity: < 95% non condensing
- Enclosure: Flame retardant ABS
- Compliant with: IEC 44-1 and IEC185
- Mounting: Four Fixing Slots

CONNECTION DIAGRAM

ELR 96



ELR DIN35

