



TECHNO

## Protective Devices

### Technical Data

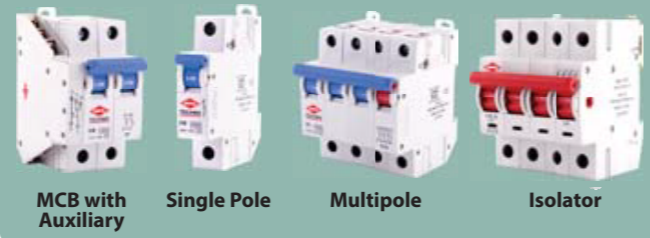
#### Electrical

Tripping time	Undelayed
Rated Voltage	230/400, 50 Hz
Rated tripping current	30, 100, 300 mA
Sensitivity	AC
Rated short circuit strength	10kA with 63 A gG back-up fuse 10kA with 80 A gG (80)
Maximum back-up fuse For short circuit protection	63 A gG 80 A gG (80)
Maximum back-up fuse For overload protection	25 A gG (25 and- 40A) 40 A gG (63 and-63 A) 50 A gG (80A)
Resistance to climatic conditions	IS12640(Part-1): 2008 IEC 61008-1 : 1996
Degree of protection	built-in switch IP-20
Endurance electrical Mechanical	≥ 4,000 operations ≥ 20,000 operations

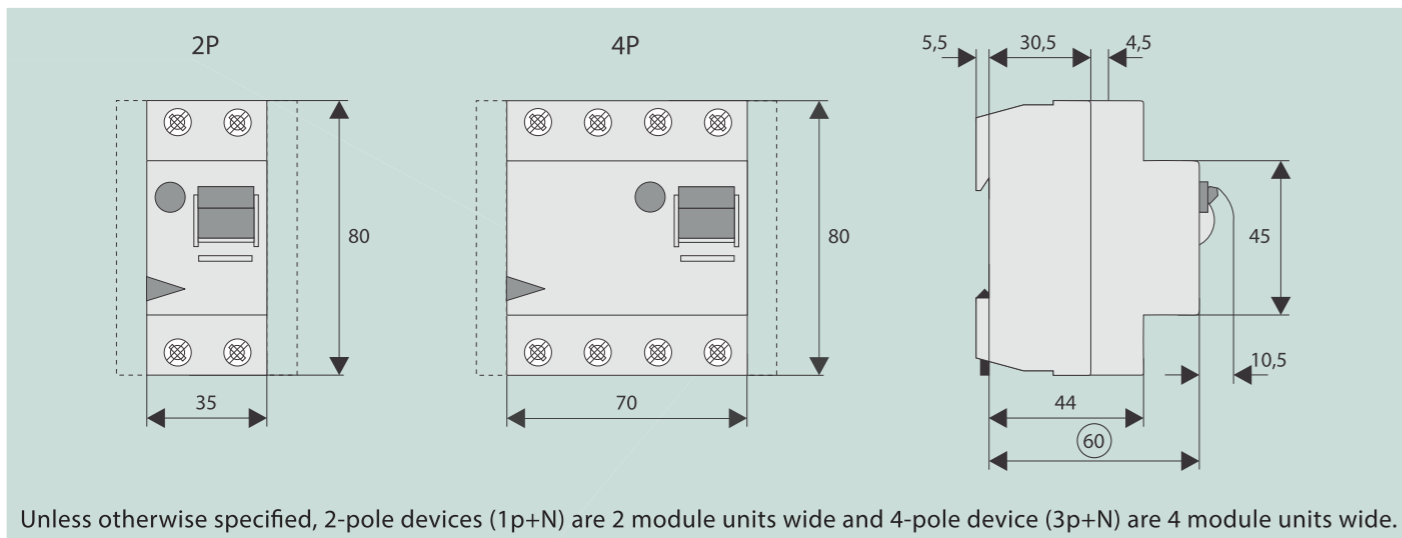
#### Mechanical

Frame	45mm
Socket	80mm
Device	35mm (2mod), 70mm (4mod).
Mounting	Quick fastening with 2 lock-in position on DIN rail EN50022
Upper and Lower Terminals	Open mounted/ lift terminals
Terminal Protection	Finger And hand touch Safe, BAG A3, OVE-EN 6
Terminal Capacity	1.5 mm <sup>2</sup> - 35mm <sup>2</sup>
Busbar thickness	0.8 mm - 2mm

#### Other HPL Techno Products



### Dimensions



Catalogue-Techno RCCB/0118



# TECHNOLOGY THAT PROTECTS LIFE



## HPL Techno Residual Current Circuit Breaker (RCCB)

- Dedicated earth leakage protection
- Range: 25, 40 & 63Amp, 80A, 30mA, 100mA, 300mA
- 2 Pole & 4 Pole versions, Breaking Capacity 10kA
- Protection against Electrocution, Short Circuit & Electrical fire
- Consistent performance, Compact, & Space Saving
- Conforms to standards IEC/EN 61008-1, IS 12640-1



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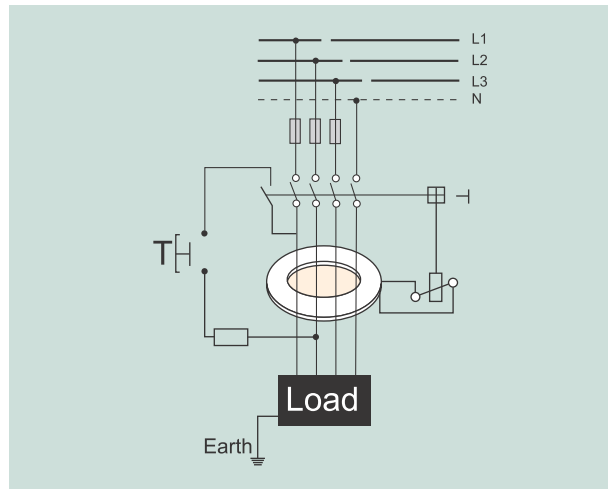
### Introduction

From large buildings to private homes, from industries to hospital, electricity is essential. The extensive use of electricity in our daily life has become so common that we tend to forget that careless use of electricity can be hazardous. Every year, a large number of people are victims of a large number of industrial & domestic fires attributed to 'electrical faults'.

HPL has introduced state-of-the-art HPL Techno RCCB. Which is capable of detecting earth leakage current as soon as they appear and isolate the supply system.

### Operational Principle

HPL TECHNO RCCB is a current operated device and is independent of line voltage conditions. This means that they provide protection even when there is voltage dip or the neutral conductor is interrupted. In a healthy system the vector sum of all currents in phase and neutral is equal to zero. The device senses in balance or residual currents in line system and disconnects supply system.



Wiring Scheme for RCCB

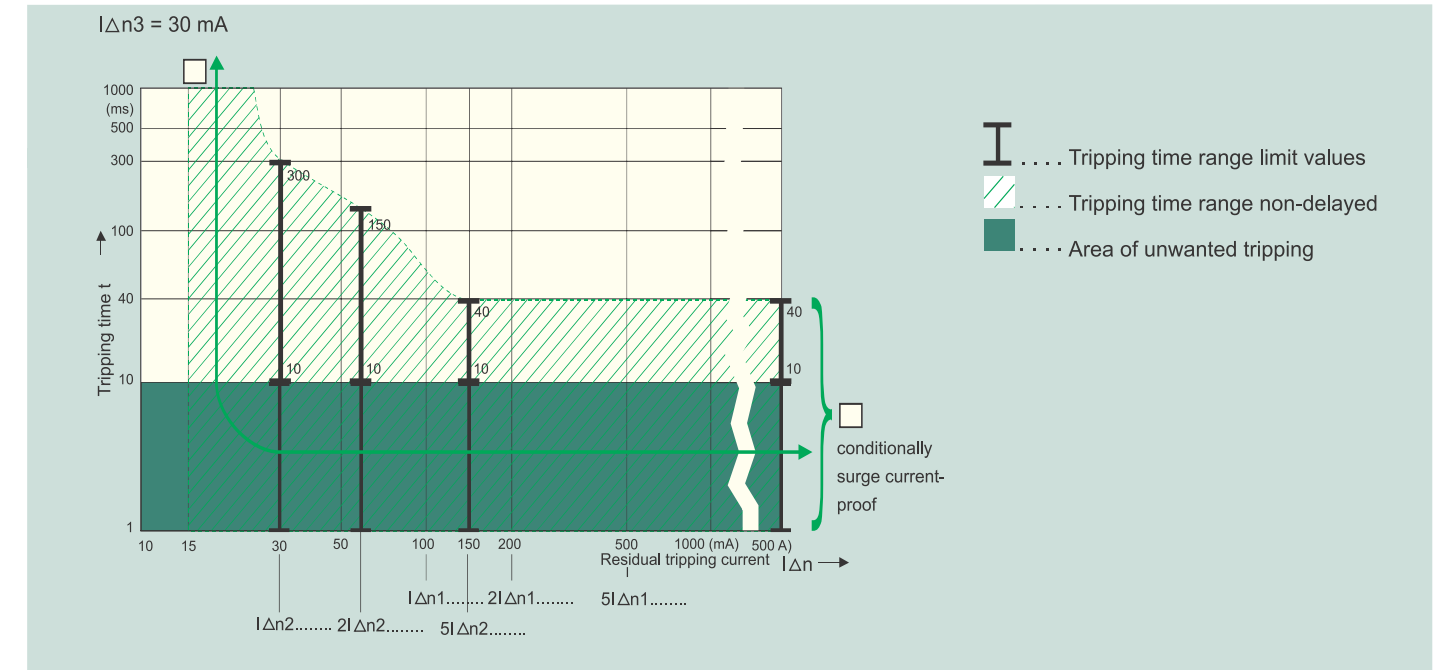
### Residual Current Circuit Breaker

- Residual Current Circuit Breaker-RCCB.
- Shape compatible with and suitable for standard bus bar connection to other device.
- Twin purpose terminal terminal (lift/open-mounted) above and below.
- Bus bar positioning optionally line or load.
- Free terminal space despite installation bus bar.
- Contact position indicator red-green.
- Suitable for being used with standard fluorescent tubes with electrical ballast (typically up to 20 units per phase conductor).
- The device functions irrespective of the position of installation.
- Type with 80 A permissible short-circuit back up fuse: take into account overload protection.

- Tripping is line voltage independent. Consequently, the RCCB is suitable for "fault current/residual current protection" and "additional protection" within the meaning of the applicable installation rules.
- The 4Pole device can also be used for 3 Pole connection, for this purpose terminals 1-2, 3-4, and 5-6.
- The 4Pole device can also be used for 2 Pole connection, for this purpose terminals N-N, and 5-6.
- Pressing the test key "T" serves the only purpose function testing the residual current circuit breaker (RCCB). This test does not make earthing resistance measurement (Re). or proper checking of the earth conductor condition redundant which must be performed separately.

### Tripping Characteristics (IEC/EN 61008-1/ IS 12640 - 1)

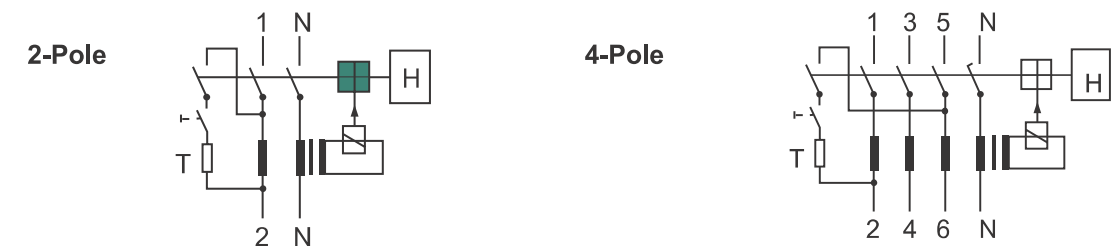
Tripping characteristics, tripping time range and selectivity of instantaneous, surge current-proof residual current circuit breaker.



Series connection of main RCCB and circuit RCCB's recommended by the installation rules set forth in OVE/ONORM IEC 61008 - 1, is compulsory for agricultural installations according to 56 of OVE-EN1, Part 4.

The device is ok if the result of measurement is within the time range specified by the manufacturer of the measuring instrument.

### Connection Diagrams



### Residual Current Circuit Breaker - General Data

Short description of the most important RCCB types :

Symbol	Description
	Conditionally surge-current proof (250A, 8/20 us) for general application
	Press service key when putting the device into operation, and subsequently approximately once per year. Pressing the key once per month is not required any more and can be omitted unless shorter testing intervals are required under any applicable regulations (e.g. on building sites).

For accessories please contact the nearest Sales Office