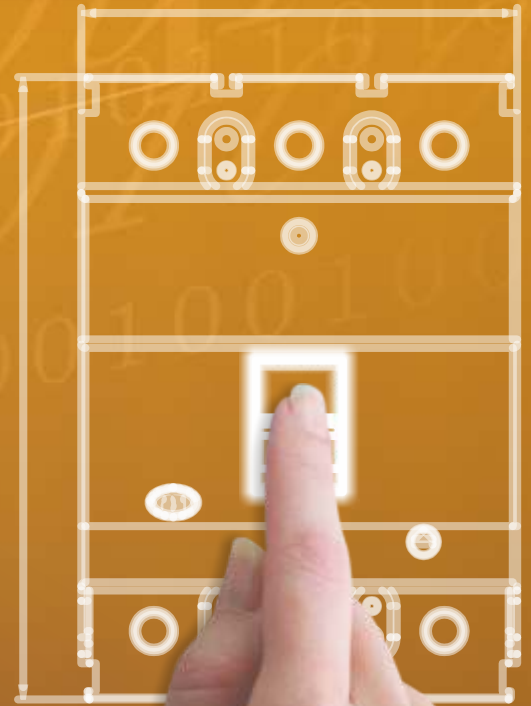


SWITCH ON YOUR ELECTRICAL PROTECTION



TAB™: Thermal Adjustable Breaker

- TAB0 : Frame Rating 10A to 125A
- TAB1 : Frame Rating 20A to 160A
- TAB2 : Frame Rating 63A to 250A
- TAB3 : Frame Rating 250A to 500A
- TAB4 : Frame Rating 500A to 800A





The TAB™ Series

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Salient Features The TAB™ Series

- Conforms to IS / IEC 60947- 2.
- Available in various frame sizes rated current from 10A-800A.
- Wide range of breaking capacity available from 10kA to 65kA.
- Quick-make, Quick-Break & Trip Free mechanism.
- Clear indication of 'ON', 'OFF' and 'TRIP' position.
- Low let-through energy.
- Adjustable Thermal release offers close protection from changing load.
- Line load reversibility available.
- Wide range of internal and external accessories.
- Uniform Door cut-out in line with MCB upto Size TAB 2.
- Uniform depth of MCCB upto Size TAB 2.
- RoHS Compliant.
- ISO 9001 - 2008 Certified.
- CE Marked.



MCCB is suitable for circuit protection in individual enclosures, switch board, lighting and power panels as well as motor control centers.

MCCB is assigned to protect systems against overload and short circuit up to 65KA with full range of accessories.

TAB™series provides the following applications :-

| | |
|-------------------------------------|--|
| Distribution feeder protection | Suited for incoming and outgoing feeders |
| Transformer protection | Effective protection to distribution transformers as outgoing breakers. |
| DG set protection | Used for protection and control of diesel generating sets against overloads and short circuits. |
| Motor protection | MCCB provides motor back up protection, provide type -2 co-ordination (as per IEC 60947) in conjunction with suitably rated contactors and relays. |
| Capacitor protection | Used to protect capacitors. |
| Protection for semi-conductor fuses | Used to protect semiconductor fuses. |
| UPS protection | Used for UPS and electronic equipment protection. |
| DC load protection | Suitable for both AC as well as DC application for protecting rectifier panel. |

Advantages

1. Compactness :

It is very compact in size and hence helps in saving space in the enclosures, panels etc. Due to its slim size it uses the distribution space very efficiently regardless of fact whether it is in residential or functional buildings.

2. Simplicity :

Its handling is easy and simple. Its simplicity and ease in use allows the user for quick installation.

3. Safe to use :

It is very safe to use. It protects people, installation and power supply distribution system. The insulation property of the material used is highly reliable and remains intact in even critical conditions.

Evolution

To reflect a variety of uses and applications, the line up has been expanded up to 65 KA with high specifications. As consumption of power is increasing, circuit breaker demands for a new level of functionality, flexibility, power and space saving has become imminent.

TAB™...series of MCCBs are with improved performance and safety.

It conforms to the latest IS & IEC standards.

The IS/IEC 60947-2 specifies the Icu (rated ultimate short circuit) and Ics (rated service short circuit) breaking capacities to the following types:-

Icu = O-CO

$I_{cs} = 0\text{-CO-CO}$

The rise in temperature on the terminals, body etc. after the S.C. breaking capacity test is well within limits to give better life to the product and also safeguards the entire distribution system.

Insulation

Operating Knob/Dolly is made of Thermoplastic insulating material to make it safer & reliable.

Utilization Category

Utilization category for a circuit breaker shall be stated with reference to whether or not it is specifically intended for selectivity by means of an intentional time delay (with respect to other circuit breaker in series). Utilization category is a regulation on application with respect to selectivity.

1. Utilization Category "A" :

Circuit breaker not specifically intended for selectivity under short circuit conditions. Such breakers do not have a short time withstand current rating. All Thermal-Magnetic breakers satisfy utilization category "A".

2. Utilization Category "B" :

Circuit breaker specifically intended for selectivity under short circuit conditions. Such breakers have a short time withstand current rating. All electronic-type breakers satisfy utilization category "B".

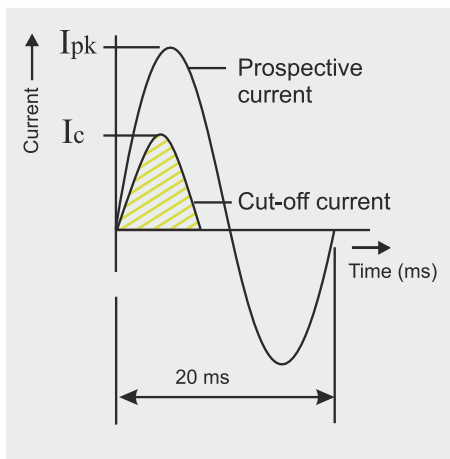
Working Principle

TAB™Series breakers work on current limiting principle.

Current limiting capacity of a circuit breaker is its aptitude to limit short-circuit current. When a short circuit occurs, the breaker is able to limit and lower the I^2t energy release in very short time so as to protect circuits and switchgear at downstream. This is achieved by

- Intelligent design of Arc Chamber
- Guiding the arc rapidly away from the contacts in the arc chamber.
- Quick opening of main contacts.
- Quick quenching of arc by using effective arc quenching methods & materials.

Therefore I_{pk} is limited to I_c which leads to substantial reduction in electrodynamic stresses in the system. Also I^2t let through proportional to the shaded area is considerably reduced, resulting in lower thermal stresses in downstream equipment and connecting cables.



Operating Conditions

1. Temperature : MCCBs are calibrated at 40°C as reference ambient Temperature. However with increase in ambient, compensation factor to be taken into consideration.
2. Altitude : It should be less than 2000m.
3. Pollution Degree : 3

Isolation Function

These MCCBs are suitable for isolation also. As defined in IS / IEC 60947 - 2, the operation of isolation function highlights the following points:-

Contacts operation correctly indicates operating reliability of interior mechanism.

No residual current.

Higher impulse withstand voltage for terminals at the power supply side and load side.

Line-load Reversibility

MCCBs have no bias of line & load connection. The power supply can be connected from either top or bottom which has no effect on normal operation of the breaker.

The Technology For MCCB Devices

1. Arc Chamber

The MCCB arc chamber is specially designed with an arc channel as a flow guide to improve the capability of extinguishing the arc and reducing the arc distance.

2. MCCB Base And Cover

Cover and Base moulding are made of superior quality of Thermoset & Thermoplastics to with stand the stringent short circuit conditions with very high insulation strength to avoid any damage to the product. Covers are secured on Base mouldings with mounting screws tightened into threaded inserts in the MCCB base to have better strength.

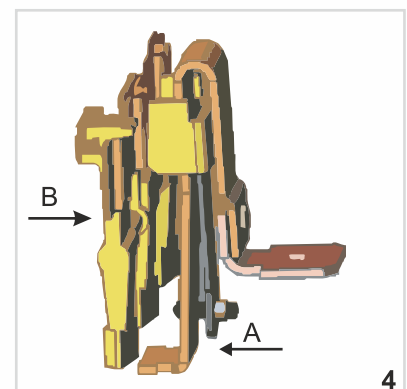
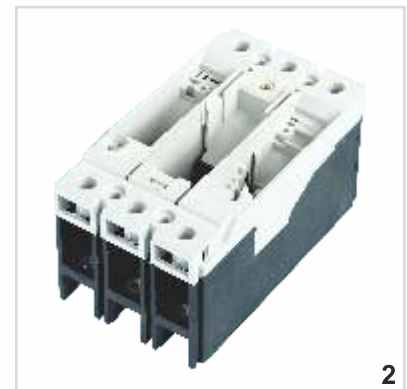
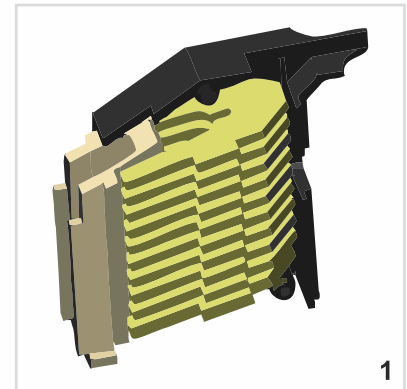
3. Fixed Contact

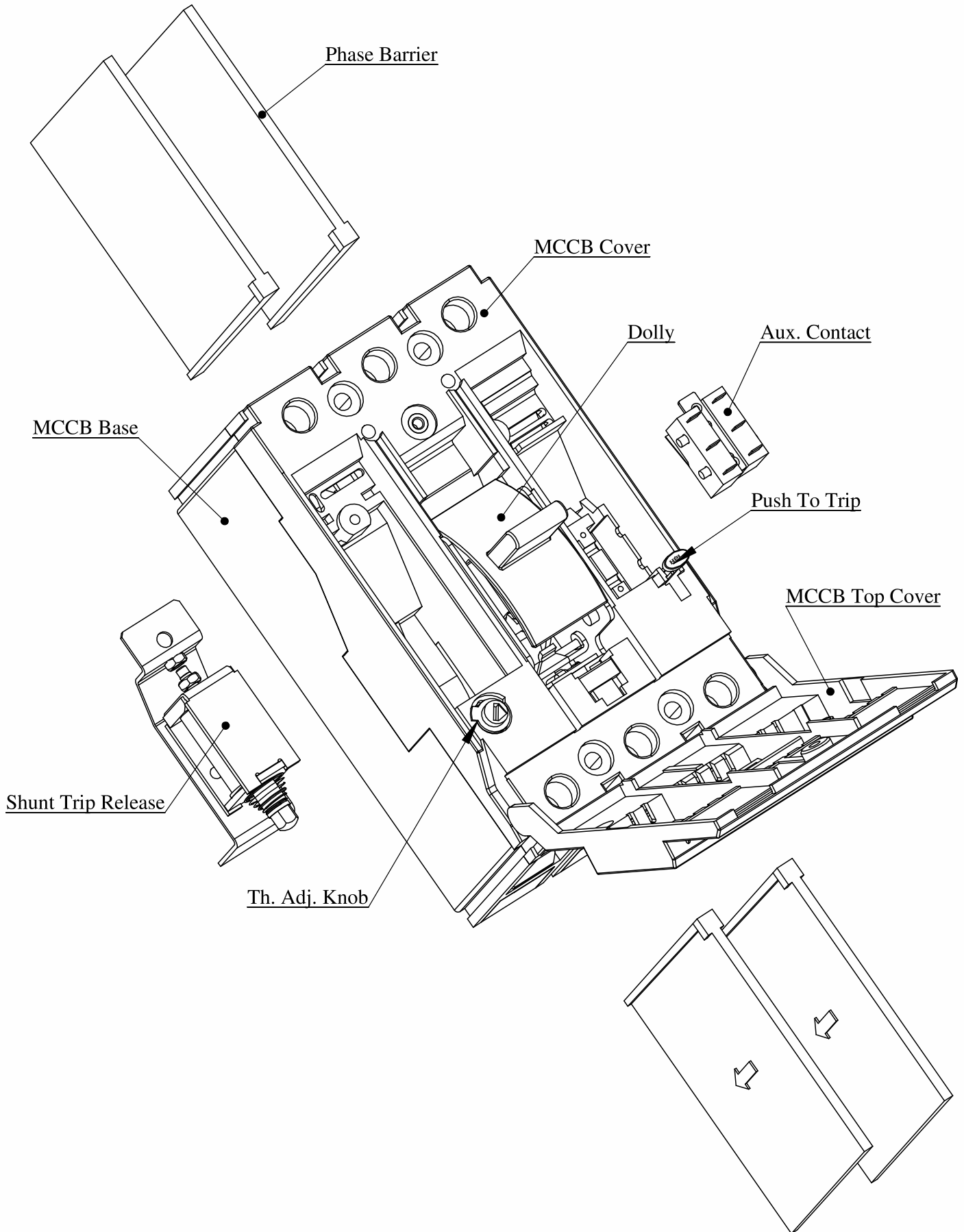
The MCCB fixed contact does not have any mounting screws near the contact points. A steel screw can generate heat and the magnetic flux surrounding the conductor carrying the current can create a very high temperature. If a short-circuit occurs, it will cause the contact points to be welded or melted.

4. Thermal Magnetic Tripping

1. In case of Thermal overload, time-delay operation occurs when an over current heats and warps the bimetal to actuate the trip bar. (See-'A')

2. In case of Magnetic tripping, when high current passes through, the magnetization of the fix core enables it to attract the armature fixed on trip bar thereby tripping the breaker. (See-'B')





It has a wide range of accessories giving convenience and additional protection. They are of two types.

1. Internal accessory
2. External accessory.

Internal Accessories:

Shunt Trip Coil

It is a release energized by a source of voltage which may be independent of the voltage of the main circuit. It provides remote tripping of the circuit breaker. Once the MCCB trips it prevents burning of coil even if supply is continuous to coil. Its operating voltage is 70% to 110 % of rated voltage.



Undervoltage Release

It permits a mechanical switching device to open or close, with or without time delay, when voltage across release falls below a predetermined value. The normal working range is 35- 70% of the rated voltage.

Auxiliary Switch

It is used for remote signaling and control purposes. It consists of one or more than one potential free change over contact and acts as an indicator whether the circuit breaker's status is open or closed.



Alarm Switch

It is an auxiliary switch which operates only upon the tripping of the circuit breaker. It gives tripping indication once the MCCB trips.

External Accessories:

Rotary Handle

It is a toggle handle operating mechanism which serves as switching position indicator ON, OFF, TRIP. Basically it is used with breaker which is installed in an enclosure that does not allow ready access to the breaker's operating handle. The handle is allowed to be locked in the OFF or ON position for safety. This feature helps to reduce the risk associated with arc related flash burns.

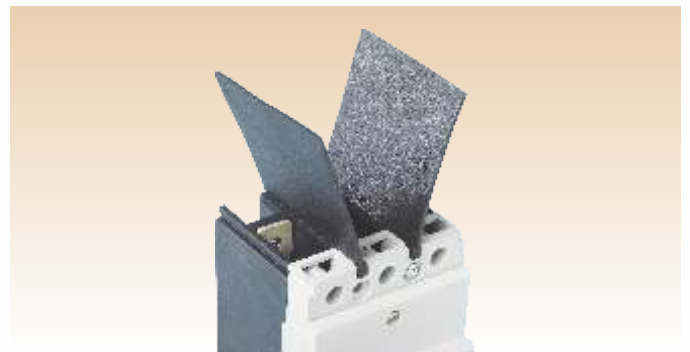


Phase Barrier

Phase barriers are provided between the phases to increase the creepage distance between them thereby reducing the risk of phase to phase shorting.

Technical Features

1. Standard conformity :IS/ IEC-60947-2
2. Rated operational voltage : 415V AC
3. Rated insulation voltage: 800V AC
4. Utilization category : A
5. Rated frequency: 50/60Hz.
6. Rated impulse voltage : 8kV





| Frame Size | Breaking Capacity | Ics= % Icu | Rated Current * Tab 0 | Rated Current Tab 1 | Rated Current Tab 2 | Rated Current Tab 3 | Rated Current Tab 4 | Current | No. of Main Poles |
|------------|-------------------|------------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------|-------------------|
| TAB 0 | L : 10kA | X = 100% | 10 | 020 | 063 | 250 | 500 | AC | 2P |
| TAB 1 | D : 16kA | Y = 75% | 16 | 025 | 080 | 320 | 630 | | 3P |
| TAB 2 | K : 20kA | Z = 50% | 20 | 032 | 100 | 400 | 800 | | 4P |
| TAB 3 | C : 25kA | | 25 | 040 | 125 | 500 | | | |
| TAB 4 | N : 36kA | | 32 | 050 | 160 | | | | |
| | S : 50kA | | 40 | 063 | 200 | | | | |
| | H : 65kA | | 50 | 080 | 250 | | | | |
| | | | 63 | 100 | | | | | |
| | | | 80 | 125 | | | | | |
| | | | 100 | 160 | | | | | |
| | | | 125 | | | | | | |

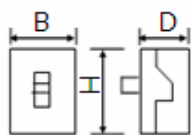
TAB 1 L X 100 AC 3P

- TAB 0 MCCB is available with breaking capacity 10 kA
- TAB 1 MCCB is available with breaking capacity 10 kA / 16 kA / 25 kA / 36 kA
- TAB 2 MCCB is available with breaking capacity 25 kA / 36 kA / 50 kA
- TAB 3 MCCB is available with breaking capacity 36 kA / 50 kA / 65 kA
- TAB 4 MCCB is available with breaking capacity 50 kA / 65 kA
- DC Rating against request.
- Fixed Type MCCB available from 16A to 800A, 10kA to 65kA Breaking Capacity.
- * SP MCCB in TAB 0 available from 16A to 160A, 10kA & 25kA breaking capacity

Accessories for TAB MCCB

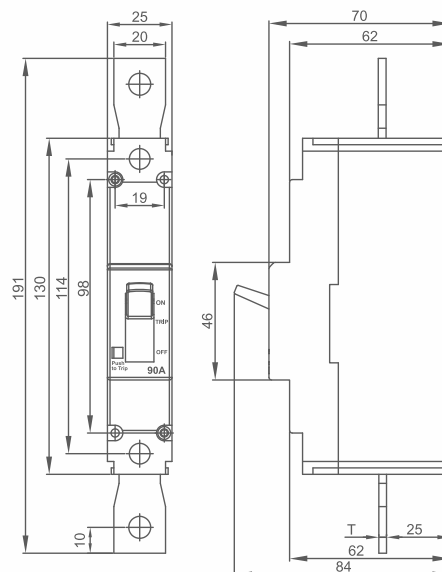
| Frame size | Shunt Release | Under Voltage Release | Auxiliary Switch | Alarm Switch | Rotary Handle |
|------------|---------------|-----------------------|------------------|--------------|------------------------|
| TAB 0 | 110 VAC | 110 VAC | 1 C/O | 1 C/O | RHDM : Door Mounted |
| TAB 1 | 240 VAC | 240 VAC | 2 C/O | | RHCM : Breaker Mounted |
| TAB 2 | 415 VAC | 415 VAC | | | |
| TAB 3 | 024 VDC | 024 VDC | | | |
| TAB 4 | 048 VDC | 048 VDC | | | |

- Product Reference for 230 VAC shunt release with TAB 1 is TAB160SHT230VAC
- Product Reference for 230 VAC under voltage release with TAB 1 is TAB160UVR230VAC
- Product Reference for 1 C/O Auxiliary switch with TAB 1 is TAB160AXC1
- Product Reference for 1 C/O Alarm Switch with TAB 1 is TAB160ALC1
- Product Reference for 1 C/O Alarm / Auxiliary Switch with TAB 1 is TAB160 ALAX
- Product Reference for Rotary Handle Door Mounted with TAB 1 RHCT1ACPDM
- A Maximum 2 Nos. Internal Accessories can be selected for one Breaker, one on each side
- Shunt or Under voltage release is fitted on LHS.
- Auxiliary / Alarm Switch is fitted on RHS.

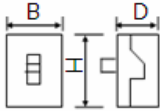
| | | |
|--|---|----------------|
| No. of poles | 1 | |
| Rated Current* | 16-160A | 16-160A |
| Rated Operational Voltage | 240V ac | |
| Rated Insulation Voltage | 690V ac | |
| Rated Impulse withstand voltage | 8kV | |
| Dielectric strength | 3 KV for 1 minute | |
| Rated Frequency | 50/60 Hz | |
| Reference Ambient Calibration Temperature** | 50°C | |
| Rated Ultimate S.C. Breaking Capacity (at 240 Vac, 50/60 Hz) Icu in kA | 25 | 10 |
| Rated Ultimate S.C. Breaking Capacity (at 250 Vdc) Icu in kA | 5 | 5 |
| Rated Service S.C. Breaking Capacity (at 240 Vac, 50/60 Hz) Ics in kA | 75% Icu=18.75 kA | 100% Icu=10 kA |
| Rated S.C. Making Capacity (at 240 VAC, 50/60 Hz) Icm in kA | 52.5 | 17 |
| Utilization Category | A | |
| Positive Isolation | Available | |
| No. of operating cycles | Mechanical-20000; Electrical-5000 | |
| Type of Releases | Thermal - Magnetic | |
| Thermal Release Setting | Fixed | |
| Magnetic Release Setting | Fixed | |
| Terminal Capacity (Cables) | 50mm ² max. | |
| Terminal Capacity (Link) | 70mm ² max. | |
| Terminal Capacity (Busbar width for direct mounting) | 16 mm max. | |
| Size (H x B x D) |  <p>Dimension H=130mm B=25mm D=61mm</p> | |
| Weight | 0.285 Kg | |
| Reference Standards | IS / IEC 60947-2 | |

- Notes :-
- *Continuous current rating available are 16, 20, 25, 32, 40, 50, 63, 80, 90, 100, 120, 135 & 160 Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - Extended terminals available as standard from 100A onwards
 - Weight shown above is for the highest rating of MCCB in the Frame size

Frame 0

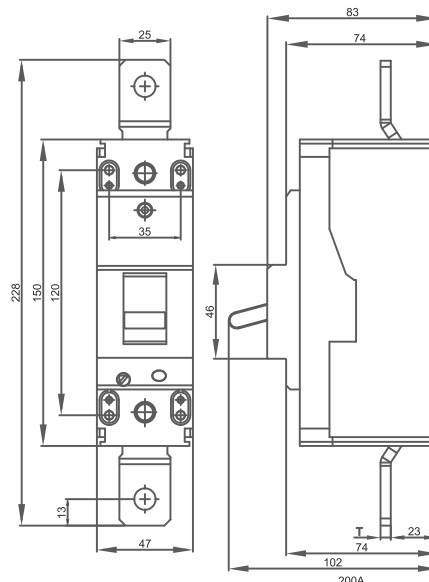


All Above MCCB dimensions are in mm.

| | | | |
|---|--|----------|---------|
| No. of poles | 1 | | |
| Type | C | N | S |
| Rated Current* | 63, 80 100, 125, 160, 200 & 250A | | |
| Rated Operational Voltage | 240V | | |
| Rated Insulation Voltage | 800V | | |
| Rated Impulse withstand voltage | 8kV | | |
| Dielectric strength | 3 KV for 1 minute | | |
| Rated Frequency | 50/60 Hz | | |
| Reference Ambient Calibration Temperature** | 50°C | | |
| Rated Ultimate S.C. Breaking Capacity (at 240 VAC, 50/60 Hz) Icu in kA | 25 | 36 | 50 |
| Rated Ultimate S.C. Breaking Capacity (at 250 VDC) Icu in kA | 10 | 10 | 10 |
| Rated Service S.C. Breaking Capacity (at 240 VAC, 50/60 Hz) Ics in kA | 100% Icu | 100% Icu | 50% Icu |
| Rated S.C. Making Capacity (at 240 VDC, 50/60 Hz) Icm in kA | 52.5 | 75.6 | 105 |
| Utilization Category | A | | |
| Positive Isolation | Available | | |
| No. of operating cycles | Mechanical-20000; Electrical-5000 | | |
| Type of Releases | Thermal-Magnetic | | |
| Thermal Release Setting | Adjustable 80-100% | | |
| Magnetic Release Setting | Fixed | | |
| Terminal Capacity (Cable) | 95mm ² max. | | |
| Terminal Capacity (Link) | 120mm ² max. | | |
| Terminal Capacity (Busbar width for direct mounting) | 22 mm max. | | |
| Size (H x B x D) |  Dimension H=150mm B=47mm D=72mm | | |
| Weight | SP MCCB... 0.90kg | | |
| Reference Standards | IS/IEC 60947-2 | | |

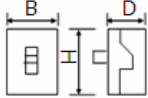
- Notes :-
- *Continuous current rating available are 63, 80, 100, 125, 160, 200 & 250Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - Weight shown above is for the highest rating of MCCB in the Frame size
 - All Above MCCB dimensions are in mm.

Frame 2



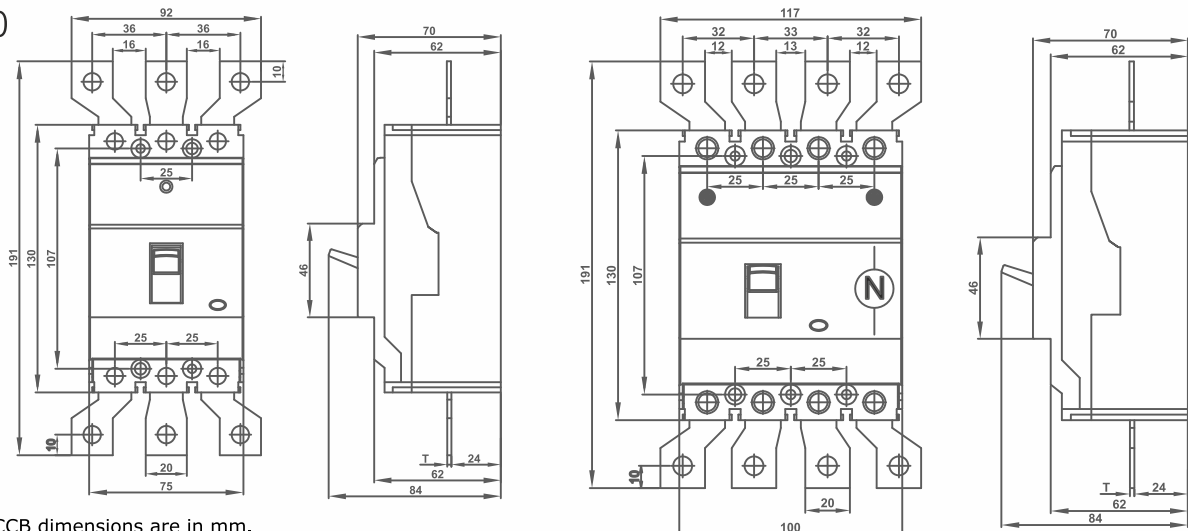
All Above MCCB dimensions are in mm.



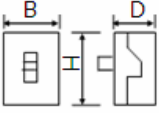
| | | | |
|--|---|---------------|--------------|
| No. of poles | 3/4 | | |
| Type | G | L | K |
| Rated Current* | 10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125A | | |
| Rated Operational Voltage | 415V ac | | |
| Rated Insulation Voltage | 690V ac | | |
| Rated Impulse withstand voltage | 6 kV | | |
| Dielectric strength | 3 KV for 1 minute | | |
| Rated Frequency | 50/60 Hz | | |
| Reference Ambient Calibration Temperature** | 40°C | | |
| Rated Ultimate S.C. Breaking Capacity (at 415 Vac, 50/60 Hz) Icu in kA | 10kA | 10kA | 20kA |
| Rated Ultimate S.C. Breaking Capacity (at 250 Vdc) Icu in kA | 5 kA | | |
| Rated Service S.C. Breaking Capacity (at 415 Vac, 50/60 Hz) Ics in kA | 50% Icu=5kA | 100% Icu=10kA | 50% Icu=10kA |
| Rated S.C. Making Capacity (at 415 VAC, 50/60 Hz) Icm in kA | 17 | 17 | 40 |
| Utilization Category | A | | |
| Positive Isolation | Available | | |
| No. of operating cycles | Mechanical-20000; Electrical-5000 | | |
| Type of Releases | Thermal - Magnetic | | |
| Release Setting Thermal | Fixed | | |
| Release Setting Magnetic | Fixed | | |
| Terminal Capacity (Cables) | 50mm ² max. | | |
| Terminal Capacity (Link) | 50mm ² max. | | |
| Terminal Capacity (Busbar width for direct mounting) | 16 mm max. | | |
| Size (H x B x D)mm |  | Dim. | 3P |
| | | H | 130 |
| | | B | 75 |
| | | D | 61 |
| | | | 4P |
| | | | 130 |
| | | | 100 |
| | | | 61 |
| Weight | 0.85Kg(3P) & 1.10Kg(4P) | | |
| Reference Standards | IS / IEC 60947-2 | | |

- Notes :-
- *Continuous current rating available are 10, 16, 20, 25, 32, 40, 50, 63, 80, 100 & 125 Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - Extended terminals available as standard from 100A onwards
 - Weight shown above is for the highest rating of MCCB in the Frame size.

Frame 0

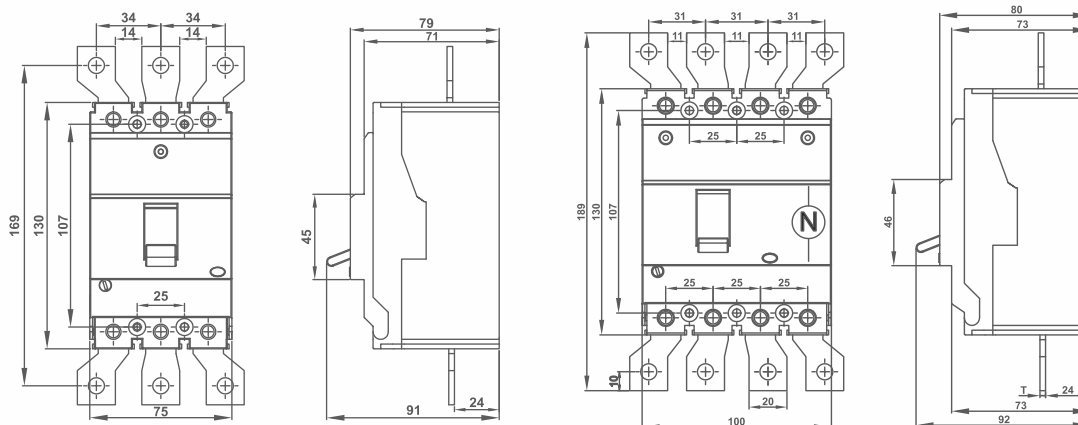


All Above MCCB dimensions are in mm.

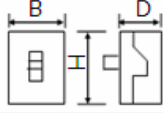
| | | | | |
|--|---|-------------|-----------|-----------|
| No. of poles | 3/4 | | | |
| Type | L | D | C | N |
| Rated Current* | 20-160A | 20-160A | 20-160A | 20-160A |
| Rated Operational Voltage | 415V | | | |
| Rated Insulation Voltage | 800V | | | |
| Rated Impulse withstand voltage | 8kV | | | |
| Dielectric strength | 3 KV for 1 minute | | | |
| Rated Frequency | 50/60 Hz | | | |
| Reference Ambient Calibration Temperature** | 40°C | | | |
| Rated Ultimate S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Icu in kA | 10 | 16 | 25 | 36 |
| Rated Ultimate S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Icu in kA | 16 | 25 | 40 | 50 |
| Rated Ultimate S.C. Breaking Capacity (at 250 VDC) Icu in kA | 12 | 12 | 12 | 12 |
| Rated Service S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Ics in kA | 100% Icu | 100% Icu | 75% Icu | 50% Icu |
| Rated Service S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Ics in kA | 100% Icu | 100% Icu | 75% Icu | 50% Icu |
| Rated S.C. Making Capacity (at 415 VAC, 50/60 Hz) Icm in kA | 17 | 32 | 52.5 | 75.6 |
| Utilization Category | A | | | |
| Positive Isolation | Available | | | |
| No. of operating cycles | Mechanical-25000; Electrical-7000 | | | |
| Type of Releases | Thermal - Magnetic | | | |
| Release Setting Thermal*** | 80-100% Adjustable | | | |
| Release Setting Magnetic | Fixed | | | |
| Terminal Capacity (Cables) | 50mm ² max. | | | |
| Terminal Capacity (Link) | 70mm ² max. | | | |
| Terminal Capacity (Busbar width for direct mounting) | 16 mm max. | | | |
| Size (H x B x D) |  | Dim. | 3P | 4P |
| | | H | 130 | 30 |
| | | B | 75 | 100 |
| | | D | 71 | 71 |
| Weight | 1.2 Kg (3P) & 1.6 Kg (4P) | | | |
| Reference Standards | IS / IEC 60947-2 | | | |

- Notes :-
- *Continuous current rating available are 20, 25, 32, 40, 50, 63, 80, 100, 125 & 160 Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - ***MCCB Fixed type available in thermal release setting,
 3. Extended terminals available as standard from 100A onwards.

Frame 1

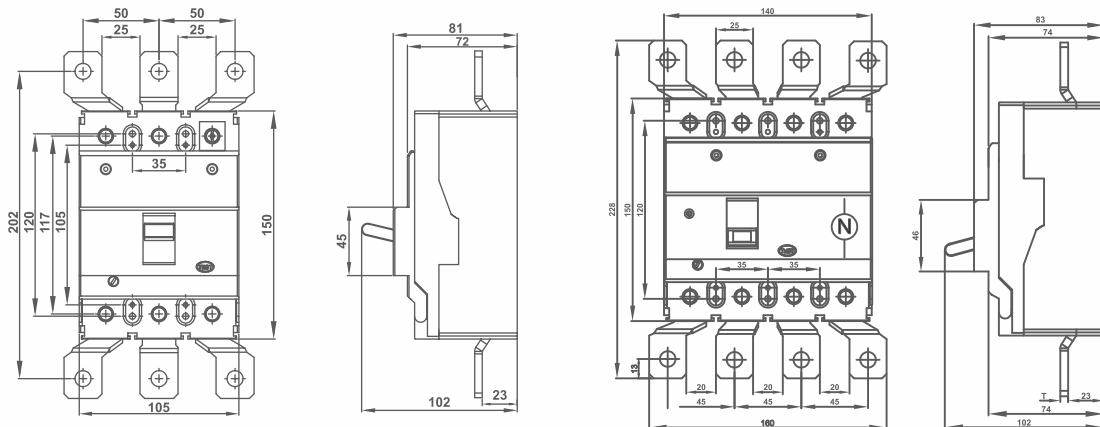


All Above MCCB dimensions are in mm.

| | | | |
|--|---|----------------------------|-------------------------------|
| No. of poles | 3/4 | | |
| Type | C | N | S |
| Rated Current* | 63-250A | 63-250A | 63-250A |
| Rated Operational Voltage | 415V | | |
| Rated Insulation Voltage | 800V | | |
| Rated Impulse withstand voltage | 8kV | | |
| Dielectric strength | 3 KV for 1 minute | | |
| Rated Frequency | 50/60 Hz | | |
| Reference Ambient Calibration Temperature** | 40°C | | |
| Rated Ultimate S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Icu in kA | 25 | 36 | 50 |
| Rated Ultimate S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Icu in kA | 40 | 50 | 70 |
| Rated Ultimate S.C. Breaking Capacity (at 250 VDC) Icu in kA | 20 | 20 | 20 |
| Rated Service S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Ics in kA | 100% Icu | 100% Icu | 50% Icu |
| Rated Service S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Ics in kA | 100% Icu | 100% Icu | 50% Icu |
| Rated S.C. Making Capacity (at 415 VAC, 50/60 Hz) Icm in kA | 52.5 | 75.6 | 105 |
| Utilization Category | A | | |
| Positive Isolation | Available | | |
| No. of operating cycles | Mechanical-20000; Electrical-5000 | | |
| Type of Releases | Thermal-Magnetic | | |
| Thermal Release Setting*** | Adjustable 80-100% | | |
| Magnetic Release Setting | Fixed | | |
| Terminal Capacity (Cable) | 95mm ² max. | | |
| Terminal Capacity (Link) | 120mm ² max. | | |
| Terminal Capacity (Busbar width for direct mounting) | 22 mm max. | | |
| Size (H x B x D)mm |  | Dim. H B D | 3P 150 105 72 |
| Weight | 2.3 Kg (3P) & 2.9 Kg (4P) | | |
| Reference Standards | IS/IEC 60947-2 | | |

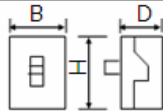
- Notes :-
- *Continuous current rating available are 63, 80, 100, 125, 160, 200 & 250 Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - ***MCCB Fixed type available in thermal release setting.
 - Weight shown above is for the highest rating of MCCB in the Frame size

Frame 2



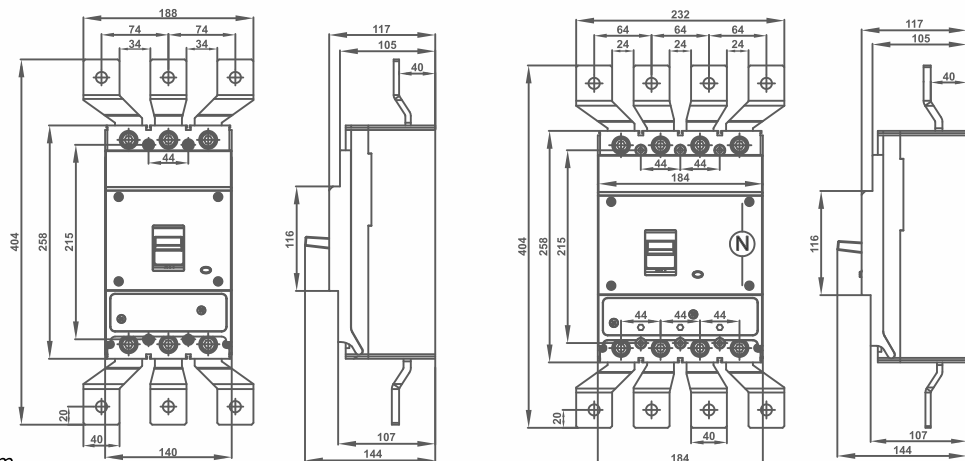
All Above MCCB dimensions are in mm.

| | | | |
|--|--|---------------------------------|---------------------------------|
| No. of poles | 3/4 | | |
| Type | N | S | H |
| Rated Current* | 250-500A | 250-500A | 250-500A |
| Rated Operational Voltage | 415V | | |
| Rated Insulation Voltage | 800V | | |
| Rated Impulse withstand voltage | 8kV | | |
| Dielectric strength | 3 KV for 1 minute | | |
| Rated Frequency | 50/60 Hz | | |
| Reference Ambient Calibration Temperature** | 40°C | | |
| Rated Ultimate S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Icu in kA | 36 | 50 | 65 |
| Rated Ultimate S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Icu in kA | 65 | 85 | 95 |
| Rated Ultimate S.C. Breaking Capacity (at 250 VDC) Icu in kA | 20 | 25 | 35 |
| Rated Service S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Ics in kA | 100% Icu | 75% Icu | 50% Icu |
| Rated Service S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Ics in kA | 100% Icu | 75% Icu | 50% Icu |
| Rated S.C. Making Capacity (at 415 VAC, 50/60 Hz) Icm in kA | 76 | 105 | 143 |
| Utilization Category | A | | |
| Positive Isolation | Available | | |
| No. of operating cycles | Mechanical-15000; Electrical-3000 | | |
| Type of Releases | Thermal-Magnetic | | |
| Thermal Release Setting*** | Adjustable 70-100% | | |
| Magnetic Release Setting*** | Adjustable 6In - 10In | | |
| Terminal Capacity (Cable) | - | | |
| Terminal Capacity (Link) | 320mm ² max. | | |
| Terminal Capacity (Busbar width for direct mounting) | 28 mm max. | | |
| Size (H x B x D) | Dim. H B D | 3P 254.5 140 99 | 4P 254.5 184 99 |
| Weight | 6.8 Kg (3P) & 8.8 Kg (4P) (For Highest Rating) | | |
| Reference Standards | IS/IEC 60947-2 | | |

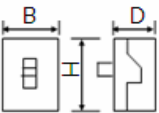


- Notes :-
- *Continuous current rating available are 250, 315, 400, 500 & 630A.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - ***MCCB Fixed type available in thermal release setting and Magnetic release setting.
 - Weight shown above is for the highest rating of MCCB in the Frame size

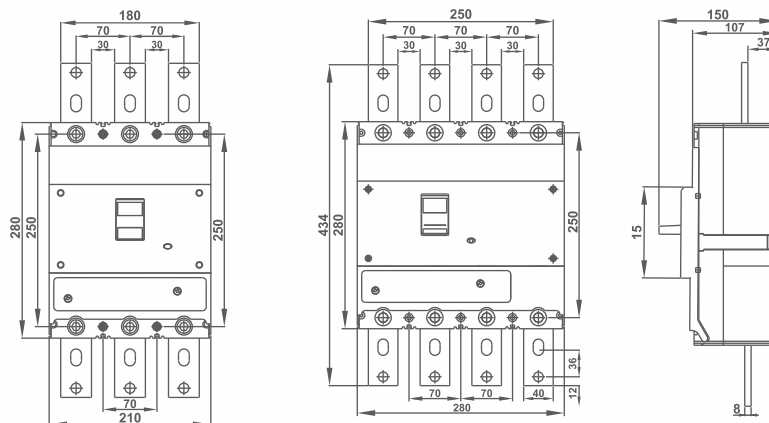
Frame 3



All Above MCCB dimensions are in mm.

| | | | |
|--|----------------------------------|-----------|-----------|
| No. of poles | 3/4 | | |
| Type | N | S | H |
| Rated Current* | 500, 630, 800A | | |
| Rated Operational Voltage | 415V | | |
| Rated Insulation Voltage | 800V | | |
| Rated Impulse withstand voltage | 8kV | | |
| Dielectric strength | 3 KV for 1 minute | | |
| Rated Frequency | 50/60 Hz | | |
| Reference Ambient Calibration Temperature** | 40°C | | |
| Rated Ultimate S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Icu in kA | 36 | 50 | 65 |
| Rated Ultimate S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Icu in kA | 65 | 85 | 95 |
| Rated Ultimate S.C. Breaking Capacity (at 250 VDC) Icu in kA | 20 | 25 | 35 |
| Rated Service S.C. Breaking Capacity (at 415 VAC, 50/60 Hz) Ics in kA | 100% Icu | 75% Icu | 50% Icu |
| Rated Service S.C. Breaking Capacity (at 230 VAC, 50/60 Hz) Ics in kA | 100% Icu | 75% Icu | 50% Icu |
| Rated S.C. Making Capacity (at 415 VAC, 50/60 Hz) Icm in kA | 76 | 105 | 143 |
| Utilization Category | A | | |
| Positive Isolation | Available | | |
| No. of operating cycles | Mechanical-5000; Electrical-2500 | | |
| Type of Releases | Thermal-Magnetic | | |
| Thermal Release Setting*** | Adjustable 70-100% | | |
| Magnetic Release Setting*** | Adjustable 6In - 10In | | |
| Terminal Capacity (Cable) | - | | |
| Terminal Capacity (Link) | 500mm ² max. | | |
| Terminal Capacity (Busbar width for direct mounting) | 42 mm max. | | |
| Size (H x B x D)  | Dimensions | | |
| | Dim. | 3P | 4P |
| | H | 280 | 280 |
| | B | 210 | 280 |
| D | 107 | 107 | |
| Weight | 11.5 Kg (3P) & 15.5 Kg (4P) | | |
| Reference Standards | IS/IEC 60947-2 | | |

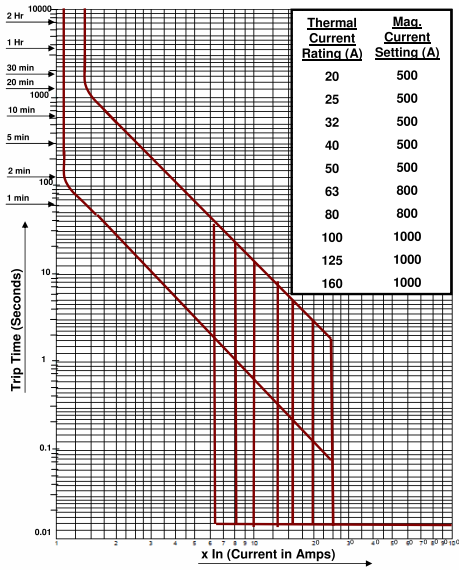
- Notes :-
- *Continuous current rating available 500, 630 & 800Amps.
 - **However on demand, MCCBs can be provided with calibration done at higher temperature also.
 - ***MCCB Fixed type available in thermal release setting and Magnetic release setting.
 - Weight shown above is for the highest rating of MCCB in the Frame size



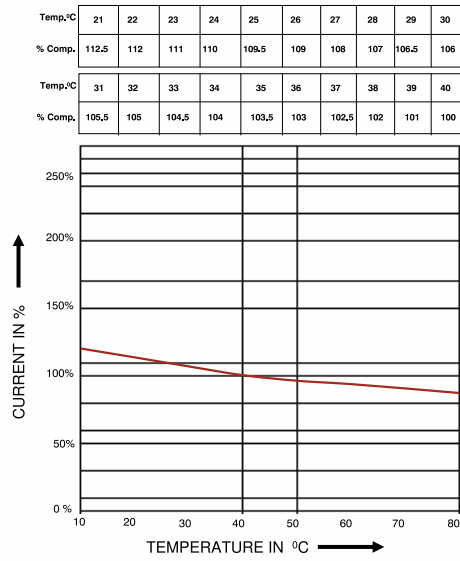
All Above MCCB dimensions are in mm.



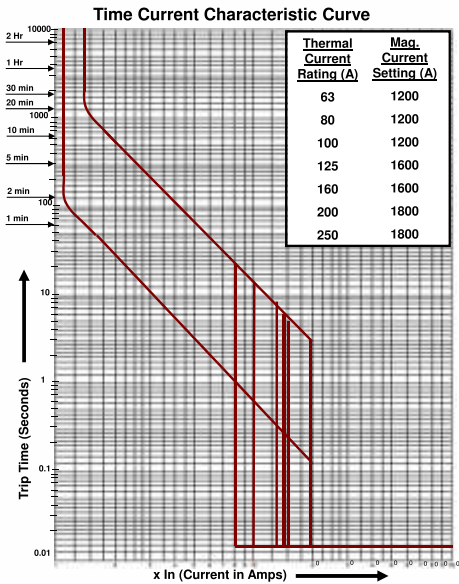
T-C Curve (TAB™-1)



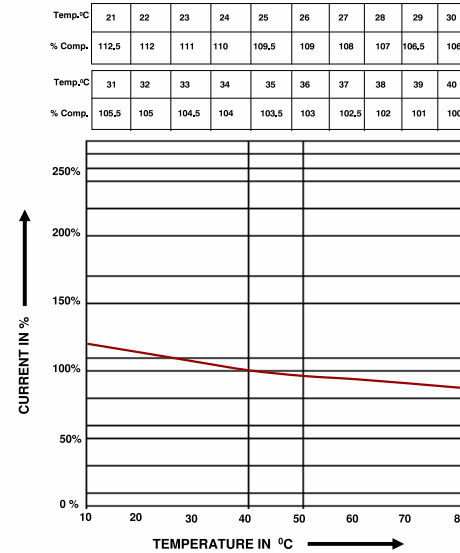
Ambient Compensation Curve (TAB-1)



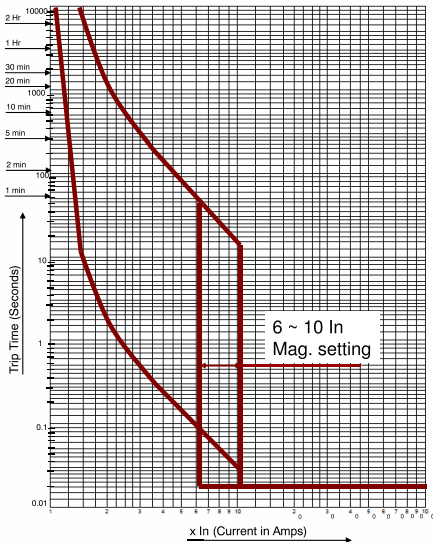
T-C Curve (TAB™-2)



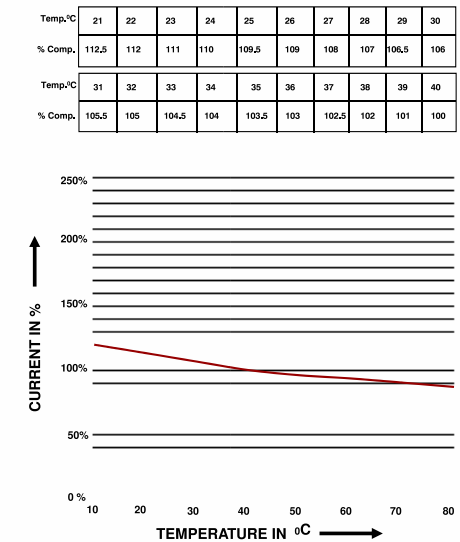
Ambient Compensation Curve (TAB-2)



T-C Curve (TAB™-3/4)



Ambient Compensation Curve (TAB-3/4)



Other HPL Industrial Products



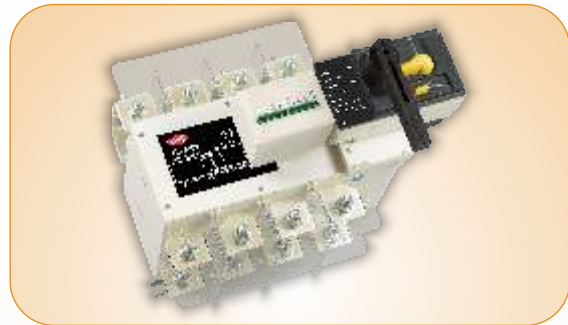
ACB



Controlgear



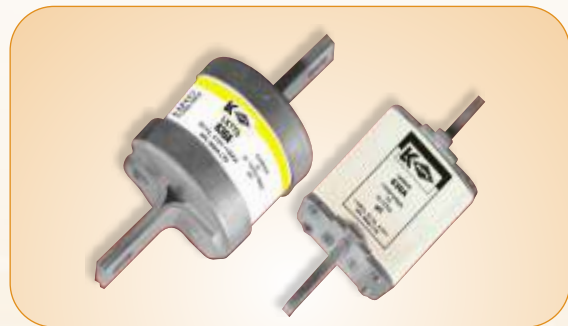
On Load Changeover Switch



Automatic Transfer Switch



Switch Disconnecter Fuse



HRC Fuse Link



MCB / RCCB



Energy Meters

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