

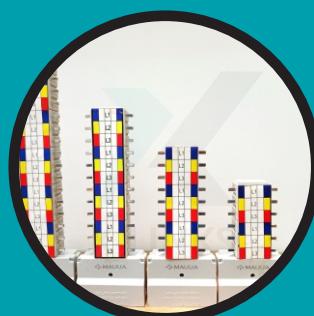
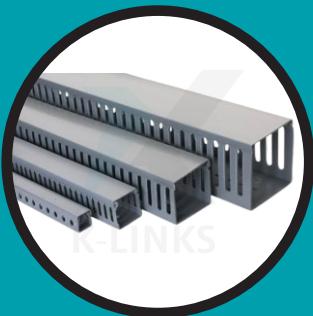


K-LINKS

# K-LINKS

Quality you can trust







# About Us

At K-**LINKS**, we are a trusted provider of high-quality electrical components and accessories, committed to powering innovation across industries. With a wide-ranging portfolio that includes Breakers, Relays, cables, connectors, circuit protection devices, switches, and more, we serve the needs of electrical switchgear manufacturers, contractors, OEMs, and industrial clients. Our dedication to quality, reliability, and timely delivery ensures our customers receive the right solutions to meet both standard and specialized requirements. Backed by expert support and a customer-first approach, we are your dependable partner in every electrical project.

**Quality** and reliability are the cornerstones of our business. Every product we supply is sourced / developed from reputable manufacturers and tested to meet stringent industry standards, ensuring lasting performance and safety. Our commitment doesn't end at delivery—we stand by our customers with responsive after-sales support, product warranty, technical guidance, and a dedication to building long-term **trust**.



# INDEX

| PRODUCT NAME                                | PAGE  |
|---|-------|
| PVC CABLE DUCT                              | 5     |
| PANEL FAN & LOUVERS                         | 6     |
| CONTROL RELAYS                              | 7     |
| DIGITAL PANEL METER                         | 8     |
| SELECTOR SWITCH                             | 9     |
| CHANGEOVER SWITCH                           | 9     |
| INDICATION LIGHT                            | 10    |
| PUSH BUTTONS                                | 11    |
| TEMPERATURE CONTROLLERS                     | 12    |
| MEANWELL NDR SERIES DIN RAIL POWER SUPPLIES | 13    |
| COPPER LUGS, PVC GLAND, TERMINAL BLOCK      | 14    |
| DOUBLE COMPRESSION CABLE GLAND              | 15    |
| PAN ASSEMBLY & NEUTRAL/GROUND LINKS         | 16    |
| POWER FACTOR CORRECTION CAPACITOR           | 17    |
| HRC FUSE AND FUSE BASES                     | 17    |
| INTELLIGENT REACTIVE POWER CONTROLLER       | 18    |
| CT FOR LOW VOLTAGE                          | 19,20 |
| HYDRAULIC BUSBAR PROCESS                    | 21    |

## PVC CABLE DUCT

### Professional Wire Management Solution

High-quality slotted cable duct designed for organizing and protecting electrical wiring in control panels, switchboards, and enclosures.

#### Specifications

- **Material:** Flame-retardant, lead-free rigid PVC (UL94 V-0)
- **Design:** Parallel side slots with smooth edges
- **Cover:** Detachable Snap-On design
- **Length:** 2 meters per piece
- **Temperature Range:** -40°C to +65°C (instantaneous up to 100°C)
- **Installation:** Pre-drilled mounting holes

#### Features

- Easy cable entry and exit through side slots
- Secure closure with quick-access cover
- Protects wire insulation from damage
- Multiple width x height combinations available

#### Available Sizes

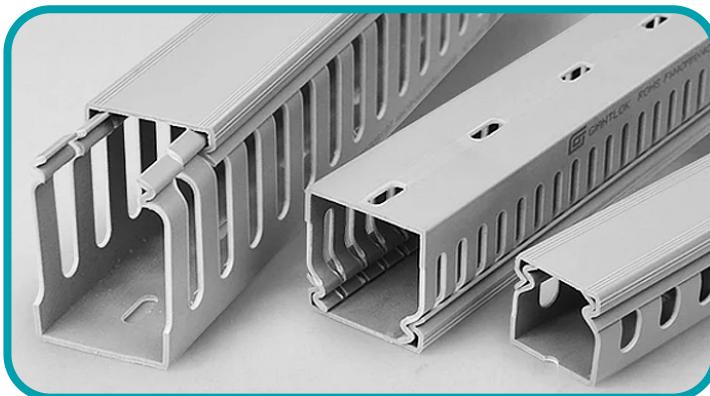
| Sr.No. | Cable Duct Size: WxH mm | Ducts / CTN |
|--------|-------------------------|-------------|
| 1      | 25x25                   | 60          |
| 2      | 33x33                   | 40          |
| 3      | 25x40                   | 50          |
| 4      | 40x40                   | 42          |
| 5      | 25x60                   | 30          |
| 6      | 40x60                   | 42          |
| 7      | 60x40                   | 30          |
| 8      | 50x50                   | 36          |
| 9      | 60x60                   | 30          |
| 10     | 60x80                   | 20          |
| 11     | 80x80                   | 16          |
| 12     | 80x100                  | 12          |
| 13     | 100x100                 | 12          |

#### Certifications

- UL Certified | EU CE | RoHS | SGS | TUV

#### Applications

- Electrical control panels
- Automation systems
- Industrial equipment
- Machinery wiring
- Telecommunication systems



## PANEL FAN

### Description:

Panel fans are compact, high-efficiency axial fans used in electrical switchgear panels for maintaining optimal operating temperatures for sensitive electrical and electronic equipment.

### Key Features:

- Compact design for space-saving installation
- High airflow performance with low noise operation
- Available in various sizes to suit diverse applications
- Optional filters and grills for dust protection and safety



### Applications:

- Electrical control panels
- Industrial automation systems
- IT and telecom enclosures
- Food processing equipment



## PANEL LOUVERS

### Description:

Louvers are installed on walls or doors of electrical panels to facilitate passive ventilation and airflow management.

### Key Features:

- Slanted blade design ensures airflow with protection from ingress
- Can be fixed or adjustable, depending on airflow control needs
- Available with bird/insect screens and filters for added protection
- Ingress Protection: IP54



### Applications:

- Ventilation in electrical and mechanical rooms
- HVAC duct and system openings
- Generator and engine enclosures
- Warehouse and facility wall panels



## Control Relays

### Description:

A control Relay is an electromagnetic switch. The main function of a control relays is to allow the flow of electric current through a conducting coil, which closes or opens a switch. Control relays are available 8pin, 11pin, 14 pin in coil voltage 220VAC, 12VDC, 24VDC, 110VDC. They play a critical role in automation, providing safe and efficient switching between low-power control signals and high-power load devices.

### Key Features:

- Electromagnetic Operation: Converts a control signal into mechanical movement to operate circuit contacts.
- Electrical Isolation: Separates control and load sides to protect sensitive components.
- Versatile Control: Supports control of motors, lighting, alarms, and auxiliary systems.
- Multiple Contacts: Allows for switching multiple circuits simultaneously (SPDT, DPDT, etc.).
- Compact & Modular: Easily mounted in electrical panels (DIN rail or screw mount).

### Applications:

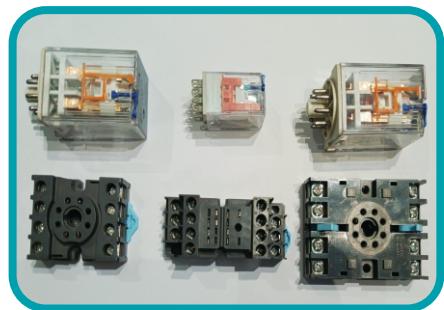
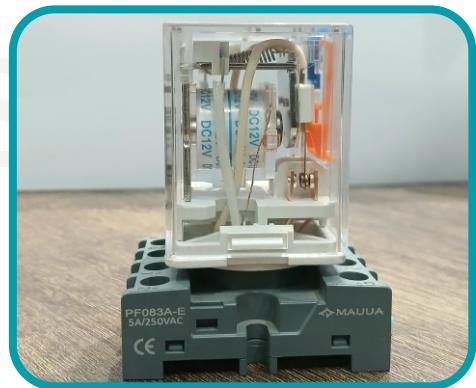
- Industrial automation systems
- HVAC controls
- Motor control centers (MCCs)
- Lighting and building management systems
- Safety interlocks and sequencing

### Typical Specifications:

| Parameter             | Value (Example)            |
|-----------------------|----------------------------|
| Coil Voltage          | 12V, 24V, 110V, 230V AC/DC |
| Contact Configuration | SPDT, DPDT, 4PDT           |
| Contact Rating        | Up to 10A @ 250VAC         |
| Mounting Type         | DIN rail mount             |
| Mechanical Life       | >10 million operations     |
| Electrical Life       | >100,000 operations        |

### Benefits:

- Improves safety by isolating control and power circuits
- Simplifies complex logic and sequence control
- Increases system flexibility with modular design
- Reduces wear on manual switches through automated operation



## Digital Panel Meters – Ammeters, Voltmeters & Multimeters

### Description

Precision electrical measurement instruments for panel mounting applications

### Product Range

- **Digital Ammeter**

AC/DC current measurement, CT compatible, True RMS

- **Digital Voltmeter**

Single/three-phase voltage monitoring, 0-600V range

- **Digital Multimeter**

Multi-parameter measurement with communication capability



### Technical Specifications:

| Parameter           | Specification (Typical)                |
|---------------------|--|
| Display Type        | LED / LCD 3.5 to 6-digit               |
| Accuracy            | ±0.5% to ±1% of full scale             |
| Input Voltage Range | 0–600V AC (L-N / L-L), 0–300V DC       |
| Communication Ports | RS-485 (Modbus RTU), optional Ethernet |
| Operating Temp      | -10° C to +55° C                       |

### Standard Panel Cutouts

48×48mm | 72×72mm | 96×96mm | 96×48mm | 120×120mm

### Key Features:

- True RMS measurement for harmonic environments
- Backlit display for low-light visibility
- Programmable CT/PT ratios
- Configurable alarms and digital outputs
- Energy metering and logging capabilities
- SCADA/PLC integration ready

### Applications:

- Industrial panels
- Switchboards
- Power distribution
- Energy monitoring
- Generator controls
- Building management systems

### Standards:

IEC 61010, CE marked

## Selector Switches

### Description:

Selector switches are manually operated rotary switches used to control circuit functions by selecting different electrical contact positions. They are ideal for user interface control in panels, machinery, and automation systems, offering visual and tactile feedback.

### Type of Selector Switches:

- 2-Position (On/Off)
- 3-Position (Forward-Off-Reverse / Auto-Off-Manual)
- Key-operated switches (for restricted access)
- Maintained (latching) or Momentary (spring return)



### Technical Specifications:

| Parameter             | Typical Values                         |
|-----------------------|--|
| Contact Configuration | 1NO, 1NC, 2NO, 2NC, 1NO+1NC            |
| Rated Voltage         | Up to 690V AC                          |
| Rated Current         | 6A – 16A (AC15 duty)                   |
| Operating Mechanism   | Rotary, spring-return, or latching     |
| Mounting Size         | Ø22 mm / Ø30 mm standard               |
| Material              | Flame-retardant thermoplastic or metal |
| Protection Class      | IP40, IP65, IP67 (depending on model)  |



### Applications:

- Mode selection (Manual / Auto)
- Motor direction control (FWD / REV)
- Bypass and interlock settings



## Changeover Switches

### Description:

Changeover switches are rotary or cam-operated devices that allow switching between two or more power sources or load paths. They ensure safe and reliable transfer of electrical power in critical systems.

### Type of Selector Switches:

- 2-Position (On/Off)
- 3-Position (Forward-Off-Reverse / Auto-Off-Manual)
- Key-operated switches (for restricted access)
- Maintained (latching) or Momentary (spring return)



### Technical Specifications:

| Parameter       | Typical Values                         |
|-----------------|--|
| Rated Current   | 20A – 1600A                            |
| Rated Voltage   | Up to 690V AC                          |
| Number of Poles | 2P / 3P / 4P                           |
| Switching Type  | Break-before-make or Make-before-break |
| Mounting        | Panel mount / DIN rail / Base mount    |
| Standards       | IEC 60947-3 / IS 13947-3               |



### Applications:

- Dual power source systems (utility/inverter)
- Generator to mains switching
- Maintenance bypass switching



## Indication Lights

### Product Selection:

| Series | Size   | Derived Code                              | Colorcode | Voltage code of lamp part: | Waterproof function        |
|--------|--------|---|-----------|----------------------------|----------------------------|
|        | 16:Φ16 | DS: Pilot lights                          | W: White  | 21:AC/DC 6V                | None:No waterprod function |
|        | 22:Φ22 | SM: Illuminated buzzer                    | R: Red    | 22:AC/DC 12V               |                            |
|        |        | SS: BI-colored tight                      | G: Green  | 23:AC/DC.24V               | F:With waterproof function |
|        |        | BD: Pilotlights<br>(with voltage display) | Y: Yellow | 24:AC/DC 38V               |                            |
|        |        | DF: Pilot light(discharge)                | S: Blue   | 25:AC/DC 48V               |                            |
|        |        | SG: Flash pilot light                     |           | 26:AC/DC 110V              |                            |
|        |        | DSK: Pilot light (ant-interference)       |           | 28:AC/DC 220V              |                            |
|        |        |   |           | 29:AC/DC 380V              |                            |
|        |        |   |           | 31:AC 220V                 |                            |
|        |        |   |           | 32 AC 380V                 |                            |

### Working conditions and installation conditions

Ambient temperature: -25°C ~ +50°C, daily average temperature ≤ +35°C

Relative humidity: 40°C (≤ 50%), 20°C (90%)

Altitude: ≤ 2000m

Installation dimension: 16mm, 22mm

### IP Degree

Φ16 is IP50, Φ22 is IP60 and IP65 is customizable

### Technical Parameters

Power Frequency withstand voltage: 1.890V(Ac effective value)

Rated shock withstand voltage: Uimp=25KV

Nominal Insulation voltage(UI): AC 380v|50Hz

Brightness: 100cd/m<sup>2</sup>

Operating life: 30000h

Comparative tracking index CTI: 100(ame retardant)

| Power Source | AC, DC |    |    |    |    |     | AC      |     |     |     |
|--------------|--------|----|----|----|----|-----|---------|-----|-----|-----|
| Voltage (V)  | 6      | 12 | 24 | 36 | 48 | 110 | 127     | 380 | 220 | 380 |
| Current (mA) | ≤ 50mA |    |    |    |    |     | ≤ 200mA |     |     |     |

| Model        | Description           | Color       |
|--------------|-----------------------|-------------|
| MKI16C-22DS  |                       | (R G Y S)   |
| MKI16C-22DS  |                       | (W)         |
| MKI16C-22DSK | (anti - interference) | (R G Y S W) |
| MKI16C-22DS  | (Ip65)                | (R G Y S W) |
| MKI16C-22DF  | (discharge)           | (R G Y S W) |
| MKI16C-22SG  |                       | (R G Y W)   |



## Push Buttons

### Description:

We have Complete range of Push Buttons for manual control of machinery and electrical systems in industrial/commercial panels.

### Variants

- **Momentary:** Spring-return
- **Maintained:** Latching
- **Illuminated:** LED indicators (12V-230V)
- **Emergency Stop:** Twist release/key reset
- **Selector:** Multi-position rotary

### Key Specifications

- **Voltage:** Up to 600V AC
- **Current:** 1-10A (contact dependent)
- **Mounting:** 22mm/30mm standard cutouts
- **Protection:** IP65/IP66/IP67
- **Temperature:** -25°C to +70°C
- **Life:** 1M mechanical / 500K electrical operations

### Contact Types

- 1NO, 1NC, 2NO, 2NC configurations
- Silver or gold alloy contacts
- Snap-action or slow-make/break

### Applications

- Motor control centers
- PLC interfaces
- Start/stop stations
- Emergency shutdown
- HVAC/lighting controls

### Standards

- IEC 60947-5-1/5-5
- UL 508, CSA C22.2
- EN/IEC 60204-1
- CE, RoHS compliant

## IP-65 MKL SERIES



## MBE SERIES



## Temperature Controllers

### Product Range

- **ON/OFF Controllers:** Binary temperature control
- **PID Controllers:** Precision regulation, minimal overshoot
- **Programmable Controllers:** Multi-set point, ramp/soak profiles

### Standard Sizes

| Size (DIN) | Dimensions (mm) | Common Usage          |
|------------|-----------------|-----------------------|
| 1/16 DIN   | 48 x 48         | Compact installations |
| 3/16 DIN   | 72 x 72         | Process equipment     |
| 1/8 DIN    | 96 x 48         | Industrial ovens      |
| 1/4 DIN    | 96 x 96         | High visibility       |

### Technical Specifications:

| Parameter         | Specification                                      |
|-------------------|--|
| Input Types       | Thermocouple (J, K, T, R, S), RTD (Pt100), Voltage |
| Control Output    | Relay, SSR, 4-20 mA, 0-10V DC                      |
| Power Supply      | 100-240V AC, 24V AC/DC                             |
| Display Type      | 4 to 6-digit LED or LCD                            |
| Accuracy          | 0.1% of full scale                                 |
| Temperature Range | -200C to +1800C                                    |
| Communication     | RS-485 Modbus, RS-232, Ethernet                    |
| Protection        | IP20 (rear), IP54-IP65 (front)                     |
| Certifications    | CE, UL, RoHS, IEC                                  |



### Key Features:

- Auto-tuning PID algorithms
- Multi-setpoint ramp/soak profiles
- Universal input compatibility
- Digital communication interfaces
- Password protection
- Modular and expandable design
- 1-3 configurable alarms

### Application:

- **Industrial:** Ovens, furnaces, plastic molding
- **HVAC:** Building temperature control
- **Process:** Food processing, environmental chambers
- **Laboratory:** Incubators, sterilizers, boilers



## MEANWELL NDR Series DIN Rail Power Supplies

### Description

The MEANWELL NDR Series represents a comprehensive range of AC-DC single output industrial DIN rail power supplies, spanning from 75W to 480W with universal input voltage of 90-264VAC and output voltages ranging from 12V to 48V, housed in robust metal cases.

### Selection Guide

| Model      | Output Voltage | Output Current | Output Power | Dimensions (WxHxD) |
|------------|----------------|----------------|--------------|--------------------|
| NDR-75-12  | 12VDC          | 6.2A           | 75W          | 45×90×58mm         |
| NDR-75-24  | 24VDC          | 3.2A           | 75W          | 45×90×58mm         |
| NDR-120-12 | 12VDC          | 10A            | 120W         | 54×90×58mm         |
| NDR-120-24 | 24VDC          | 5A             | 120W         | 54×90×58mm         |
| NDR-240-24 | 24VDC          | 10A            | 240W         | 90×90×58mm         |
| NDR-480-24 | 24VDC          | 20A            | 480W         | 124×90×58mm        |



### Key Features & Benefits

#### Universal Input & High Efficiency

- Universal AC input range: 90-264VAC, 47-63Hz
- High efficiency up to 92.5%
- Built-in active PFC function (NDR-240/480 models)
- No-load power consumption < 0.75W



#### Environmental Standards

- RoHS 2011/65/EU compliant
- REACH regulation compliant
- Torque specification: 0.5-0.6 N·M
- Touch-safe terminals for enhanced safety

#### Manufacturing Excellence

- ISO 9001:2015 certified manufacturing
- Automated production processes
- 100% burn-in testing
- Comprehensive quality control at every stage



## Copper Lugs, PVC Cable Glands & Terminal Blocks

### Copper Lugs:

Copper lugs are high-conductivity connectors used to terminate and connect electrical cables to equipment and systems. Made from 99.9% electrolytic copper, they are ideal for secure and reliable electrical installations.

#### Application:

- Switchgear and transformers
- Renewable energy installations
- Battery and grounding systems



| Property   | Detail                                      |
|------------|---|
| Material   | Electrolytic Copper (tinned/bare)           |
| Type       | Tubular, Long Barrel, Bimetallic            |
| Cable Size | 1.5 mm <sup>2</sup> to 1000 mm <sup>2</sup> |
| Mounting   | Crimp or bolt-type                          |
| Standard   | IS 8309, DIN 46235                          |

### PVC Cable Gland

Designed for strain relief and protection, PVC cable glands are used for sealing and securing electrical cables entering an enclosure. They provide dust, moisture, and mechanical protection in low-voltage environments.

#### Application:

- Distribution boards
- Lighting and motor wiring
- Automation and control systems



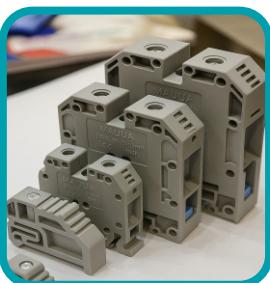
| Property      | Detail              |
|---------------|---------------------|
| Material      | Flame-retardant PVC |
| Thread Type   | Metric, PG, NPT     |
| Ingress Prot. | IP54 to IP68        |
| Temperature   | -20°C to +80°C      |
| Compliance    | RoHS, CE            |

### Terminal Blocks:

Terminal blocks are modular, insulated connectors that safely join multiple conductors. Available in screw, push-in, or spring-clamp types, they are essential for organized and reliable electrical panel wiring.

#### Application:

- Industrial automation
- Control and PLC panels
- Energy management and robotics



| Property        | Detail                 |
|-----------------|------------------------|
| Body Material   | Polyamide 6.6          |
| Connection Type | Screw, spring, push-in |
| Current Range   | 2.5 A to 150 A         |
| Voltage Rating  | Up to 1000 V AC/DC     |
| Mounting        | DIN rail / panel       |

## Double Compression Cable Glands – Ex Type

### Description:

Double compression cable glands of Ex Type are specially designed for Flameproof cable entry systems for hazardous areas. These glands provide superior sealing and strain relief at both the inner and outer cable sheath, ensuring mechanical retention, ingress protection, and flame containment in explosive atmospheres.

### Certifications & Compliance:

- ATEX, IECEEx, and PESO approved for use in hazardous zones
- Compliant with IS 12943, IS/IEC 60079-1, and EN 60079
- Markings: Ex d IIC Gb / Ex e IIC Gb / Ex tb IIIC Db

### Application:

- Oil & Gas refineries
- Petrochemical industries
- Offshore platforms and rigs
- Hazardous chemical plants
- Coal mining and dust-prone industries
- Flameproof electrical equipment and enclosures



### Technical Specifications:

| Property             | Detail   |
|----------------------|--|
| Type                 | Double Compression – Flameproof / Explosion-Proof (Ex d / Ex e)            |
| Standards            | IS/IEC 60079-0 / 1 / 7 / EN 60079 / ATEX / IP66/IP67                       |
| Explosion Protection | Ex d IIC / Ex e II / Ex tb IIIC  |
| Material             | Brass (Nickel-plated), Stainless Steel (SS 304 / 316), Aluminum (anodized) |
| Cable Types          | Armoured (SWA, AWA) and Unarmoured Cables                                  |
| Cable Entry Thread   | Metric (M), BSP, NPT   |
| Sealing Range        | Typically from Ø 6 mm to Ø 75 mm   |
| Ingress Protection   | IP66 / IP67 / IP68 (with sealing washers)                                  |
| Temperature Range    | -20°C to +100°C (standard); up to +200°C (HT version)                      |
| Clamping Mechanism   | Dual-sealing – Inner and outer compression with armor clamping             |
| Earth Continuity     | Provided through armor clamping and locknut earthing                       |
| Accessories          | Locknuts, Earth Tags, PVC Shrouds, Neoprene Seals, Stopping Plugs          |

## PAN Assembly & Neutral/Ground Links

### PAN Assembly – Overview

PAN Assemblies are busbar solutions used in panels for neutral or earth point distribution. Ideal for LT panels and DBs, they feature pre-punched holes, modular construction, and are compatible with DIN rail or base mounting.

### Technical Specifications:

| Parameter      | Specification                    |
|----------------|----------------------------------|
| Material       | Copper                           |
| Finish         | Tinned / Natural / Powder Coated |
| Length Options | 150 mm to 1000 mm                |
| Hole Pattern   | Ø4 mm to Ø8 mm, 10-25 mm pitch   |
| Mounting       | DIN rail / Base-mounted          |
| Current Rating | 63 A to 630 A                    |
| Voltage        | Up to 1000 V AC/DC               |
| Standards      | IS 8623 / IEC 61439              |
| Insulators     | Optional: Nylon / Bakelite       |



### Neutral & Ground Links – Overview

Neutral and ground links are compact, safe, and efficient busbars used in DBs and control panels for distributing earthing or neutral connections. Available in various configurations and insulated bases.

### Technical Specifications:

| Parameter      | Specification              |
|----------------|----------------------------|
| Material       | Copper                     |
| No. of Ways    | 2 to 24 (customizable)     |
| Current Rating | 16 A to 400 A              |
| Base           | ABS / Bakelite / Polyamide |
| Hole Sizes     | Ø4 mm to Ø10 mm            |
| Finish         | Tin-plated                 |
| Mounting       | Base screw / Clip mount    |
| Standards      | IS 3043 / IEC 60947        |



### Common Use Cases

|                       |                             |
|-----------------------|-----------------------------|
| PAN Assembly          | Neutral/Ground Links        |
| LT Switchboards       | Lighting DBs                |
| Motor Control Centers | Commercial DBs              |
| Main Incomer Panels   | Industrial Panels           |
| Control Panels        | Feeder Boxes & Meter Boards |



### Key feature:

- Consolidated neutral or earth termination points
- Modular, customizable length and hole options
- Improved safety and simplified wiring
- Available in insulated or non-insulated models
- Corrosion-resistant finish for longer life



## Power Factor Correction Capacitors for PFI Panels

### Technical Features:

- **Voltage:**

230V to 480V AC

- **Rating:**

5-50 kVAR

- **Construction:**

Aluminum housing, metallized polypropylene

- **Temperature:**

-25°C to +55°C

- **Protection**

Self-healing, discharge resistors



| Model      | KVAR | Voltage | In A  |
|------------|------|---------|-------|
| MRT.4405   | 5    | 440     | 6.5   |
| MRT.4407.5 | 7.5  | 440     | 9.8   |
| MRT.4412.5 | 12.5 | 440     | 16.8  |
| MRT.4425.0 | 25   | 440     | 33.75 |
| MRT.4450.0 | 50   | 440     | 67.5  |

### Certifications & Compliance:

- IEC 60831 CE RoHS

### Application:

- Distribution panels
- MCCs
- HVAC
- Motor drives

### Key feature:

- Self-healing dielectric
- Overpressure protection
- Panel mount design

### Benefits

- Reduces energy costs
- Improves power factor
- Increases system capacity



## HRC Fuse and Fuse Bases for PFI Panels

### Description:

Overcurrent protection for PFI panels and electrical systems

| Component    | Specification                                      |
|--------------|--|
| HRC Fuses    | 500V AC, 10-160A, 120kA breaking capacity          |
| Construction | Ceramic body, quartz filling, knife blade contacts |
| Fuse Bases   | DIN rail/panel mount, DMC/SMC material             |
| Standards    | IEC 60269, DIN 43620, BS88 compatible              |

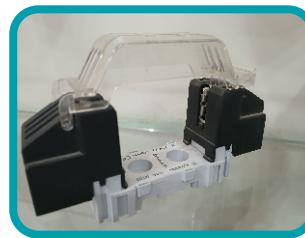


### Features

- High rupturing capacity
- Arc-quenching design
- Visual status indication

### Certifications & Compliance:

- IEC 60269
- DIN 43620
- CE, RoHS



### Application:

- Capacitor protection
- Motor starters
- Control panels



## INTELLIGENT POWER FACTOR CONTROLLER



| Parameter             | Specification  |
|-----------------------|--|
| Input Network         | Single-phase, 3-phase 3-wire, 3-phase 4-wire               |
| Input Voltage         | Direct: 100V/400V AC<br>External: PT x/100V (configurable) |
| Input Current         | Direct: 5A AC<br>External: CT x/5A (configurable)          |
| Frequency Range       | 45-65Hz  |
| Sensitivity           | 5mA  |
| Voltage Overload      | 1.3 times sustained  |
| Current Overload      | 1.2 times sustained  |
| Power Factor Range    | -1.000C ~ 0.000 ~ 1.000 ~ 0.000L ~ -1.000L                 |
| Relay Contact         | 2A/250VAC per channel                                      |
| DC Output             | 10mA/12VDC per channel                                     |
| Communication         | Rs485, MODBUS-RTU protocol                                 |
| Auxiliary Power       | AC220V, AC380V   |
| Operating Temperature | -25°C to +50°C   |
| Protection Level      | Ip40   |
| Panel Cutout          | 120×120mm  |
| Case Dimensions       | 110×110mm  |

### Applications

- Power monitoring
- Energy management
- Industrial control panels
- Distribution systems

# Current Transformers (CTs) for Low Voltage Panels

## Description:

Current Transformers (CTs) are vital components in low voltage electrical panels, used for accurate current measurement and electrical system protection. CTs reduce high primary currents to a manageable level for metering instruments, protective relays, and monitoring systems without directly exposing them to the high current-carrying conductors. In LV panels, CTs are typically installed around busbars or incoming/outgoing cables and are designed to provide an isolated, scaled-down replica of the actual line current (commonly 5A or 1A secondary). They enable precise measurement, billing, and safety-critical operations in power distribution and control systems.

## Technical Features:

### Electrical Characteristics:

- Primary Current Ratings:

10 A to 5000 A (customizable as per application)

- Secondary Output:

5 A or 1 A (standard output for metering/protection devices)

- Accuracy Classes:

Metering: Class 0.2, 0.5, 1.0 (as per IEC 61869-2 or IEC 60044-1)

Protection: Class 5P, 10P, PX (for overcurrent and relay operation)

- Burden (VA Ratings):

2.5 VA to 30 VA depending on CT size and application

- Insulation Class:

E or F class insulation, suitable for continuous operation at 50/60 Hz

## Mechanical Construction:

- Types:

Ring Type (solid-core)

Split Core (for retrofit applications)

- Enclosure:

Flame-retardant polycarbonate or ABS plastic casing

Optional epoxy resin casting for harsh environments

- Mounting Options:

DIN rail mount

Panel or base mount

Busbar or cable-mounted with cable ties or clamps

- Ambient Conditions:

Operating temperature: -10°C to +55°C

Storage temperature: -25°C to +70°C

Humidity: Up to 95% non-condensing

## Application:

- Energy meters (kWh meters, multifunction meters)
- Protection relays in feeders, motors, and transformer circuits
- Power factor controllers in PFI panels
- Load monitoring and demand management systems
- PLC/SCADA integration for energy audits and automation

## Compliance Standards:

- IEC 61869-2 / IEC 60044-1 – Instrument transformers
- CE, RoHS compliant
- Suitable for use in metering schemes as per utility regulations



## Current Transformers (CTs) for Low Voltage Panels

### ITL FIXED CORE CTs

| <b>Rating</b> | <b>Type</b> | <b>Dia.</b> |
|---------------|-------------|-------------|
| 30/5 A        | CP40        | 40          |
| 60/5 A        | CP40        | 40          |
| 100/5 A       | CP40        | 40          |
| 150/5 A       | CP40        | 40          |
| 200/5 A       | CP40        | 40          |
| 300/5 A       | CP40        | 40          |
| 400/5 A       | CP40        | 40          |
| 600/5 A       | CP40        | 40          |
| 600/5 A       | CP60        | 60          |
| 800/5 A       | CP60        | 60          |
| 1000/5 A      | CP60        | 60          |
| 600/5 A       | CP80        | 80          |
| 800/5 A       | CP80        | 80          |
| 1000/5 A      | CP80        | 80          |
| 1250/5 A      | CP80        | 80          |
| 1000/5 A      | CP100       | 100         |
| 1250/5 A      | CP100       | 100         |
| 1600/5 A      | CP100       | 100         |
| 2000/5 A      | CP100       | 100         |
| 2500/5 A      | CP100       | 100         |
| 3200/5 A      | CP100       | 100         |
| 4000/5 A      | CP100       | 100         |

### ITL SPLIT CORE CTs

| <b>Rating</b> | <b>Type</b> | <b>Dia.</b> |
|---------------|-------------|-------------|
| 200/5 A       | DP58        | 80x50       |
| 400/5 A       | DP58        | 80x50       |
| 600/5 A       | DP58        | 80x50       |
| 800/5 A       | DP58        | 80x50       |
| 1000/5 A      | DP58        | 80x50       |
| 1250/5 A      | DP88        | 80x80       |
| 2000/5 A      | DP88        | 80x80       |
| 1600/5 A      | DP812       | 120x80      |
| 2000/5 A      | DP812       | 120x80      |
| 2500/5 A      | DP812       | 120x80      |
| 3200/5 A      | DP812       | 120x80      |
| 4000/5 A      | DP812       | 120x80      |
| 3200/5 A      | DP816       | 160x80      |
| 4000/5 A      | DP816       | 160x80      |
| 5000/5 A      | DP816       | 160x80      |



### Benefits:

- Accurate, safe, and isolated current measurement
- Facilitates integration with digital metering and monitoring systems
- Reduces wiring complexity and instrument size
- Enhances the reliability and efficiency of protection schemes
- Easy installation and minimal maintenance

### Compliance Standards:

- IEC 61869-2 / IEC 60044-1 – Instrument transformers
- CE, RoHS compliant
- Suitable for use in metering schemes as per utility regulations

## Hydraulic Busbar Processor Machine 3in1 HHM-200H

### Description:

The HHM-200H is a compact, portable, multi-functional hydraulic tool designed for the precise and efficient processing of copper and aluminum busbars commonly used in electrical switchgear, transformers, panel boards, and other power distribution equipment. As a "3-in-1" machine, it integrates the three essential functions required for busbar fabrication: punching, bending, and cutting, all powered by a single external hydraulic pump.



### Technical Specifications:

| Parameter                                  | HHM-200H  |
|--|---|
| Model                                      | HHM-200H  |
| Voltage                                    | 220V / 380V   |
| Shearing Force                             | 35 ton  |
|  | 35 ton  |
| Bending Force                              | 16 ton  |
| Max Shearing Width × Thickness             | 200 × 12 mm   |
| Max Punching Thickness                     | 12 mm   |
| Max Bending Width × Thickness              | 200 × 12 mm   |
| Throat Depth of Punch                      | 110 mm  |
| Standard Punch Die Sizes<br>Punching Force | 3/8" (11.1 mm), 5/8" (17.5 mm),<br>1/2" (14.3 mm), 3/4" (20.6 mm) |
| Total Weight                               | 195 kg  |
| Packing Dimensions                         | 90 × 66 × 122 cm  |

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