Corporate Profile

HPL is India's leading electric equipment manufacturer with a formidable presence across six key verticals: Metering Solutions, Switchgears, LED Lighting, Wires & Cables, Modular Switches & Solar.

Our backward integrated facilities have capabilities across product design and development, component designing, tool manufacturing and commercial production. An established brand with a proven track record of over four decades.

HPL enjoys strong recall across various customer segments. Through our innovative offerings, certified to conform to Indian and International standards such as ISI, CE and KEMA, we are proud to partner emerging India's electrical requirements.

As India's most trusted and reliable brand in the electrical space, we are delighted to be electrifying this energised India and move in step with the nation's growth agenda.

HPL is well-placed to seize emerging opportunities

- 40+ Years of industry experience
- 7 State-of-art manufacturing facilities with 2 R&D centers
- 19 Logistic centres in India & Union Territories
- 90+ Branch & Representative offices
- Strong dealer & distribution Network
- Exporting to over 42 countries

Certifications

HPL's manufacturing facilities are ISO: 9001 certified for Quality Management System, ISO : 14001 certified for Environmental System and OHSAS - 18001 certified for implementing an occupational Health and Safety Management System. HPL products are also ISI Certified by the Bureau of Indian Standards, a mark of quality products in India.

Certain range of products have KEMA certification for energy utilization and have CE certificate to give acceptability of the products in Europe and other International markets. With these awards, accolades and certificates, HPL continues its journey towards a brighter and innovative future.

Key Strengths

Integrated Manufacturing facilities

Located across North India in the states of Haryana and Himachal Pradesh. We have seven state-of-the-art manufacturing capabilities. These are equipped to manufacture customised products for institutional customers and undertake modifications in products for OEMs and other corporate customers as well as for the retail consumers. We manufacture all our products in-house, as well as several components used therein.
Contents

Meters
- Panel Meters
- Power Factor Controller
- Electronic Energy Meter
- Prepaid Meter
- Digital Multifunction Panel Meters
- Din Rail Meter
- Smart Meter

Industrial Products
- Air Circuit Breaker
- MCCB
- MCCB DB
- Contactor & Relays
- AV ATS
- AV Changeover Switches
- LBS, SDF, HRC Fuse Link & Base
- Fuse Switches
- Side Handle Changeover

Domestic Products
- Osafe
- MCB, DB, RCCB & RCBO
- ACCL
- Techno
- MCB, DB & RCCB
- Rakshak
- MCB & DB

LED Lighting & Luminaires
- LED Lamps
- Mini & Full Retrofit
- Retrofit & Non Retrofit CFL
- Consumer / Commercial / Industrial / Outdoor Lighting / HID Lamps

Wire & Cables
- Domestic & Industrial Wire
- Networking Cable
- Instrumentation Cable
- Control Cable
- Speciality Cable
- Submersible Cable

Electrical Wiring Accessories
- smART
- Modular Switch
- AC Box
- Elmo Switch
- USB Charger
- Tuff Solo Switch
- Smarter
- Accessories
- Video Door Phone

Solar
- Array Junction Box
- Main Junction Box
- DC Distribution Box
- AC Distribution Box
- Solar Net Meter
- Solar Cable
- Solar Lighting

emfis - Digital Multi-Function Meter

Salient Features
- ±0.5% in class accuracy.
- Suitable for 3 Phase 4 Wire LT Network.
- CT Primary Programming upto 6000A (for direct reading).
- Three line LCD backlit display.
- Displays: Voltage, Current, Frequency, Power Factor, Power & Trending.
- Three push buttons on the front panel for programming and scrolling.
- Maximum demand in kVA / kW with integration Period of 30 Minutes (Optional).
- RS485 Communication (Optional).

emfis HT - Digital Multi-Function Meter

Salient Features
- Programmable CT secondary for 5A & 1A.
- Suitable for HT 3Phase 3 Wire / 3 phase 4 wire (different model) application.
- Display in Scroll Mode: Active Energy kWh, Apparent Energy kVAh, Reactive Energy kVARh, Phase to Phase voltage, Instantaneous Average, Maximum and Total Current, Active Power kW, Reactive Power kVAR and Apparent Power kVA, Total Instantaneous Power Factor, Frequency.
- RS485 Communication (Optional).

emfis - vie Digital Multi-Function Meter

Salient Features
- ±0.5% in class accuracy 1.0.
- Suitable for 3 Phase 4 Wire LT Network.
- CT Primary Programmable upto 6000A.
- Backlit LCD Display 17 parameters including: Phase to Phase voltage, Phase to Neutral Voltage, Instantaneous Current, Average Current, Maximum Current, Total Current, Frequency.

emfis - vif Digital Multi-Function Meter

Salient Features
- Three Line Backlit LCD Display.
- Optically Isolated Energy Pulse Output.
- RS485 MODBUS Communication.
- Provision for Special Screens Hats.
- CT Secondary -5/1A for ±5/1A (site selectable).
- Additional Parameters Power On Hour / Run Hours.
emfs - vifp Digital Multi-Function Meter

**Salient Features**
- ±0.5% in accuracy class 1.0.
- Suitable for 3 Phase 4 Wire LI Network.
- CT Primary Programmable upto 6000A.
- Three line backlit LCD display.
- Measures & Displays 39 parameters including: Phase to Phase Voltage, Phase to Neutral Voltage, Instantaneous, Average, Maximum and Total Current, Active Power kVA, Reactive Power kVAR and Apparent Power kVA, Instantaneous and Total Power Factor, Frequency.

emfs vifpe - Digital Multi-Function Meter

**Salient Features**
- ±0.5% in accuracy class 1.0.
- Suitable for 3 Phase 4 Wire LI Network.
- CT Primary Programmable upto 6000A.
- Three line backlit LCD display.
- Measures & Displays 40 parameters including: Active Energy, Phase to Phase Voltage, Phase to Neutral Voltage, Instantaneous, Average, Maximum and Total Current, Active Power kW, Reactive Power kVAR and Apparent Power kVA, Instantaneous and Total Power Factor, Frequency.
- RS 485 Communication (Optional).

emfs - Plus Digital Multi-Function Meter

**Salient Features**
- Suitable for 3 Phase 4 Wire LI Network.
- Three line LCD backlit display.
- Displays: Voltage, Current, Power Factor, Power, Trvector Energy & THD.
- Last 6 month history parameters for kWh, kVAr, kVARh (kg, lead) & MD kW, kVAr through Communication.
- Relay Output for V, I, Total kW, Total kVAr, F, kW MD & kVAr MD.
- Last 30 days Load Survey through communication.
- Last 10 Oct / Res. event for each relay 1 & 2 through communication.

emfs - DC Digital Multi-Function Meter

**Salient Features**
- RS485 MODBUS RTU Communication (Optional).
- Password Protected Programming.
- Backlit LCD type Display (16 X 2 line Dot Matrix).
- 6 Months History for kW, MD kW, Channel Peak Load available on communication.
- Reverse Shunt Connection Indication.
- Reverse Voltage Connection Indication.
- Shunt Disconnection Indication.

Dual Source Meter

**Salient Features**
- One meter records Active Energy of two different sources: Mains & Generator.
- Backlit LCD display.
- Suitable for 3 Phase 4 Wire Network.
- Accuracy class 0.5 & 1.0.
- Rs485 MODBUS communication (optional).

Dual Source Plus

**Salient Features**
- One meter records Active Energy of Two Sources.
- Measures over 45 Parameters including Voltage, Current, Frequency, kW, kVA, kW, kVA, PT, Active Energy for Mains, Generator and Total. MD in kW and kVA for Mains and Generator separately with date and time.
- Run Hours, Power on Hours.
- Relay outputs for V, I, kW, kVA, F, kW Demand, kVA demand.
- Last 6 months history parameters for kWh and MD through communication.
- Last 10 event logging for Mains / Generator switching.

3Phase Panel Mounted Meter with LCD Display (CT 2E)

**Salient Features**
- CT Operated, ±0.5% in class 1.0 accuracy.
- CT Primary programmable upto 6000A (For Direct reading).
- No separate Auxiliary supply required.
- Low Power Consumption less than 1 watt per phase.
- Pulse Output.
- Anti Tamper features.

3Phase Panel Mounted Meter with LCD Display (CT 2EA)

**Salient Features**
- Backlit LCD display.
- CT operated ±0.5% in class 1.0 accuracy.
- RS 485 Communication.
- CT Primary programmable upto 6000A (For direct reading).
- Pulse output.
**3Phase Panel Mounted Meter with Counter Display (CT2M)**

**Salient Features**
- CT Operated, +5A in class 1.0 accuracy.
- Available upto 800/5A for direct reading (Ref. Catalogue for available CT Ratios).
- No separate Auxiliary supply required.
- Low Power Consumption less than 1 watt per phase.
- Pulse Output.
- And tamper features.

**ébrit : Single & Three Phase Ammeter**

**Salient Features**
- Push button based site programming of CT Ratio.
- Bright 4 Digit 14mm LED display.
- Colour indication for R, Y & B phases.
- Universal Auxiliary Supply: 80 to 300V AC/DC.
- Same model for A & KA.
- Auto scroll facility & scrolllock facility (For Three Phase meter).

**ébrit : Single & Three Phase Voltmeter**

**Salient Features**
- Push button based site programming of PT Ratio.
- Network selection for Star (3 Phases 4 wire) and Delta (3 Phase 3 wire).
- Bright 4 Digit 14mm LED display.
- Colour indication for R, Y & B phases.
- Universal Auxiliary Supply: 80 to 300V AC/DC.
- Same model for V & KV.
- Auto scroll facility & scrolllock facility (For Three Phase meter).

**ébrit : PF Meter**

**Salient Features**
- Measurement range Zero Log Unity-Zero Lead.
- Accuracy ± 0.01%
- Lag / Lead indication on the display.
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply: 80 to 300V AC/DC.

**ébrit : Kilo Watt Meter**

**Salient Features**
- Push button based site programming of CT & PT ratio.
- Available in accuracy class 1.0 & 0.3 (Maintained through out the measurement range).
- Measure range 0-3.000kW (Direct Measurement).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply: 80 to 300V AC/DC.

**ébrit : Frequency Meter**

**Salient Features**
- Measurement range 40.00 - 99.99 Hz.
- Accuracy Class 0.2 (Maintained throughout out the measurement range).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply: 40 to 300V AC/DC.

**ébrit : Power Meter**

**Salient Features**
- Common meter for kW, kVAR and kVAR.
- User selectable measurement of kW/ kVAR/ kVAR.
- Available in Class 0.5 & 1.0.
- Sustained accuracy through out the range.
- Universal auxiliary supply: 80 to 300V AC/DC.
- Push Button based site programming of CT Ratio.
- Bright 4 Digit 14mm LED Display.

**ébrit : Multi Meter**

**Salient Features**
- Three line LED Display multifunction energy meter.
- CT secondary +1A or +5A (site selectible).
- Password protected programming.
- RS 485 MODBUS communication.
- Provision for special screens display.
- Measurement Range: 60V AC to 300V AC P-N.
- Pulse output.

**HPL - Power Factor Controller**

**Salient Features**
- Microprocessor based intelligent auto switching control.
- Automatic C/K and rated step adjustment.
- Automatic CT polarity correction.
- Display of power factor, current & total harmonic distortion of current.
- Programmable sensitivity.
- Last step can be used as alarm / fan output.
- Under / Over voltage alarm, compensate alarm & high harmonic distortion alarm.
**Trivector Meter**

**Salient Features**
- Range: 1S-CT operated ≤5A, 3S-PT operated ≤5A & ≤7A for HT application.
- Accuracy class 0.5 as per IS 14697 / CBIP 88 / IEC.
- Logging & display for tamper data.
- Measurement & recording of Trivector energy.
- Communication: Optical & Hardwired RS232.
- T00, load survey data, tamper information downloadable to CMRI through optical port.

**Three Phase Dual Source Energy Meter**

**Salient Features**
- One meter records Active Energy of two source.
- Optical port communication & RS485 MODBUS communication.
- Mains / Generator selection through 240V AC / 24V DC Sensing.
- Indication for current reversal tampering and phase availability on the LCD itself.
- Indication on display to indicate the source in use.
- Load survey / Tamper logging available.
- Ratings available: ≤5A CT Operated 10-40A.

**3Phase Electronic Energy Meter with LCD Display (Available with & without optical comm. port)**

**Salient Features**
- Accuracy Class 1.0 as per IS 13779.
- Ratings: ≤5A CT operated, ≤20A, 10-60A, 10-40A.
- All standard anti tamper features provided.

**Optional Features**
- Optical communication port / RJ232 Port.
- T00, load survey, tamper information downloadable.
- CMRI through optical port.
- Display in absence of power supply.

**Din Rail Mounting Meters**

**Salient Features**
- Current rating single phase ≤30A, three phase 10-60A & 20-80A & ≤5A.
- Communication Modbus RTU for three phase & pulse output for single phase.
- Programmable CT ratio and Send jack.
- Suitable for dual source application (only three phase).

**3Phase Electronic Energy Meter Counter Type Display**

**Salient Features**
- Range 5-20A, 10-40A, ≤5A CT operated in class 1.0 accuracy as per IS 13779.
- Meter records correct energy with same accuracy under reverse current connection.
- LCD indication for current reversal tampering provided.
- Phase available indication provided.
- Anti tamper features.

**Single Phase Electronic Energy Meter with LCD Display (Available with & without optical comm. port)**

**Salient Features**
- Accuracy Class 1.0 as per IS 13779.
- Ratings: 5-30A, 10-40A.
- All standard anti tamper features provided.

**Optional Features**
- Optical communication port / RJ232 Port.
- T00, load survey, tamper information downloadable.
- CMRI through optical port.
- Display in absence of power supply.

**Single Phase Electronic Energy Meter Counter Type Display**

**Salient Features**
- Range 5-20A, 5-30, 10-40A, 10-60A, CT operated in class 1.0 accuracy as per IS 13779.
- Tamper indications provided.
- Phase available indication provided.
- Anti tamper features.

**Net Meter for Solar Rooftop & Solar Plant Application**

**Salient Features**
- Available in Single Phase & Three Phase Net Metering.
- Range: 5-30A, 10-40A, 10-60A, HT CT / LT CT, ≤5A.
- 4 quadrant meter with pulse output LED’s for kWh & kWh.
- As per IS 13779 & IS 14697.
- Separate readings for Active Energy kWh, kWh Import & Export.
- Net Energy kWh, kWh with sign.
**ABT Meter (Availability Based Tariff)**

**Salient Features**
- As per IS-14697 & IEC 62053 accuracy Class 0.2 and 0.5.
- Four-quadrant metering for export & import.
- DLMS / COSEM open protocol support.
- Up to 8 tariff per day.
- Up to 12 channel of load profile data and block load profile data.
- Multiple communication port such as optical RJ 232 & RS 485 port for remote reading & SCADA application.

**Smart Meter**

**Salient Features**
- Robust and sleek design.
- Variant: Single phase & Three phase.
- Communication: Two way, Open protocol (DLMS), GSM/RF.
- Internal relay for Remote Disconnect/Reconnect.
- Anti tamper and fraud detection.
- Security - Password protected user login and parameter settings.
- Online data downloading through GSM/GPRS communication.

**Prepaid Metering Solutions**

**Salient Features**
- Available in single phase - 330/6A & 10/60A, Three phase 10/60A.
- Conforming as per IS 15884:2010 with Class 1.0 accuracy.
- Suitable for dual source application.
- Transparent system for utility and end consumer.
- No worry of meter reading.
- Automatic Supply disconnection for zero or negative meter balance.
- Optional mobile billing software for bill generation.

**LPR Zigbee Metering Solutions**

**Salient Features**
- Available in Single Phase 5-30A, 10-40A & 10-60A.
- Available in 3 phase 10-40A & 10-60A.
- Energy Meter based on IEEE 802.15.4.
- Automated device address management.
- Each meter aids transfer of data for self as well as neighboring meter.
- Wire less commissioning, network scalability features.

**Long Range Integrated CT Meter**

**Salient Features**
- No need of external CT, meter box and accessories.
- Wide current range, 40-200A.
- Thread-through meter-cable passes through meter.
- Communication options:
  - Optical Port
  - Inbuilt GSM/GPRS modem
- On Demand & Scheduled data transfer.

**Automatic Meter Reading Solution**

**Salient Features**
- High speed, GSM / GPRS connection 9600 bps
- Suitable for remote reading application.
- On demand data transfer.
- Optional SMS facility for configured events.

**Transparent Piifer Proof Meter Box**

**Salient Features**
- Available for single & three phase variant both.
- Variants available in push fit & hinge type.
- Made of UV stabilized transparent & FR grade engineering plastic.
- Extended optical port on top of ease of meter reading through CMRI without opening box.
- Extended push button for scrolling of display parameters.
- Conforming as per IS 14772 & type tested in NABL Lab.
Air Circuit Breaker

**intelliPROTECT**

**Salient Features**
- Range: 630A – 6300A.
- Operational voltage up to 690V & even above - on request.
- Ir<sub>50</sub> 50kA to 120kA at 500Vac.
- Ir<sub>1</sub> = 100% Ir throughout the range.
- Ir<sub>2</sub>: 50kA to 100kA (for 1 sec).
- Customer oriented Trip Relay - with advanced measurement functions & communication functions.
- Tested & certified as per IEC60947-2.

**intelliSMART**

**Salient Features**
- Range 630A – 20000A & Ir<sub>50</sub> 50kA, 3P & 4P, Ir<sub>50</sub> 50kA for 1 sec. at 500Vac. Fixed Type and Draw Out Type.
- LSEG Protection with Microprocessor at variable time delay.
- Digital display of current and voltage parameters.
- Short circuit protection starts from 131%.

Moulded Case Circuit Breaker

**TAB™: Thermal Adjustable Breaker**

**Salient Features**
- Conforms to IEC60947-2.
- Available in 1P, 2P, 3P & 4P versions rated current from 10A–800A & breaking capacity (from 10kA to 65kA).
- Single Pole MCCBs are available from 10A-250A with breaking capacity from 10kA-50kA, 3P MCCBs from 63A-250A are available with thermal adjustable feature.
- 4P version available with neutral fully protected.
- Adjustability-offers close protection to different load condition.
- Line load reversibility, low let through energy.
- Wide range of internal and external accessories.
- ROHS Compliant, also available for DC application.

Motor Duty MCCBs (MD Series)

**Salient Features**
- Available up to 22kW / 30 HP in two frames.
- Breaking capacity - 25kA / 50kA.
- Clear indication of ON, OFF & Trip position.
- Low let through energy.
- For special motor starting conditions (starting time beyond 10 sec & other specific conditions) - please contact us.

Microprocessor MCCB

**Salient Features**
- Rated 25A-400A Breaking capacity 25kA/36kA/50kA/65kA.
- No of Poles 3/4.
- Overload protection ADJUSTABLE in the range 30% to 100% of In with variable time setting.
- Short circuit Protection ADJUSTABLE in the range 400% to 1000% of In with variable time setting.
- Ground Fault Protection ADJUSTABLE in the range 10% to 40% of In with variable time setting.
- Communication Feature available.
- Suitable for DECRIMINATION.
- NO EXTERNAL Power required for the electronic circuit.
- True RMS sensing for precise and RELIABLE protection.

MCCB Distribution Panel

**Salient Features**
- Range: 4, 6, 8, 10 & 12 ways.
- Incoming – Upto 630A, Outgoing – Upto 250A.
- Multifunction Digital Metering - Optional.
- Shrouded bus bar can withstand high fault currents.
- Provision for single Door / Double Door.

MCCB Enclosure

**Salient Features**
- MCCB conforms to IEC60947-2.
- Current ratings from 16A – 800A, 3P & 4P version.
- Low let through energy.
- Breaking Capacity (kA) : 10kA – 65kA (with MCCB).
- Line Load Reversibility.
- Minimum maintenance, User friendly, robust & compact.
- Highly reliable tested solution.

Contactors & O\L Relays

**Thermal Overload Relays**

**Salient Features**
- Differential Bimetallic overload relays from 0.1 to 800A.
- Built in 1NO / 1NC potential free contacts.
- Choice of Contactor or separate Mounting.
- Option of Manual / Auto or Remote Reset.
- Sealable cover to avoid tampering. Trip indicator.
- Class 10A or Class 20.
- Site Mounted add on accessories.
**Motor Protection Circuit Breaker (Motocop)**

**Salient Features**
- Wide range of MCB from 0.1 to 63A.
- 22 Ratings in just 2 frames.
- Rotary Type Operation (Direct & Extended Handle).
- Protection against O/L, S/C & Single Phasing.
- Higher Breaking capacity upto 50A, 480 VAC.
- Electrical / Mechanical Life -1 Million Operations.
- Suitable for Isolation & Type B Co-ordination.
- Ambient Temperature Compensated.
- Site Mounted add on accessories.

**Submersible Pump Correction Pump**

**Salient Features**
- Range: 1HP to 40HP (DOL & Star Delta) in 2 Models.
- Heavy Duty Contactors for longer life.
- Control Voltage - Phase (110 to 230V) or 3 Phase (280 to 440V).
- Short Circuit Protection - MCCB/MCCB (10kA) in Deluxe Model.
- Ammeter & Voltmeter with Selector Switch.
- LED indications for R, Y, B Phases & Pump ON/OFF.

**AV Changeover Switch**

**HPL AV Onload Changeover Switch**

**Salient Features**
- Arc Chute plates to enhance contact life. 100% Neutral.
- Compact body of fiber glass, reinforced polyester resin.
- High Mechanical & Electrical life.
- Total safety with Terminal cover, Source Separator and Phase Barrier as standard feature.
- Mounting possible in both horizontal and vertical position.
- Available in Open Execution and Sheet Steel enclosures.
- Pre wired Auxiliary contacts upto 2NO NC.

**HPL - AV Switch Fuse Changeover**

**Salient Features**
- Arc Chute plates to enhance contact life. 100% Neutral.
- Body of fiber glass reinforced polyester resin.
- Pre wired Auxiliary contacts upto 2NO NC.
- Protection against over current and short circuit faults by fuses of high rupturing capacity of 80kA rms.
- Total safety with Terminal cover, Source Separator and Phase Barrier as standard feature.
- Available in Open Execution / Sheet Steel enclosure.

**HPL - AV On Load Bypass Switch**

**Salient Features**
- Range: 125A - 1600A, 4 Pole, 415 V AC as per IS 13947 Part 3/93.
- Arc Chute plates to enhance contact life. 100% Neutral.
- Switch is designed for specific need in IT industries where UPS and Servo Stabilizer provides main source of supply.
- Pre wired Auxiliary contacts upto 2NO NC.
- Available in Open Execution / Sheet Steel enclosure.
- Total safety with Terminal cover, Source Separator and Phase Barrier as standard feature.

**HPL - AV Cubicle Load Break Switch**

**Salient Features**
- Arc Chute plates to enhance contact life. 100% Neutral.
- Pre wired Auxiliary contacts upto 2NO N.
- Suitable for DC-23A, 260V, application without any derating.
- Available in Open Execution / Sheet Steel enclosure.
- Total safety with Terminal Cover, and Phase Barrier as standard feature.
LBS & SDF

LK - HPL Switch Disconnector Fuse

Salient Features:
- Range: 32A to 400A, TP, TPN, & FP, 415V, 50Hz.
- Conforms to latest IS 13947-3 / IEC 947-3.
- Tested at CPRM Bhopal for AC-23A duty.
- Multiple Roller Contact Mechanism for long life & better performance.
- Available in open execution & sheet steel enclosure.
- Available in BS & DIN type HRC fuse links.
- Excellent performance for capacitor duty applications also.

LK - HPL Load Break Switch (Isolator)

Salient Features:
- Range: 32A-3150 TR, TPN & FP, 415V 50Hz.
- Conforms to IS 13947-3.
- Multiple roller contact mechanism for long life & better performance.
- Available in open execution & sheet steel enclosure.
- Excellent performance for capacitor duty applications also.

Fuse Switches

HRC Fuse Link & Base-BS & DIN Type

Salient Features:
- Range (DIN type - Fuse Link & Base): 6 Amps to 630 Amps.
- Range (BS type - Fuse Link): 2 Amps to 630 Amps.
- Range (BS Type Fuse Holders): 20A to 125A.
- Breaking capacity: 10kA at 415V, AC, 50Hz.
- Front & Busbar Connection options for fuse Holders (of BS type).
- Low Watt Loss.
- Tested at CPRM Bhopal.

HPL - LT Switchgear

Salient Features:
- Range: Rewirable Switch Fuse Unit:
  - Fuse Switch Unit: 16 Amps to 320 Amps
  - Changeover Switches: 63 Amps to 300 Amps
  - HPL Porcelain Fuses: 16 Amps to 2000 Amps
  - HPL Porcelain Fuses: 16 Amps to 320 Amps
- Tested at CPRM Bhopal.
- Conforms to IS/IEC 60947-3 / IS 2086.

Osäfe MCB

Salient Features:
- Range: 0.5Amp - 40Amp in SP, SPN, DP, TR, TPN, FP.
- Specification: IS/IEC 60898-1.
- Rated Voltage: 240/415V AC, 50Hz.
- Contact position indicator red/green & Padlock/Sealing facility.
- Installation and removal of MCB without removing Busbar, as 3 position mounting clip makes it possible.
- Bi-connect termination on both sides & snap-in fixing on accessories.
- Cable termination capacity of wire upto 35sq.mm.
- Can be sealed with leads in the ON or OFF position.

Osäfe Distribution Board

Salient Features:
- Available in SPN and TPN versions.
- Compact and aesthetically designed to meet the requirement of high end customer.
- Intelligently designed to provide the maximum space for wiring of DBs.
- Shrouded Neutral Bar.
- Door Earthing.
- Mounting of MCBs on Height adjustable DIN Channel.
- Available with Cement Guard Protection.

Osäfe RCCB

Salient Features:
- Range: 25-80Amp, 2 Pole & 4 Pole Version.
- Sensitivity: 30mA, 100mA, 300mA.
- Conforms to RCCF: 61008 & IS:12640.
- Dedicated earth leakage protection.
- Voltage Rating: 240/415V (AC), 50Hz.
- Protection against Electrostatic, Short Circuit & Electrical fire.
- Consistent performance, Compact & Space saving.
- Auxiliary Switch optional.

Osäfe RCBO

Salient Features:
- Range 8Amp-63Amp, 240/415V AC.
- Available in SP+N (2 Mod), 2P+N Mod, 4P+N Mod.
- Rated Residual Current 30mA, 100mA, 300mA.
- Rated Short Circuit Capacity 10kA.
- Rated Add on type in DP & FP.
Techno MCB

Salient Features:
- Range: 0.5 to 63 Amps, 240/415V, AC.
- Available in SP, SPN, DP, TP, TPN & FP.
- Breaking capacity: 10kA.
- Insulation voltage: 600V, frequency: 50/60Hz.
- Finger Touch Proof (IP20).
- Mid Trip Technology.
- Protection against Short Circuit & Over Load.
- Low let through energy & low watt loss.
- Energy limit class 3.
- Trip-free mechanism.
- Available in B, C & D Curve.
- Accessories: 4A, Shunt trip, Auxiliary contact.
- DC MCB available in SP & DP.
- DC MCB voltage: 12V to 220V.

Techno Isolator

Salient Features:
- Range: 40, 63, 80, 100 & 125 Amps.
- Conforms to IS/IEC 60947-3.
- Finger Touch Proof (IP20).

Techno RCCB

Salient Features:
- Range: 25-400Amp, 2 Pole & 4 Pole Version.
- Sensitivity: 30mA, 100mA, 300mA.
- Conforms to IEC / EN: 61008-615:12640.
- Dedicated earth leakage protection.
- Voltage Rating: 240/415V (AC), 50Hz.
- Protection against Electrocution, Short Circuit & Electrical fire.
- Consistent performance, Compact & Space saving
- Auxiliary Switch optional.

Techno MCB Changeover Switch

Salient Features:
- Range: 25A, 40A & 63A.
- Conforms to IS/IEC 60947-3.
- Choice of 2 Pole & 4 Pole versions.
- Voltage Rating: 240/415V (AC), 50Hz.
- Front Operation with three stable positions I-O-II.
- Isolation at middle position.
- DIN Rail Mounting.

Automatic Changeover with Current Limiter (ACCL) Single Phase

Salient Features:
- Range: 0.60Amp - 100Amp in SPN.
- Specification: IEC - 60947-6-1.
- Rated Voltage: 240V AC, 50Hz.
- Microcontroller based DIN rail mountable with neutral Isolation.
- Inbuilt SMPS for lower power consumption.
- Operational status indication through LED.
- Automatic generator on/off facility.
- Built-in time delay for failsafe changeover.

Automatic Changeover with Current Limiter (ACCL) Three Phase

Salient Features:
- Range: 25A, 40A & 63A.
- Voltage: 415V AC.
- Electronic & Mechanical Interlock for safe changeover.
- Built-in time delay for failsafe changeover.
- Overload tripping in DG supply.
- Wide Voltage operation: (140 to 280) volts.
- Reliable microcontroller based design for sensing & control.

Rakshak MCB

Salient Features:
- Range: 6 to 63A.
- Available in SP, SPN, DP, TP, TPN & FP.
- ISI marked & conforms to IS 60948-1.
- Protection against Short Circuit & Over Load.
- Finger Touch Proof (IP20).
- Available B & C curve.
- Breaking Capacity: 4kA.
- Voltage Rating: 240/415V.
- Low watt loss hence energy saving.
- Low let through energy.

Rakshak Isolator

Salient Features:
- Range: 40 & 63 Amps.
- Conforms to IS 13947-3.
- Finger Touch Proof (IP20).
**Distribution Systems Single Door**

**Salient Features**
- User friendly, Aesthetically designed available in EX series Distribution Systems in 4 ways to 16 ways.
- SPN & TPN Versions.
- Fitted with DIN channel, Bus Bar, Neutral Link Bar, Earth Bar.
- Interconnecting cables with copper thimbles.
- Can be mounted on surface / flush.

**Distribution System Double Door**

**Salient Features**
- User friendly, Aesthetically designed available in DX series Distribution Systems in 4 ways to 16 ways.
- SPN & TPN Versions in Single / Double Door.
- DBs available with cement guard.
- Bus Bar rating up to 200Amp of lapped copper, fully insulated.
- Fitted with DIN channel, Bus Bar, Neutral Link Bar, Earth Bar.
- Inter connecting cables with copper thimbles.
- Complete range of DBs with Double punched knockout to facilitate different size cable glands.
- TPN DBs fitted with detachable gland plates.
- Double Door DBs in Surface / flush mounted design.
- Special DBs for projects also available.

**Vertical Distribution Systems**

**Salient Features**
- Aesthetically designed, good looking & superior DBs with latest style.
- Fitted with Bus Bar, Shunting Links, Neutral Bar & Earth Bar.
- Compact design having complete shrouding all over the inter connecting links.
- Provision of ELCB along with TPN/TP Isolator as incoomer.
- Suitable to use as SP/DP/TP/TPN outgoing.
- Available with MCCB as incoomer.

**Phase Selector Distribution Systems**

**Salient Features**
- Compact distribution system.
- Convenient mounting and operation.
- Flexibility to use MCBs and RCCB / RCBO.
- Fitted with DIN channel Bus Bar Neutral Link Bar 3 Nos.
- Phase changeover switches duly wired (except for MCBs and RCCBs).

**Pre-wired Distribution Board**

**Salient Features**
- DBs pre-wired with FR / FRLS wire.
- Available SPN & TPN Versions.
- Fitted with bus bar terminal block for incoming/outgoing phase.
- Neutral & earth terminal pre-wired.
- Provision of MCB / Isolator / RCBO as incoming.
- Single phase unit.
- Available in 1.6mm & 1.2mm sheet steel thickness.

**Consumer Unit - Double Door**

**Salient Features**
- Aesthetically designed Single phase distribution systems.
- Painted with the latest powder coating technology for lasting lasting surface finish.
- Available with transparent plastic cover.

**Plug & Socket Distribution Systems**

**Salient Features**
- Range : SP-10-20A
  - TP-20-30A
- Provision for SP / SPN / DP / TP MCB.
- CRCA powder coated DB.
- Elegant Surface / flush Mounting Design.
**Trade Lighting**

**Decor Ball**

**Salient Features**
- B22 & E27 base.
- Available in Color Red, Green, Yellow, Blue & Frosted.
- Range in 0.5W/1W in Ball.
- Ideal for general lighting.
- flicker free, Instant Start.
- Life upto 25000 burning hours.

**LED GLO 3W, 5W, 7W & 9W**

**Salient Features**
- High efficiency LEDs for optimum light output and savings in power.
- Aesthetically designed heat sinks with specially designed fins.
- High quality diffuser for glare free distribution.
- Drivers with on board circuit protection.
- Highly efficient metal core PCB.

**LED GLO 12W, 15W, 18W & 20W**

**Salient Features**
- SMD LED's for good quality illumination and longer life.
- Casted Aluminium heat sinks with specially designed fins.
- High quality diffuser for glare free distribution.
- Constant current drivers.
- Highly efficient metal core PCB.

**LED GLO 30W, 40W & 50W**

**Salient Features**
- SMD LED's for good quality illumination and longer life.
- Casted Aluminium heat sinks with specially designed fins.
- High quality diffuser for glare free distribution.
- Constant current drivers.
- Highly efficient metal core PCB.

---

**Trade Lighting**

**Bright - 5W, 10W & 20W**

**Salient Features**
- Engineered & designed Linear sleek Aesthetic PVC housing.
- High efficiency LEDs for optimum light output and savings in power.
- High quality PC cover for LED linear lamp ensures soft and glare free lighting.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over 100 Lm/W.

**Phoenix Plus - 6W, 12W & 24W**

**Salient Features**
- Engineered & designed Linear sleek Aesthetic PVC housing.
- High efficiency LEDs for optimum light output and savings in power.
- High quality PC cover for LED linear lamp ensures soft and glare free lighting.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over 100 Lm/W.

**Lumino**

**Salient Features**
- Solid state high brightness SMD LED's for good quality illumination and longer life.
- Excellent heat dissipation through high purity, high thermal conductivity heat sink.
- Special reflector system with high efficiency Translucence diffuser.
- Wide beam angle of 120° with efficacy over 80 Lm/W.

**Spark LED Panel (2 in 1)**

**Salient Features**
- Available in 3W, 6W, 9W, 12W, 15W, 18W & 22W.
- Available in Square & Round with Frame for Surface
- Color Temperature 4500K/4000K/3500K.
- Back Light & Slim frame with Integrated driver.
- Highly Efficient Constant Current LED Drivers.
Trade Lighting

**Phoenix Supreme**

**Salient Features**
- High efficiency LEDs for optimum light output and savings in power.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Replacement of 40W/60W Tube Light.
- Sleek & Compact Metal Batten for maximum light spread.

**LEVIS LED Surface Panel**

**Salient Features**
- Mercury Free
- Glare free and uniform distribution
- Isolated High Efficiency LED Driver
- Surface Mounted
- Brighter Light
- High Efficiency

**Lumino Plus**

**Salient Features**
- Engineered & designed Linear sleek Aesthetic Pvc housing
- High efficiency Led’s for optimum light output and savings in power.
- Recess Mounted, Compact Vertical.
- Suitable for low ceiling heights.

**Glitz**

**Salient Features**
- Optic through designed lens offering medium beam distribution.
- Well designed housing including Aluminum heat sink.
- Separate replaceable electronic driver.
- Wide operating voltage range from 100 V-285 V.

Trade Lighting

**Bulk Head**

**Salient Features**
- Available in 10W.
- Made of metal housing.
- Glare free in white color housing.
- IP-65.

**Filament Lamp**

**Salient Features**
- Available in 2W & 12W.
- New LED Filament technology.
- 360 (Omni) directional light.
- Direct retrofit solution to replace existing CFL.
- More than 90% energy saving Vs incandescent lamp.
- Wide operational voltage range.
- Surge protected.

**ARC Lamp**

**Salient Features**
- Available in 3W & 50W.
- Glare free light illumination.
- Wide View angle.
- Classic look.
- Direct retrofit solution to replace existing CFL.
- More than 90% energy saving solution Vs incandescent lamp.
- Surge protected.

**LED PLL Lamp 9W / 18W**

**Salient Features**
- Available in 9W & 18W.
- Replacement of T8/ T5 glass fittings.
- High efficiency LED’s for optimum light output and savings in power.
- High quality PC Diffuser for LED linear lamp ensures soft and glare free lighting.
- Specially designed PC body for excellent heat dissipation.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over 80 Lm/W.
Trade Lighting

Regular Retrofit (T4)

**Salient Features**
- Compact lamp with inbuilt electronic control gear.
- Single ended with B22d & E27 bases.
- Available in colours 6500, 4000 & 2700K.
- Ideal replacement for normal GLS Bulb.
- Flicker-free instant start.
- Six times more life than the normal GLS bulb.
- High luminous efficacy and excellent colour rendering.

Spiral Retrofit (T4)

**Salient Features**
- Compact lamp with inbuilt electronic control gear.
- Excellent light distribution.
- Single ended with B22d & E27 bases.
- Available in colours 6500, 4000 & 2700K.
- Ideal replacement for normal GLS Bulb.
- Flicker-free instant start.
- Six times more life than the normal GLS bulb.
- High luminous efficacy and excellent colour rendering.

Higher Wattage Regular/Spiral Retrofit (T5)

**Salient Features**
- High Power Factor > 0.9.
- Compact lamp with inbuilt electronic control gear.
- Single ended four tube, with B22d, E27 & E40 bases.
- Available in colours 6500, 4000 & 2700K.
- Range in 45W, 65W & 85W in both 4U & Spiral.
- Flicker-free instant start.
- Six times more life than the normal GLS bulb.
- High luminous efficacy and excellent colour rendering.

LED Panel Lighting

**Salient Features**
- Solid state high brightness SMD LEDs for good quality illumination and longer life.
- Backlit illumination technology.
- Excellent heat dissipation through high purity, high thermal conductivity heat sinks.
- Special reflector system with high efficiency Translucent diffuser.
- On board short circuit and surge protections for reliable electrical system.
- Wide beam angle of 120° with efficacy over 90 lm/W.
- Size: 1x1; 2x2; 1x2; 1x4.
- Wattage: 18W; 30W & 36W.

Jonex Plus (Surface Type)

**Salient Features**
- Range: 4W/12W/15W & 18W.
- Flat profile with wide-angle diffuser.
- Housing made up of high heating conductive pure aluminum material.
- Available in all color temperatures: 6500 K/4000 K/2700 K.
- Highly efficient constant current drivers with additional protections.
- Instant light with low running temperatures.
- Surface mounting application.

Sleek Plus (Recessed Type)

**Salient Features**
- Range: 3W/6W/12W/15W & 18W.
- Solid state high brightness SMD LEDs for good quality illumination and longer life.
- Backlit illumination technology.
- Excellent heat dissipation through high purity, high thermal conductivity heat sink.
- Special reflector system with high efficiency Translucent diffuser.
- On board short circuit and surge protections for reliable electrical system.
- Wide beam angle of 120° with efficacy over 90 lm/W.

Canopy Light

**Salient Features**
- Replacement of conventional luminaries with low wattage canopy luminaries helps.
- Designed with secondary lenses for uniform distribution.
- Specially designed aluminum housing for excellent heat dissipation.
- Ensures IP65 Protection.
- Aesthetically designed gas kit for better heat dissipation and protection support.
**Trios**

**Salient Features**
- Housing made of CRCRA Die formed housing, UV and corrosion resistance with durable, anti-fading and anti-scratch Electrostatic.
- Thermo-painting finish in Architectural White black grey etc.
- High transmittance PC diffuser specially designed for LED light source creating smooth and uniform lighting distributions.
- Comfort for all lighting applications.
- Fixed direct distribution only advanced thermal management technology to ensure consistency of LED life span.

**Linear Suspended**

**Salient Features**
- Grade Ceiling suspended mount linear LED Luminaries.
- Housing made of high pressure extruded aluminum construction, Die-cast aluminum end caps with no visible screws.
- UV and Corrosion resistance with durable anti-fading and available with different color body finish.
- Lighting distribution with Germany imported high transmittance PMMA diffuser.
- Best solutions for work station & office lighting.

**Rays**

**Salient Features**
- Housing made of CRCRA Die formed housing, UV and corrosion resistance with durable, anti-fading and anti-scratch Electrostatic.
- Thermo-painting finish in Architectural White black grey etc.
- High transmittance PC diffuser specially designed for LED light source creating smooth and uniform lighting distributions.
- Comfort for all lighting applications.
- Fixed direct distribution only advanced thermal management technology to ensure consistency of LED life span.
- Available in Suspended & Surface.

**Polo**

**Salient Features**
- Housing made of CRCRA Die formed housing, UV and corrosion resistance with durable, anti-fading and anti-scratch Electrostatic.
- Thermo-painting finish in Architectural White black grey etc.
- High transmittance PC diffuser specially designed for LED light source creating smooth and uniform lighting distributions.
- Comfort for all lighting applications.
- Fixed direct distribution only advanced thermal management technology to ensure consistency of LED life span.

**Industrial Luminaries**

**LED Strom PC**

**Salient Features**
- Available in Single Tube & Double Tube option.
- Made up of corrosion resistant unbreakable poly carbonate body.
- High quality PC cover for LED linear lamp ensures soft and glare free lighting.
- Weather Proof IP-65.
- Suitable for Industrial Purpose.
- Surface & Suspended mounting.

**Neptune Plus**

**Salient Features**
- Available in 5W / 10W / 20W.
- Replacement of T-8/T-9 fittings.
- High efficiency LEDs for optimum light output and savings in power.
- High quality PC diffuser for LED linear lamp ensures soft and glare free lighting.
- Specially designed aluminum housing for excellent Heat dissipation.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over 100 Lm/W.

**Well Glass IP-65**

**Salient Features**
- Range: 30W, 40W & 70W.
- Integral radial fins on housing for effective heat dissipation.
- High power, high efficiency LED chip.
- White powder coated internal reflector.
- Thermally isolated driver and optical compartment.
- Specially designed for IP65 protection.
- Loop in Loop out facility.

**LED Highbay**

**Salient Features**
- Range: 70W/90W/100W/120W/150W/180W, 200W & 200W.
- Highly efficient heat sink designed to ensure prolong the life span of the LED.
- Effortlessly designed, constant current driver with wide range input voltage 140V to 285V.
- Significantly lower running cost as compared to conventional fixtures.
- Available with toughened glass.
- IP-65.
### Outdoor Lighting

#### LED Street Light

**Salient Features**
- Available wattages: 15W to 30W.
- LED efficacy: > 130 lumens / watt.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection up to 300V / surge protection up to 6kV.

#### LED Flood Light

**Salient Features**
- Available wattages: 30W to 150W.
- LED efficacy: > 130 lumens / watt.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection up to 300V / surge protection up to 6kV.

#### Decorative Street Light

**Salient Features**
- Available wattages: 40W, 80W & 120W.
- LED efficacy: > 130 lumens / watt.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special feature: Reverse EMI protection provided / over voltage protection up to 300V / surge protection up to 6kV.

#### LED Post Top

**Salient Features**
- Available wattages: 40 to 80W.
- Pressure Die cast Aluminium.
- Conforms IP 65.
- Applications: Parks, Airport, VIP Roads etc.

#### LED Post Top Lanterns

**Salient Features**
- Available wattages: 9W to 40W.
- LED Options: LED lamp / Discrete Versions.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 75.
- Conforms LM 79.
- Application: Gardens, Pathways, Societies etc.

#### LED Bollard

**Salient Features**
- Available wattages: 5W to 12W.
- LED Options: LED lamp.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 75.
- Conforms LM 79.
- Application: Gardens, Societies, Petrol Stations, Malls, Driveways etc.

#### CCMS

**Salient Features**
- User Friendly.
- Single Point Control System Fully Programmable.
- Periodic Data Download at Preset Intervals.
- Controlling & Monitoring In Groups as Well as Up To Individual Light Point.
- Programmable Automatic Real Time Operation Of Street Lights With Sunset & Sunrise Time.
- Dimming At Off Peak Hours possible.

#### LED Ground Burials & Spike Lights

**Salient Features**
- Available wattages: 3W to 15W (12W for Spike).
- LED efficacy: upto 130W.
- Lamp life: 50,000 burning hours with L70 criteria.
- CRI > 75.
- Conforms IP 65 (IP66 available on request).
- Application: Driveways, Facade Lighting, Ambient Lighting etc.
Metal Halide Lamps

MHL lamps are available in Double Ended & Single Ended versions. Double ended lamps are available in 70w & 150w. Single Ended lamps are available in Elliptical (ranging from 70w to 400w) & Tubular version (ranging from 35w to 400w). These lamps offer efficacy up to 80-85 lumens / watt.

G12 Single Ended, 35, 70, 150W

Salient Features
- UV Shield
- Longer Life
- Precise optical control

Better Colour Rendering

Double Ended, 70, 150W

Salient Features
- UV Shield
- Longer Life
- Precise optical control

Better Colour Rendering
- Re-strike

Better Colour Rendering
- Higher Efficiency

Single Ended-Elliptical, 70, 150, 250, 400W

Salient Features
- UV Shield
- Better Cold Starting
- Faster Warmup & Hot

Better Colour Rendering
- Superior Lumen Maintenance
- Re-strike

Single Ended-Tubular, 70, 150, 250, 400W

Salient Features
- UV Shield
- Better Cold Starting
- Faster Warmup & Hot

Better Colour Rendering
- Superior Lumen Maintenance
- Re-strike

Accessories

Salient Features

- Electromagnetic Ballast (Copper wound open construction balast)
- VMT Magnetic Ballast are available for Compact Fluorescent Lamps (CFL) ranging from 9W to 36W Fluorescent Tubular Lamp (FTL) ranging from 18W to 40W High pressure Sodium vapor lamp/ Metal Halide Lamp range from 70W to 400W.
- Electronic Ballast are available for CFL ranging from 9W to 36W & FTL ranging from 18W to 36W.

Domestic & Industrial Wire

Salient Features

- Range: 0.5 to 400 Sq. mm in Single Core & Multicore.
- UV Shield
- Longer Life
- Precise optical control

Better Colour Rendering
- Re-strike

Qc.k cpqj jc A` jc

Salient Features

Qc.k cpqj jc A` jc

Kspgmpoc qcvj A` qncpsG872-0.1

Salient Features

- Range: 2x2 to 0.5 sq. mm in 25x2.5 sq. mm and 4 core up to 95 sq. mm flexible cable
- Available in FR/FR-LSH / HR/ ZHR/ Insulation and sheathed cable, and compatible for -15°C to 70°C and -20°C to 85°C
- Twisted core with suitable lay for proper round shaped cable
- Equal and uniform concentricity of insulation and sheath for better BI and UV value.

Anti rmp A` jc

Salient Features

Anti rmp A` jc
**Telephone Cable**

**Salient Features**
- Range: 0.60 & 0.50mm dia conductors available up to 50 pairs.
- Solid / Stranded Bare annealed copper conductor.
- PVC / PE Insulated.
- Individual / Overall Shielded with Aluminium tape (Polyester backed) / Melinex Tape / Wire Braiding / Aluminium foil taping.
- Low cross talk, Low attenuation, High speed transmission.

**Networking Data Cable (CAT - 5e & 6)**

**Salient Features**
- Range: 4Pair UTP CAT-5e and CAT-6 Cable.
- Solid 100% pure annealed Electrolytic grade copper conductor.
- Low attenuation and cross talk.
- Low structural return loss.
- Frequency 100MHz for CAT-5e cable and 250MHz for CAT-6 Cable.
- Gigabit Ethernet.
- Suitable for Voice, Data, Video.
- 100 ohm Impedance cable.

**Instrumentation Cable**

**Salient Features**
- Range: 0.5 Sq. mm to 2.5 Sq. mm Conforming BS 5308 Part 1 & 2.
- Shielding: Core/Pair/Triad/Quads.
- ABC/AAC/Al, Standard 100% pure annealed Electrolytic grade copper conductor.
- Armoured / Unarmoured - GI Round wire / Flat Strip.
- Low attenuation and cross talk.
- For Analog & Digital Signals.
- Low structural return loss.
- Use in Digital Control, measuring & Communication systems.

**Co-axial Cable / CCS**

**Salient Features**
- Range: RG-59, RG-6, RG-11
- Solid bare annealed electrolytic grade copper.
- PE foam.
- Aluminum Alloy Braiding / Aluminum Foiling / Taping.
- Specially formulated FR PVC.
- Low attenuation, High band width Moisture proof, low loss signal Quality.

**CCTV Cables**

**Salient Features**
- Range: 3 x 1 CCTV and 6 x 1 CCTV Cable.
- Coaxial Cable consists of solid annealed bare copper conductor.
- PE Insulated with Nylon foam dielectric aluminum foil taped, jiffy folded, braided with aluminum alloy / copper and FR PVC sheathed cable.
- Low loss characteristics reduced attenuation of the video signal.

**DC Solar Cable**

**Salient Features**
- Range: Single core 2.5, 4, 6, 10, 16, 35, 50, 70 & 95mm.
- Flexible stranded annealed electrolytic grade copper conductor.
- Specially formulated cross linked Polyolefin compound Insulated and low smoke zero halogen sheathed with UV and ozone resistant.
- Latest requirement for PV system as per EN 50618.

**Flat Elevator Cables**

**Salient Features**
- Range: 0.5 to 1.5 Sq. mm for up to 12 core.
- Flexible bare annealed electrolytic grade copper.
- PVC insulated & PVC sheathed.
- Specially formulated PVC.

**Fire Survival Cables**

**Salient Features**
- Range: 0.5 Sq. mm to 2.5 Sq. mm Conforming BS: 7846 600/1000 Volts.
- Shielding: Core/Pair/Triad/Quads with Mica/glass fire barrier tape.
- ABC/AAC/Al, Standard 100% pure annealed Electrolytic grade copper conductor.
- Armoured / Unarmoured - GI Round wire / Flat Strip.
- Operating Temperature -10°C to +90°C.
- Fire Tests BS6387 CWZ, BS 8491, IEC 60331-2.
**Smart Modular Switch**
6A/10A/20A/32A, DP switch

**Salient Features**
- ROHS Compliance.
- Captive Screws.
- Dual Protection for spark shield.
- High Grade Flame Retardant Engineering Plastic (Polycarbonate).
- Silver Nickel contacts for trouble free operations.

**AC Box 3M & 4M (Smart Range)**

**Salient Features**

<table>
<thead>
<tr>
<th>AC Box 3M</th>
<th>AC Box 4M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection for short circuit and overload.</td>
<td>Protection for short circuit and overload.</td>
</tr>
<tr>
<td>MCB : 20 Amp</td>
<td>MCB : 20 Amp</td>
</tr>
<tr>
<td>Socket : 20 Amp</td>
<td>Socket : 20 Amp</td>
</tr>
<tr>
<td>Top : 20 Amp</td>
<td>Top : 20 Amp</td>
</tr>
<tr>
<td>Plate : 3 Module</td>
<td>Plate : 4 Module</td>
</tr>
<tr>
<td>Box : 3 Module</td>
<td>Box : 3 Module</td>
</tr>
</tbody>
</table>

**USB Wall Charger (Smart Range)**

**Salient Features**
- Size : 2 modules, U8 - Stabilized.
- Voltage (V) DC - 5V.
- Material : Polycarbonate (FR).
- Product is fitted in robust designed assembly plates snug fit on the wall.
- Dust free glossy finish.

**Elmo Switch**

**Salient Features**
- Complies with B 3854/1997.
- Tested up to 1 lakh operations.
- Silver Alloy Contact.
- Shrouded terminals.
- Front loading & removing.
- High Grade Flame Retardant Engineering Plastic (Polycarbonate).

**Tuff (Solo Switch)**

**Salient Features**
- High Grade Flame Retardant Engineering Plastic (Polycarbonate).
- Tested up to 2 lakh operations.
- 10 Years Warranty.

**Smarters Accessories**

**Spike Guard**

**Salient Features**
- Universal sockets.
- Length of cable 1.6-1.8 Mtr.
- Surge protection in built.
- Overload protection in built with resetting switch.
- Metal Oxide Varistor (MOV) used as safeguard against surge & spikes.
- Material in use - FR ABS plastic.
- Connector swivel 3600.

**Extension Cord**

**Salient Features**
- Equipped with universal socket & 2 pin sockets.
- Rated current - 6A.
- Rated Voltage - 240V AC, 2.4kW.
- PVC insulated wire 4mts. in length.
- Engineering plastic material for high impact & chemical resistance.
- Material in use - FR ABS plastic.

**Remote Bells**

**Salient Features**
- Plug in type / battery operated wireless bell with volume adjustment.
- 32-48 polyphonic sounds to choose.
- Transmitter with IP44 protection.
- Volume setting in the receiver.
- Operating range up to 80-260mtr. in open area.
- Auto learning code.
- Available in different colours in specific models.
- Rated voltage 110V-220V AC (Plug in type).
- Volume 50-80dB.

**Batten / Angel Holder**

**Salient Features**
- Rated current - 2A.
- Rated Voltage - 250V AC.
- Ducts provided on outer surface for heat dissipation.
- SS Spring provided for better flexibility & easy locking for bulb, CFL & LED Bulb.
- Highly conductive brass terminals.
- Material FR poly carbonate UV stabilized.
Plug Tops 6A/16A

**Salient Features**
- Rated Current 6A/16A.
- Rated Voltage 240V AC.
- 100% shock proof.
- Highly conductive nickel plated contacts.
- Materials FR poly carbonate UV stabilized.

International Travel Adaptor

**Salient Features**
- Rated Current 6A.
- Rated Voltage 110V-240V AC.
- Materials engineering plastic for high impact and chemical resistant.
- Compatible to countries like Australia, China, USA, Europe & UK etc.
- Equipped with universal & USB sockets.

Multi Plugs

**Salient Features**
- Equipped with universal socket & 2 pin sockets.
- Universal multi socket for different types of plugs used around the world.
- Rated current-10A.
- Rated Voltage 240V AC.
- Nickel plated brass contacts for better conductivity.
- Available in 4 different transparent colours: Purple, Blue, Green & Orange.
- Materials FR poly carbonate UV stabilized.

Video Door Phone

**7” Wifi Enable Video Door Phone with Recording**

**Model No.:** TK-V8+TK-X2

**Salient Features**
- 2.4 GHz digital frequency hopping and encryption technology, transmission distance up to 200 meters in free field.
- 7” Hands free color TFT Screen.
- Two Way Communication.
- Choose from 16 different ring tones.
- Catch the visitor’s photo and video automatically, with recording function.
- In-built - RGB, Expandable upto 32 GB.
- Records Playback with Time and date.
- Advanced Night Vision Camera.
- Unlocks the electric lock on recognizing the visitor.
- Expandable up to 4 cameras.

**7” Video Door Phone**

**Model No.:** TK-790DV+TK-818C

**Salient Features**
- 7” Hands free color TFT Screen.
- Touch button.
- Choose from 16 different ring tones.
- Catch the visitor’s photo and video automatically, with memory function.
- Records Playback with time and date.
- Two Way Communication.
- Advanced Night Vision Camera.
- Unlocks the electric lock on recognizing the visitor.
- Expandable up to 3 cameras and 5 monitors.
- Vandal Proof Metal Cover.

**5” Video Door Phone with Recording**

**Model No.:** TK-520C+TK-816C

**Salient Features**
- 5” Colour TFT Screen Handfree with inside adaptor.
- Sleek Look.
- Enables Two way Communication.
- Unlocks the electric lock on recognizing the visitor.
- Choose from 16 different Ring tones.
- Advanced Night Vision Camera.
- Expandable upto 3 cameras and 5 monitors.
- Vandal Proof Metal Cover.

Gas Detector

**Salient Features**
- LPG & CNG gas alarm.
- Semi conductor sensor heads used for accurate flammable gas detection.
- Ideally suitable for Resident, Restaurants, Hotels, etc.
- Test button verify alarm operation any time.
- Loud alarm signal more than 80DB at 10 ft.
Solar Array Junction Box (AJB)

**Salient Features**
- Array Junction Box is meant for combining all the incoming lines from the solar panel strings/arrays and delivering one common string/array output for the multiple array inputs.
- HPL array junction boxes are insulated according to the requirements of IEC 61439-1 as mandate by MNRE and tested up to an operating voltage of 1000V DC.
- The enclosure is made of high-quality poly-carbonate with IP-65 degree of protection.
- Blocks the reverse flow of current from battery to solar panels.
- Obstructs sudden surges due to lightning strokes during cloudy and rainy conditions and ground the surges immediately.

Solar Main Junction Box (MJB)

**Salient Features**
- Main Junction Box is used to combine output from several Array Junction Boxes and connect it to DC Distribution Box or to Power Conditioning Unit / Solar Inverter.
- HPL Main Junction Boxes are fully insulated according to the requirements of IEC 61439-1 as mandate by MNRE and tested up to an operating voltage of 1000V DC.
- Obstructs sudden surges due to lightning strokes during cloudy and rainy conditions and ground the surges immediately.

Solar DC Distribution Box (DCDB)

**Salient Features**
- The DC distribution unit is used to collect the DC output from Array Junction Box (AJB) and supply it to the inverter.
- In each section of our DC Distribution Box there is MCB/MCCB and a fuse of proper rating depending upon the capacity of the power plant and the battery bank are used.
- All of HPL-DC Distribution boxes is tested/certified as per IEC/IS standard.
- Every terminal is secured and weatherproof for outdoor applications also, highly secure binding, besides being insulated with PG Cable Gland or built-in MC4 terminal connector on demand.

Solar AC Distribution Box (ACDB)

**Salient Features**
- The ACDB receives AC power from solar inverter and directs it to AC loads.
- A provision can also be made in ACDB to monitor the consumption of power from SPV Power Plant.
- Our ACDBs are designed to deliver high performance and added protection by isolating inverter from mains as and when required.
- All of HPL-AC Distribution boxes are tested/certified as per IEC/IS standard.
- Every terminal is secured and weatherproof even for outdoor applications also, highly secure binding, besides being insulated with PG Cable Gland or built-in MC4 terminal connector on demand.

Solar NET Meter (Import/Export Meter)

**Salient Features**
- Single Metering unit for Bi-directional Energy Measurement with Separate Energy Registration for Import & Export.
- Net Energy calculation for Power credits.
- Designed & Developed, as per IB 13779, IB 14697.
- Open Communication Protocol - DLMS as per IS 15959.
- AMR compatible unit for local and remote communication.
- Internal Battery Back up to Display Meter Data in power off event.
- History of energy consumption billing months.
- TDD wise, Daily & block load survey for profile Data availability.
- Data downloaded through optical Port & RJ 232 port.

Solar Cable

**Salient Features**
- UV resistance: full protection against ultraviolet rays.
- Outdoor durability: resists extreme temperatures (-40°C to 120°C maximum at the core) and ozone resistant.
- Halogen-free: Low Smoke Emission & Low Toxicity/Corrosively during fire.
- Lifetime reliability: lasts up to 30 years even under tough external conditions.

Solar LED Bulb

**Salient Features**
- High efficiency LEDs for optimum light output and savings in power.
- Aesthetically designed heat sinks with specially designed fins.
- High quality diffuser for glare free distribution.
- Drivers with on-board circuit protections.
- Highly efficient metal core PCB.

Solar Batten

**Salient Features**
- Engineered & designed Linear sleek Aesthetic PVC housing.
- High efficiency LED’s for optimum light output and savings in power.
- High quality PC cover for LED linear lamp ensures soft and glare free lighting.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over >95 Lm/ W.

Solar LED Street Light

**Salient Features**
- High efficient Luminary with Inbuilt charge controller.
- Separate LED’s indication of battery charging & discharging.
- Over voltage under voltage and short circuit protection.
- Lamp life - 50,000 burning hrs. with L 70 criteria.
- Microprocessor managed algorithms autonomously determine sunrise & sunset.