About HPL

HPL's vision of creating a niche, as a major player in India Electrical Industry with commitment to state-of-the-art technology & world class products.

HPL Group possess 6 most modern manufacturing units, ISO 9001 : 2000; ISO 14001; OHSAS 18001 certified located at Gurgaon, Kundli, Sonipat, Panipat, New Delhi and Himachal Pradesh having 5,00,000 sq. feet covered area to manufacture products confirming to International and India standards.

HPL Products Profile has the following Strategic Business Units:

• LV Switchgears
• LV Protection Devices
• Metering and Energy Management Systems
• LED Lighting
• Luminaires
• Wire & Cables
• Electrical Wiring Accessories
• Solar

HPL Products are tested at CPRI, ERDA, ERTL, NPL etc. according to Indian Standards, whereas MCB’s Rewireable Switches & Electronic Energy Meters carry ISI marking. Further HPL products have approvals from CPWD state PWD’s, MES, BSNL & many more Institutional users.

HPL Group with Head Office at New Delhi has extensive Sales & Marketing Network of 90 Branch offices & Representative Offices, over 2000+ Authorised Dealers and 27000+ Retailers across country, who are committed to provide solutions and services to customer’s delight.

HPL is also exporting its products to Middle East, SAARC and European Countries.

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emfs - Digital Multi-Function Meter

Salient Features
- ±0.1% in class 0.5 & 1.0 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, & Instantaneous Energy.
- 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).

emfs HT - Digital Multi-Function Meter

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

emfs - vif Digital Multi-Function Meter

Salient Features
- ±0.1% 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.

emfs - vie Digital Multi-Function Meter

Salient Features
- Three line backlit LCD display.
- Optically isolated Energy Pulse Output.
- RS485 MODBUS Communication.
- Provision for Special Screens Shots.
- CT secondary ±1% for ±5A (also selectable).
- Additional Parameters: Power On Hour/Run Hours.

emfs - vifp Digital Multi-Function Meter

Salient Features
- ±0.1% in accuracy class 1.0.
- Suitable for 3 Phase 4 Wire LT 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 kW, Reactive Power kVAR, Apparent Power kVA, Instantaneous and Total Power Factor, Frequency.
- RS485 Communication (Optional).

emfs - Plus Digital Multi-Function Meter

Salient Features
- Suitable for 3 Phase 4 Wire LT Network.
- Three line LCD backlit display.
- Displays: Voltage, Current, Power Factor, Power, Transformer Energy & THD.
- Last 9 month history parameters for kWh, kVAR, kVARh (lag & lead), MD kW, kVA through Communication.
- Relay Output for L1, L2, L3 Total, Total Extra, 5, 4, 3, 2, and 1 Amp.
- Last 30 days Load Survey through communication.
- Last 100 events / 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 Display (16 x 2) with Decode Text.
- 6 Months History for kWh, 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, kWh, kVAR, kVARh, PF, Active Energy for Mains, Generator and Total, MD in kW and kVAR for Mains and Generator separately with date and time, Run Hours, Power on Hours.
- Relay outputs for V, I, kW, kVAR, F, kW Demand, kVAR 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 (CT2E)

Salient Features
- CT Operated, /5A 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 Counter Display (CT2M)

Salient Features
- CT Operated, /5A in class 1.0 accuracy.
- Available upto 10000A (For direct reading). (Ref. Catalogue for available CT Ratio).
- No separate Auxiliary supply required.
- Low Power Consumption less than 1 watt per phase.
- Pulse Output.
- Anti tamper features.

ébrít : Single & Three Phase Ammeter

Salient Features
- Push button based site programming of CT Ratio.
- Bright 4 Digit 14mm LED display.
- Colour indication for Y, Y & B phases.
- Universal Auxiliary Supply: 40 to 300V AC/DC.
- Same model for A & kW.
- Auto scroll facility & scroll lock facility (For Three Phase meter).

ébrít : Single & Three Phase Voltmeter

Salient Features
- Push button based site programming of PT Ratio.
- Network selection for Star (3 Phases 4 wire) and Delta (3phase 3 wires).
- Bright 4 Digit 14mm LED display.
- Colour indication for Y, Y & B phases.
- Universal Auxiliary Supply: 40 to 300V AC/DC.
- Same model for V & kV.
- Auto scroll facility & scroll lock facility (For Three Phase meter).

ébrít : PF Meter

Salient Features
- Measurement range Zero Log Unity Zero Lead.
- Accuracy ± 0.1%.
- Lag / Lead indication on the display.
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply - 40 to 300V AC/DC.

ébrít : Kilo Watt Meter

Salient Features
- Push button based site programming of CT & PT ratio.
- Available in accuracy class 1.0 & 0.5 (Maintained through out the measurement range).
- Measure range 0 to 10000kW (Direct Measurement).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply - 40 to 300V AC/DC.
**ébrir : Frequency Meter**

**Salient Features**
- Measurement range: 40.00 - 99.99 Hz.
- Accuracy Class 0.2 (Maintained throughout the measurement range).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply - 60 to 300V AC/DC.

**ébrir : Power Meter**

**Salient Features**
- Common Meter for kVA, kVAR and kWh.
- User selectable measurement of kW, kVAR, kVA.
- Available in Class 0.5 & 1.0.
- Sustained accuracy throughout the range.
- Universal auxiliary supply - 60 to 300V AC/DC.
- Push Button based site programming of CT Ratio.
- Bright 4 Digit 14mm LED Display.

**ébrir : Multi Meter**

**Salient Features**
- Three line LED Display multifunction energy meter.
- CT secondary: 1A or 5A (site selectable).
- Password protected programming.
- RS 485 MODBUS communication.
- Provision for special screens display.
- Measurement Range: 40V AC to 1000V AC P-N.
- Pulse output.

**HPL - Power Factor Controller**

**Salient Features**
- Microprocessor based intelligent auto-switching control.
- Automatic CRK 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: L1-L2 operated -5A.
- CT/PT operated - /5A & 1/5A for HT application.
- Accuracy class 0.5 as per IS 14697 / CBP 88 / IEC.
- Logging & display for tamper data.
- Measurement & recording of trivector energy.
- Communication: Optical & Handheld RD322.
- TOD, 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 - 5/5A 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 I13779.
- Ratings: 5/5A CT operated, 5-25A, 10-40A, 10-40A.
- All standard anti tamper features provided.

**Optional Features**
- Optical communication port.
- Logging and display of tamper data.
- TOD, load survey, tamper information downloadable to CMRI through optical port.
- Display in absence of power supply.
- Suitable for AMR.

**Din Rail Mounting Meters**

**Salient Features**
- Current rating single phase 5-30A, three phase 10-60A & 20-40A & 1A.
- Communication: MODBUS RTU for three phase & pulse output for single phase.
- Programmable CT ratio and 5 or 10 multi.
- Suitable for dual source application (only three phase).
3Phase Electronic Energy Meter
Counter Type Display

Salient Features
- Range: 5-20A, 10-60A, -5A CT operated in class 1.0 accuracy as per IS 13779.
- Meter records correct energy with same accuracy under reverse current connection.
- LED 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 IS13779.
- Ratings: 5-40A, 10-60A.
- All standard anti-tamper features provided.
- Optical communication port / Rs232 Port.
- 100X load survey; tamper information downloadable.
- CMR through optical port.
- Display in absence of power supply.

Net Meter for Solar Roof Top & Solar Plant Application

Salient Features
- Available in Single Phase & Three Phase Net Metering.
- Range: 5-30A, 10-60A, 10-40A, HT CT / LT CT / -5A.
- 4 quadrant meter with pulse output LEDs for kWh & kWhh.
- As per IS 13779 & IS 14697.
- Separate readings for Active Energy kWh, kWhh, Import & Export.
- Net Energy kWh, kWhh with sign.

Prepaid Metering Solutions

Salient Features
- Available in single phase - 500A & 1000A, Three phase 1000A.
- Confirming 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.

Smart Meter

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

LPR Zigbee Metering Solutions

Salient Features
- Available in Single Phase 5-20A, 10-40A & 10-60A.
- Energy Meter based on IEEE 802.15.4.
- Automated device address management.
- Each meter aids transfer of data for itself as well as neighboring meter.
- Wire less commissioning, network scalability features.

ABT Meter (Availability Based Tariff)

Salient Features
- As per IS14697 & IEC 62053 accuracy Class 0.2 and 0.5.
- Four quadrant metering for export & import.
- DLMS / COSEM open protocol support.
- Up to 8 tariffs per day.
- Up to 12 channel of load profile data and block load profile data.
- Multiple communication port such as optical, RS 232 & RS 485 port for remote reading & SCADA application.
**Long Range Integrated CT Meter**

**Salient Features**
- No need of external CT, meter box and accessories.
- Wide current range, 40-2000A.
- Thread-through meter-cable passes through meter.
- Communication options:
  - Optical Port
  - Inbuilt GSM/GPRS modem
- On Demand & Scheduled data transfer.

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**Automatic Meter Reading Solution**

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

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**Transparent Pilfer Proof Meter Box**

**Salient Features**
- Available for single & three phase variants both.
- Variants available in push fit & hinged type.
- Made of UV stabilized transparent & FR grade engineering plastic.
- Extended optical port on top of ease of meter reading through CMR without opening box.
- Extended push button for scrolling of display parameters.
- Confirming as per I 14772 & type tested in NABL Lab.

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**Air Circuit Breaker**

**intelliPROTECT**

**Salient Features**
- Range: 630A - 6300A.
- Operational voltage up to 690V & even above - on request.
- Icu 50kA (at 120kA at 500Vac).
- Icc = 100% Icu throughout the range.
- Icw: 50kA to 100kA (for 1 sec).
- Customer oriented Trip Relay - with advanced measurement functions & communication functions.
- Tested & certified as per IS/IEC 60947-2.

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**intelliSMART**

**Salient Features**
- at 500Vac, Fixed Type and Draw Out Type.
- LSIG Protection with Microprocessor at variable time delay.
- Digital display of current and voltage parameters.
- Short circuit protection starts from 131%.

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**Moulded Case Circuit Breaker**

**TAB™: Thermal Adjustable Breaker**

**Salient Features**
- Conforms to IS/IEC 60947-2.
- Available in: 1P, 2P, 3P & 4P Versions rated current from 10A-800A & breaking capacity from 10kA to 63kA.
- 4P version available with neutral fully protected.
- Adjustability offers close protection to different load condition.
- Line load reversibility, Line load through energy.
- Wide range of internal and external accessories.
- ROHS Compliant also available for DC application.
- 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.

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**Motor Duty MCCBs (MD Series)**

**Salient Features**
- Available upto 22 KW / 30 HP in two frame.
- Breaking capacity - 25kA / 36kA.
- Clear indication of ON, OFF & Trip position.
- Low let through energy.
- For special motor starting condition (Starting time beyond 10 sec & other specific condition) - 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 DISCRIMINATION.
- PC EXTERNAL Power required for the electronic circuit.
- True RMS sensing for precise and RELIABLE protection.

MCCB Distribution Panel

**Salient Features**
- Range: 6, 8, 10 & 12 ways.
- Incoming - Upto 830A, Outgoing - Upto 250A.
- No of poles of MCCB - 3 / 4.
- Multifunction Digital Metering - Optional.
- Shrouded bus bar can withstand high fault currents.
- Provision for Single Door / Double Door.

MCCB Enclosure

**Salient Features**
- MCCB conform to IS/IEC 60947-2.
- 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.
- Sealsable cover to avoid tampering, Trip indicator.
- Class OA or Class 2b.
- Site Mounted add on accessories.

Motors Protection Circuit Breaker (Motocop)

**Salient Features**
- Wide range of MPCB from 0.1 to 80A.
- 22 Ratings in just 2 frames.
- Rotary Type Operation (Direct & Extended Handle).
- Protection against O/L, S/C & Single Phasing.
- Higher Breaking capacity upto 30kA, 480 VAC.
- Electrical / Mechanical Life - 1 Million Operations.
- Suitable for Isolation & Type II 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 (310 to 290V) or 3 Phase (280 to 440V).
- Short Circuit Protection - MCCB/MCCB (10kA) in Deluxe Model.
- Ammeter & Voltmeter with Selector Switch.
- LED Indicators 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.
- Prewired Auxiliary contacts upto 2NO NC.
**Automatic Transfer Switch AV ATS**

**Salient Features**
- **Range:** 40A-630A, 4P, AC 23A, 3 frame sizes open executions in enclosures.
- Trip Safety as standard feature, CE marked, RoHS Compliant.
- Power monitoring: kWh, kVARh, kVAR, kVArh.
- User selectable RS232 & RS485 communications.
- Remote monitoring, Customer Oriented Controllers.
- Configurable over riding voltage parameters.
- Maximum spaces for on site repair solutions.
- Programmable Monitoring & Control.
- Auto DG Start Stop with Impulse & Continuous Voltage.
- Configurable Digital Inputs and Outputs.

**HPL - AV Switch Fuse Changeover**

**Salient Features**
- **Range:** 125A - 630A, 4 Pole, 415V AC as per IS 13947 Part 3/93.
- Arc Chute plates to enhance contact life; 100% Neutral.
- Body of fiber glass reinforced polyester resin.
- Prewired 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, 415V 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 Server stabilizer provides main source of supply.
- Prewired 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**
- **Range:** 63 - 3150A, 3 Pole & 4 Pole, 415V AC as per IS 13947 Part 3/93.
- Arc Chute plates to enhance contact life; 100% Neutral.
- Prewired Auxiliary contacts upto 2NO NC.
- Suitable for DC-23A, 240V, 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 600A, TP:TPN & PF, 415V, 50Hz.
- Confirms to latest IS 13947 Part 1/IEC 947-3.
- Tested at CPRI Bhopal for AC-23A duty.
- Multiple Roller Contact Mechanism for long life and better performance.
- Available in open execution and 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 TP:TPN & PF, 415V 50Hz.
- Confirms 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) : 2 Amps to 610 Amps.
- **Range:** (BS Type Fuse Holder) : 20A to 125A.
- Breaking capacity: 80kA at 415V, AC 50Hz.
- Front & Busbar Connection options for Fuse Holders of BS Type.
- Low Watt Loss.
- Tested at CPRI Bhopal.

**HPL - LT Switchgear**

**Salient Features**
- **Range:** Reversible Switch Fuse Unit : 16 Amps to 320 Amps
- Fuse Switch Unit : 16 Amps to 320 Amps
- Changeover Switches : 16 Amps to 320 Amps
- HPL Porcelain Fuse : 16 Amps to 320 Amps
- Tested at CPRI Bhopal, IIT Kanpur, NTH Calcutta.
- Confirms to IS 13947-3 / IS 2018.
**Osâfe MCB**

**Salient Features**
- Range: 0.5Amp – 83Amp in SP, SPN, DP, TP, TPN, FP.
- Rated Voltage: 240/415V AC, 50Hz.
- Contact position indicator red/green & Padlock/Sealing facility.
- Installation and removal of MCB without removing Busbar at 3 position mounting clips make it possible.
- Bi-diagonal termination on both sides & snap fitting on accessories.
- Cable termination capacity of wires up to 35sq.mm.
- Can be sealed with leads in the ON or OFF position.

**Osâfe Distribution Board**

**Salient Features**
- Available in SPN and YPN versions.
- Compact and aesthetically designed to meet the requirement of high end customer.
- Intelligent 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.

**Osâfe RCCB**

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

**Osâfe RCBO**

**Salient Features**
- Range: 8Amp-83Amp, 240/415V AC.
- Available in SP, SPN, 2P (MCCB), 4P (MCCB).
- Rated Residual Current 30mA, 100mA, 300mA.
- Rated Short Circuit Capacity 10kA.
- Design Add on type in DP & FP.

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**Techno MCB**

**Salient Features**
- Range: 0.5 to 83 Amps 240/415V, AC.
- Available in SP, SPN, DP, TP, TPN, FP.
- Breaking capacity: 10kA.
- Insulation voltage: 660V, 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 R, C & D Curve.
- Accessories UV, Shunt trip, Auxiliary contact.
- DC MCB available in 3P & DP.
- DC MCB voltage: 12V to 220V.

**Techno Isolator**

**Salient Features**
- Range: 60, 63, 60, 100 & 125 Amps.
- Conforms to IS/IEC 60947-3.
- Finger touch proof (IP-20).

**Techno RCCB**

**Salient Features**
- Range: 25-80Amp, 2 Pole & 4 Pole Version.
- Sensitivity: 30mA, 100mA, 300mA.
- Conforms to IEC / EN: 61008 & IS:12640.
- Dedicated earth leakage protection.
- Voltage Rating 240/415V (AC), 50Hz.
- Protection against Electroversion, 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.
- Isolator at middle position.
- DIN Rail Mounting.
Automatic Changeover with Current Limiter (ACCL) Single Phase

**Salient Features**
- Range: 6 to 63A.
- Available in SP, SPN, DP, TP, TPN & FP.
- UL marked & conforms to UL10741.
- Protection against Short Circuit & Over Load.
- Finger Touch proof (IP20).
- Available B & C curve.
- Breaking Capacity: 6kA.
- Voltage Rating: 240/415V.
- Low watts loss hence energy saving.
- Low let through energy.

Rakshak MCB

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, Inter connecting cables with copper thimble.
- 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 upto 2000Amp of wired Copper, fully insulated.
- Fitted with DIN channel, Bus Bar, Neutral Link Bar, Earth Bar, Inter connecting cables with copper thimble.
- Complete range of DBS with Double punched knockouts 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.

Rakshak Isolator

Vertical Distribution Systems

**Salient Features**
- Aesthetically designed, good looking & superior DBS with latest style.
- Fitted with Bus Bar, Shorting Links, Neutral Bar & Earth Bar.
- Compact design having complete shrugging all over the inter connecting links.
- Provision of ELCB along with TPN/TTP isolator as per ordered.
- Suitable to use as SP/DP/TP/TTN outgoing.
- Available with MCCB as per ordered.

Tier DB

**Salient Features**
- Aesthetically and user friendly design available in Single / Double / Three / Four Row version.
- Provide total flexibility as per site needs.
- Configuration as per customer choice of Incoming and Outgoing.
- Top and bottom, removable gland plates with knockouts.
- Compatible for Flush/ Surface mounting.
Phase Selector Distribution Systems

**Salient Features**
- Compact distribution system.
- Convenient mounting and operation.
- Flexibility to use MCBs and RCCB / RCB.
- Fitted with : DIN rail Bar, Bar Neutral Link Bar 3 Nos
- Phase changeover switches duly wired (except for MCB's and RCCB's).

Pre-wired Distribution Board

**Salient Features**
- DB's Duty pre-wired with FR/FRLS wire.
- Available SPN & TPN Versions.
- Fitted with bus bar terminal block for incoming/outgoing phase.
- Neutral & earthing duly pre-wired.
- Provision of MCB / Isolator / RCCB 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 system.
- Painted with the latest powder coating technology for long 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 protectors.
- Highly efficient metal core PCB.

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

**Salient Features**
- SMD LEDs 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 LEDs 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

Salient Features
- Engineered & designed Linear sleek Asthetic 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 & surge protection for enhanced reliability and longer service life of driver.
- Wide beam angle of 120° with efficacy over 100 Lm/W.

Phoenix Plus

Salient Features
- Engineered & designed Linear sleek Asthetic 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 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 Transverse diffuser.
- Wide beam angle of 120° with efficacy over 88 Lm/W.

ONYX Plus LED

Salient Features
- Available in 6W, 12W, 17W & 18W.
- High quality aluminium diecast housing.
- Color Temperature 6500K/4000K/3000K.
- Short Circuit & Open Circuit Protection On Driver.
- Highly Efficient Constant Current LED Drivers.
- Diffused Light With Acrylic diffuser.

Phoenix Supreme

Salient Features
- High efficiency LED's for optimum light output and savings in power.
- Short circuit and surge protection for enhanced reliability and longer service life of driver.
- Replacement of 36W/40W Tube Light.
- Sleek & Compact Metal Batten for maximum light spread.

Phoenix Plus 20W

Salient Features
- Engineered & designed Linear sleek Asthetic 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 100 Lm/W.

Lumino Plus

Salient Features
- Engineered & designed Linear sleek Asthetic 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
- Optics through designed lens offering medium beam distribution.
- Well designed housing including Aluminum heat sink.
- Separate replaceable electronic driver.
- Wide operating voltage range from 100V-285 V.
Trade Lighting

**Bulk Head**

- **Salient Features**
  - Available in 18W.
  - Made of polycarbonate.
  - Dimmable 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 5W & 9W.
  - Glass free light illumination.
  - Wide viewing angle.
  - Classic design.
  - 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 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 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 built-in electronic control gear.
  - Single ended with R22nd E27 bases.
  - Available in 6500, 4000 & 2700K.
  - Range in 3W, 5W, 7W, 9W, 12W.
  - 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 built-in electronic control gear.
  - Single ended with R22nd E27 bases.
  - Available in 6500, 4000 & 2700K.
  - Range in 4W, 6W, 9W & 12W in both GU10 & SPIRE.
  - 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 built-in electronic control gear.
  - Single ended for tube, with R22nd E27 & T40 bases.
  - Available in 6500, 4000 & 2700K.
  - Range in 6W, 9W & 12W in both GU10 & SPIRE.
  - 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.
- Back lit illumination technology.
- Excellent heat dissipation through high purity, high thermal conductivity heat sink.
- Special reflector system with high efficiency/translucence diffuser.
- On board short circuit and surge protections for reliable electrical system.
- Wide beam angle of 120° with efficacy over 95 lm/W.
- Size 1’x1’, 2’x2’, 1’x2’, 1’x4’.
- Wattage: 18W, 30W & 36W.

**Jonex Plus (Surface Type)**

**Salient Features**
- Range: 6W/72W/15W & 18W.
- Flat profile with wide-angle diffuser.
- Housing made up of high heating conductive pure aluminum material.
- Available in all color temperatures: 3500 K / 4000 K / 7000 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/72W/15W & 18W.
- Solid state high brightness SMD LEDs for good quality illumination and longer life.
- Back lit illumination technology.
- Excellent heat dissipation through high purity, high thermal conductivity heat sink.
- Special reflector system with high efficiency/translucence diffuser.
- On board short circuit and surge protections for reliable electrical system.
- Wide beam angle of 120° with efficacy over 80 lm/W.

**Neptune Plus**

**Salient Features**
- Available in 5W / 10W / 20W.
- Replacement of T8/T5 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 light 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.

**Cadila Plus**

**Salient Features**
- Available in 20W & 40W.
- Replacement of T8/T5 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 light 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 100 lm/W.

**Indus LED Tube (T8/T5 Retroft Solution)**

**Salient Features**
- Available in 2ft & 4ft Sizes.
- High efficient 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 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.

**LED Legacy PC**

**Salient Features**
- Single Tube & Double Tube Option.
- High quality PC cover for LED linear lamp ensures soft and glare free lighting.
- Specially designed housing for excellent heat dissipation.
- Aesthetically designed box type industrial fixture.
- Industrial Batten suitable for use with single or twin LED Tube.
- CRCA Sheet steel powder coated housing in white to improve resistance against corrosion.
LED Strom PC

**Salient Features**
- Available in Single Tube & Double Tube option.
- Made up of corrosion resistant unbreakable polycarbonate body.
- High-quality PC cover for LED linear lamp ensures soft and glare-free lighting.
- Weatherproof IP-65.
- Suitable for industrial purpose.
- Surface & Suspended mounting.

Industrial Luminaries

LED Highbay

**Salient Features**
- Range: 70W/90W/100W/120W/150W/180W & 200W.
- High-efficiency heat sink designed to ensure prolonging the life span of the LED.
- Efficiently designed constant current driver with wide range input voltage 140V to 241V.
- Significantly lower running cost as compared to conventional fixtures.
- Available with toughened glass.
- IP-65.

Well Glass IP-65

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

Outdoor Lighting

LED Street Light

**Salient Features**
- Available wattages: 15W to 30W.
- LED efficacy: > 130 lumens / watt.
- Lamp-life: > 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 4kV.

LED Street Light

**Salient Features**
- Available wattages: 15W to 150W.
- LED efficacy: > 130 lumens / watt.
- Lamp-life: > 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 4kV.

LED Flood Light

**Salient Features**
- Available wattages: 15W to 110W.
- LED efficacy: > 130 lumens / watt.
- Lamp-life: > 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 4kV.

LED Flood Light

**Salient Features**
- Available wattages: 200W to 400W.
- LED efficacy: > 130 lumens / watt.
- Lamp-life: > 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Conforms LM 79 & LM 80.
- Special Features: Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 4kV.
**LED Post Top Lanterns**

**Salient Features**
- Available wattages - 9W to 40W.
- LED Options - LED lamp / Dissolve Versions.
- Lamp life - 50,000 burning hours with 1.70 criteria.
- CRI > 75.
- Conforms LM 79.
- Applications: Gardens, Pathways, Societies etc.

**LED Bollard**

**Salient Features**
- Available wattages - 3W to 12W.
- LED Options - LED lamp.
- Lamp life - 50,000 burning hours with 1.70 criteria.
- CRI > 75.
- Conforms LM 79.
- Applications: Gardens, Societies, Petrol Stations, Malls, Driveways etc.

**CCMS**

**Salient Features**
- User friendly.
- Single Point Control System Fully Programmable.
- Automatic report generation.
- Periodic Data Download at pre set intervals.
- Controlling & Monitoring in Groups as well as up to individual Light Points.
- Programmable Automatic Real Time Operation of Street Lights with sunrise & sunset times.
- Dimming all off peak hours possible.

**LED Ground Burials & Spike Lights**

**Salient Features**
- Available wattages - 3W to 15W (12W for Spike).
- LED efficacy - up to 130W.
- Lamp life - 50,000 burning hours with 1.70 criteria.
- CRI > 75.
- Conforms - IP65 / IP66 available on request.
- Applications: Driveways, Facade Lighting, Ambient Lighting etc.

**Metal Halide Lamps**

MH 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 efficiency up to 80-85 lumens / watt.

**G12 Single Ended, 35, 70,150W**

**Salient Features**
- UV Shield
- Longer Life
- Precise optical control
- Better Colour Rendering
- Highly Efficient

**Double Ended, 70,150W**

**Salient Features**
- UV Shield
- Longer Life
- Precise optical control
- Re-strike
- Better Colour Rendering
- Highly Efficient
- Faster Warm up & Hot

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

**Salient Features**
- UV Shield
- Better Cold Starting
- Faster Warmup & Hot
- Superior Lumen Maintenance
- Re-strike
- Better Colour Rendering

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

**Salient Features**
- UV Shield
- Better Cold Starting
- Faster Warmup & Hot
- Superior Lumen Maintenance
- Re-strike
- Better Colour Rendering

**Accessories**

**Salient Features**
- Electromagnetic Ballast (Cooper wound open construction ballast) The VPT Magnetic Ballasts are available for Compact Fluorescent Lamps (CFL) ranging from 5W to 40W. Fluorescent Tubular Lamp (FTU) ranging from 18W to 40W. High pressure Sodium vapor lamp. Interior Halide Lamp range from 70W to 400W. Electronic Ballast are available for CFL ranging from 5W to 36W & FTL ranging from 18W to 36W.
Domestic & Industrial Wire

Salient Features
• Range: 0.5 to 400 Sq. mm in Single Core & Multicore.
• Available in FR/FR-LHD/HR/2HFR insulation Conforms to IS: 694.
• Multi strand 100% pure annealed Electrolytic grade copper conductor.
• Bunching of copper in uniform lay & diameter.
• High insulation Resistance.
• Double insulated with ultra thin layer.

Co-axial Cable /CCS

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

Submersible Cable

Salient Features
• Range: 1.0 to 50.0 Sq. mm three core flat cable.
• Multi strand bare annealed electrolytic grade copper conductor.
• Specially formulated PVC compound (Type-A & ST-1).
• Round submersible cable can be specially asked for.
• Conforms to IS:694.

Telephone Cable

Salient Features
• Range: 0.60 & 0.50mm dia conductors available up to 50 pairs.
• Solid / Stranded Bars annealed copper Conductor.
• PVC / PE Insulated.
• Individual / Overall Shielded with Aluminium tape (Polyester backed/ Mellinax Tape / Wire braiding / Aluminium foil Taping).
• Low cross talk, Low attenuation, High speed transmission.

Control Cable

Salient Features
• Solid/Stranded 100% pure annealed Electrolytic copper conductor.
• Insulation: PVC/XLPE/HFR
• Armoured / Unarmoured: GI Round wire/Flat Strip.
• Outer Sheath: PVC (ST-1 & ST-2) /FR-L/SHFR/2HFR.
• Heavy Duty Performance.
• Best combination safety.
• Efficient & economical.
• Use in Process Control, Communication and Panel control.

Instrumentation Cable

Salient Features
• Range: 0.5 Sq. mm to 2.5 Sq. mm Conforming BS 5388-1 & 2.
• Shielding: Core/Pair/Triad/Diad.
• ABC/ATC Solid/Stranded 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.

Networking Data Cable (CAT - 5e & 6)

Salient Features
• Range: 6 Pair 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.

Fire Survival Cables

Salient Features
• Range: 0.5 Sq. mm to 2.5 Sq. mm Conforming BS: 7646 600/1000 Volts.
• Shielding: Core/Pair/Triad/Diad with Mica/glass fire barrier tape.
• ABC/ATC Solid/Stranded 100% pure annealed Electrolytic grade copper conductor.
• Armoured / Unarmoured: GI Round wire / Flat Strip.
• Operating Temperature -10°C +900°C.
• Fire Tests BS6387 C/WZ, BS 8491, IEC 60331-2,
Flat Elevator Cables

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

DC Solar Cable

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

CCTV Cables

Salient Features
- Range: 3+1 CCTV and 4+1 CCTV Cable.
- Coaxial Cable consists of solid annealed bare copper conductor.
- PE insulated with nylon foamed dielectric aluminum foil taped, jelly filled, braided with aluminum alloy / copper and FR PVC sheathed cable.
- Low loss characteristics reduced attenuation of the video signal.

Smart Modular Switch

6A/10A/20A/32A- DP switch

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

AC Box 3M & 4M (Smart Range)

Salient Features
- AC Box 3M
  - Protection for short circuit and overload.
  - MCB: 20 Amp
  - Socket: 20 Amp
  - Top: 20 Amp
  - Plate: 3 Module
  - Box: 3 Module
- AC Box 4M
  - Protection for short circuit and overload.
  - MCB: 20 Amp
  - Socket: 20 Amp
  - Top: 20 Amp
  - Plate: 4 Module
  - Box: 3 Module

USB Wall Charger (Smart Range)

Salient Features
- Size: 2 module, UV - 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 IS 3864/1997
- Tested upto 1 Lakh operations
- Silver Alloy Contact
- Shrouded terminals
- Front loading & removing
- High Grade Flame Retardant Engineering Plastic

Tuff (Solo Switch)

Salient Features
- High Grade Flame Retardant Engineering Plastic.
- Tested upto 2 Lakh operations.
- 10 Years Warranty.
### Smarter 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 6 spikes.
- Material in use - FR ABS plastic.
- Connector swivels 360°.

#### Extension Cord

**Salient Features**
- Equipped with universal socket & 2 pins 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 IP46 protection.
- Volume setting in the receiver.
- Operating range up to 80-160mt. 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.
- Dusts provided on outer surface for heat dissipation.
- SS Spring provided for better flexibility & easy locking for bulbs, CFL & LED Bulb.
- Highly conductive brass terminals.
- Material-FR polycarbonate UV stabilized.

### Plug Tops 6A/16A

**Salient Features**
- Rated current 6A/16A.
- Rated Voltage 240V AC.
- 100% shock proof.
- Highly conductive nickel plated contacts.
- Material-FR polycarbonate UV stabilized.

### International Travel Adaptor

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

### Multi Plugs

**Salient Features**
- Equipped with universal socket & 2 pins sockets.
- Universal multi socket for different types of plugs used around the world.
- Rated current 16A.
- Rated Voltage 240V AC.
- Nickel plated brass contacts for better conductivity.
- Available in 4 different transparent colours: Purple, Blue, Green & Orange.
- Material-FR polycarbonate UV stabilized.

### Gas Detector

**Salient Features**
- LPG & CNG gas alarm.
- Semiconductor sensor heads used for accurate flammable gas detection.
- Ideal for use in homes, buildings, factories, etc.
- Test button verify alarm operation any time.
- Loud alarm signal more than 80dB at 10 ft.
**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 - 8GB, 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 3 monitors.
- Vandal Proof Metal Cover.

**5” Video Door Phone with Recording**

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

**Salient Features**
- 5” Colour TFT Screen Handsfree 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.

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**Solar Array Junction Box (AJB)**

**Salient Features**
- Array Junction Box is meant for combining all the incoming lines from the solar panel string/array and directing 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 1000 V 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 strikes during cloudy and rainy conditions and ground the surges immediately.

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**Solar Main Junction Box (MUB)**

**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 1000 V DC.
- Obstructs sudden surges due to lightning strikes during cloudy and rainy conditions and ground the surges immediately.

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**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 weather proof for outdoor applications also, highly secure wiring, besides being insulated with PC Cable Gland or built-in MCA terminal connector on demand.

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**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 weather proof for outdoor applications also, highly secure wiring, besides being insulated with PC Cable Gland or built in MCA terminal connector on demand.
Solar NET Meter (Import/Export Meter)

**Salient Features**
- Single metering for bi-directional energy measurement with separate energy registration for import & export.
- Net energy calculation for power credits.
- Designed & developed as per IS 13779, IS 15697.
- Open Communication Protocol - DLMS as per IS 35939.
- AMR compatible unit for local and remote communication.
- Internal backup display meter data in power off event.
- History of energy consumption for billing month.
- TOD mode, daily & blink load survey for profile. Data availability.
- Data download through optical port & RS 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 resistant 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 built-in 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.