

## HPL Global Presence



### HPL Electric & Power Ltd

**Corporate Office & International Business Division:**  
Windsor Business Park, B-1D,  
Sector-10, Noida, U.P. - 201301, INDIA  
Tel.: +91-120-4656300, Fax: +91-120-4656333  
E-mail : gsm@hplindia.com

**Registered Office:**  
1/20, Asaf Ali Road, New Delhi - 110 002, INDIA.  
[www.hplindia.com](http://www.hplindia.com)

- Being a technology company we continuously upgrade our product for customer convenience and hence the Product versions will keep changing
- For any dispute the court of jurisdiction will be in India

Authorised Dealer



HPL/PRODUCTPROFILEEXPORT/0219



## Product Profile Export

Switchgear | Metering | LED Lighting | Protection | Wire & Cables | Modular Switch | Solar



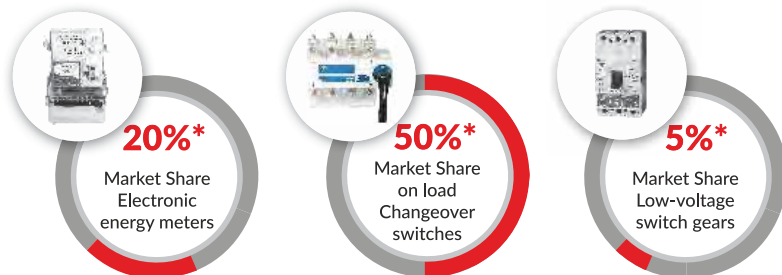
## Corporate Profile

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.



\*Frost and Sullivan, Feb 2016



## 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.



## Manufacturing products and the parts

Inputs such as sheet metal components, copper components and industrial plastic moulded components are also made within the HPL facilities, reinforcing our quality edge.

## Our state-of-the-art manufacturing units are equipped with:

- Ultra Modern Testing Labs
- World Class R&D Facilities
- State-of-the-art Moulding Plants
- Latest Milling Machines

### HPL Overseas Presence



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# Smart Meters for Smart Homes

## Metering

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



### emfis - Digital Multi-Function Meter

#### Salient Features

- $\pm 0.5\%$  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 & Trivector 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).



### 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 kVAh, 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 - vif Digital Multi-Function Meter

#### Salient Features

- $\pm 0.5\%$  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 - 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  $\pm 1A$  for  $\pm 0.5\%$  (site selectable).
- Additional Parameters Power On Hour / Run Hours.







### emfis - vifp Digital Multi-Function Meter

#### Salient Features

- $\sim$ /5A 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 and Apparent Power kVA, Instantaneous and Total Power Factor, Frequency.

### emfis vifpe - Digital Multi-Function Meter

#### Salient Features

- $\sim$ /5A 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 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).



### emfis - 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, Trivector Energy & THD.
- Last 6 month history parameters for kWh, kVAh, kVAh (lag, lead) & MD KW, kVA through Communication.
- Relay Output for V, I, Total kW, Total kVA, F, kW MD & kVA MD.
- Last 30 days Load Survey through communication.
- Last 10 Occ. / Res. event for each relay 1 & 2 through communication.



### emfis - DC Digital Multi-Function Meter

#### Salient Features

- Displays : Voltage, Current, Power, Energy.
- RS485 MODBUS RTU Communication (Optional).
- Password Protected Programming.
- Backlit LCD type Display (16 X 2 line Dot Matrix).
- 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, kW, kVA; kVAR, PF, 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,  $\sim$ /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 LCD Display (CT 2EA)

#### Salient Features

- Backlit LCD display.
- CT operated  $\sim$ /5A 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,  $\pm 5A$  in class 1.0 accuracy.
- Available upto 800/5A (for direct reading) (Ref. Catalogue for available CT Ratio).
- No separate Auxiliary supply required.
- Low Power Consumption less then 1 watt per phase.
- Pulse Output.
- Anti tamper features .

### êbrit : 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 & scroll lock facility (For Three Phase meter).



### êbrit : 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 & scroll lock facility (For Three Phase meter).



### êbrit : PF Meter

#### Salient Features

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



### êbrit : 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 0-3.000kW (Direct Measurement).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply - 80 to 300V AC/DC.



### êbrit : Frequency Meter

#### Salient Features

- Measurement range 40.00 - 99.99 Hz.
- Accuracy Class 0.2 (Maintained through out the measurement range).
- Bright 4 Digit 14mm LED display.
- Universal Auxiliary Supply - 80 to 300V AC/DC.



### êbrit : Power Meter

#### Salient Features

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



### êbrit : Multi Meter

#### Salient Features

- Three line LED Display multifunction energy meter.
- CT secondary  $\pm 1A$  or  $\pm 5A$  (site selectable).
- 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 : LT-CT operated  $\pm 5A$ .  
CT/PT operated  $\pm 5A$  &  $\pm 1A$  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.
- 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 :  $\pm 5A$  CT Operated 10-60A.



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

#### Salient Features

- Accuracy Class 1.0 as per IS13779.
- Ratings:  $\pm 5A$  CT operated, 5-20A, 10-40A, 10-60A.
- 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 & 20-80A &  $\pm 5A$ .
- Communication Modbus RTU for three phase & pulse output for single phase.
- Programmable CT ratio and Scroll lock.
- Suitable for dual source application (only three phase).



### 3Phase Electronic Energy Meter Counter Type Display

#### Salient Features

- Range 5-20A, 10-60A,  $\pm 5A$  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: 5-30A, 10-60A.
- All standard anti tamper features provided.

#### Optional Features

- Optical communication port / Rs232 Port.
- TOD, 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 Roof Top & Solar Plant Application

#### Salient Features

- Available in Single Phase & Three Phase Net Metering.
- Range: 5-30A, 10-40A, 10-60A, HT CT / LT CT,  $\pm 5A$ .
- 4 quadrant meter with pulse output LED's for kWh & kVAh.
- As per IS 13779 & IS 14697.
- Separate readings for Active Energy kWh, kVAh Import & Export.
- Net Energy kWh, kVAh 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 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.

### 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 Load 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 - 5(30)A & 10(60)A, Three phase 10(60)A.
- 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.



### 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 communication 9600 bps
- Suitable for remote reading application.
- On demand data transfer.
- Optional SMS facility for configured events.



### Transparent Pilfer 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.
- Confirming as per IS 14772 & type tested in NABL Lab.



## Smart Meters for Smart Homes

The smart keeper of all your electrical needs.

Prepaid Meter



Smart Meter

# Switch to Smart. Secure. Sustainable Solutions.

AV ATS The Advance  
Automatic Transfer Switch

## Switchgear 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

## Air Circuit Breaker



### intelliPROTECT



#### Salient Features

- Range : 630A – 6300A.
- Operational voltage upto 1000V.
- Icu 50kA to 120kA at 500Vac.
- Ics = 100% Icu throughout the range.
- Icw : 50kA to 100kA (for 1 sec).
- Customer oriented Trip Relay - with advanced measurement functions & communication functions.
- Conforms to IEC 60947-2.

### intelliSMART

#### Salient Features

- Range 630A - 2000A & Icu 50kA, 3P & 4P, Icw 50kA for 1 sec. 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%.
- Conforms to IEC 60947-2.



## Moulded Case Circuit Breaker

### TAB™ : Thermal Adjustable Breaker



#### Salient Features

- Conforms to IEC 60947-2.
- Available in 1P, 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. SP 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 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.
- Conforms to IEC 60947-2.





### Microprocessor MCCB

#### Salient Features

- Rated 25A-800A 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 Ir 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.
- NO EXTERNAL Power required for the electronic circuit.
- True RMS sensing for precise and RELIABLE protection.
- Conforms to IEC 60947-2.

### MCCB Distribution Panel

#### Salient Features

- Range : 4, 6, 8, 10 & 12 ways.
- Incoming – Upto 630A, 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 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.

### HPL - AV Cubicle Load Break Switch

#### Salient Features

- Range : 63 - 3150A, 3 Pole & 4 Pole, 415 V AC as per IEC 60947 Part 3.
- Arc Chute plates to enhance contact life. 100% Neutral.
- Prewired Auxiliary contacts upto 2NO NC.
- 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.



### AV Changeover Switch



### HPL AV Onload Changeover Switch

#### Salient Features

- Range: 6 frame sizes, 63- 3150A, 3 Pole & 4 Pole, IEC 60947 part 3.
- 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 compliance.
- Power monitoring- kWh, kVAh, kVAR, kVArh.
- User selectable RS232 & RS485 communications.
- Configurable over riding voltage parameters.
- Maximum spares for on site repair solutions.
- Programmable Monitoring & Control.
- Auto DG Start Stop with Impluse & Continues Voltage.
- Configurable Digital Inputs and Outputs.



new

### HPL - AV Switch Fuse Changeover

#### Salient Features

- Range : 125A-630A, 4 Pole, 415V AC as per IEC 60947 Part 3.
- 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, 415 V AC as per IEC 60947 Part 3.
- 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.
- 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.

## LBS & SDF

### LK - HPL Switch Disconnecter Fuse

#### Salient Features

- Range : 32A to 800A, TP, TPN Pole, 415V, 50Hz, AC-23A duty.
- Confirms to latest IEC 60947-3.
- Multiple Roller Contact Mechanism for long life and better performance.
- 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 415V 50Hz.
- Confirms to IEC 60947-3.
- Multiple roller contact mechanism for long life & better performance.
- Available in open execution & sheet steel enclosure.
- Excellent performance for capacitor duty applications also.



## HRC Fuse

### HRC Fuse Link & Base-BS & DIN Type

#### Salient Features

- Range (DIN type - Fuse Link & Base) : 2 Amps to 630 Amps.
- Range (BS Type Fuse Holder) : 20A to 125A.
- Breaking capacity > 80kA at 415V, AC, 50 Hz.
- Confirms to IEC 269
- Low Watt loss



### Fuse Unit (Kit-Kat) in porcelain

#### Salient Features

- Confirms to IS : 2086, 1993
- Rating : 16A to 320A (240V & 415V)
- Choice of Rewirable / HRC fuses



### HPL - LT Switchgear

#### Salient Features

- Range: Rewireable Switch Fuse Unit : 16 Amps to 320 Amps
- Fuse Switch Unit : 63 Amps to 500 Amps
- Changeover Switches : 16 Amps to 2000 Amps
- HPL Porcelain Fuse : 16 Amps to 320 Amps
- Confirms to IEC 60947-3



## Contactors & O\L Relays

### Contactors

#### Salient Features

- Widest Range of 3P & 4P Contactors upto 800A.
- Control Contactor with option upto 12 contacts.
- Capacitor Duty Contactors upto 62 kvar.
- Highest Electrical Life upto 2.5 million operations.
- Site mounted add on accessories (Auxiliary Contacts, Mechanical Interlock, Surge Suppressor, Timer, Mechanical Latch Units).
- Type II Co-ordination.
- CE marked & UL Certified.



### 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.



Switch to  
Smart. Secure.  
Sustainable Solutions.

Automatic Transfer Switch **AV ATS**  
Motor Operated Changeover Switch



# Technology packed to protect your home.

## Domestic Products

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

**Osäfe**  
MCB | DB | RCCB



Protection



### Osäfe MCB

#### Salient Features

- Range : 0.5Amp - 63Amp in SP, SPN, DP, TP, TPN, FP.
- Specification : IEC-60898-1.
- Rated Voltage : 240/415V AC, 50Hz.
- Contact position indicator red/green & Padlock/Sealing facility.
- Rated Breaking capacity 10kA & Energy Limit Class 3.
- Installation and removal of MCB without removing Busbar, as 3 position mounting clip makes it possible.
- Bi-connect termination on both sides & snapon fitting 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 Db's.
- Shrouded Neutral Bar.
- Door Earthing.
- Mounting of MCB's 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 IEC / EN: 61008 & IS: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.



### Osäfe RCBO

#### Salient Features

- Range 6Amp-63Amp, 240/415V AC.
- Available in SP+N (2 Mod.), 2P(4 Mod.), 4P(8 Mod.).
- Rated Residual Current 30mA, 100mA, 300 mA.
- Rated Short Circuit Capacity 10kA.
- Design Add on type in DP & FP.
- Specification Reference IEC 61009-1.





### 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 : 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 B, C & D Curve.
- Accessories : UV, 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.
- Available in 2P, 3P & 4P version.
- 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 Electrocutation, Short Circuit & Electrical fire.
- Consistent performance, Compact & Space saving
- Auxiliary Switch optional.



### Techno MCB Changeover Switch

#### Salient Features

- Range : 25A, 40A & 63A.
- Conforms to 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 : 0.6Amp - 10Amp in SPN.
- Specification : IEC - 60947-6-1.
- Rated Voltage : 240V AC, 50Hz.
- Microcontroller based DIN rail mountable with neutral Isolation.
- Inbuilt SMPS for low power consumption.
- Operational status indication through LED.
- Automatic generator on/off facility.
- Built-in time delay for fail safe changeover.



### Automatic Changeover with Current Limiter (ACCL) Three Phase

#### Salient Features

- Range : 25A, 40A & 63A.
- Specification IEC 60947-6.
- Voltage 415V AC.
- Electronic & Mechanical interlock for safe changeover.
- Built in time delay for fail safe changeover.
- Overload tripping in DG supply.
- Wide Voltage operation - (140 to 280) volts.
- Reliable micro controller based design for sensing & control.







## 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.
- DB's available with cement guard.
- Bus Bar rating upto 200Amp of tinned copper, fully insulated.
- Fitted with DIN channel, Bus Bar, Neutral Link Bar, Earth Bar, Inter connecting cables with copper thimble.
- Complete range of DB's with Double punched knockout to facilitate different size cable glands.
- TPN DB's fitted with detachable gland plates.
- Double Door DB's in Surface / flush mounted design.
- Special DB's for projects also available.



## Vertical Distribution Systems

### Salient Features

- Aesthetically designed, good looking & superior DB's with latest style.
- Fitted with Bus Bar, Shorting Links, Neutral Bar & Earth Bar.
- Compact design having complete shrouding all over the inter connecting links.
- Provision of ELCB along with TPN/FP Isolator as incomer.
- Suitable to use as SP/DP/TP/TPN outgoing.
- Available with MCCB as incomer.



## 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 Incomer 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 MCB's and RCCB / RCBO.
- Fitted with : DIN channel Bus 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 Duly 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 outing.
- 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 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.



**The safety agent  
for your home.**

**Protection against overload & short circuit**



**10KA**

Let there be light,  
**CONTINUOUS &  
BRIGHT!**



## LED Lighting & Luminaires

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

## 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 Led's 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.



### 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 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.

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

#### 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.



### 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.



### 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.



## Trade Lighting



### 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 6500K/4000K/2700K.
- Back Light & Slim frame with Integrated driver.
- Highly Efficient Constant Current LED Drivers.

### 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 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 100 V-285 V.

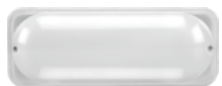






## Trade Lighting

new



### Bulk Head

#### Salient Features

- Available in 10W.
- Made of pc 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.

new



new



### 'R' 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 T-8/T-5 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.

new



## Professional Lighting



### LED Panel Lighting

#### Salient Features

- Solid state high brightness SMD LED's 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 90Lm/ W.
- Size 1'x1', 2'x2', 1'x2', 1'x4'.
- Wattage: 18W, 30W & 36W.



### Jonex Plus (Surface Type)

#### Salient Features

- Range: 6W/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 LED's 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 80Lm/ W.





## Professional Lighting

### Neptune Plus

#### Salient Features

- Available in 5W / 10W / 20W.
- Replacement of T-8/T-5 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 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.



### Cadila Plus

#### Salient Features

- Available in 20W & 40W.
- Replacement of T-8/T-5 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 100 Lm/W.



### Indus LED Tube (T8/T5 Retrofit 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.



## Professional Lighting



### 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.



### 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.
- Efficiently designed constant current driver with wide rang input voltage 140V to 285V.
- 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 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.





## Outdoor Lighting

### LED Street Light



#### Salient Features

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

### LED Street Light

#### Salient Features

- Available wattages - 45W to 200W.
- LED efficacy - > 130 lumen / watt.
- Lamp life - 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Confirms LM 79 & LM 80.
- Special Features : Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 6kV.



### Decorative Street Light



#### Salient Features

- Available wattages - 40W, 80W & 120W.
- LED efficacy - > 130 lumen / watt.
- Lamp life - 50,000 burning hours with L 70 criteria .
- CRI > 70, PF > 0.95, THD < 10%.
- Confirms LM 79 & LM 80.
- Special Feature : Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 6kV.

### LED Flood Light

#### Salient Features

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



### LED Flood Light

#### Salient Features

- Available wattages - 200W to 500W.
- LED efficacy - > 130 lumen / watt.
- Lamp life - 50,000 burning hours with L 70 criteria.
- CRI > 70, PF > 0.95, THD < 10%.
- Confirms LM 79 & LM 80.
- Special Features : Reverse EMI protection provided / over voltage protection upto 300V / surge protection upto 6kV.



## Outdoor Lighting



### LED Post Top



#### Salient Features

- Available in 40 to 80W.
- Pressure Dia cast Al LM-6.
- Heat resistance toughened glass.
- Confirm 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 L 70 criteria.
- CRI > 75 & Confirms 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 L 70 criteria.
- CRI > 75 & Confirms LM 79.
- Application : 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 Point.
- Programmable Automatic Real Time Operation Of Street Lights With Sunset & Sunrise Time.
- Dimming At Off Peak Hours possible.



**Life just got brighter**  
Lasts upto 50000 burning hours.





# POWERto the NATION!



## Wire & Cables

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

### Domestic & Industrial Wire



#### Salient Features

- Range : 0.5 to 400 Sq. mm in Single Core & Multicore.
- Available in FR / FR-LHS / HR / ZHFR 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.

### Submersible Cable

#### Salient Features

- Range : 1.0 to 50.0 Sq. mm three core flat cable.
- Multi stranded 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.



### Multicore flexible cable as per IS:694/2010



#### Salient Features

- Range :-2C x 0.5 Sq. mm to 25C X 2.5 Sq. mm and 4 core up to 95 sq. mm flexible cable
- Available in FR/FR-LSH / HR/ ZHFR insulation and sheathed cable, and compatible for -15°C, -20°C, -40°C and +70°C, 85°C, 90°C.
- Twisted cores with suitable lay for proper round shaped cable
- Equal and uniform concentricity of insulation and sheath for better IR and HV value.

### Control Cable

#### Salient Features

- Range : 1.5 & 2.5 Sq. mm upto 37 Core, 1100 Volt Grade confirming to IS: 1554-1/1988 & IS 7098-1/1988.
- Solid/ Stranded 100% pure annealed Electrolytic copper conductor.
- Insulation PVC/XLPE/HR
- Armoured/ Unarmoured- GI Round wire/Flat Strip.
- Outer Sheath PVC (ST-1 & ST- 2) /FR-LSH/FR/ ZHFR.
- Heavy Duty Performance.
- Best combination safety.
- Efficient & economical.
- Use in Process Control, Communication and Panel control.





### Telephone Cable



#### Salient Features

- Range : 0.40 & 0.50 Sq.mm 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 : 4-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.
- Gigabite Ethernet.
- Suitable for Voice, Data, Video.
- 100 ohm impedance cable.



### 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.



### Instrumentation Cable

#### Salient Features

- Range : 0.5 Sq. mm to 2.5 Sq. mm Conforming BS 5308-I & II.
- Shielding: Core/Pair/Triad/Quads.
- ABC/ATC, Solid/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.



### 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 flooded, 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 & 95 Sq. mm.
- Flexible tinned 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 upto 12 core.
- Flexible bare annealed electrolytic grade copper.
- PVC insulated & PVC sheathed.
- Specially formulated PVC.



### Fire Alarm & 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/ATC, Solid/Standard 100% pure annealed Electrolytic grade copper conductor.
- Armoured / Unarmoured - GI Round wire / Flat Strip.
- Operating Temperature -10°C +90° C.
- Fire Tests Bs6387 CWZ, BS 8491, IEC 60331- 2.



**Double insulation with  
ultra thin layer**  
HPL domestic wires





# smART

ART MEETS STATE-OF-THE-ART

## Electrical Wiring Accessories

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



### 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

##### 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, UB - Stabilized .
- Voltage (V) DC - 5V.
- Material : Polycarbonate (FR).
- Product is fitted in robust designed assembly plates smug fit on the wall.
- Dust free glossy finish.



### Elmo Switch

#### Salient Features

- Complies with IS 3854:1997
- Tested upto 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 upto 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 swivels 360°.



### 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 plasti 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 opne 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 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.
- 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.
- Material-FR polycarbonate UV stabilized.

### 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.



### 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 filed.
- 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-bult - 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 5 monitors.
- Vandal Proof Metal Cover.

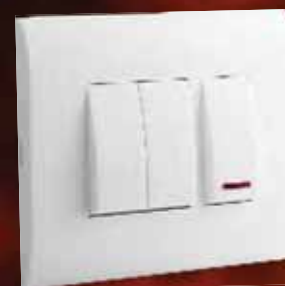


### 5" Video Door Phone with Recording

**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.



**DESIGNED  
to IMPRESS**

- Anti-Spark Shield & Finger Protected Terminals
- High Tensile Brass Screws • Long-Lasting Silver Nickel Contact
- High Grade Engineering Plastic

# Think Solar Choose HPL

## Solar

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



### 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 deriving 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 lightening 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 1000 V DC.
- Obstructs sudden surges due to lightening 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 weather proof for outdoor applications also, highly secure wiring, 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 weather proof even for outdoor applications also, highly secure wiring, 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 IS 13779, IS 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 for Billing months.
- TOD wise, Daily & block 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 during fire.
- Lifetime reliability: lasts up to 30 years even under tough external conditions.



### Solar LED Bulb



#### Salient Features

- High efficiency LED's 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 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 >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.
- Micro processor managed algorithms autonomously determine sunrise & sunset.



**Technology that complements  
your green initiative.**

