

Branch Offices:

AHMEDABAD

B-802, Iscon Elegance, Nr. Prahlad Nagar Corner, Opp. Karnavati Club, S.G. Highway, Ahmedabad-380051
Ph.: 079 - 66168835/36
E-mail: ahmedabad@hplindia.com

BANGALORE

No.2D, 11nd Floor, Farah Winsford, 133, Infantry Road, Bangalore - 560001
Ph.: 080-22863068/69
E-mail: bangalore@hplindia.com

BHUBANESWAR

N3-135, IRC Village, Nayabali, Behind Old Sai Baba Temple, Bhubaneswar-751012, Ph.: 0674-2550826
E-mail: orissa@hplindia.com

CHANDIGARH

SCO-14, 1st Floor, Industrial & Business Park, Phase-II, Chandigarh-160002
Ph.: 0172-2639157/ 8146404442
E-mail: chandigarh@hplindia.com

CHENNAI

"Amar Sindur" S-4, 2nd Floor, No.-43, Pantheon Road, Egmore, Chennai-600 008
Ph.: 044-28551530, 28551537
Fax: 044-42638243
E-mail: chennai@hplindia.com

COCHIN

1st Floor, A.K.S. Mahal Building, XL7813J, Achutha Warriar Lane, M.G.Road, Ernakulam, Cochin-682035
Telefax: 0484-2354595
E-mail: cochin@hplindia.com

DEHRADUN

09/4/6, 1st Floor, East Canal Road, (Near Doon Defence Academy) Dehradun-248001
Ph.: 0135-2664387, 2664367
E-mail: praveensharma@hplindia.com

GUWAHATI

Rajgarh Road, Opposite China Town Restaurant, Guwahati-781003
Ph.: 0361-2450889
E-mail: guwahati@hplindia.com

HYDERABAD

No. 7-1-58, Flat No.403, 4th Floor, Concourse Building, Green Lands Road, Hyderabad-500016, Ph.: 040-66687878
E-mail: hyderabad@hplindia.com

INDORE

203, Millinda Manor 2, RNT Marg, Near Ravindra Natya Grah, Indore-452001,
Ph.: 0731-4280525, 4225540
E-mail: Indore@hplindia.com

JAIPUR

512, 5th Floor, Plot No. 8-9, Corporate Park, Gopal Bari, Ajmer Road, Jaipur-302001
Ph.: 0141-4021035
E-Mail: jaipur@hplindia.com

JAMMU

Plot No.86, Yard No.6, Transport Nagar, Jammu-180006
E-mail: jammu@hplindia.com

KOLKATA

69, Ganesh Chandra Avenue, India House, 7th Floor, Block-C, Kolkata-700013
Ph.: +91 9038094379
E-Mail: calcutta@hplindia.com

LUCKNOW

1st Floor, Jain Building, 14/A5, Park Road Hazratganj, Lucknow-226001
Ph.: 0522-4021687
E-Mail: lucknow@hplindia.com

MUMBAI

2C/H, Rushabh Chambers, 2nd Floor, Off-Makwana Road, Near Rubi Hotel, Marol, Andheri East, Mumbai-400059
E-mail: mumbai@hplindia.com

NAGPUR

Jagtap House, Plot No. 07, 1st Floor, Ganesh Gruh Nirman Society, Near Ganesh Mandir, Ring Road, Pratap Nagar, Nagpur-440022,
Ph.: 0712-2222988
E-mail: nagpur@hplindia.com

PATNA

Hem Plaza, 5th Floor - 510, Frazer Road, Patna-800001(Bihar),
Ph.: +91 9334697299
E-mail: patna@hplindia.com

PUNE

Sunrise Skyline 3rd Floor, Plot No. 28/2 Scheme No. 11 B Opp. MSEE Office Somwar Peth Pune-411001 Ph.: +91 9028032724
E-mail: pune@hplindia.com

RAIPUR

1st Floor, Near Holy Heart School Chattisgarh College Road, Civil Line, Raipur (C.G.)-492006,
Ph.: 0771-4218002/04
E-mail: raipur@hplindia.com

RANCHI

203, 2nd Floor, Mahalaxmi Complex, Line Tank Road, Ranchi-834001
Telefax: 0651-2206144
E-mail: ranchi@hplindia.com

VADODARA

409/410, Silver Oak Complex, Near Sainik Park, Char Rasta, Productivity Road, Akota, Vadodara - 390020 Gujarat
Ph.: 0265-2341747, Fax: 0265-2352107
E-mail: baroda@hplindia.com

VIJAYAWADA

D.No.-29-37-135, 2nd Floor, G. R. Plaza, Eluru Road, Beside Canara Bank, Vijayawada-520002 Ph.: 0866-6622291
E-mail: vijayawada@hplindia.com

Resident Offices:

Agartala	Balasore	Cuttack	Jamshedpur	Malda	Rajkot	Tirupati
Agra	Belgaum	Davangere	Jalandhar	Mangalore	Rourkela	Trichy
Allahabad	Berhampur	Durg	Jharsuguda	Meerut	Salem	Trivandrum
Anantpuram	Bhilai	Goa	Jodhpur	Moradabad	Silchar	Udaipur
Aurangabad	Bhopal	Gorakhpur	Kanyakumari	Mysore	Siliguri	Vapi
Amravati	Bilaspur	Gulbarga	Kolhapur	Nagercoil	Surat	Varanasi
Akola	Bijapur	Hubli	Kota	Nasik	Sholapur	Vellore
Angul	Calicut	Jabalpur	Ludhiana	Patiala	Srinagar	Vizag
Bareilly	Coimbatore	Jabli	Madurai	Pondicherry	Sambalpur	



HPL Electric & Power Ltd

Corp. Office: Windsor Business Park, B-1D, Sector-10, Noida, U.P.-201301, INDIA. | Tel.: 0120-4656300, Fax: 0120-4656333
Registered Office: 1/20, Asaf Ali Road, New Delhi-110002, INDIA.
E-mail: hpl@hplindia.com

Customer Care No. :
18004190198

www.hplindia.com

HPL/PP/ProfileBook/0121



Product Profile

- Switchgear • Metering • LED Lighting • Protection
- Wire & Cables • Modular Switch • Solar



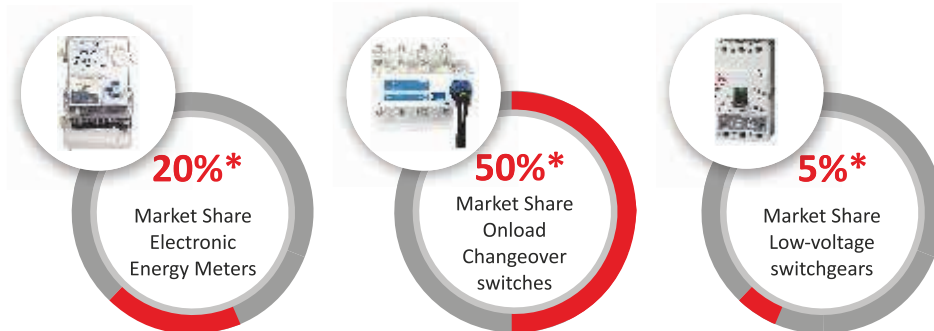
Corporate Profile

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 and 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 five 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.



5th* LARGEST LED MANUFACTURER

*Source : Frost and Sullivan, Feb 2016



HPL is well-placed to seize emerging opportunities

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



Certifications

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

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



Key Strengths

Integrated manufacturing facilities

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

Contents

Meters

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

Page
1-9

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

Page
10-14

Domestic Products

- Osafe - MCB, DB, RCCB & RCBO • Techno N - MCB, DB & RCCB • Rakshak - MCB & DB

Page
15-19

LED Lighting & Luminaires

- Seven Wonders LED Lighting • LED Lamps • Consumer / Commercial / Industrial / Outdoor Lighting / HID Lamps

Page
20-33

Wire & Cables

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

Page
34-36

Electrical Wiring Accessories

- smART - Modular Switch • AC Box • Elmo Switch
- Tuff Solo Switch • Smarter - Accessories

Page
37-39

Solar

- String Combiner Box • String Monitoring Box • Solar Array Junction Box
- AC Distribution Box • AC Combiner Box • LT Panel • Solar Cable
- Solar NET Meter (Import/Export Meter) • Solar LED Street Light
- Solar All In One LED Street Light •

Page
40-43

emfis - Digital Multi-Function Meter



Salient Features

- -/5A 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 kVA and Apparent Power kVA, Total Instantaneous Power Factor, Frequency.
- RS485 Communication (Optional).



emfis - vif Digital Multi-Function Meter

Salient Features

- -/5A 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 -/1A for -/5A (site selectable).
- Additional Parameters Power On Hour / Run Hours.



emfis - vifp Digital Multi-Function Meter



Salient Features

- -/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

- -/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, kVArh (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, -/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 -/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, -/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 .

èbrit : 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).



èbrit : 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 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).



èbrit : 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.



èbrit : 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.



èbrit : 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.

èbrit : 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.



èbrit : 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- 60V AC to 300V AC P-N.
- Pulse output.



Automatic Power Factor Controller (APFC)

Salient Features

- Auto detection of Capacitor Values, KVAr based sensing with sophisticated algorithm
- Phase reversal correction
- Measures Voltage (L-L), Current, Power Factor(Average), Reactive Power(Total)
- Available in 6, 8, 12, 14 steps



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 -/5A.
CT/PT operated -/5A & -/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 : -/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: -/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 & -/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, -/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, -/5A.
- 4 quadrant meter with pulse output LED's for kWh & kVArh.
- 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

- Available in class 1 accuracy as per IS: 16444:2015 Part 1 & Class 0.5s as per IS16444:2015 Part 2.
- Meter rating available in Single Phase 5-30A / 10-60A, 3Ph 10-60A/20-100A, -/5A LTCT operated & -/5A HTCT operated variants.
- LCD type display with backlit & Separate LED for relay status.
- Internal latching relays for Demand & Load Control.
- Suitable for Net Metering.
- Two way communication between Meters & Server for cellular communication and DCU & Server for LPRF communication.
- Tamper event detection, recording and reporting.
- Power event alarm such as Power Outage, Low & High voltage.
- Over the air configuration of programming parameters like TOD, Billing date & time, Integration Period configuration etc. as per IS 15959
- Cellular communication supports DLMS as per IS 15959 with latest amendments.
- Low Power RF on 6LowPAN Mesh technology.
- Cellular communication supports 2G/3G/4G & latest NB-IOT technology.
- Cellular & RF cards are modular based with separate sealing provision.



Prepaid Metering Solutions

Salient Features

- Available in single phase - 10(60)A, Three phase 10(60)A & 20(80)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.



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.



LPR 6LowPAN 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.





Air Circuit Breaker

intelliPROTECT



Salient Features

- Range : 400A – 6300A.
- Operational voltage upto 690V & even above - on request.
- 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.
- Tested & certified as per IS/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%.



Moulded Case Circuit Breaker



TAB™ : Thermal Adjustable Breaker



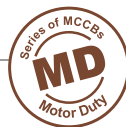
Salient Features

- Conforms to IS/IEC 60947-2.
- Available in 1P, 2P, 3P & 4P Versions rated current from 10A- 800A & breaking capacity (from 10kA to 65kA).
- Single Pole MCCBs are available from 10A-250A with breaking capacity from 10kA-50kA, 3P MCCBs from 63A-250A are available with thermal adjustable feature.
- 4P version available with neutral fully protected.
- Adjustability-offers close protection to different load condition.
- Line load reversibility, Low let through energy.
- Wide range of internal and external accessories.
- ROHS Compliant, also available for DC application.

Motor Duty MCCBs (MD Series)

Salient Features

- Available 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-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.

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 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.
- Sealable cover to avoid tampering, Trip indicator.
- Class 10A or Class 20.
- Site Mounted add on accessories.





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.

Motor 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 50kA, 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 (130 to 290V) or 3 Phase (280 to 440V).
- Short Circuit Protection - MCB/MCCB (10kA) in Deluxe Model.
- Other Protections - Single Phasing / Over Load / Unbalance Voltages / Reversal of Phases.
- Auto - Manual Bypass Switch.
- Ammeter & Voltmeter with Selector Switch.
- LED indications for R, Y, B Phases & Pump ON/OFF.



AV Changeover Switch

HPL AV Onload Changeover Switch

Salient Features

- Range: 6 frame sizes, 63- 3150A, 3 Pole & 4 Pole, IS 13947 part 3/93.
- Arc Chute plates to enhance contact life. 100% rated 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, kVAh, kVAR, kVArh.
- User selectable RS232 & RS485 communications.
- Remote monitoring, Customer Oriented Controllers.
- Configurable over riding voltage parameters.
- Maximum spares for on site repair solutions.
- Programable Monitoring & Control.
- Auto DG Start Stop with Impluse & Continues 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% rated 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 IS 13947 Part 3/93.
- Arc Chute plates to enhance contact life. 100% rated 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.



HPL - AV Cubicle Load Break Switch also in PV

Salient Features

- Range : 63 - 3150A, 3 Pole & 4 Pole, 415 V AC as per IS 13947 Part 3/93.
- **Available also in up to 800V AC & up to 1500V DC.**
- Arc Chute plates to enhance contact life. 100% rated Neutral.
- Pre-wired Auxiliary contacts up to 2NO NC.
- Available in Open Execution / Sheet Steel enclosure.
- Total safety with Terminal Cover, and Phase Barrier as standard feature.





LBS & SDF

LK - HPL Switch Disconnecter Fuse



IS : 13947
CML-9100012591

Salient Features

- Range : 32A to 800A, TP, TPN & 4 Pole, 415V, 50Hz.
- Confirms to latest IS/IEC 60947-3.
- Tested at CPRI for AC-23A duty applications.
- 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 & FP, 415V 50Hz.
- Confirms to IS/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.



IS : 13947
CML-9100012591

Fuse Switches

HRC Fuse Link & Base-BS & DIN Type



IS : 13703
CML-9100011387

Salient Features

- Range (DIN type - Fuse Link & Base) : 6A to 630A.
- Range (BS type - Fuse Link) : 2A to 630A.
- Range (BS Type Fuse Holder) : 20A to 125A.
- Breaking capacity >80kA at 415V, AC, 50 Hz.
- Front Connection options for fuse Holders (of BS type).
- Conforms to IS : 13703 / 93 & IEC 269-1986.
- Low Watt loss.
- Tested at CPRI.

HPL - LT Switchgear

Salient Features

- Range: Rewireable Switch Fuse Unit : 16A to 320A
- Fuse Switch Unit : 63A to 500A
- Changeover Switches : 16A to 2000A
- HPL Porcelain Fuse : 16A to 320A
- Tested at CPRI.
- Confirms to IS/IEC 60947-3 / IS 2086.



IS : 13703
CML-9100011387



Osäfe MCB



Salient Features

- Range : 0.5Amp - 63Amp in SP, SPN, DP, TP, TPN, FP.
- Specification : IS/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 IS12640-2 & IEC 61009-1.





Techno N 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).
- 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 N 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 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 Electrocution, Short Circuit & Electrical fire.
- Consistent performance, Compact & Space saving
- Auxiliary Switch optional.



Techno MCB Changeover Switch

Salient Features

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



Rakshak MCB

Salient Features

- Range: 6 to 63A.
- Available in SP, SPN, DP, TP, TPN & FP.
- ISI marked & conforms to IS:60898-1.
- 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 Isolator

Salient Features

- Range : 40 & 63Amps.
- Conforms to IS 13947-3.
- Available in 2P, 3P & 4P Version.
- Finger touch proof (IP20).





Distribution Systems Single Door



Salient Features

- User friendly, Aesthetically designed available in EX series Distribution Systems in 4ways 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.





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.
- Asthetically 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.



GLO GREEN - The ECO-FRIENDLY Lamp upto 20W



Salient Features

- Low power consumption
- Over voltage protection
- Capable to bear high voltage fluctuation
- Well accepted aesthetic design glare free, soothing light output
- Light weight & Eco friendly
- Surge protection 2.5kv
- Available in 3W, 5W, 7W, 9W, 12W, 15W, 18W, 20W.

KASPER - The Inverter Lamp 9W

Salient Features

- High power backup
- Fast charging
- Inbuilt li-ion rechargeable battery
- Over voltage & over charging protection
- Surge protection 2.5kv
- Automatic switching

*Conditions apply



Chameleon - The Colour Changing Lamp 8W

Salient Features

- Operates through remote control up to 25 mtr distance
- Hassel free operation
- Good aesthetic and glare free
- Creates wonderful room lighting
- Wide operating voltage range





Lumino Gold - COB Light 7W



Salient Features

- High quality COB LED
- Built in driver
- Surge protection 2.5kv
- Unique and elegant design
- BIS approved
- Suitable for junction box
- Poly carbonate cabinet

Mr. Fit - Slim Panel Light 6W & 18W

Salient Features

- Adjustable according to existing cutout
- Frame less Panel
- High lumen output
- Wide operating voltage range
- Surge protection 2.5kv

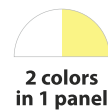


Also available in Square Shape 6w, 12w & 18w

Twisty - The Fixed Holder Panel 7W

Salient Features

- Easy installation by twisting inside the holder
- Dual color changeable
- Soothing architectural light output
- Wide accepted aesthetic design
- Light weight & compact in size



2 colors
in 1 panel

Tara - The Adjustable T-Shape & ARC-Shape Lamp 10W, 20W & 30W

Salient Features

- Better light spread
- Eye comfort technology
- Glare free light output
- Wide operating voltage range
- Surge protection 2.5kv
- Horizontal and vertical adjustable



Also available in ARC-Shape 12w



Bright Star - 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.



LED Panel 2x2 & Economic Panel 2x2 Lighting



Salient Features

- Solid sate 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.

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.





LED Street & Flood Light



Salient Features

- Available wattages - 10W to 100W.
- 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.

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.



Bulk Head



Salient Features

- Available in 10W.
- Made of pc housing.
- Glare free in white color housing.

Filament Lamp

Salient Features

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



ARC Lamp



Salient Features

- Available in 3W & 50W.
- Glare free light Illumination.
- Wide view angle.
- Classic look.
- Direct retrofit solution to replace existing CFL.
- More than 90% energy saving solution vs incandescent lamp.
- Surge protected.

LED PLL Lamp 9W / 18W

Salient Features

- Available in 9W & 18W.
- Replacement of 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





Industrial Luminaries

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.



Canopy Light

Salient Features

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



LED Strom PC



Salient Features

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

Neptune Plus

Salient Features

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



Well Glass IP-65

Salient Features

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



LED Highbay

Salient Features

- Range: 70W / 90W / 100W / 120W / 150W / 180W, 200W & 200W.
- Highly efficient heat sink designed to ensure prolong the life span of the LED.
- 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.





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.



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.



LED Ground Burials & Spike Lights



Salient Features

- Available wattages - 3W to 15W (12W for Spike).
- LED efficacy - upto 130W.
- Lamp life - 50,000 burning hours with L70 criteria.
- CRI > 75.
- Confirms - IP65 (IP66 available on request).
- Application : 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 offers efficacy upto 80-85 lumens / watt.

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

Salient Features

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



Double Ended - 70W, 150W

Salient Features

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



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

Salient Features

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



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

Salient Features

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



Accessories

Salient Features

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



Retail Lighting

Dazzle / C1 / C2

10W, 15W, 18W, 24W, 30W, 36W, 45W



Salient Features

- Professional optical design to ensure beam quality and outstanding effect. Constant color consistency and color homogeneity over the lifetime.
- Low maintenance costs due to low energy consumption and no re-lamping hassle.
- Efficient electronics mounted in isolated driver tray with connectors.
- Recess mounted aimable down light luminaire with housing rotating through 350° and tilting through 20°.

Luma - 10W, 15W, 18W, 24W, 30W, 36W, 45W

Salient Features

- Recess mounted aimable down light luminaire with housing tilting through 20°.
- Optimized heat sink design gives better thermal management to ensure long lifetime.
- Highly efficient aluminium anodized reflector in different beam angles.



Pendula - 10W, 15W, 18W, 24W, 30W

Salient Features

- Pendant mounted down light luminaire
- Professional optical design to ensure beam quality and outstanding effect. Constant color consistency and color homogeneity over the lifetime.
- Inbuilt efficient electronic mounted in isolated driver compartment with connectors.



Extraar - 10W, 15W, 18W, 24W, 30W, 36W

Salient Features

- Recess mounted aimable down light luminaire with housing rotating through 350° and tilting through 60°.
- Professional optical design to ensure beam quality and outstanding effect. Constant color consistency and color homogeneity over the lifetime.
- Low maintenance costs due to low energy consumption and no re-lamping hassle.





Extert V / HLS - 10W, 15W, 18W, 24W, 30W, 36W



Salient Features

- Track mounted aimable down light luminaire in vertical orientation with led housing rotating through 350° and tilting through 180°.
- Optimized heat sink design gives better thermal management to ensure long lifetime.
- Efficient electronics mounted in isolated driver compartment with connectors.
- Power track adapter (2 Wire/4 Wire) provided to the fixture on power track.
- Track mounted aimable down light luminaire in vertical orientation with led housing rotating through 350° and tilting through 90°.

Lumos - 10W, 15W, 18W, 24W, 30W, 36W

Salient Features

- Track mounted aimable down light luminaire in vertical orientation with led housing rotating through 350° and tilting through 90°.
- Optimized heat sink design gives better thermal management to ensure long lifetime.
- Efficient electronics mounted in isolated driver compartment with connectors.
- Power track adapter (2 Wire/ 4 Wire) provided to the fixture on power track.
- Professional optical design to ensure beam quality and outstanding effect. Constant color consistency and color homogeneity over the lifetime.



Bandor - 10W, 15W, 18W, 24W, 30W, 36W

Salient Features

- Track mounted aimable down light luminaire in vertical orientation with led housing rotating through 350° and tilting through 90°.
- Optimized heat sink design gives better thermal management to ensure long lifetime.
- Efficient electronics mounted in isolated driver compartment with connectors.
- Power track adapter (2 Wire/ 4 Wire) provided to the fixture on power track.



Extertdiva - 10W, 15W, 18W, 24W, 30W

Salient Features

- Track mounted aimable down light luminaire in vertical orientation with led housing rotating through 350° and tilting through 180°.
- Optimized heat sink design gives better thermal management to ensure long lifetime.
- Efficient electronics mounted in isolated driver compartment with connectors.
- Power track adapter (2 Wire/4 Wire) provided to the fixture on power track.



Trios



Salient Features

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

Linear Suspended

Salient Features

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



Rays



Salient Features

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

Polo

Salient Features

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



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 conforming to IS: 1554-1/1988 & IS 7098-1/1988.
- Solid/ Stranded 100% pure annealed Electrolytic copper conductor.
- Insulation PVC/XLPE/HR.
- Armourd/ 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 & 0.50mm dia conductors available up to 50 pairs.
- Solid / Stranded Bare annealed copper Conductor.
- PVC / PE Insulated.
- Individual / Overall Shielded with Aluminium tape (Polyester backed)/ Melinex Tape / Wire braiding / Aluminium foil taping.
- Low cross talk, Low attenuation, High speed transmission.

Networking Data Cable (CAT - 5e & 6)

Salient Features

- Range : 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.



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.
- Armourd / Unarmoured - GI Round wire / Flat Strip.
- Low attenuation and cross talk.
- For Analog & Digital Signals & Low structural return loss.
- Use in Digital Control, measuring & Communication systems.



Co-axial Cable /CCS

Salient Features

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





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 & 95Sq. 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 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.



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

Salient Features

- AC 3M/4M with single pole MCB
- Plug top with Indicator
- Plate & Metal box



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.





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 360O.

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.



Dingdong 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.

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.

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.



Batten / Angle Holder / Ceiling Rose



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.

String Combiner Box (1500V DC)



Salient Features

- SCB are first point of contact for Solar PV plant and are used to combine multiple string or arrays from PV modules to collate Single DC Output.
- Designed and manufactured with top quality components and workmanship to deliver best in class product to our clients.
- Designed and manufactured under strict engineering standards to face challenging environmental conditions to deliver undoubted performance on field.
- Offer a wide range of String Combiner Box solution to cater utility, commercial and residential segments.
- Customized product range from 500V DC to 1500V DC with reliable safety features & up to current rating 60A / String.
- Our String Combiner Boxes are in-line with IEC & UL Standards.

String Monitoring Box (1500V DC)

Salient Features

- SMB are advanced version of SCB integrated with PCB to monitor different analog & digital parameters.
- SMB are designed and manufactured with top quality components and workmanship to deliver best in class product.
- Offer string monitoring solutions to Cater Utility, Commercial and Rooftop segments.
- SMB are manufactured with strict engineering standards to deliver high reliability product to face challenging environmental conditions on field.
- SMB are used to measure SPD Status, DC Disconnecter Status, Temperature Measurement, Voltage & Current Measurement & other customized parameters.
- Our String Monitoring Boxes are in-line with IEC & UL Standards.



Solar Array Junction Box (AJB & DCDB)

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.
- The DC distribution unit is used to collect the DC output from Array Junction Box (AJB) and supply it to the inverter.
- HPL AJB & DCDB are insulated according to the requirements of IEC 61439-1 & 2 and tested up to an operating voltage of 1500 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 strokes during cloudy and rainy conditions and ground the surges immediately.



AC Distribution Box



Salient Features

- AC Distribution Boxes are tested and certified as per IEC/IS standard up-to operating voltage of 1000V AC.
- The AC Distribution Box are available in CRCA / Polycarbonate / FRP enclosure with screw and latches opening provision to maintain to deliver better reliability towards tough weather conditions.
- Degree of protection IP-65/66.
- Tailor made product as per customer requirements.
- AC Distribution Boxes CRCA Enclosure are crafted with in house powder coating and phosphating facility.

AC Combiner Box (800V AC)

Salient Features

- Designed and developed to combine multiple outputs from string inverter's to deliver safe operation of system.
- Designed and manufactured under strict engineering rules and regulation to deliver best in class product to our customers.
- Manufactured with key and top quality components to face challenging environmental conditions.
- Suitable for indoor & outdoor installation with weatherproof features.
- Tailor made as per customer requirement.
- Suitable for Ground Mounted/Rooftop Solar projects.
- AC Combiner Boxes are inline with IEC & IS Standards.



LT Panel

Salient Features

- Designed and manufactured under strict engineering standards to deliver best in class product with reliable safety features.
- Manufactured with top quality and precise rating components to deliver product with unparalleled quality.
- Suitable for Indoor & Outdoor installation with weatherproof features.
- With team of technical competence, product can be tailor made as per project requirement.
- With competent compartmental design and maintaining clearance and creep age ratio our product stands to mark in terms of durability.
- Suitable for Ground Mounted/Rooftop applications.
- LT Panels tested as per IEC & IS Standards.



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 NET Meter (Import/Export Meter)

Salient Features

- Available in Single Phase & Three Phase as per BIS.
- AMR compatible unit for local and remote communication.
- Internal Battery Back up to Display Meter Data in power off event.
- kWh, kVAh measurement for import & export mode.
- History of energy consumption for Billing months.
- TOD wise, Daily & block load survey for profile Data availability.
- Self Diagnostic facility, Anti -Tamper/Event logging.
- Data download through optical Port & RS 232 port.
- Backlight LCD display & Minimum 200 Tamper event data.



Solar LED Bulb / Battan



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.

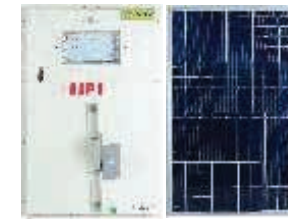
Solar LED Street Light

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.



Solar All In One LED Street Light- 9W, 12W, 15W, 20W & 25W



Salient Features

- Aesthetic and compact design in extruded aluminium construction.
- High efficiency SMD LEDs with CRI >80, lighting system efficiency upto 120 Lm/W, CCT - 6000°K to 6500°K.
- Secondary lens optics for street lighting application.
- Full Power upto 12 hrs, Saving mode upto 48 hrs.
- Integral PIR sensor.
- MPPT / PWM charge controller with 85 to 95% efficiency.

Solar All In One LED Street Light- 30W, 40W, 50W, 60W & 70W

Salient Features

- Aesthetic and compact design in extruded aluminum construction.
- High efficiency SMD LEDs with CRI >80, lighting system efficiency upto 120 Lm/W, CCT - 6000°K to 6500°K.
- Full Power upto 12 hrs; Saving mode upto 48 hrs.
- Secondary lens optics for street lighting application.
- Integral PIR sensor.
- MPPT / PWM charge controller with 85 to 95% efficiency.

