From Sky To Earth

ADAS Earthlink
& Engineers Private Limited

EARTHING & LIGHTING PROTECTION SYSTEM

About Us

ADAS Earthlink & Engineers Pvt. Ltd. is a leading manufacturer of advanced Lightning Protection and Earthing Systems, delivering high-performance, reliable solutions for industrial, commercial, and residential safety. Backed by cutting-edge technology, strict quality standards, and full regulatory compliance, our systems are designed to protect lives and infrastructure from lightning hazards. With a focus on customization and client satisfaction, we provide not just products—but complete peace of mind. Trust ADAS Earthlink to build safer environments with innovative protection solutions.

Our Mission

We provide innovative, reliable lightning protection and earthing solutions that safeguard people, property, and infrastructure—driven by advanced technology and quality.
Our customer-focused designs ensure safety through high performance and strict standards compliance.

Our Vision

We aim to be a global leader in lightning protection and earthing systems, setting standards in safety, sustainability, and engineering excellence. Our mission is to empower industries and communities for a safer, more resilient future.

Our Product Range

- ACDB & DCDB
- Aluminium Structures (All Types)
- Back Filling Compound
- Cable Tray
- Copper Bonded Earthing Electrode
- Copper Bonded Rod
- Digital Lightning Strike Counter
- Down Conductor Cable
- Electromechanical Based Lightning Strike Counter
- ESE Air Terminal
- ESE Lightning Arrester
- GI Car Parking Structure
- GI Earthing Electrode (Pipe in Pipe)
- GI Earthing Electrode (Strip in Pipe)
- GI Ground Mounting Structure
- GI Solar Pump Structure
- High Mast
- Lightning Protection System
- LT and HT Panel
- Pure Copper Earthing Electrode
- Solar BOS Materials
- Test Link Box

ESE Lightning Arrester

An **ESE (Early Streamer Emission) Lightning Arrester** is a specialized device designed to protect structures and installations from the destructive effects of lightning strikes. It is a type of lightning protection system that works by emitting a streamer or ionized path towards an approaching lightning strike, providing an early point of attraction for the lightning discharge.

The main purpose of an ESE Lightning Arrester is to intercept the lightning strike before it directly hits the structure or installation it is meant to protect. By attracting the lightning discharge, the arrester helps to prevent or minimize the damaging effects of a lightning strike, such as structural damage, fires, equipment failure, and potential harm to occupants.

When a storm approaches and the electric field intensifies, the ion generator in the arrester creates a high-voltage corona effect, which generates ions and initiates the formation of a streamer. This streamer extends towards the approaching lightning and acts as an early attractor, guiding the lightning to the air terminal.

Once the lightning discharge is captured by the ESE Lightning Arrester, it is safely conducted down to the grounding system, which disperses the electrical energy harmlessly into the ground. This diversion of the lightning current away from the structure or installation helps to protect it from direct strikes and the associated damaging effects.

ESE Lightning Arresters are commonly used to protect a wide range of structures, including residential and commercial buildings, industrial facilities, telecommunications towers, airports, and other critical infrastructure. They provide an effective and reliable solution for minimizing the risks posed by lightning strikes and ensuring the safety of people and property.

Protection Radius:-

The protection radius of the ESE air terminal is related to its height (h) relative to the surface to be protected,
to its efficiency & selected protected level. The protection radius calculation formula is:

$Rp = \sqrt{2rh-h2} + \Delta(2r+\Delta)$

where:

Rp (m)	is the protection radius at a given height h
h (m)	is the height of the ESEAT tip over the horizontal plane through the furthest point of the object to be protected
r (m)	20 m for protection level I 30m for protection level II 45m for protection level III 60m for protection level IV
Δ (m)	$\Delta = \Delta T \times 106$

ADAS 30 ESE Air Terminal

Technical Specifications

ESE Lightning Arrester – Piezoelectric BasedTechnology Designed, manufactured & tested as per NFC 17-102 (2011)
Air Terminal tested on 100 KA at 10/350 µS for lightning current & 200 KA for peak current
from the internal laboratory as per NFC 17-102
Δ T = 30 µS (Triggering Time) No external power required, Made from 316L Stainless Steel which makes it suitable for any environmental condition.

Copper Bonded Earthing Electrode

HEIGHT OF MAST (m)	LEVEL –I	LEVEL –II	LEVEL –III	LEVEL –IV
2	20	22	25	29
3	29	34	39	43
4	38	44	51	57
5	48	55	97	71
6	48	55	64	72
8	49	56	65	74
10	49	57	66	75
20	50	59	70	81
30	50	59	72	85

ADAS 60 ESC Air terminal

- ESE Lightning Arrester – Piezoelectric Based Technology
- Designed, manufactured & tested as per NFC 17-102 (2011)
- Air Terminal tested on 100 KA at 10/350 µS for lightning current & 200 KA for peak current
- from internal laboratory as per NFC 17-102
- Δ T = 60 µS (Triggering Time)
- No external power is required
- Made from 316L Stainless Steel which makes it suitable for any environmental condition

Copper Bonded Earthing Electrode

HEIGHT OF MAST (m)	LEVEL –I	LEVEL –II	LEVEL –III	LEVEL –IV
2	31	35	39	43
3	58	1, 2 & 3	40x6x100	25x6
4	76	1, 2 & 3	50x6x100	25x6
5	79	86	97	107
6	79	87	97	107
8	79	88	98	108
10	79	88	99	109
15	80	89	101	111
20	80	89	102	113

Mounting and Monitoring Accessories of
LIGHTNING PROTECTION SYSTEM

Lightning Strike Counter

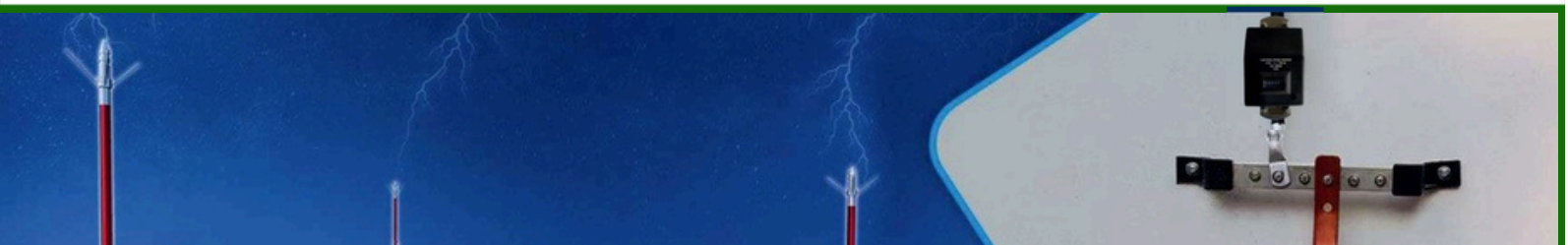
The lightning strike counter is adequately designed to count & record the number of lightning strike events on the connected Lightning Arrester. The Strike counter is connected with the down conductor of the lightning arrester and therefore it sense the electromagnetic waves caused by lightning discharge current on air terminal and records the each occurrence of strike and shows the number of **lightning events.**

Electromechanical Based:-

- O IP 65-rated enclosure.
- Easy to install, the Strike Counter can be retrofitted with any lightning protection system.
- Non-intrusive and fast-sensing proximity circuit detects lightning transient currents .
- It can be mounted at any location along with the down conductor
- External power supply not required.

Digital Strike Counter:-

- It records the time and date of the lightning event, which is displayed on the LCD screen.
- Virtually maintenance-free, with all key components stored in a robust weatherproof (IP65) housing.
- Anticipated battery life of up to 5 years, for reliable, long-standing performance.
- Records lightning strikes regardless of the polarity of the discharge current.
- Easy to install, the Strike Counter can be retrofitted with any lightning protection system.
- Straightforward mounting around down conductors utilizing the mounting plate and screws without the need to remove the down conductor.



Mounting and Monitoring Accessories of LIGHTNING PROTECTION SYSTEM

High Mast:-

A high mast pole is used to mount the Lightning Arrester. It plays a crucial role in safeguarding structures, equipment, and personnel from the destructive effects of lightning strikes. As per NFC 17-102 (2011) distance between Lightning Arrester and mounting surface should be minimum 2 meters. However, height of high mast pole can be customized as per site requirements, to obtain better radius protection.

Down Conductor Cable:-

The primary function of a down conductor in a lightning protection system is to provide a low-resistance path for the lightning current to safely flow from the air terminals (lightning rods) to the grounding system. It plays a crucial role in guiding the immense energy of a lightning strike away from the structure, minimizing the risk of damage and protecting the occupants and equipment.

Here are the key functions and benefits of a down conductor: Conducting lightning current, safe dispersal of current, maintaining electrical continuity.

Test Link Box:-

The primary function of a test link is to provide a convenient and safe method for conducting periodic inspections and testing of the grounding system. By temporarily introducing a known electrical impedance or resistance into the system, it enables technicians or engineers to assess the integrity and performance of the grounding connections.

Complete set of
LIGHTNING PROTECTION SYSTEM

A complete set of a lightning protection system consists of several components that work together to provide comprehensive protection against lightning strikes. These components are designed to intercept, conduct, and disperse the lightning current safely to the ground, minimizing the risk of damage to structures and equipment. Here are the key components typically found in a complete lightning protection system:

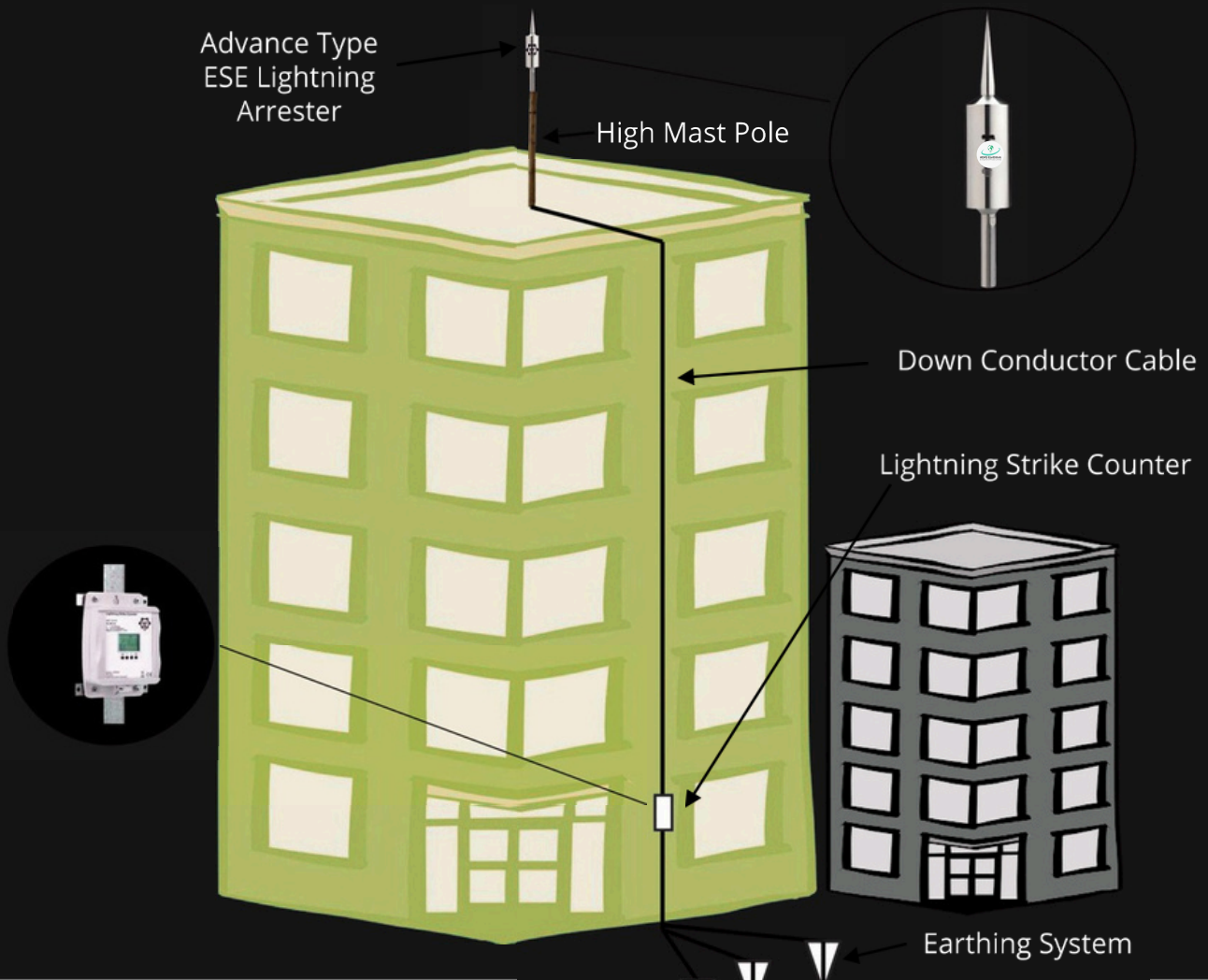
Lightning Arrester: Attract lightning strikes and provide a preferred path for the

High Mast Pole: lightning current to follow Maintains required height between Lightning Arrester & mounting surface.

Down Conductor: Connect the Lightning Arrester to the Earthing system and provides a low-resistance path for the lightning current to flow safely towards the ground.

Strike Counter: Records the each occurrence of lightning strike event.

Earthing System: It serves as the final destination for the lightning current, allowing it to disperse harmlessly into the earth.



EARTHING / GROUNDING SYSTEM

A complete set of a lightning protection system consists of several components that work together to provide comprehensive protection against lightning strikes. These components are designed to intercept, conduct, and disperse the lightning current safely to the ground, minimizing the risk of damage to structures and equipment. Here are the key components typically found in a complete lightning protection system:

The primary purpose of an earthing system is to provide a low-resistancepath for fault currents, such as those caused by electrical faults or lightning strikes, to flow into the ground.

By redirecting these currents away from sensitive equipment and structures, an earthing system helps prevent electric shock, fire, and damage to electrical components. Earthing provides a low-resistance path for electrical current to flow into the ground. It ensures the safe dissipation of fault currents, lightning strikes, and other electrical disturbances, protecting people, equipment, and structures from electrical hazards. The key features of an earthing system include:

- Electrical Safety Fault
- Current Dissipation
- Lightning Protection
- Equipment Protection
- System Stability
- Compliance with Standards

Back Filling Compound:-

Backfilling compound, also known as earthing compound or earth resistivity booster, is a material used in the construction of earthing systems to enhance the conductivity and longevity of the grounding electrodes. It is typically used to fill the space around buried grounding electrodes, such as ground rods or plates, to provide a low-resistance connection to the surrounding soil. Below are some benefits of backfilling compound:

- Lower Earthing Resistance
- Enhanced Moisture Retention
- Enhancing Earthing Performance
- Increased Stability and Longevity
- Corrosion Protection Compliance

Available types of
EARTHING / GROUNDING SYSTEM

Copper Bonded Earthing Electrode

Product Model	Dia of Electrode (mm)	Length of Electrode (meter)	Connection Terminal (mm)	Inner Strip Size (mm)
ADAS/CBR/14.2	14.2	1, 2 & 3	32×Øx100	250 µ
ADAS/CBR/10.2	10.2	1, 2 & 3	32×Øx100	250 µ
ADAS/CBR/17.2	17.2	1, 2 & 3	32×Øx100	250 µ
ADAS/CBR/19.2	19.2	1, 2 & 3	32×Øx100	250 µ
ADAS/CBR/25.2	25.2	1, 2 & 3	32×Øx100	250 µ

GI Earthing Electrode (Strip in Pipe)

Product Model	Dia of Electrode (mm)	Length of Electrode (meter)	Connection Terminal (mm)	Inner Strip Size (mm)
ADAS/GIEE/48	48	1, 2 & 3	32x6x100	25x3
ADAS/GIEE/58	58	1, 2 & 3	40x6x100	25x3
ADAS/GIEE/76	76	1, 2 & 3	50x6x100	25x6
ADAS/GIEE/88	88	1, 2 & 3	50x6x100	25x6

GI Earthing Electrode (Pipe in Pipe)

Product Model	Dia of Electrode (mm)	Length of Electrode (meter)	Connection Terminal (mm)	Inner Strip Size (mm)
ADAS/GIEE/48	48	1, 2 & 3	32x6x100	25x3
ADAS/GIEE/58	58	1, 2 & 3	40x6x100	25x3
ADAS/GIEE/76	76	1, 2 & 3	50x6x100	25x6
ADAS/GIEE/88	88	1, 2 & 3	50x6x100	25x6

Available types of
EARTHING / GROUNDING SYSTEM

Pure Copper Earthing Electrode

Product Model	Dia of Electrode (mm)	Length of Electrode (meter)	Connection Terminal (mm)	Inner Strip Size (mm)
ADAS/CBEE/48	48	1, 2 & 3	32x6x100	25x3
ADAS/CBEE/58	58	1, 2 & 3	40x6x100	25x6
ADAS/CBEE/76	76	1, 2 & 3	50x6x100	25x6
ADAS/CBEE/88	88	1, 2 & 3	50x6x100	25x6

Copper Bonded Earthing Electrode

Product Model	Dia of Electrode (mm)	Length of Electrode (meter)	Connection Terminal (mm)	Inner Strip Size (mm)
ADAS/CBEE/48	48	1, 2 & 3	32x6x100	25x3
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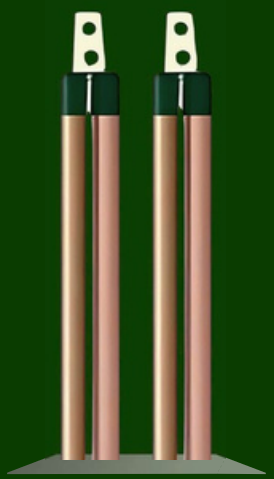

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- Lower Earthing Resistance
- Enhanced Moisture Retention
- Enhancing Earthing Performance
- Increased Stability and Longevity
- Corrosion Protection Compliance

ALL TYPE OF ALUMINIUM STRUCTURE

Our Aluminium Structures are lightweight yet robust, offering exceptional corrosion resistance and ease of handling. They are designed to provide optimal support for solar panels, ensuring efficiency and longevity.

Key Features:

- Anodized aluminum finish for enhanced durability
- Modular designs for quick and flexible installation
- Highly resistant to weathering, making them ideal for diverse climates

Applications:

- Rooftop solar systems
- Ground-mounted systems
- Custom solar installations

GI CAR PARKING STRUCTURE

Our GI Car Parking Structures serve a dual purpose: they act as a protective shade for vehicles while generating clean solar energy. Built with high-grade galvanized iron, these structures are durable, rust-resistant, and easy to maintain.

Key Features:
- Aesthetic and space-saving designs
- Withstands extreme weather conditions
- Customizable layouts to suit client needs

Applications:
- Commercial parking lots
- Residential complexes
- Public parking spaces

GI GROUND MOUNTING STRUCTURE

Our GI Ground Mounting Structures are engineered for large-scale solar installations. The galvanized finish provides superior protection against corrosion, ensuring a long operational life even in harsh environments.

Key Features:
- Precision engineering for maximum stability
- Adjustable tilt angles to optimize energy production
- Suitable for uneven terrains with customizable designs

Applications:
- Utility-scale solar farms
- Rural solar projects

GI SOLAR PUMP STRUCTURE

Specially designed for solar water pump systems, our GI Solar Pump Structures offer a sturdy and reliable framework for solar panels. These structures are built to withstand outdoor conditions and ensure efficient operation of solar pumps.

Key Features:
- Galvanized coating for enhanced durability
- Optimized for easy assembly and maintenance
- Lightweight yet robust design

Applications:
- Agricultural irrigation
- Drinking water supply
- Remote water pumping systems

CABLE TRAY

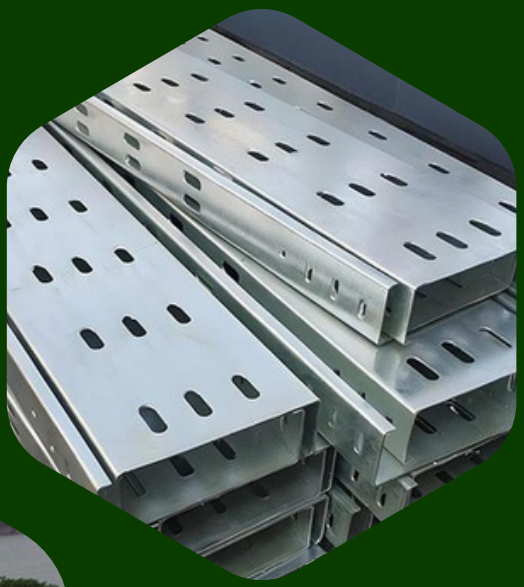
Our Cable Trays provide a practical solution for organizing and protecting solar cables. Designed to support heavy cable loads, these trays are built for durability and ease of installation.

Key Features:

- Perforated design for efficient airflow and heat dissipation
- Corrosion-resistant materials ensure longevity
- Available in various sizes to meet project requirements

Applications:

- Solar power plants
- Industrial wiring
- Commercial buildings

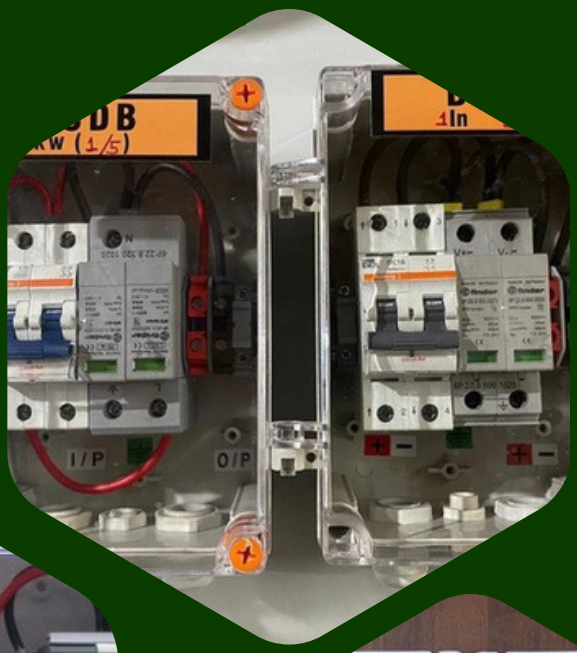


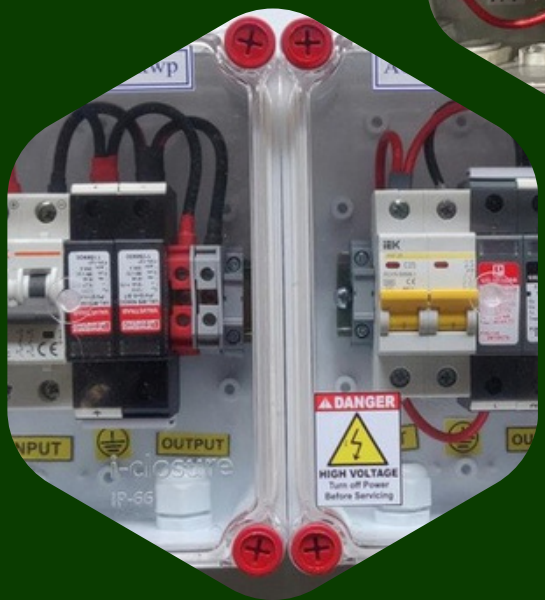
ACDB & DCDB

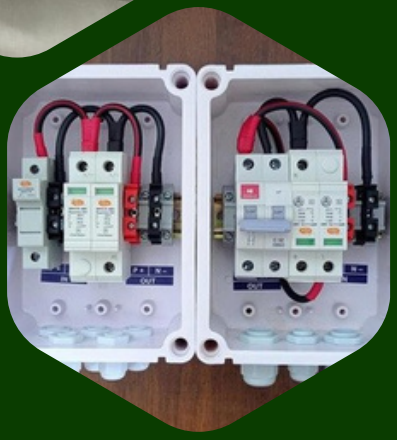
ACDB (AC Distribution Box) and DCDB (DC Distribution Box) are vital for managing and protecting electrical circuits in solar systems. Our boxes are designed to handle high power loads with safety and precision.

Key Features:
- Robust enclosures with IP65 protection
- Pre-installed components for easy installation
- Advanced protection against short circuits and overloads

Applications:
- Rooftop solar systems
- Industrial solar setups
- Hybrid systems







LT AND HT PANEL

Our LT and HT panels are crucial for efficient power distribution in solar energy setups. Built to last, these panels ensure seamless energy management while maintaining strict adherence to safety standards.

Key Features:

- High-performance components for reliable operation
- Modular designs for easy maintenance and scalability
- Comprehensive protection features to ensure operational safety

Applications:

- Solar farms
- Electrical substations
- Large-scale industrial setups

SOLAR BOS MATERIALS

Solar Balance of System (BOS) Materials include all auxiliary components required for a functional solar installation. From wiring to connectors, we supply premium-grade materials to enhance system efficiency.

Key Features:

- Wide range of BOS components for diverse needs
- Stringent quality checks ensure reliability
- Tailored solutions to optimize solar performance

Applications:

- Residential, Commercial and Industrial solar systems

Our Product Certifications:-

PAN India Sales and Service Support

Website:
adasearthlink .com

ADAS Earthlink & Engineers Pvt.Ltd.

We Ground and Guard Your Energy Needs

9891232996, 9457693144

sales@adasearthlink.com
adasearthlink@gmail.com