KELL















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About us

Welcome to Kalloor Electronics (KELL): Powering the Future with Innovation and Reliability

We, Kalloor Electronics & Lighting Pvt. Ltd (KELL), are leaders in the electrical products industry, known for our commitment to excellence, innovation, and customer satisfaction. With decades of experience and a deep understanding of the evolving needs of our clients, we offer a comprehensive range of electrical solutions tailored to meet the demands of modern infrastructure. We have a registered office at Tchad and executing projects there.

Our Vision

We envision a world where reliable and sustainable electrical solutions are accessible to everyone. Our mission is to empower communities and businesses with cutting-edge technology that not only meets today's needs but also anticipates tomorrow's challenges.

Our extensive product lineup includes:

Underground (UG) Cables: Designed for durability and efficiency, our UG cables provide safe and reliable power distribution, even in the most demanding environments.

Aerial Bundled Cables (ABC): Ideal for overhead power distribution, our ABC cables are engineered to minimize power losses and withstand harsh weather conditions.

Household Wires: Offering superior insulation and conductivity, our wires are perfect for residential applications, ensuring safety and longevity.

ELCB and MCB: Our Earth Leakage Circuit Breakers (ELCB) and Miniature Circuit Breakers (MCB) are designed to protect your electrical systems from overloads and short circuits, providing peace of mind.

PN DB (Three Phase Distribution Board): Our TPN DBs are built for efficient power distribution, with a focus on safety, accessibility, and ease of maintenance.

Prepaid Meters (Single-phase & Three-phase): These smart meters offer accurate energy monitoring and billing, empowering consumers with control over their electricity usage.

Transformers: Engineered for efficiency and reliability, our transformers are essential for power distribution in both urban and rural settings.

Generators: Our generators are built to provide backup power solutions for homes, businesses, and industrial facilities, ensuring uninterrupted operations.

Street Lights: Energy-efficient and durable, our street lighting solutions enhance safety and visibility in public spaces.

Fans and Lighting Solutions: We offer a variety of fans and lighting products designed to combine style, efficiency, and performance, making them perfect for both residential and commercial applications.



EMPOWERING INDUSTRY WITH SOLAR ENERGY SOLUTIONS

WHY CHOOSE INDUSTRIAL SOLAR POWER?

- **Sustainability** : Solar power significantly reduces carbon footprints, contributing to environmental conservation and corporate social responsibility.
- **Reliability** : Ensure continuous power supply in regions with unstable or no grid connection."





SOLAR POWER SYSTEMS DESIGN & INSTALLATION

- Tailored solutions to meet the unique energy needs of your industry.
- Expert engineering and project management from start to finish.





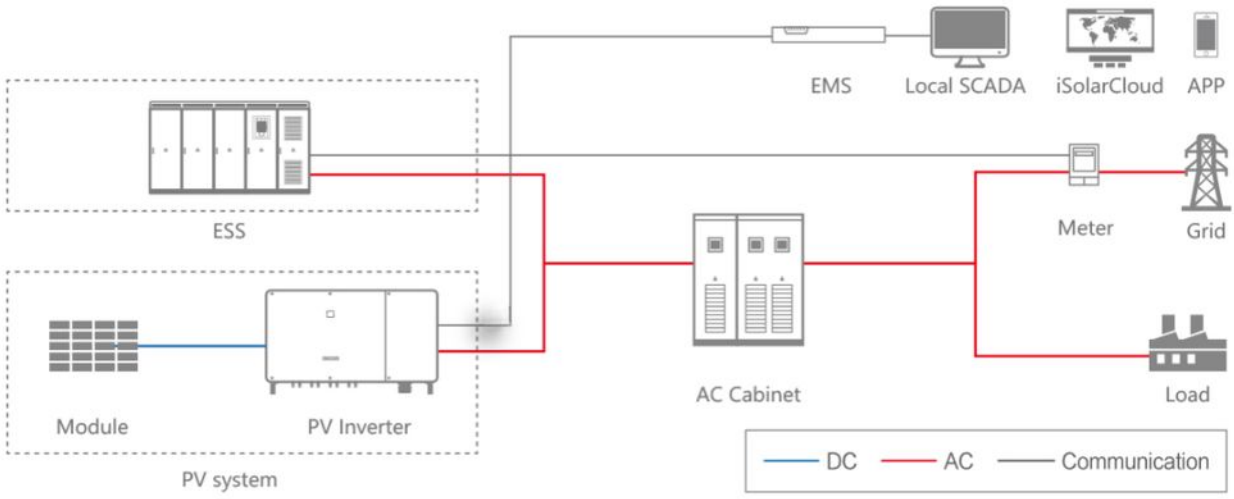


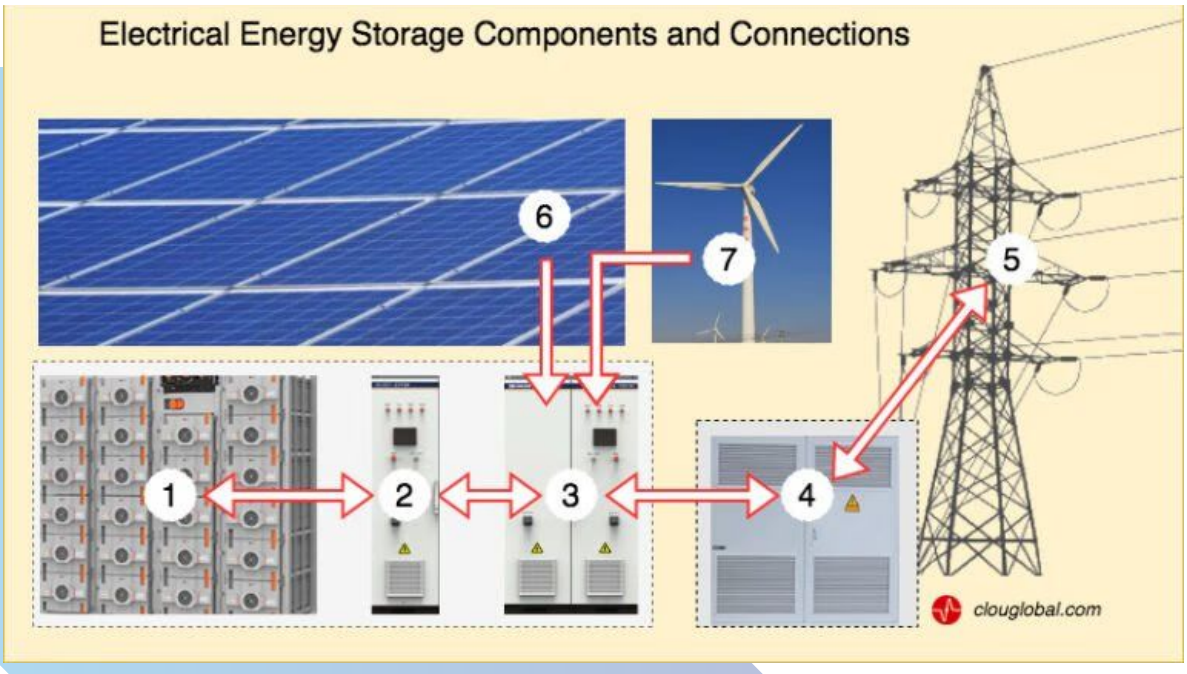


COMMERCIAL SOLAR SYSTEM

Kell provides a comprehensive commercial energy storage system solution tailored to meet the specific needs of your business. Our cutting-edge technology covers DC and AC-coupled Battery Energy Storage Systems (BESS), ensuring optimal performance and efficiency

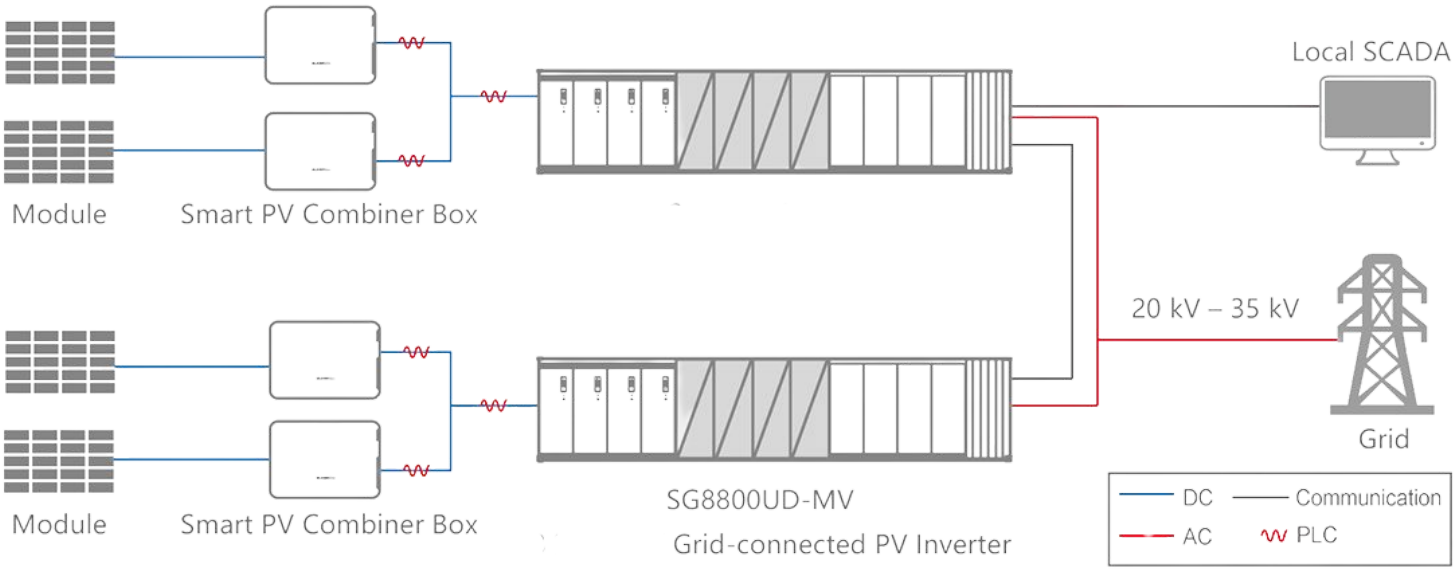
With our commercial energy storage system, you can effectively manage and store excess energy, optimize peak demand, and reduce operational costs. Whether you want to enhance grid stability, participate in demand response programs, or achieve energy independence, kell commercial energy storage system empowers your business to thrive in the evolving energy landscape.





Utility System

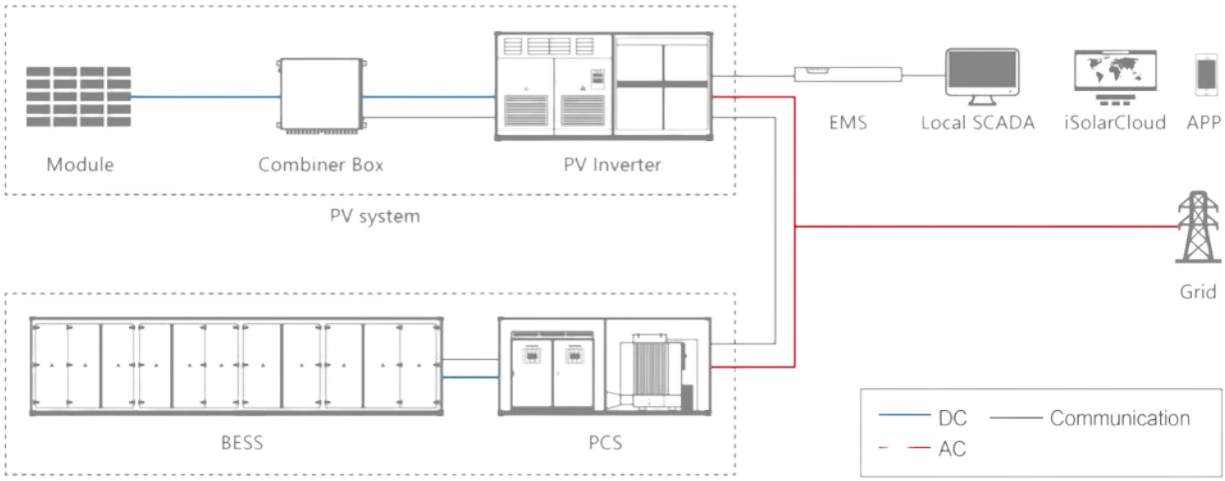
Maximize your energy production with our utility-scale solar power solutions. we offer top-of-the-line large scale solar systems and inverters for optimal performance and efficiency.





Utility Storage System

Power up your potential with KELL- the leading provider of utility-scale energy storage systems. Unleash the strength of our ESS technology and unlock unlimited possibilities for your energy needs.





Utility Storage System

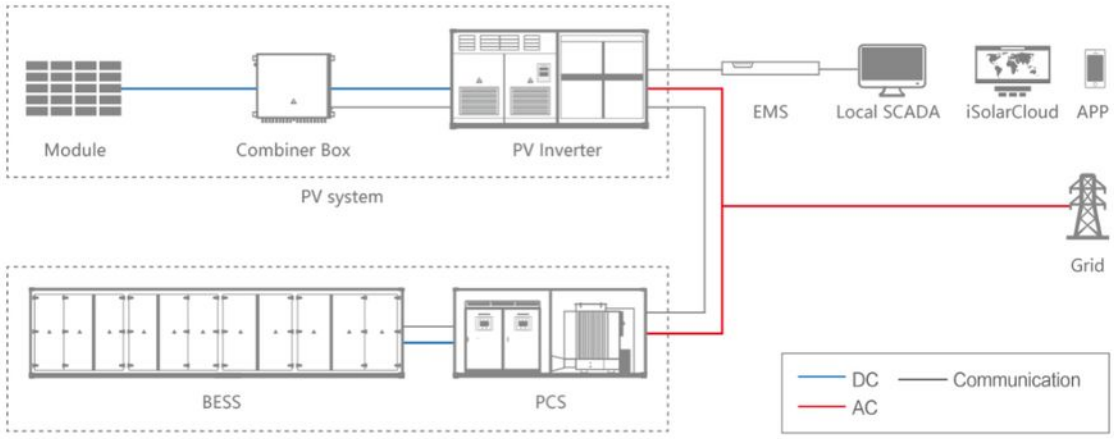




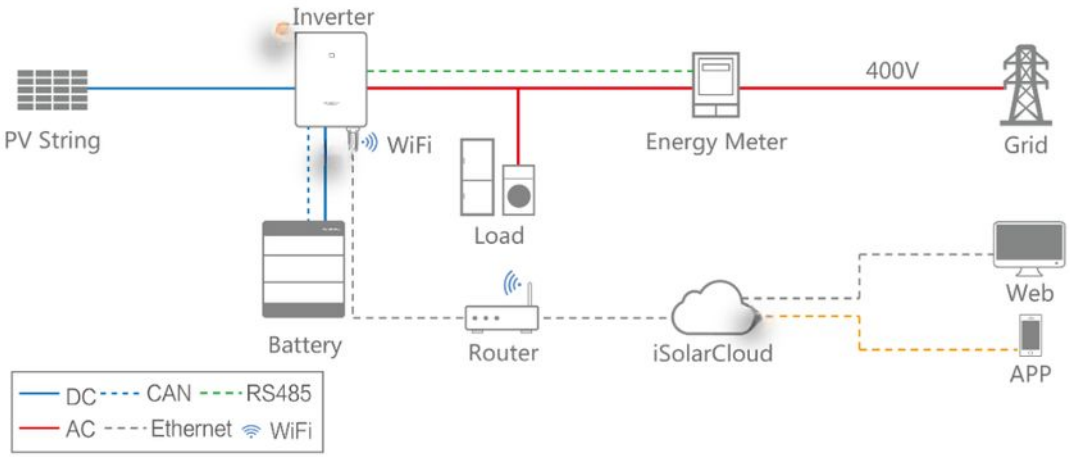
Residential Energy Storage Solutions

Kell offers the solar energy storage solution for homes that allows residents to maximize the benefits of their solar energy systems. With solar energy storage, excess energy generated by solar panels during the day can be stored and used later when the sunlight is not available, such as during the evening or on cloudy days.

This innovative technology and home energy storage system enable residents to become more energy independent, reduce reliance on the grid, and optimize self-consumption of clean, renewable energy.



Single Phase

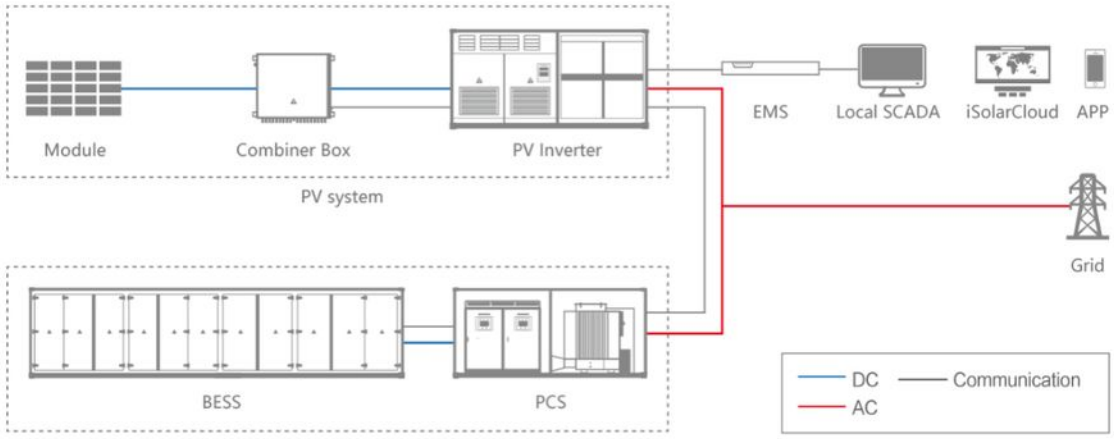


Three Phase

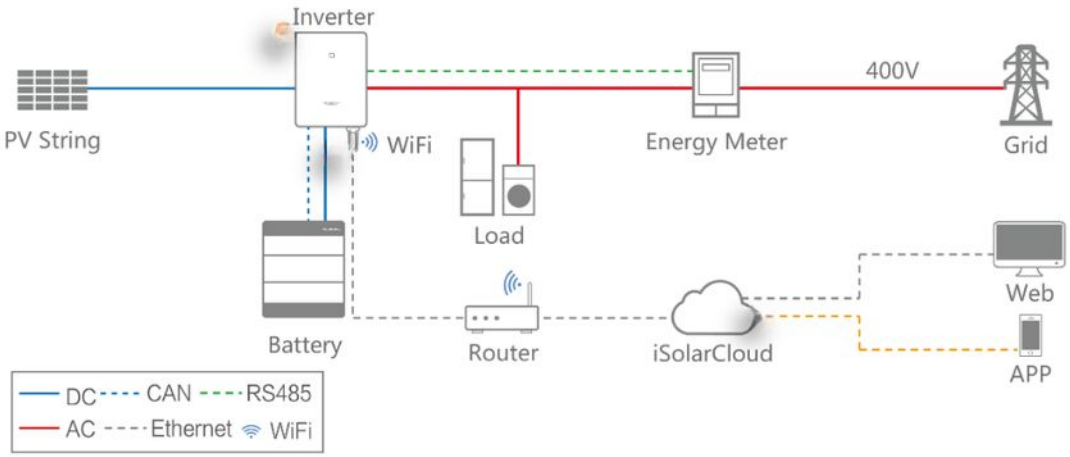
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Single Phase



Three Phase

ENERGY STORAGE SYSTEM

Kell focuses on integrated energy storage system solutions. The core components of these systems include PCS, lithium-ion batteries and energy management system. These “turnkey” ESS solutions can be designed to meet the demanding requirements for residential, C&I and utility-side applications alike, committed to making the power interconnected reliably.





High Voltage Stack up Lithium Battery Modules for Home and Business

The stack mounted Lithium batteries reduce your reliance on the grid by storing your solar energy for use when the sunlight is not available. This series provides an ultra-long service life and extreme reliability in energy storage. Our battery has technical features of excellent performance on higher temperatures, higher capacity range, lighter weight, and pollution-free operation. Our LiFePO4 battery is widely popular by users with a rapid development stance. It is the first choice for the high-requirement energy storage battery solution.





Commercial Hybrid Three Phase Inverter

Using clean energy during the day is no longer a major challenge. However, to enjoy clean power in the evening and at night, storage systems are needed.

Kell offers a wide range of Power Conversion System ranging from 50kW to 8MW and Hybrid Inverter ranging from 3kW to 25kW to satisfy most requirements and needs.





High Efficient Solar panels

As there are multiple silicon crystals in each cell, polycrystalline panels allow little movement of electrons inside the cells. Polycrystalline solar panels are more eco-friendly than monocrystalline solar panels as they do not require individual shaping and placement of each crystal, these panels also have lower heat tolerance than monocrystalline panels. So, at higher temperatures, these solar panels have lower efficiency than others with high power density.







GALVANIZED OCTAGONAL AND CONICAL STREET LIGHTING POLES

KELL designs and manufactures a wide range of flange mounted type hot dip Galvanized Octagonal, Conical and Swaged poles in its modern plant.

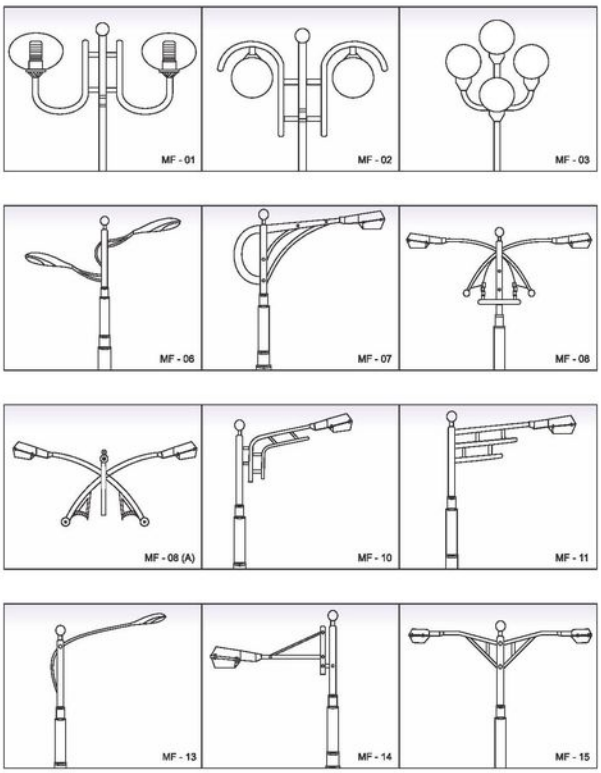


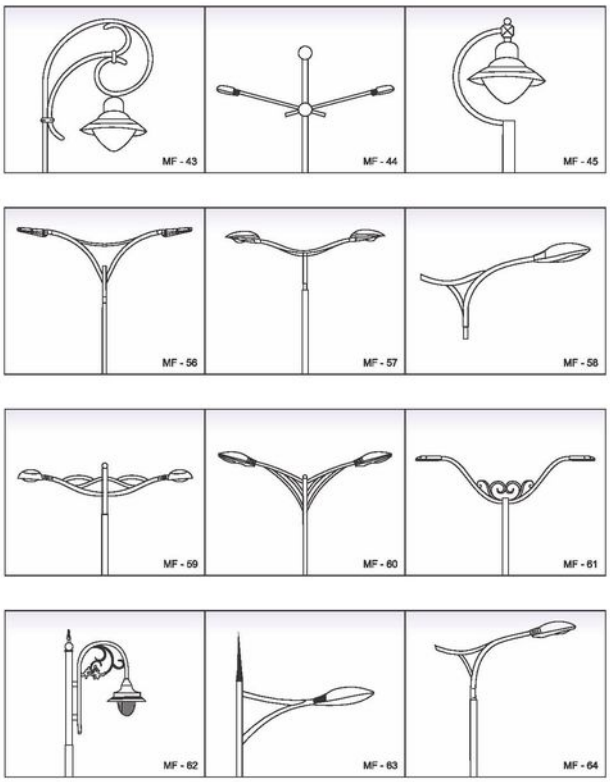


DECORATIVE STREET LIGHTING POLES

KELL have developed special designs for Tubular and Conical curved poles to meet the requirements of today's Contemporary and modern road designs and blend with Urban cityscape,Architectural forms and designs as per project needs to satisfy Smart City requirements.







HIGH MAST LIGHTING SYSTEMS

KELL designs and manufactures BEST in class HIGH MAST lighting systems from 10m to 50m for India and Global markets widely used in exterior lighting applications in Cities, Industries, Highways, Ports, etc.





APPLICATIONS

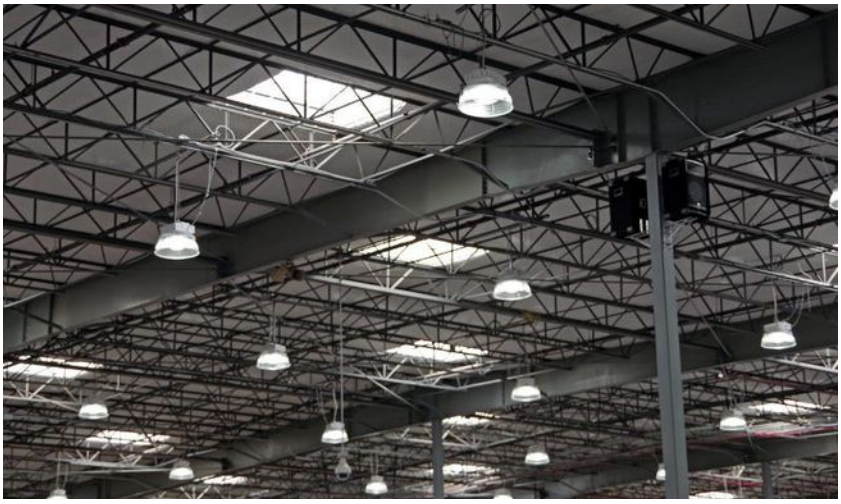
- Exterior Areas
- Security Lighting
- Airport Lighting

LED HIGHBAY LIGHT

Single piece pressure die-cast corrosion resistant aluminum alloy & epoxy powder coated LED High-bay light has highest performance along with outstanding light quality and safety assurance.







STADIUM LIGHTING POLES

Our stadium lighting poles are engineered for high-performance illumination, ensuring optimal visibility for sports and events. Designed to support powerful LED fixtures, these poles offer superior durability, weather resistance, and ease of installation. Ideal for large-scale venues, they provide uniform light distribution, enhancing the safety and experience of athletes and spectators alike.





FLAG MAST

Our flag masts are crafted with precision and durability in mind, made with high-quality materials. These masts are corrosion-resistant and engineered to withstand harsh weather conditions. Available in various heights and finishes, they offer a sleek and elegant appearance while ensuring a prominent and dignified presentation of any flag.





TRANSMISSION & DISTRIBUTION MONOPOLES

Our Transmission & Distribution Monopoles are designed to deliver reliable and efficient support for power transmission and distribution networks. Engineered with advanced materials, these monopoles offer superior strength and stability, even in challenging environments. They require less land area compared to traditional lattice towers, making them an ideal solution for urban and rural installations. With streamlined aesthetics and a reduced environmental footprint, our monopoles are the modern choice for enhancing the resilience and reliability of power infrastructure.







Available in sizes of 9, 10, and 11 meters.



TELECOM ANTENNA MONOPOLES

Our Telecom Antenna Monopoles are expertly designed to support modern communication networks with efficiency and reliability. Constructed from high-grade materials, these monopoles provide robust support for various antenna configurations while maintaining a sleek and unobtrusive profile. Ideal for both urban and rural deployments, they offer a space-saving solution with quick installation and minimal maintenance. Whether for mobile, broadband, or wireless networks, our monopoles ensure optimal performance and coverage.





TRAFFIC & SURVEILLANCE POLES

Hot dip galvanized poles in round, octagonal, 16 to 20 sided cross sections with extended bracket or Cantilever design arms to accommodate needs of junctions, intersections to control the traffic.





Poles which are manufactured to install SIGNAL LIGHTS with optional provision for IOT and Smart City devices, CCTV & ANPR cameras.

AI Solar Surveillance Camera

Security and surveillance poles are precisely designed and fabricated poles meeting stringent standards for performance of Cameras and other surveillance depends on the deflection criteria and flexibility provided on these poles.

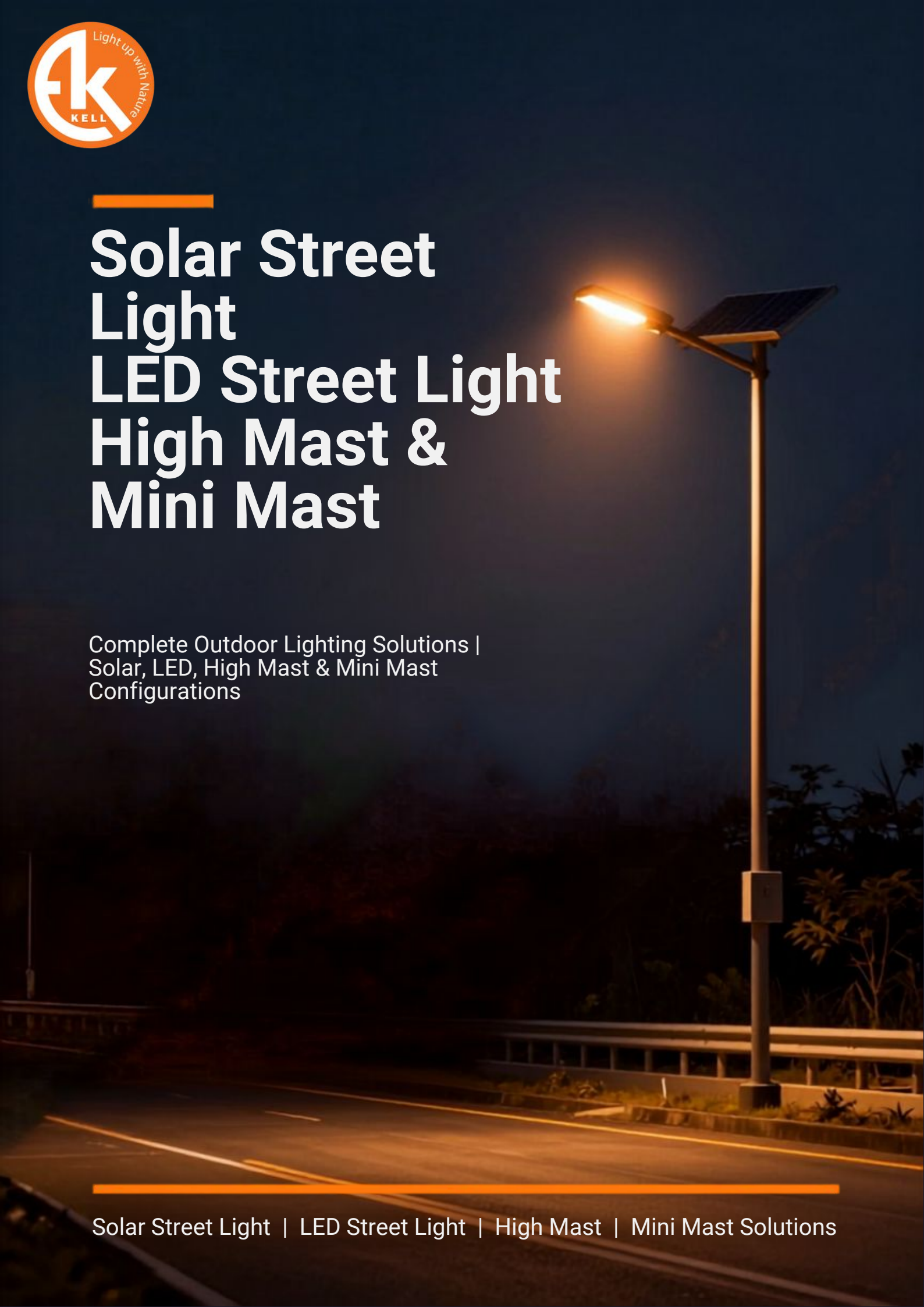


SIGNAGE GANTRIES

Gantries and cantilever structures for signages can be designed, fabricated & installed as per the requirement of the client. These structures are designed and made of flanged, high tensile galvanized polygonal pole sections bolted together giving a high quality aesthetic view and very high durability over other types of structures.







Solar Street Light
LED Street Light
High Mast & Mini Mast

Complete Outdoor Lighting Solutions | Solar, LED, High Mast & Mini Mast Configurations

Solar Street Light | LED Street Light | High Mast | Mini Mast Solutions

PRODUCT INTRODUCTION

Solar Street Lighting Systems (Configurations of 8M, 9M, and 10M)

Engineered for modern transit infrastructure, our Solar Street Lighting System is a premium standalone solution for National Highways. Developed by our R&D team, it showcases efficient LED technology and high-quality components. Our framework leverages advanced LED design and system integration while sourcing top energy generation and storage components globally.

KEY SYSTEM HIGHLIGHTS

- **Highway configurations available in 8m, 9m, and 10m heights optimize light distribution for different lane widths and geometries.**
- **Purpose-built illumination provides bright, reliable light from dusk to dawn, improving driver safety and visibility on highways.**
- **Optimized Power Integration combines high-efficiency LED luminaires (60W to 120W) with energy-efficient solar panels and durable LiFePO4 battery banks.**
- **Extreme Environmental Adaptability: Built with hot-dip galvanized poles, components are designed to endure heavy monsoons, strong winds, and high coastal humidity, featuring IP66 LED casing and IP65-rated battery box.**

By merging cutting-edge R&D with high-quality global procurement, these multi-height Solar Street Lighting Systems provide a zero-emission, low-maintenance, and highly reliable lighting infrastructure solution tailored specifically for National Highway networks.



CORE TECHNOLOGY

Engineering Excellence Behind Our Solar Street Lighting Systems

1. High-Efficiency LED Luminaire (In-House R&D)

Our in-house designed luminaires use advanced custom power topologies to minimize internal power losses. This engineering maximizes energy conversion for stable highway illumination, even with battery voltage fluctuations.



2. Energy Storage & Integration Strategy

We source high-quality Lithium Iron Phosphate (LiFePO4) battery packs and efficient monocrystalline solar panels from top-tier suppliers to ensure reliability. Our engineering emphasizes the seamless integration of these components, with battery units housed in weatherproof, tamper-proof boxes for safety and thermal risk mitigation year-round.



3. Structural Integrity (8m, 9m, 10m Configurations)

The system's foundation consists of a continuous taper octagonal steel pole, hot-dip galvanized to withstand severe weather, heavy monsoons, and high coastal humidity. Available in heights of 8m, 9m, and 10m, these poles allow highway authorities to choose the optimal luminaire height for uniform lighting across various lane configurations and wind zones.





1. Economic Impact & Return on Investment (ROI)

Transitioning to a standalone solar street lighting system provides NHAI with significant financial benefits, including:

- Zero trenching and cabling costs, reducing infrastructure expenses.

No electricity tariffs, as the system is entirely self-sustaining, eliminating monthly utility bills for highway lighting.





LED STREET LIGHTS

High-efficiency LED lighting solutions for streets and highways



LED Street Light

100W - 300W | IP65 Rated



LED Street Light

15W - 100W | IP66 Rated

✓ Energy Efficient ✓ Long Lifespan ✓ Weather Resistant ✓ Easy Install

APPLICATIONS



Highways



Residential Areas



Industrial Zones



EXPRESSWAY

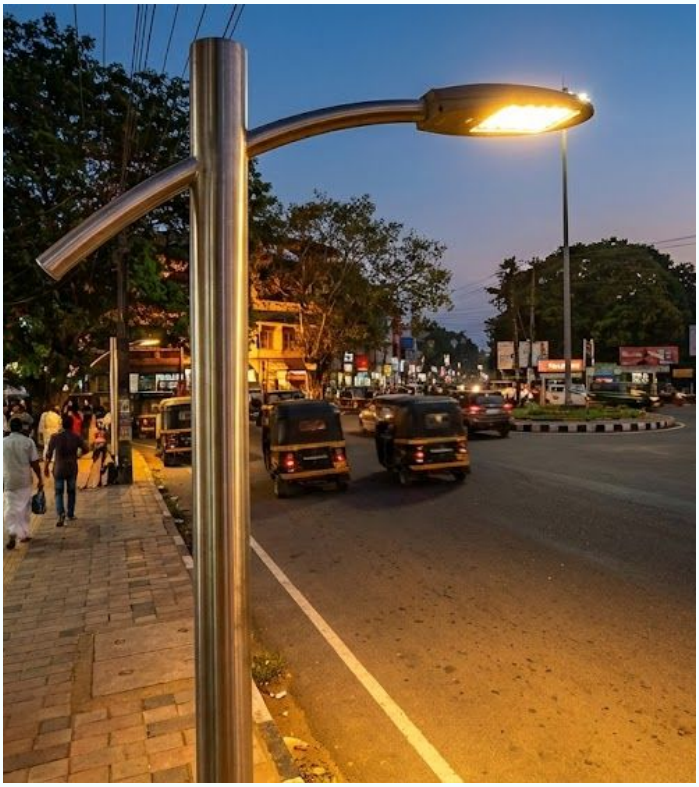

JOS ALUKAS
ALUKKAS






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GALVANIZED OCTAGONAL AND CONICAL STREET LIGHTING POLES

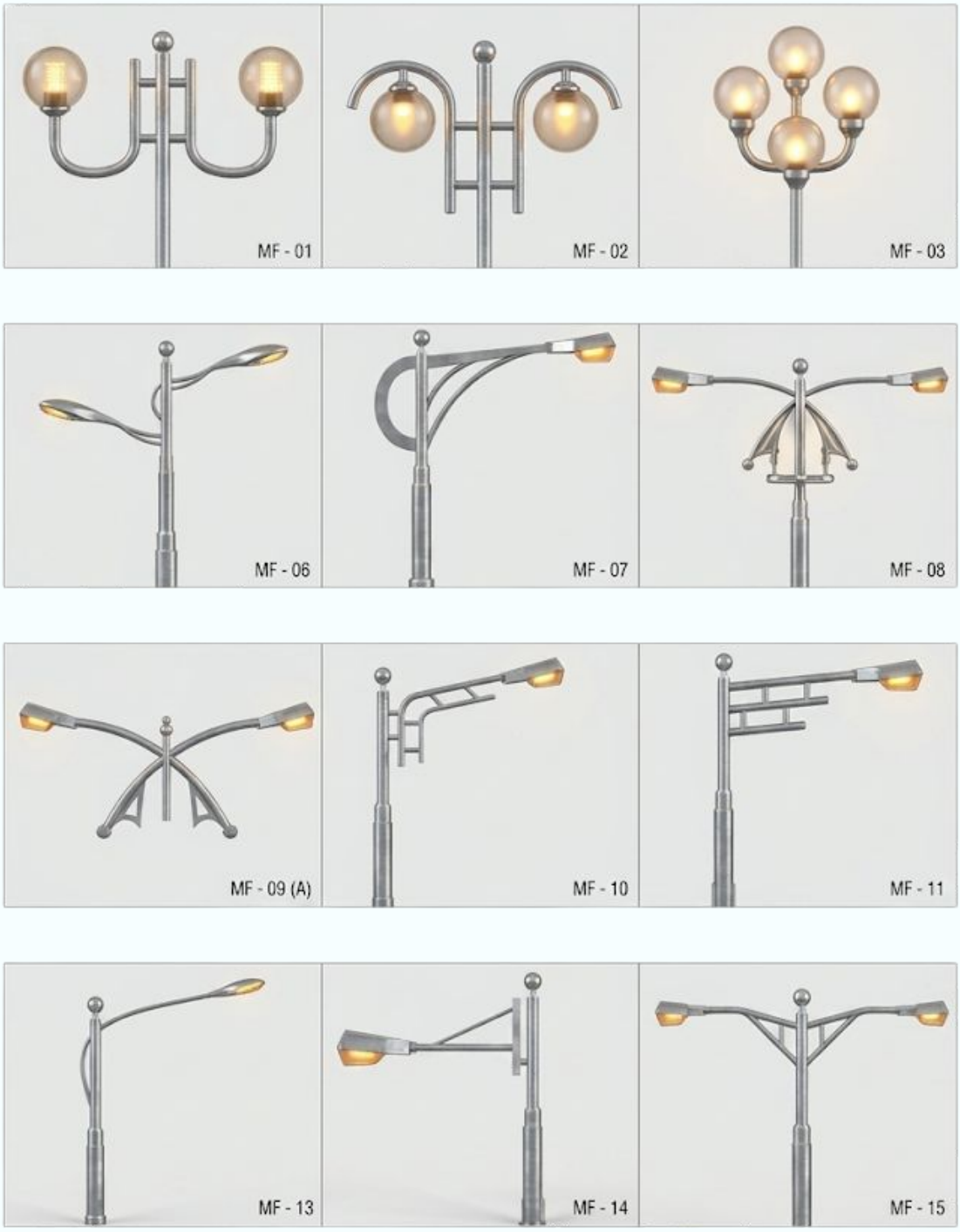
KELL designs and manufactures a wide range of flange mounted type hot dip Galvanized Octagonal, Conical and Swaged poles in its modern plant.







4. Street Light Arm Configurations




MF - 49

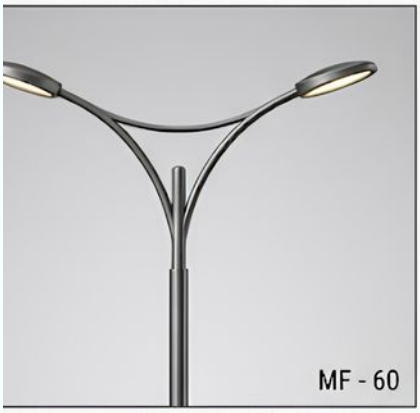

MF - 44


MF -


MF - 56


MF - 57


MF -


MF - 60


MF - 61


MF - 6







COMPREHENSIVE INFRASTRUCTURE: HIGH MAST & MINI MAST SOLUTIONS

1. Expanded Infrastructure Capabilities

Standard continuous taper poles are suitable for primary highways, but complex transit nodes need specialized lighting. Our R&D Engineering division has established integration protocols for Mini Mast and High Mast solar lighting systems to create a complete lighting infrastructure.

2. Mini Mast Systems (6-Meter & 8-Meter Configurations)

Mini masts offer localized, wide-area lighting where standard street lights are insufficient and high masts are impractical.

- Primary Applications: Toll plaza approaches, highway rest areas, service roads, and pedestrian crossings.
- Technical Integration: Equipped with 6m or 8m galvanized polygonal poles, LED brackets, efficient LED drivers, Tier-1 solar panels, and LiFePO4 battery banks providing 2–3 days of autonomy.



HIGH MAST - MINI MAST LIGHTING IN ROADWAYS



Highway Interchange



Cloverleaf Junction



Toll Plaza



Toll Plaza Approach

MINI MAST HIGH MAST LIGHTING IN ROADWAYS



Night View



Day View

3. High Mast Systems (10m, 12m, 16m, & 24m Configurations)

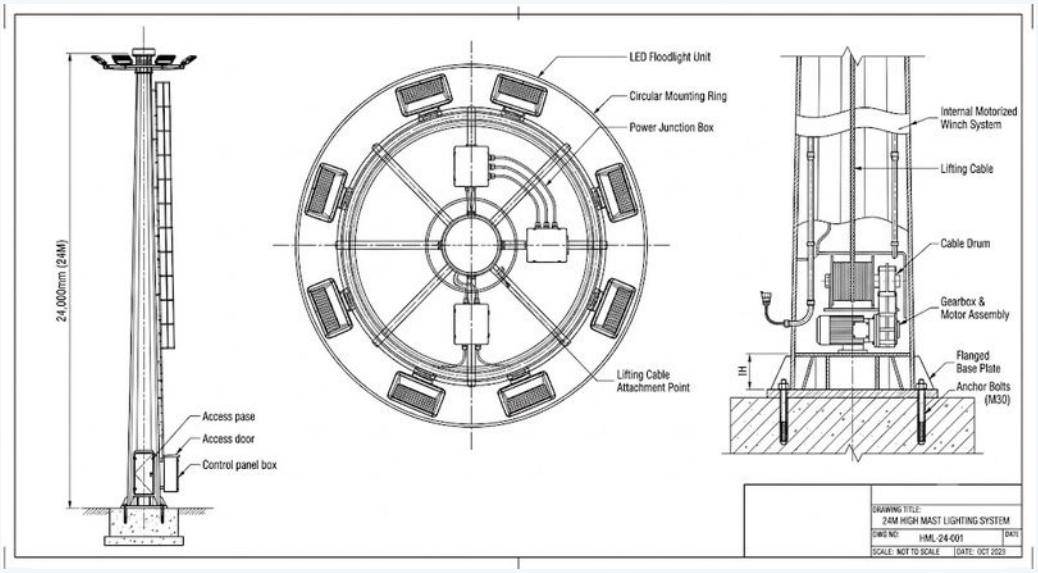
High Mast lighting enhances visibility and safety on highways, reducing the number of poles needed.

- Applications Major highway interchanges, multi-level flyovers, cloverleaf junctions, and toll plazas.
- Engineering: Made from heavy-duty galvanized steel, masts range from 10 to 24 meters and can support 4 to 8 high-wattage LED floodlights.

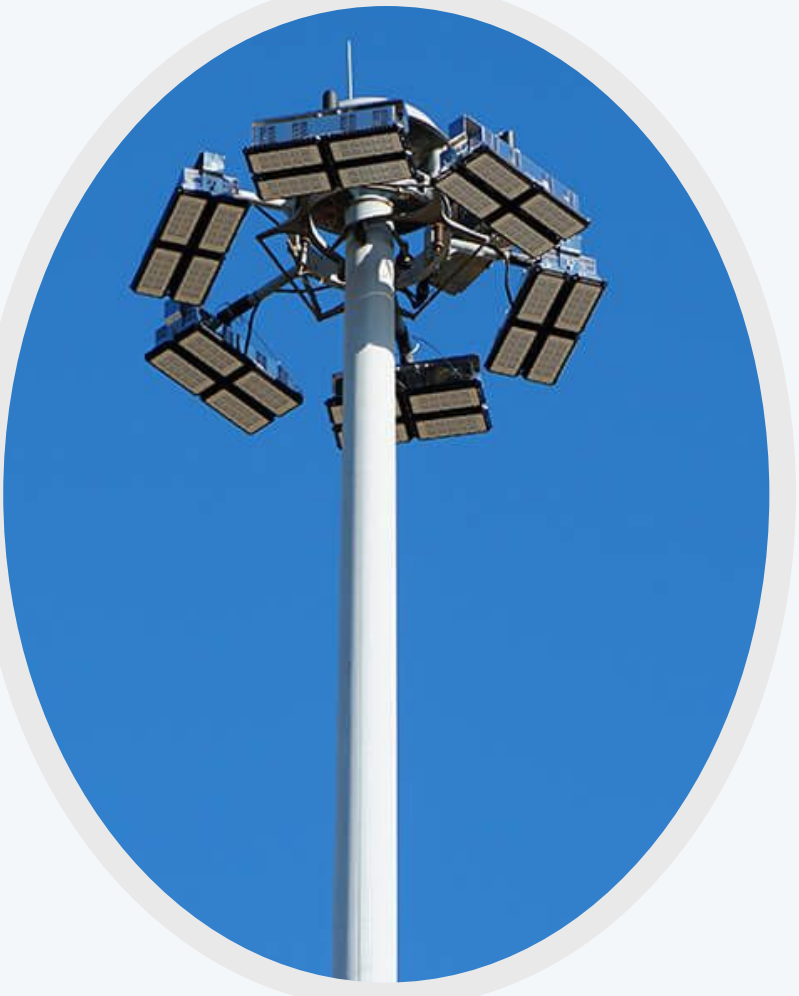




The 24-Meter High Mast Lighting System is designed for large infrastructure projects, providing 360-degree illumination. It features a high-tensile steel pole and a heavy-duty LED floodlight ring. Its key advantage is an integrated motorized winch system, allowing maintenance crews to lower the luminaire ring to ground level easily via an external control panel. This design eliminates the need for costly boom lifts or cranes, reducing long-term servicing costs and minimizing traffic disruption during maintenance.







Conclusion

A Unified Vision for NHAI Infrastructure

As national highway networks continue to expand and modernize, lighting infrastructure must evolve to prioritize energy independence, structural resilience, and absolute safety. Our comprehensive suite of illumination solutions—spanning standard 8- to 10-meter solar street lights, 6- to 8-meter mini masts, and towering 10- to 24-meter high masts—provides a unified, highly adaptable approach to highway safety.

By bridging our proprietary, high-efficiency LED R&D with the strategic procurement of globally vetted Tier-1 energy storage and generation components, we deliver a zero-compromise system.

The Strategic Advantage for NHAI:

Comprehensive Coverage: From straight open corridors to complex multi-level flyovers and toll plazas, our scalable mast heights and tailored luminaire configurations ensure perfect photometric distribution across all transit geometries.

Unmatched Reliability: The seamless integration of premium, safely housed LiFePO4 battery banks and smart charge controllers guarantees consistent weather autonomy, even during the severe monsoons and high humidity typical to our coastal regions.

Optimized Maintenance: With advanced mechanical features like the high mast motorized winch systems and the fully automated, dusk-to-dawn operation of the solar units, ongoing maintenance costs and dangerous traffic disruptions are virtually eliminated.

Sustainable Progress & Rapid ROI: Deploying this standalone infrastructure bypasses the need for expensive underground cabling and permanently eliminates grid utility tariffs, delivering an accelerated Return on Investment while aligning perfectly with national green energy mandates.

Ultimately, this integrated system architecture ensures that every kilometer of the highway remains brilliantly illuminated, economically viable, and fundamentally safe for all motorists and maintenance crews.

Light up with Nature
KELL

SAVE ENERGY



Kalloor Electronics & Lighting Pvt. Ltd. (KELL)

(An ISO 9001 -2015 and 14001 -2015 Certified Company)

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