



**ARAVI**

POWER SOLUTION LLP

**(EPC & TURNKEY PROJECT)**  
**Consultant & Electrical &**  
**Mechanical Material Supply Division**



# ABOUT AARAVI

At Aaravi Power Solution LLP, we light the way forward. Established in 2018, we stand as a beacon of excellence in the field of electrical and mechanical contracting, specializing in cutting edge solutions or industries. With a commitment to quality, innovation & customer satisfaction, Aaravi Power Solution LLP has emerged as the preferred electrical and mechanical consultant.

Aaravi Power Solution LLP (APSL) specializes in high-quality electrical & mechanical supply solutions designed to enhance efficiency, reliability, and sustainability.

We offer end-to-end power solutions including EPC & Turnkey projects, consulting, and the supply of Transformers, Switchgear, and Electrical & Mechanical equipment — ensuring seamless design, procurement, installation, and commissioning.

With advanced testing facilities and a skilled engineering team, we deliver products and services that meet global standards while prioritizing safety, performance, and customer satisfaction.

We look forward to supporting your upcoming projects with high-performance and cost efficient solutions.



**MSME**  
MICRO, SMALL & MEDIUM ENTERPRISES  
सूक्ष्म, लघु एवं मध्यम उद्यम

#startupindia



# OUR VISION

Aaravi Power Solution LLP is more than just a service provider. We are the architects of change. Our comprehensive range of services is designed to meet the evolving needs of the market, providing integrated solutions to complex infrastructure requirements.

# OUR MISSION

Aaravi Power Solution LLP is determined to be the leading company in the field of innovative and cost effective electrical & mechanical engineering. We provide exceptional, high quality, reliable and ethical contracting services. We are committed to growth & development and to be major partner in the development of infrastructure and industrial expansion through our dedication to understanding and meeting the needs and requirements of our customers.



## FACILITIES MANAGEMENT

### PREVENTIVE MAINTENANCE :

Our preventive maintenance program includes comprehensive inspections and testing to pro actively identify potential issues and extend the life of your equipment.

### STATUS MONITORING :

We provide real-time health assessments, fault detection, & preventive measures to avoid equipment failures.

### EMERGENCY RESPONSE :

In the event of emergencies, we offer fast packing, rapid diagnosis, and swift solutions to reduce downtime and prevent further damage.

### ASSET MANAGEMENT :

We manage inventory tracking, lifecycle analysis, and strategic planning to optimize the performance of your assets.

### SUPPLIER AND CONTRACT MANAGEMENT :

Our team efficiently manages vendor relationships, ensuring seamless services through contract supervision and supplier management.



# ELECTRICITY SERVICES

## TRANSFORMER PERFORMANCE OPTIMIZATION :

Maximize the performance of your transformers with our on-site electrical work services. We offer precision regeneration, maintenance, and testing, including filtration, vacuum drying, & regeneration. Our factory services cover troubleshooting, refurbishment, fabrication, & painting.

## COMPREHENSIVE TRANSFORMER MAINTENANCE :

Our services include tap switch adjustments, gasket seal replacements, and comprehensive mechanical, electrical, & oil testing. We provide cost-effective improvements to extend transformer life without replacements, along with annual maintenance contracts to ensure proactive care

## LIFECYCLE MANAGEMENT AND MONITORING :

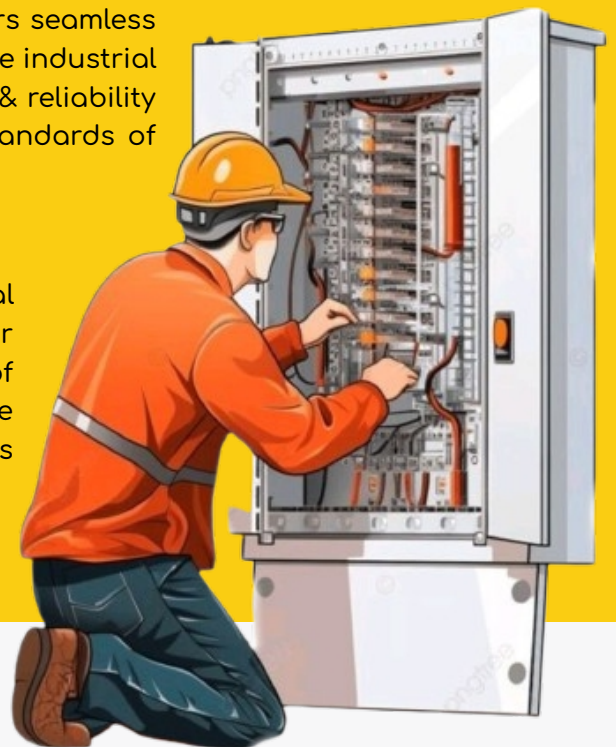
We offer full-scale lifecycle management, including periodic inspections, condition monitoring, and degradation planning. Our services include transformer health checks, testing, and condition monitoring to oversee damage and replacement requirements. Our transformer oil testing, including dissolved gas analysis, provides critical insights into performance.

## ELECTRICAL WORK :

From concept to implementation, our highly skilled team offers seamless workmanship on all electrical projects. Whether it's a large-scale industrial installation or a custom project, Aaravi guarantees accuracy & reliability in every detail, delivering solutions that meet the highest standards of safety and quality.

## INFRASTRUCTURE AND HIGH VOLTAGE :

Aaravi is proud to play a vital role in the development of critical infrastructure and Extra High Voltage (EHV) projects. Our commitment to excellence ensures the successful execution of your projects, whether in transmission lines or high voltage substations. With our expertise, we contribute to the seamless operation and reliability of the electrical grid.



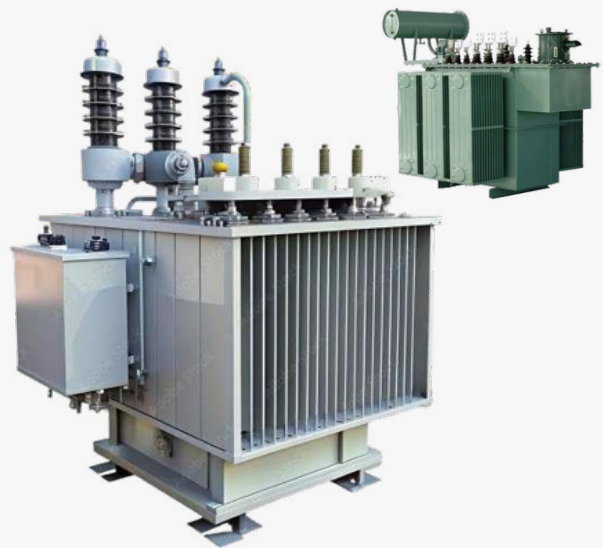


# TRANSFORMER PRODUCTS

## OIL COOLED DISTRIBUTION TRANSFORMERS (UP TO 150MVA) :

KV Class : 3.3KV, 6.6KV, 11KV, 22KV,33KV, 66KV  
Compliance : IS-1180 Part (1) - 2014, IS-202, IEC standards as per respective BIS norms

Our oil-cooled distribution transformers are designed for high efficiency and durability. Available in both off-load and on-load configurations, these transformers are suitable for a wide range of power distribution applications. With hermetically sealed (corrugated) designs, they ensure minimal maintenance and optimal performance under varying environmental conditions.



## DRY TYPE TRANSFORMERS (UP TO 5MVA) :

VPI (Vacuum Pressure Impregnated) Transformers CRT (Cast Resin Transformers)  
KV Class: 3.3KV, 6.6KV, 11KV, 22KV, 33KV

We offer highly reliable and safe dry type transformers, including Vacuum Pressure Impregnated (VPI) and Cast Resin Transformers (CRT), ideal for indoor and environmentally sensitive applications. These transformers provide excellent thermal and electrical properties, making them suitable for critical installations where fire safety is a priority. Available in KV classes from 3.3KV to 33KV, our dry type transformers deliver superior performance while requiring minimal maintenance.





### INVERTER DUTY TRANSFORMERS (SOLAR & WIND, UP TO 150MVA) :

KV Class: 11KV, 22KV, 33KV, 66KV, 6.6KV

Our inverter duty transformers are specially designed for renewable energy applications, including solar and wind power projects. Built to withstand the demanding conditions of renewable energy environments, these transformers ensure seamless integration between the power grid and inverter systems.



Available in KV classes of 6.6KV, 11KV, 22KV, and 33KV, these transformers provide efficient power conversion and contribute to the overall performance and reliability of renewable energy systems.

### COMPACT SUBSTATIONS (UP TO 5MVA) :

Voltage Class: 11KV, 22KV, 33KV, 6.6KV

Our compact substations are engineered to meet the growing demand for space-saving solutions in power distribution. These substations combine various electrical components, including transformers, circuit breakers, and protection systems, into a single, compact unit. With voltage classes of 6.6KV, 11KV, 22KV, and 33KV, they are ideal for industrial, commercial, and renewable energy applications, offering quick installation, high reliability, and superior safety features.



### FURNACE TRANSFORMERS (UP TO 150MVA) :

Up to 33KV class

Our furnace transformers are built to withstand the heavy electrical and mechanical stresses encountered in industrial environments such as steel plants, smelting units, and other high-energy applications. With ratings of up to 150MVA, these transformers are designed for robust performance and long-term reliability, making them an ideal choice for industrial processes that require continuous high-power operations.





### CURRENT TRANSFORMERS (CT) :

Voltage class : 11KV, 22KV, 33KV, 66KV

Our Current Transformers (CT) are designed to meet the diverse needs of power systems, providing accurate current measurements essential for protection, metering, and control applications. Engineered with high precision, our CTs ensure reliable performance even under extreme environmental and load conditions, making them ideal for integration with transformers.



### Technical Specification

- Current Ratio : As per client requirements
- Accuracy Class : 0.2S, 0.5S for metering; 5P10, 5P20 for protection
- Insulation Class : Class E/F/H depending on operational needs
- Frequency Range : 50Hz/60Hz
- Standards : Compliant with IS-2705 and IEC 61869-2

### POTENTIAL TRANSFORMERS (PT) :

Voltage class : 11KV, 22KV, 33KV, 66KV

Our Potential Transformers (PT) are designed to provide accurate voltage measurements for metering, protection, and control in power systems. With a focus on precision, reliability, and safety, our Pts ensure optimal performance in diverse transformer applications, making them indispensable for voltage monitoring and regulation.



### Technical Specification

- Voltage Ratio : As per customer specifications
- Accuracy Class : 0.2, 0.5 for metering; 3P, 6P for protection
- Insulation Class: Class E/F/H depending on operational requirements
- Frequency Range : 50Hz/60Hz
- Standards : Compliant with IS-3156 and IEC 61869-3

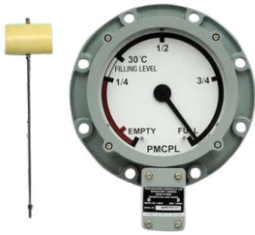


# TRANSFORMER SPARE PARTS



## BUCHHOLZ RELAY (B-RELAY) :

A critical gas-actuated protection device, the Buchholz Relay is used to detect gas accumulation or oil surges in oil-filled transformers. It provides early warning of internal faults, safeguarding transformer reliability.



## MAGNETIC OIL LEVEL GAUGE (MOLG) :

Designed to monitor the oil level in transformer tanks, the MOLG ensures the proper functioning of transformers by preventing low oil levels that could lead to equipment damage.



## PRESSURE RELIEF VALVE (PRV) :

The PRV is an essential safety device that releases excess pressure from transformer tanks, protecting the transformer from overpressure conditions and potential damage.



## RADIATORS :

Radiators are used for cooling oil-filled transformers. They dissipate heat generated during operation, ensuring the transformer remains at optimal temperatures for efficient functioning.



## HIGH VOLTAGE (HV) BUSHING (PORCELAIN) :

Porcelain HV bushings are critical insulating devices for connecting high voltage conductors to transformers. They provide insulation and support while withstanding the electrical stresses of high-voltage systems.



# TRANSFORMER SPARE PARTS



## LOW VOLTAGE (LV) BUSHING (EPOXY) :

Epoxy LV bushings are used for connecting low-voltage circuits to transformers. Their superior insulating properties and durability make them ideal for ensuring safe and reliable transformer operations.



## BUSHING CURRENT TRANSFORMER (BUSHING CT) :

Bushing CTs are used for measuring current in high-voltage systems. They are integral to transformer protection, enabling the monitoring and control of electrical systems.



## BREATHER :

The breather is designed to filter moisture from the air entering the transformer, ensuring the oil remains dry and preventing contamination that could affect the transformer's performance.



## OIL TEMPERATURE INDICATOR (OTI) & WINDING TEMPERATURE INDICATOR (WTI) :

OTI and WTI are used to monitor the temperature of transformer oil and windings. These indicators help in the prevention of overheating, ensuring the safe operation and longevity of transformers.



## GASKETS :

Our high-quality gaskets ensure leak-proof sealing in transformers, preventing oil leaks and maintaining transformer integrity under various operating conditions.



# TRANSFORMER SPARE PARTS



## TRANSFORMER OIL :

Transformer oil is a critical component for the efficient and reliable operation of oil-cooled transformers. Our high-quality transformer oil is engineered to provide maximum performance, ensuring long-term durability & enhanced protection for transformers in various applications.



## TRANSFORMER HARDWARE: NUTS AND BOLTS :

Our high-quality transformer hardware, including nuts and bolts, is designed for securing critical transformer components. Precision-engineered for durability and strength, these fasteners play a vital role in ensuring the structural integrity and performance of transformers in power systems. Manufactured to withstand harsh environments, our hardware ensures reliable connections under high electrical and mechanical stress.

## OUR TRANSFORMER TESTING CAPABILITIES

- Winding Resistance Measurement
- Temperature-Rise Test
- Separate Source AC Withstand Voltage Test
- Induced Voltage Test
- Insulation Resistance Measurement
- Voltage Ratio Measurement and Phase Displacement/ Voltage Vector
- Relationship Check
- Short Circuit Impedance and Load Loss Measurement
- Dissipation Factor Measurement of the Insulation System Capacitances
- Zero Sequence Impedance Measurement for Three-Phase Transformers
- Neutral Current Measurement
- Routine Pressure Test
- No-Load Current Measurement at 112.5% Voltage
- Magnetic Balance Test for Three Phase Transformers
- Permissible Flux Density and Over Fluxing Test
- Oil Leakage Test



# ELECTRICAL PRODUCTS & SOLUTIONS

## EARTHING & LIGHTNING PROTECTION PRODUCTS :

We offer a wide range of earthing and lightning protection solutions, including :

- Earthing rods : Pure copper, copper bonded, copper clad, galvanized steel, and stainless steel.
  - Accessories : Earth mats, grids, plates, tape clips, clamps, split bolt connectors, cable clips, earth bosses, disconnecting links, & insulators. Bimetallic plates and washers.
  - Air terminals : Stainless steel/aluminum air terminals, multi- points, free standing rods.
  - Clamps : Copper 'C' & 'H' type compression clamps, parallel joining clamps, cable tray earthing clamps, and claw-type clamps.
  - Inspection pits : Concrete & FRP, static earth receptacles.
- Grounding materials : Bentonite powder, duct seal compounds, and more.



## EXOTHERMIC WELDING SYSTEMS :

Exothermic welding offers the most efficient method for high - quality electrical connections between copper to copper or copper to steel, commonly used in:

- Grounding, lightning protection, cathodic protection, and railway signaling.
- Our complete kits include graphite molds, weld-metal powder, ignitors, clamps, brushes, scrapers, and more, fully compatible with brands like FURSE WELD, ERICO-CADWELD, THERMOWELD, and WALLIS.



## CONDUCTORS & ROD SYSTEMS :

We supply various conductor types, including :

- Copper, galvanized, aluminum, CCA (Copper Clad Aluminum), and CCS (Copper Clad Steel) conductors.
- Franklin Active ESE (Early Streamer Emission) Rod Systems in accordance with NFC 17-102 standard, offering corrosion-resistant protection for securing open areas.





# ELECTRICAL PRODUCTS & SOLUTIONS

## CONDUITS, FITTINGS, RACEWAYS & BOXES :

- EMT and rigid steel conduits and fittings, liquid-tight flexible conduits, and PVC conduits.
- Explosion-proof, weatherproof boxes, junction boxes, stainless steel enclosures, and plastic boxes.



## CABLE CONNECTIONS & INSTALLATION :

We offer solutions for LV & MV (Low Voltage & Medium Voltage) cable management, including :

- Heat shrink tubing, cable termination kits, lugs, cable glands, cold termination kits, and weatherproof boxes.

## CABLE MANAGEMENT SYSTEMS :

Cable ties, clips, clamps, underground ducts, raceways, suspension supports, & strut channels for electrical, mechanical, & HVAC installations.



## ENCLOSURES :

NEMA-rated free-standing, commercial, outdoor, explosion-proof enclosures, and fiberglass/non-metallic housings for industrial applications.

## LIGHTING SOLUTIONS :

Industrial and explosion-proof lighting fixtures: LED, indoor/outdoor, street lighting, floodlights, high-bay lights, aviation lighting, and decorative lighting



# ELECTRICAL PRODUCTS & SOLUTIONS

## EXPLOSION - PROOF PRODUCTS :

We provide a range of explosion-proof products, including : Hazardous panel boards, motor starters, control stations, variable frequency drives, disconnect switches, receptacles, and lighting fixtures.



## MINIATURE CIRCUIT BREAKER (MCB) :

The Miniature Circuit Breaker (MCB) is an essential component in electrical protection systems, specifically designed to safeguard electrical circuits from damage due to overcurrent, overloads, or short circuits. Ideal for residential, commercial, and light industrial applications,

### Key Features

- Rated Current Range: Typically from 0.5A to 125A
- Breaking Capacity: 6kA to 10kA, depending on the model
- Poles : Available in single-pole, double-pole, triple-pole, & four-pole options
- Durability : Designed for over 10,000 electrical operations Standards : Compliant with IEC/IS standards for safety and reliability



## LT PANEL (LOW TENSION PANEL) :

The Low Tension (LT) Panel is a critical component in power distribution systems for handling voltages up to 440V. Designed to distribute power to various electrical devices and systems efficiently, LT panels ensure smooth and safe operation in residential, commercial, and industrial environments.

### Key Features

- Rated for up to 440V
- Modular design for flexibility and easy maintenance
- Equipped with circuit breakers, isolators, and bus bars
- Built for high durability and optimal safety



## MOLDED CASE CIRCUIT BREAKER (MCCB) :

The Molded Case Circuit Breaker (MCCB) is designed for protecting electrical circuits with higher current ratings, typically found in industrial and commercial settings.

### Key Features

- Rated Current Range: 16A to 1600A
- Breaking Capacity: Up to 100kA depending on the model
- Poles: Available in 2, 3, and 4-pole configuration
- Durability : Designed for over 10,000 electrical operations Standards : Compliant with IEC/IS standards for safety and reliability



## HT PANEL (HIGH TENSION PANEL) :

The High Tension (HT) Panel is engineered for power distribution and protection in systems operating at high voltages, typically ranging from 11kV to 33kV. These panels ensure safe and reliable control of electrical networks in heavy industrial and utility operations.

### Key Features

- Handles voltages from 11kV to 33kV
- Advanced protection with vacuum circuit breakers (VCB) or SF6 circuit breakers
- Sturdy construction for long-term reliability & safety
- Designed for easy operation and maintenance



## RING MAIN UNIT (RMU) :

Ring Main Unit (RMU) is a compact, sealed system used for medium voltage power distribution and protection, typically up to 36kV. It ensures uninterrupted power supply by enabling easy switching between alternate power sources, while also providing protection from faults.



## RTCC PANEL (REMOTE TAP CHANGER CONTROL PANEL) :

The Remote Tap Changer Control (RTCC) Panel is used to remotely control the tap settings of a transformer, ensuring voltage regulation and stability in the power distribution system. It helps maintain a consistent voltage level, even during load fluctuations, by adjusting the transformer taps automatically or manually.



### Voltage Stabilizer:

The Voltage Stabilizer is designed to protect electrical equipment from voltage fluctuations by maintaining a consistent output. It comes in both air-cooled (up to 150 KVA) and oil-cooled (up to 2500 KVA) variants, making it suitable for a range of applications from medium to high power loads. Utilizing advanced dimmer technology with automatic voltage correction, it ensures precise and efficient voltage regulation for stable power supply, making it ideal for industrial and commercial use.



### SMART ENERGY METER :

A Smart Meter is an advanced energy metering device designed for accurate and reliable measurement of electricity consumption. It ensures precise billing, reduces energy wastage, and enhances power management for residential, commercial, and industrial users. Equipped with modern features such as tamper detection, remote monitoring, & data analytics, Smart Meters help optimize energy usage and improve efficiency in power distribution systems.

- Panel Meter
- ABT Meter
- Volt Meter
- Ampere Meter



### CABLE & CABLE ACCESSORIES :

Cable Accessories are essential for connecting, terminating, and insulating electrical cables in power transmission and distribution. They ensure safe and efficient energy flow, providing protection against environmental factors and electrical stress.

### UTILITIES :

Our utility solutions are designed to support diverse industrial applications by ensuring optimal performance and energy efficiency. We provide :

**Chiller Unit :** Efficient cooling systems for various industrial processes.

**RO Plant :** Reverse osmosis plants for water purification and treatment.

**Brine Unit :** Specialized units for refrigeration and cooling using brine solutions.

**Reactor :** Equipment designed for chemical reactions in industrial processes.

**Hot Water Unit :** Provides hot water for industrial applications with precise temperature control.

**Vacuum Pump :** Essential for creating a vacuum for various industrial applications.

**Hot Oil Unit :** Delivers high-temperature heat transfer for industrial processes.

**Cooling Tower :** Effective heat rejection systems for cooling industrial equipment.

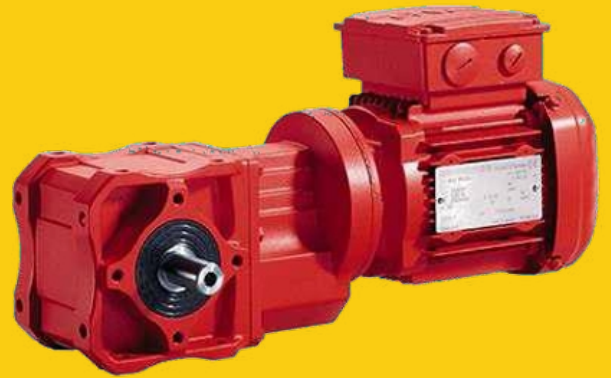
**HVAC :** Comprehensive heating, ventilation, and air conditioning solutions.



## GEAR MOTORS :

Our Gear Motors offer high torque output with efficient speed reduction, making them ideal for applications requiring precision and power. Key features include :

- **High Torque Output** : Ensures powerful performance, even under heavy loads.
- **Speed Reduction** : Provides controlled and efficient speed adjustment.
- **High Resolution** : Delivers precise movements for demanding applications.
- **Compact Design** : Space-saving, allowing for downsizing in equipment.
- **Improved Damping Characteristics** : Reduces vibration for smoother operation.
- **Increased Axial and Radial Load Capacity** : Ensures durability under various load conditions



# INDUSTRIAL OILFIELD & ENGINEERING PRODUCTS



## PIPES :

Our extensive range of industrial pipes includes :

- Carbon Steel, Stainless Steel, Alloy, and Duplex options.
- Available in both ERW (Electric Resistance Welded) and Seamless varieties to suit diverse applications in oilfields and engineering sectors.

## FITTINGS :

We provide high-quality fittings for secure & efficient connections :

- Carbon Steel and Stainless Steel Elbows, Tees, Reducers, Couplers, and Nipples.
- Available in both ERW and Seamless construction, designed for durability and reliability.



## FLANGES :

Our comprehensive flange offerings cater to various industrial needs :

- Welding Neck, Slip-On, Socket Weld, Threaded, Blind, and Spectacle Flanges.
- Available in Carbon Steel and Stainless Steel, ranging from 1/4" to 42" to support various applications.

# INDUSTRIAL OILFIELD & ENGINEERING PRODUCTS



## GASKETS :

We offer a wide selection of gaskets to ensure leak-proof seals :

- Spiral Wound, Flat, Non-Asbestos, Soft Cut, and Metal Ring Gaskets.
- Materials include Carbon Steel, Stainless Steel, Graphite, and Rubber, catering to various sealing requirements.

## VALVES :

Our industrial-grade valves are designed for precision control :

- Ball, Gate, Wafer Check, Globe, and Butterfly Valves.
- Available in manual or Gear Operated configurations, with Solenoid, Pneumatic and Hydraulic options for diverse operational environments.



## STUD BOLTS :

We supply premium-grade stud bolts in :

- Carbon Steel and Stainless Steel, available in B7/B7M/B8 & B8M grades for high strength and reliability.
- Finishes include Black Phosphatized, Electro, and Hot-Dip Galvanized (HDG), ensuring long-lasting performance in harsh conditions.

## OUR OTHER PRODUCTS

## LIGHTS :

Illuminate your surroundings with our advanced lighting solutions. From efficient street lighting to bespoke interior designs, our lighting systems create environments that are not only functional but also aesthetically pleasing. Our solutions are designed to meet both residential and industrial needs, ensuring durability and energy efficiency.



# OUR OTHER PRODUCTS



## CABLE GLAND :

Ensure the safety and reliability of your electrical connections with our premium cable glands. Designed for strength and durability, our cable glands provide secure connections that withstand harsh environmental conditions. Manufactured to comply with international standards, they ensure optimal performance in both industrial and commercial applications.

## FRP/ GRP SOLUTIONS :

Rely on our expertise in FRP and GRP solutions. We are committed to delivering high- quality, durable, and corrosion-resistant materials, ensuring reliable performance across a wide range of applications.

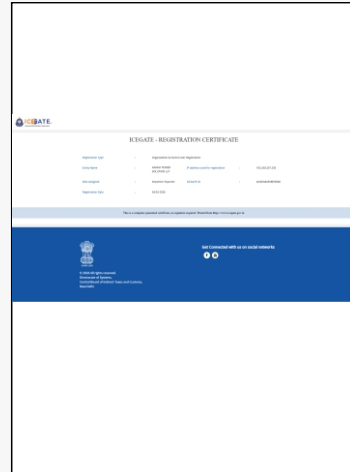
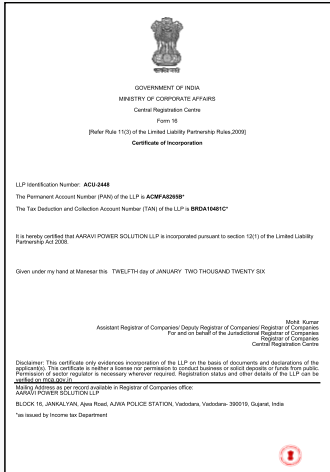
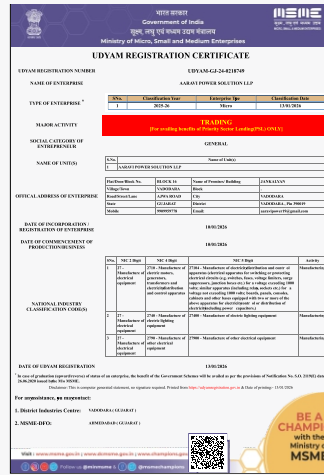
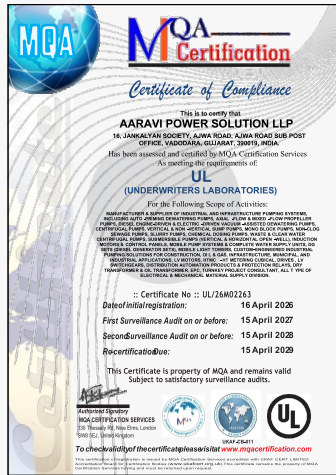


# OUR PRIMARY CLIENTELE & TARGET SEGMENTS

- Power Sector : Power plants, substations, & transmission & distribution facilities.
- Water Treatment : Water and desalination plants, sewage treatment facilities.
- Oil & Gas Industry : Offshore and onshore oil fields, platforms, rigs, hydrocarbon, petrochemical projects, and refineries.
- Industrial Plants : Chemical and fertilizer plants, cement, sugar, paper, steel, and aluminum manufacturing facilities.
- Aviation Sector : Airports, aircraft hangars, and civil aviation projects.
- Seaports & Maritime : Reefer platforms, container terminals, ship chandlers.
- Infrastructure Projects : Roads, bridges, tunnels, and railway/metro projects.
- Landscaping & Development : Golf courses, landscaping, large-scale housing developments, & civil construction projects.
- Cooling Solutions : District cooling plants
- Export Markets : Catering to a wide range of export demands across various sectors.



# OUR ACHIEVEMENTS





**CONNECT WITH US**

**AARAVI POWER SOLUTION LLP  
( EPC & TURNKEY PROJECT )**

**CONSULTANT & TRANSFORMER  
SWITCHGEAR ELECTRICAL & MECHANICAL  
SUPPLY DIVISION.**

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**Shop no.5, Vakratunda Bliss, Near Vaikunth chokdi, Waghodiya Road, Vadodara.**

**GF No. 16, Jankalyan Colony Co. Op. Housing Society Ltd. Situated At Navjivan, Near Old Post Office,  
Waghodiya Ajwa Road, Vadodara**

