

Metatech Power Solutions

“The Power To Amaze”



ELECTRICAL DISTRIBUTION – INDUSTRIAL AUTOMATION – INSTRUMENTATION – TURNKEY PROJECTS

ABOUT US

Metatech Power Solutions is your trusted partner in the field of Electrical Distribution, Automation, Instrumentation, Control systems, & Turnkey Projects offering end-to-end solutions under one roof. Based in Udaipur, we operate with the strong belief in “Excellence Through Expertise and Reliability.”

OUR OBJECTIVE

We are committed to meet the following objectives, as a means of maintaining and developing our relationships with the growing number of clients.

Deliver advanced, cost-effective solutions through continuous growth and innovation.

Build lasting client partnerships by aligning with financial and operational goals.

Foster a skilled, high-performing team through ongoing professional development.

Maintain ethical excellence with integrity, transparency, and professionalism.

Collaborate on strategic projects with clients in regulated, mission-critical sectors

OUR VISION

“Inspiring Innovation, Delivering Impact”.

To become a globally recognized and respected engineering solution provider — driven by innovation, inspired leadership, and a commitment to delivering impactful actions that result in optimal outcomes and lasting value.



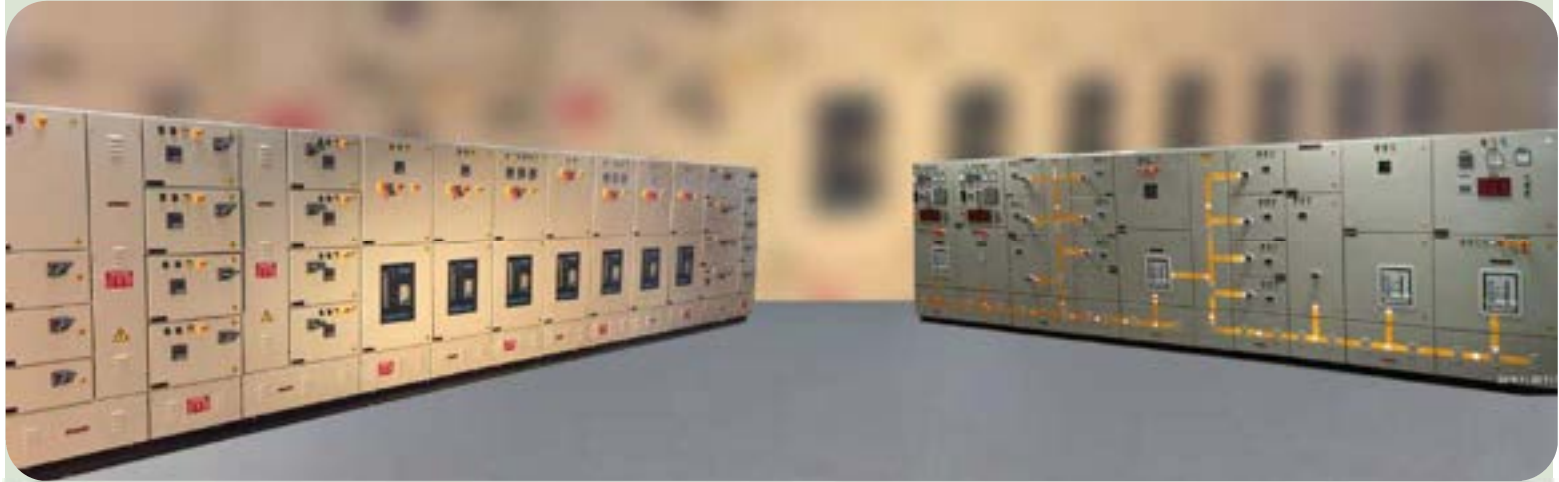
OUR MISSION

“Empowering with Innovation & Integrity”

Our mission is to elevate automation and control systems to enhance industrial productivity, reliability, and efficiency while delivering quality-driven, value-rich solutions—rooted in strong business ethics and social responsibility.



RANGE We Offer



POWER CONTROL CENTER (PCC)

We offer PCC Panel with a current carrying capacity up to 6300 Amp. We have short circuit type Test Certificate of 65 KA / 1sec form GPRI. Our PCC Panel integrated with all necessary protections to ensure that it meets all safety standards prevailing in the industry. As a special feature we provide energy management system through which you can have one month record of energy data of all feeders.



BUS DUCTS

We have product range of Bus Ducts complete with CRCA / Aluminium enclosures. We hold the expertise in design, engineering and manufacturing of various types of bus ducts with a range up to 6300Amp. We provide flexible jumpers if required from the clients' end. As an optional feature we provide Heater, Thermo State, MCB, Rubber Bellow, Silica Gel Breather.

AUTOMATIC POWER FACTOR CORRECTION PANEL(APFC)

We offer APFC Panel controlled through Thyristor cards or contactor based depends on nature of Load. To overcome harmonic effects we use detuned reactors. We supply the panels with APP/ MPP Heavy duty capacitor banks as per characteristics of electrical loads. This panel is of great use to minimize loss and wastage of energy and heavy penalties by electricity boards.



DISTRIBUTION BOARD

We offer Distribution board or Panel board, which is a crucial component in electrical systems that receives power from the main electrical supply and distributes it to various circuits. It acts as a central hub, managing and controlling electricity flow while also providing essential safety features. Key features include circuit breakers or fuses for overload and short-circuit protection, grounding for safety, and enclosures to protect wiring.

MOTOR CONTROL CENTER (MCC)

We offer MCC Panel, Fully draw out / Non draw out / Compartmentalized / Non-compartmentalized / Single front / Double front operated. It is equipped with ACB / MCCB / SFU / MCB, DOL, ATS or Star Delta Starters for Automatic / Manual means of starting and stopping the motor. We provide facility to operate from Local / Remote / DCS from MCC. We offer intelligent MCC which can communicate with PLC, can be controlled from SCADA.





CONTROL AND RELAY PANEL(CRPS)

We manufacture Control & Relay Panels (CRPS) used for the protection of electrical networks ranging from 11kV to 66 kV. Our product range for both indoor and outdoor panels includes. Feeder protection panel for both incoming and outgoing lines Transformer panel covering both HV and LV side protection.

We have expertise in using electromechanical, analog and digital relays in our panels. We integrate relays from popular manufacturers like ABB, Areva, Siemens, GE, SEL. Etc. The panels of varying sizes based on the requirement are designed.

DG SYNCHRONISING PANEL

Synchronising Panel is one of our products which can be used to get total power by Synchronise between 2 DGs or between Mains and DG. By installing this panel one can get power from Mains and DG or DGs at the same time depends on his load demand. It will automatically start / stop DG as per load demand. As special features we provide Synchronising Panel with AMF and PLC so that it can be monitor from control room.



SOFT STARTER PANEL

We offer Soft Starter Panel fully equipped with all the necessary switch gears like MCCB, Bypass Contactor and Soft Starters. Soft Starters protect the mechanical power-transmitting elements of the machines during start-up and ramp down. It also guards the network against high inrush peaks through reduced power input efficiently. It also provides protections like Over Load, Over Current, Under and Over Voltage etc. It has a graphical display and a logical keypad. This enables advanced setup and viewing of operational status.



AMF PANEL

AMF Panel is one of our products which can be used for automatic change over between Mains and DG supply. We offer AMF Panel with necessary switchgears like ACB / MCCB, Contactors, AMF Relay, AC MF Meters, DC Meters, Battery Charges etc. and necessary protections. By installing this panel one can get power from DG at the time of failure of Mains and it will shut off the DG when mains restores.





VFD PANEL

Drive Control Panel is a speed drive that provides a means of driving and adjusting the operating speed of motor. We offer VFD Panel fully equipped with switch gears like MCCB, Bypass Contactor, Input / Output Choke, Speed Control Pot etc. As a special features we provide VFD Panel with DOL / Star Delta starter so that customer can run his motor on DOL / SD at the time of breakdown of VFD.

METERING PANEL

Metering panel is an electrical control panel designed to measure and monitor various electrical parameters within a system, such as voltage, current, power, energy consumption, and harmonics. These panels are used in both residential and industrial settings to ensure efficient energy management and provide data for analysis and reporting.



ANNUNCIATOR CONTROL PANEL

Annunciator control panels are designed to alert personnel to abnormal conditions within a system, such as in industrial processes or fire safety systems. They typically feature visual and audible alarms to indicate various states, like normal operation, warnings, or critical failures. These panels often include features like LED indicators, LCD displays, and configurable alarm prioritization.

LIGHTING DISTRIBUTION PANEL

A lighting distribution panel, also known as a lighting distribution board or panel board, is an electrical enclosure that receives power from the main electrical supply and distributes it to various lighting circuits within a building. It ensures safe and efficient power distribution, incorporating circuit breakers or fuses for protection against overloads and short circuits.



PLC Panels are used for automatic, efficiently and hassle-free operation of Plant / Machine. PLC Panels are equipped with all necessary switchgear like PLC Modules, HMI Display, Main MCB and SMPS for IO Integration etc. For high-end application we provide solution with expandable PLC with SCADA. As a special features we provide Redundant type PLC for critical operation, Ethernet with SIM card so that one can control the PLC from anywhere through internet.



Integrating IoT features with PLCs (Programmable Logic Controllers) enhances industrial automation by enabling real-time monitoring, predictive maintenance, and data-driven decision-making. This integration allows for remote monitoring, control, and optimization of industrial processes, leading to increased efficiency, reduced downtime, and improved overall equipment effectiveness.

```

graph LR
    A[Industrial Remote Access of Machines] --- C(( ))
    B[Analyse and Optimise Industrial Robot Actions] --- C
    C --- D[IIoT in Industrial Automation]
    D --- E[Quality Control]
    F[Plant Safety Improvement] --- D
    G[Predictive Analysis for Machine Maintenance] --- H(( ))
    I[New Functionalities on HMI] --- H
    H --- D
  
```

The diagram illustrates the applications of IIoT in Industrial Automation. A central hexagon labeled "IIoT in Industrial Automation" is connected to six surrounding hexagons, each representing a specific application:

- Industrial Remote Access of Machines** (Orange hexagon, top left)
- Analyse and Optimise Industrial Robot Actions** (Pink hexagon, top right)
- Quality Control** (Purple hexagon, middle right)
- Plant Safety Improvement** (Green hexagon, bottom right)
- Predictive Analysis for Machine Maintenance** (Blue hexagon, bottom left)
- New Functionalities on HMI** (Teal hexagon, middle left)



SCADA SYSTEM

SCADA (Supervisory Control and Data Acquisition) systems and PLCs (Programmable Logic Controllers) are both crucial for industrial automation, but they serve different but complementary roles. SCADA provides a broad overview and control of a system, while PLCs handle the localized control of specific processes. Together, they create a powerful system for monitoring, controlling, and optimizing industrial operations.



INSTRUMENT PANEL

Instrument Panel are used to Monitor / Control the operation of instruments working on Temperature, Level, Flow, Pressure applications. Instrument Panel displays all values like PH, ORP, Temperature, Flow at one place so that one can monitor and control it easily. We can provide annunciator with hooter so that operator has instant idea about any abnormal conditions and it can be controlled immediately.



SOV PANEL

SOV Panel is equipped with fixing and wiring of solenoid operating valves as per electrical and pneumatic requirement. These are manufactured by using quality material and environment friendly processing techniques. By using this panel customer can use his electrical signal for pneumatic applications.



MORE RANGES IN AUTOMATION

- RTU PANEL
- RIO PANEL
- I/O PANEL
- CONTROL PANEL



MOSAIC MIMIC PANELS

Mosaic mimic panels are graphical control panels used to represent and monitor industrial processes or electrical systems. They feature modular construction, allowing for flexibility in design and easy updates. These panels often incorporate indicator lights, alarms, and switches for real-time monitoring and control. The modular design allows for the replacement of individual tiles without affecting the entire panel, and the use of durable materials ensures longevity.

MORE RANGES IN MOSAIC MIMIC PANELS

- UNIT CONTROL PANEL (MOSAIC & MIMIC)
- MIMIC DESK
- MOSAIC DESK

PURGE & EX-PROOF PANEL

Purge panels are used to protect electrical and electronic equipment in hazardous areas by maintaining a positive pressure inside an enclosure, preventing the entry of flammable gases or dust. They achieve this by using compressed air or inert gas to flush out the enclosure and then maintaining a slightly higher pressure inside than the surrounding environment. This prevents the ingress of potentially explosive atmospheres.



SHELTERS

Electrical shelters, also known as E-Houses or electrical buildings, are enclosures designed to house and protect critical electrical equipment. They offer features like structural integrity, environmental protection, and customizable layouts to meet specific needs. These shelters are crucial for ensuring the reliable operation of electrical systems in various applications, including industrial, commercial, and utility settings.

HT PANEL

RING MAIN UNIT

A ring main unit (RMU) is a factory assembled, metal enclosed set of switchgear used at the load connection points of a ring type distribution network. It includes in one unit two switches that connect both sides of the load to the main conductors and a fusible switch or circuit breaker that tee-off to feed a distribution transformer medium voltage to low voltage (MV to LV).

We offer complete range of RMU Units manufactured by ABB / Schneider with different Isolator + VCB Combinations as required by the Client.



JUNCTION BOX (BARE & WIRED)



CRCA JUNCTION BOX

A CRCA (Cold Rolled Close Annealed) junction box is an electrical enclosure made of CRCA sheet steel, designed to house and protect electrical connections. Key features include its robust construction, protection against environmental factors, and options for customization.

SS JUNCTION BOX

Stainless steel junction boxes offer several advantages including durability, corrosion resistance, and suitability for harsh environments. They are often used in industrial settings due to their strength and ability to protect electrical connections from external elements.



FRP JUNCTION BOX

FRP (Fiberglass Reinforced Plastic) junction boxes offer several key features: they are weatherproof, corrosion-resistant, and non-conductive, making them suitable for various electrical applications, especially in harsh environments. They also provide protection against dust, moisture, and impacts.



POLYCARBONATE JUNCTION BOX

Durable, lightweight, impact-resistant, and UV-stabilized, polycarbonate is a preferred non-metallic material for outdoor electronic and electrical applications. Many of our polycarbonate boxes have a clear cover option for quick visibility of internal components.



MORE RANGES IN JUNCTION BOXES AND CONTROL POST

- ALUMINIUM DIE CAST JUNCTION BOX
- GALVANIZED BOX
- BARE CONTROL POST
- TERMINAL BOX
- PUSH BUTTON BOX
- CONTROL POST

PROCESS INSTRUMENTS

PRESSURE TRANSMITTER

A pressure transmitter is a mechanical device that measures the expansive force of a liquid or gaseous sample. Also known as a pressure transducer, this type of sensor is typically composed of a pressure sensitive surface area made of steel, silicon, or other materials depending upon the analyte's composition



PRESSURE GAUGE

Pressure gauge, instrument for measuring the condition of a fluid (liquid or gas) that is specified by the force that the fluid would exert, when at rest, on a unit area, such as pounds per square inch or newton's per square centimeter.

TEMPERATURE GAUGES

Temperature gauges measure the thermal state of a homogeneous substance. The measuring system must be brought as closely together as possible with the body to be measured. The most widely used measuring methods for temperature measurement rely on temperature-dependent characteristics of the body and substance.



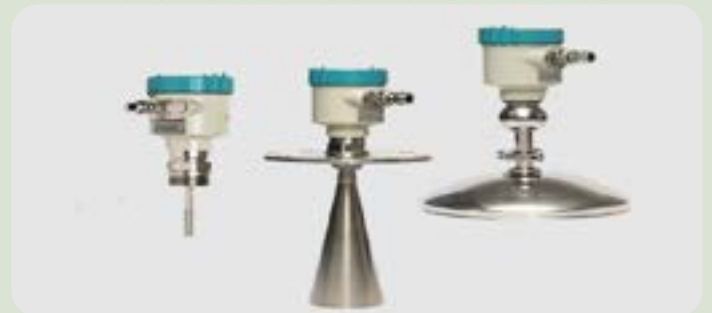
TEMPERATURE TRANSMITTER

A temperature transmitter is used in industrial processes to accurately monitor and control temperatures. Temperature sensors generate electrical signals that are converted into a standardized output signal by the transmitter, usually into a 4-20 mA or 0-10 V signal.



LEVEL TRANSMITTER

Level transmitters provide continuous level measurements over the range of the system rather than at a single point and produce an output signal that directly correlates to the level in the vessel. The output signal generated can be used to display the depth or to actuate control functions.



GAS ANALYZER

A gas analyzer is an analytical instrument used to determine the concentration of a known gas in an atmosphere that contains various gases. The typical purpose of a gas analyzer is to improve safety, quality, and efficiency, and to monitor the process and emissions.



NON CONTACT TYPE TEMPERATURE SENSOR

Non-Contact Type temperature measurement involves determining temperature of object surface without direct contact with the surface. We offer both single point and area inspection model devices which are infrared thermometers and infrared camera and industrial furnace monitoring camera. Thermometers and infrared camera and industrial furnace monitoring camera.



VALVES

Valves are mechanical devices that regulate, direct, or control the flow of fluids (liquids, gases, or slurries) by opening, closing, or partially obstructing passageways. They are essential components in many systems, from plumbing and industrial processes to the human heart.

TYPES OF VALVES

- QUARTER TURN VALVES
- RISING STEAM VALVES
- COMPACT, FAST ACTING ON/OFF VALVES
- CHECK VALVES
- PRESSURE RELIEF VALVES



STRAINERS

Strainers are used in piping systems to protect equipment sensitive to dirt and other particles that may be carried by the fluid. During system start-up and flushing, strainers may be placed upstream of pumps to protect them from construction debris that may have been left in the pipe.

TYPES OF STRAINERS

- Y-TYPE STRAINERS
- BASKET STRAINERS
- DUPLEX STRAINERS
- AUTOMATIC STRAINERS



FLOWMETERS

A flowmeter is a device that measures the rate of fluid (liquid, gas, or vapor) flow through a pipe or conduit. It's a critical instrument in many industries for monitoring and controlling fluid movement. Flowmeters can be used to measure both volumetric flow rate (volume of fluid per unit time) and mass flow rate (mass of fluid per unit time).

TYPES OF FLOWMETERS

- BATTERY POWER ELECTROMAGNETIC FLOWMETER

- ELECTROMAGNETIC FLOWMETER
- SS ELECTROMAGNETIC FLOWMETER
- OPEN CHANNEL FLOWMETER
- VORTEX FLOWMETER INSTRUMENTATION TOOL
- TURBINE FLOWMETER BY MEMBRANE KEY
- WEFER TYPE ELECTROMAGNETIC FLOWMETER
- FLOW INDICATOR TOTALISER
- INSERTION TYPE ELECTROMAGNETIC FLOWMETER
- ORIFICE PLATE FLOW METER
- PROCESS INDICATOR



CABLES

Cable, in electrical and electronic systems, a conductor or group of conductors for transmitting electric power or telecommunication signals from one place to another.

TYPES OF CABLES

- THERMOCOUPLE CABLES
- RTD TRIAD CABLES
- LT CONTROL & POWER CABLES
- INSTRUMENTATION SIGNAL CABLES
- FIRE SURVIVAL CABLES
- HIGH TEMPERATURE CABLES
- DIGITAL LINEAR HEAT SENSING CABLES
- HEAT RESISTANCE CABLES
- RADIATION RESISTANCE CABLES
- AUTOMOTIVE WIRES & CABLES
- ELECTRON BEAM IRRADIATED CABLES
- RS-485 COMMUNICATION CABLES
- CO-AXIAL CABLES
- CAT-5 & CAT-6 CABLES
- COMPOSITE CABLES
- LOAD CELL CABLES
- LANCE CABLES
- MINERAL INSULATED CABLES
- SOLAR CABLES



VIBRATION SENSORS

A vibration sensor is a device that detects and measures the mechanical vibrations of an object or system. It converts these vibrations into electrical signals, which can then be used to monitor equipment health, detect anomalies, or trigger alarms.



FITTING SERIES

We offer Instruments like DPGs, Seal Diaphragm Gauges, Pressure & Label Switch's, Syphon Tubes, Thermo-wells, Valves and Manifolds, Level Gauges and Accessories including impulse tube fittings etc.

PRODUCTS

- COMPRESSION TUBE FITTING
- PRECISION PIPE FITTING
- FLANGES & FORGED FITTING
- HYDRAULIC FITTING
- 37 JIC FLARE FITTING
- HOSE FITTING



INSTRUMENTATION VALVES

- NEEDLE VALVE
- MANIFOLD VALVE
- BALL VALVE
- MULTI-PORT VALVE
- MONO-FLANGE VALVE
- CHECK VALVE

ACCESSORIES

- OVERLOAD PROTECTOR
- GAUGE COCK
- SIPHON
- DIAPHRAGM SEAL
- PRESSURE REGULATOR
- AIR HEADER
- CONDENSATE POT
- FLUSHING RING
- FLANGES
- MECHANICAL SEAL



HDPE PIPE

HDPE Pipe is a thermo-alkathene plastic polymer produced from the monomer ethylene. It is a type of flexible plastic pipe that is used for gas and fluid transfer. HDPE Pipes' high level of impermeability and strong molecular bond makes it suitable for high-pressure pipelines.



INDUSTRIAL MOTORS

We deal in Motors and Generators, your ultimate destination for high-efficiency motors and dependable power generators. With an unwavering commitment to sustainability and efficiency, we offer a comprehensive range of solutions designed to energize the transformation of industries, enabling a more productive, sustainable future

TYPES OF MOTORS

- HIGH VOLTAGE INDUCTION MOTORS
- IEC LOW VOLTAGE MOTORS
- NEMA LOW VOLTAGE MOTORS
- MEDIUM VOLTAGE DRIVES
- GEARED MOTORS



CABLE MANAGEMENT SYSTEM

Cable Management is a term used to describe how a cable network is set up. Cable management involves organizing your cables and hardware to be easily identifiable and troubleshot. This task takes the edge off any future upgrades or repairs and gives your setup a professional look.



RANGE OF PRODUCTS

- PERFORATED TRAYS AND ACCESSORIES
- LADDER TRAY AND ACCESSORIES
- COVER AND ACCESSORIES
- WIRE MESH TRAY AND ACCESSORIES
- FRP PERFORATED TRAY
- FRP LADDER TRAYS
- TRUNKING WITH DIVIDER
- TRUNKING WITHOUT DIVIDER

METATECH PRODUCTS SPREAD IN INDUSTRIES

- | | | | |
|------------------------------|--------------------|---------------------------------|--|
| • Power Plants | • Automotive | • FECs (Multiplex, Hotel) | • Hydraulics |
| • HVAC | • Plastics | • Commercial Complexes | • Infrastructure viz. Ports, Dam Sites, Airports |
| • Steel Industries / Foundry | • Pharmaceuticals | • Gems & Jewellery | • Packaging and Papers |
| • Water and Waste Industries | • Water Management | • Dairy and Dairy Equipments | • Plastic Injection Machines |
| • Rubber and Tyre Industries | • Textiles | • Road Construction Machineries | |

METATECH POWER SOLUTIONS

63, LAXMI NAGAR, ROAD NO.-4, MADRI IND. AREA, UDAIPUR-313003 RAJASTHAN

CONTACT US MAIL ID – Salesindia.mtps@gmail.com, +91-7877650969

WEBSITE :- WWW.METATECHPOWERSOLUTIONS.COM