www.bhardwajautomation.com

Industrial Automation & Electrical Solutions

Manufacturer of

Electrical Control Panels

BHARDWAJ
AUTOMATION AND CONTROL
Powering Your Future, Today!

About Us

Welcome to Bhardwaj Automation and Control, a leader in the design, manufacture and delivery of high-quality electrical control panels for a wide range of industrial applications. Since our establishment, we have been dedicated to designing, manufacturing, and supplying high-quality control panels that enhance operational efficiency and safety across various industries.

Our team of skilled engineers and technicians brings extensive expertise and a commitment to excellence to every project. We specialize in creating custom solutions tailored to meet the unique needs of our clients, ensuring that every product we deliver is both reliable and innovative.

Our mission is to drive industrial success through superior control panel solutions, and we pride ourselves on our unwavering focus on quality, innovation, and customer satisfaction. We are here to support your business with cutting-edge technology and exceptional service.

We are manufacturing and commissioning of:

- Power Control Center (PCC),
- Motor Control Center (MCC),
- Intelligent Motor Control Center (IMCC),
- Power Distribution Board (PDB),
- Control Desk Panels,
- PLC & AC/DC Drive Panel,
- Auto Synchronization Panel,
- AMF Panel,
- APFC Panel,
- RTPFC,
- Bus Ducts & Bus Trunking,
- Servo Voltage Stabilizer,
- VCB Panel,
- Distribution Transformer
- Chemical Earthing.

What we do?

We specialize in the production of custom-built electrical control panels that are tailored to the specific needs of each client. Our product range includes:

Control Panels: From simple relay-based panels to complex PLC and HMI systems.

Motor Control Centers (MCCs): Designed for managing and controlling electric motors.

Power Distribution Panels: Ensuring safe and efficient power distribution.

Automation Systems: Integrating cutting-edge technology to streamline industrial processes.

Why choose us?

Expertise: With years of experience in the industry, our team of engineers and technicians possesses the knowledge and skills required to tackle even the most challenging projects.

Quality: We adhere to stringent quality control procedures at every stage of production, ensuring that every panel we produce is reliable and durable.

Customization: We work closely with our clients to understand their unique requirements and develop solutions that perfectly match their needs.

Innovation: We stay at the forefront of technological advancements, continually updating our products and processes to incorporate the latest innovations.

Customer Service: Our commitment to exceptional customer service means that we are always available to support our clients, from initial consultation through to after-sales support.

Our Vision

Our vision is to be the preferred provider of electrical control panel solutions worldwide, known for our quality, innovation, and customer-centric approach. We aim to continuously expand our capabilities and market reach, setting new standards in the industry.

POWER CONTROL CENTER (PCC) PANELS

Power Control Center (PCC) panels are central hubs in electrical systems, designed to manage the distribution and control of power across various industrial and commercial applications. These panels house critical components such as circuit breakers, relays, switches, and metering devices, all integrated within a single enclosure.

PCC panels ensure efficient distribution of electrical power from a central source to multiple circuits, supporting diverse machinery and equipment. They incorporate protective devices like circuit breakers and fuses to prevent overloads and short circuits, enhancing system safety.

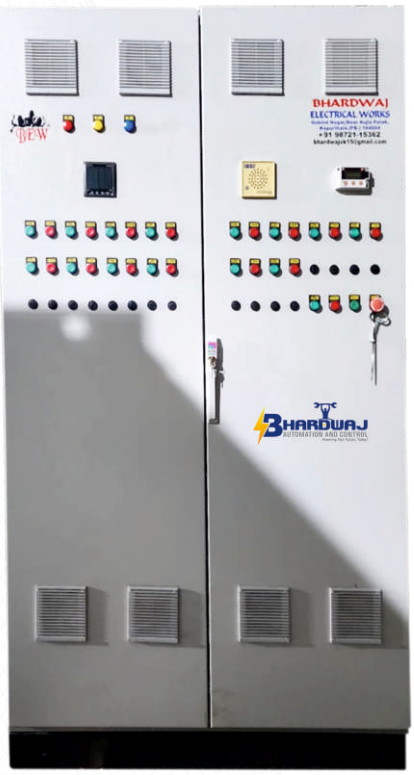
PCC panels enable centralized control of electrical systems, facilitating smooth operations and quick response to any issues and equipped with advanced metering and monitoring tools, these panels provide real-time data on electrical parameters, aiding in proactive maintenance and efficient energy management.

MOTOR CONTROL CENTER (MCC) PANELS

A Motor Control Center (MCC) is an assembly of one or more enclosed sections having a common power bus and principally containing motor control units. Motor control centers are in modern practice a factory assembly of several motor starter. A motor control center include

variable frequency drives, programmable controller, and metering and may also to be electrical service entrance for the building.

Motor Control Center have been used by the automobile manufacturing industry which used large number of electric motor. Where very dusty or corrosive processes are used, the motor control center may be installed in a separate air-conditioned room, but often and MCC will be on the factory floor adjacent to the machinery controlled.



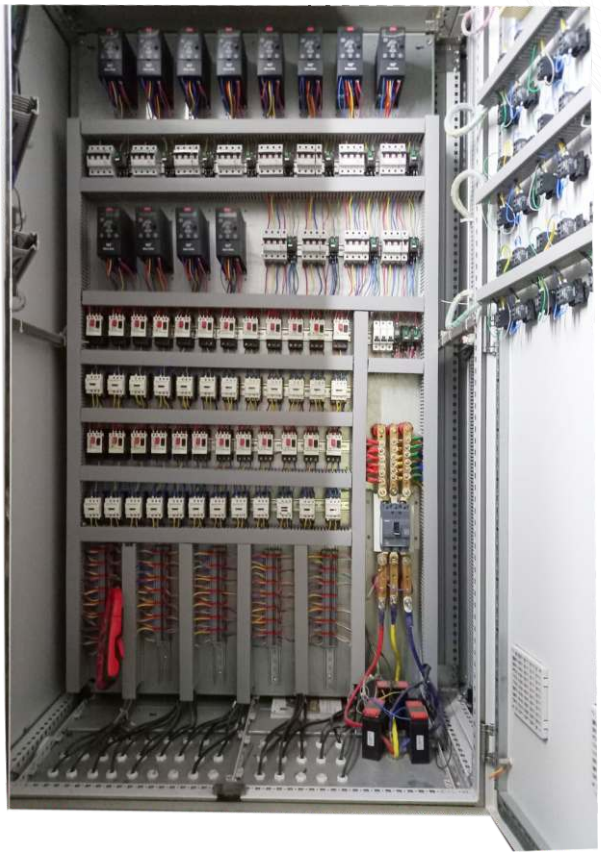
PROGRAMABLE LOGIC CONTROLLER (PLC) PANELS

Programmable Logic Controller (PLC) control panels or also known as PLC Automation are one of the most important and efficient kinds of control panels. Which are generally used in variety of electronic and electrical circuit fittings.

PLC Control Panels we manufacture are highly capable of giving higher output at less power consumption, integrated with solid PLC Logic and flawless PLC hardware programming.

We are engaged in designing and manufacturing of PLC & Automation Panels that is widely appreciated for longer service life and high efficiency. All these panels are hard wired, PLC based and electrically controlled and is used for various machines.

VARIABLE FREQUENCY DRIVE (VFD) PANELS



A Variable Frequency Drive (VFD) panel is an essential component in electrical systems, designed to control the speed and torque of electric motors by varying the frequency and voltage of the power supplied to them. VFD panels are widely used in industrial applications where motor speed control is crucial for process optimization and energy efficiency.

VFD panel is to regulate the speed of an electric motor, allowing for precise control over various processes and machinery operations. By adjusting motor speed to match the required load, VFD panels significantly reduce energy consumption, leading to lower operational costs and enhanced sustainability.

With precise speed control, VFD panels help optimize processes, improving product quality and reducing waste in industrial operations.

VFD panels offer protection features such as overload protection, short circuit protection, and fault diagnostics, ensuring safe and reliable motor operation.

AUTOMATIC POWER FACTOR CONTROL (APFC PANELS)

Automatic Power Factor Control or APFC Panels are mainly used for the improvement of Power Factor. Power Factor is the ratio of active power to apparent power and it is a major component in measuring electrical consumption.

APFC is an automatic power factor control panel which is used to improve the power factor, whenever required, by switching ON and OFF the required capacitor bank units automatically.

Applications:

Manufacturing Plants, Commercials Buildings, Data Centers, Hospitals and Utilities.

An Automatic Power Factor Control (APFC) panel optimizes power factor by automatically switching capacitor banks based on real-time monitoring. Key features include microprocessor-based controllers, step-wise compensation, and protection mechanisms such as over-current and over-voltage safeguards.

It offers user-friendly interfaces with digital displays and alarms, remote monitoring capabilities, and modular design for easy maintenance. APFC panels enhance energy efficiency, reduce losses, and ensure compliance with power factor regulations, benefiting various industrial and commercial applications.

AUTO SYNCHRONIZING PANEL

A synchronizing panel, also known as a synchronization panel, is a crucial component in electrical power systems, especially where multiple generators or power sources are used. It ensures that generators operate in harmony, matching phase, frequency, and voltage before connecting to a common busbar. This synchronization prevents equipment damage and power outages due to phase mismatch.

Features

Automatic Synchronization: Microprocessor-based relays automate synchronization.

Manual Override: Allows manual control in case of system failures.

Protective Relays: Safeguard against faults such as over current and short circuits.

Metering and Monitoring: Displays parameters like voltage, current, and frequency.

Load Sharing: Distributes load evenly among generators.

Applications:

Power Plants, Industrial Complexes, Marine Vessels, Hospitals

These panels are vital for maintaining power quality and reliability in complex electrical systems.

BUS BAR DUCTING (BBD) 6300 AMP

Bus bar ducting (BBD) for 6300 AMP systems is crucial for efficient power distribution. It features high current capacity, excellent thermal performance, and robust insulation for safety. Applications include industrial plants, commercial buildings, data centers, and utilities, ensuring reliable and efficient power management.

Features

High Current Capacity: Handles up to 6300 AMP.

Thermal Efficiency: Superior heat dissipation.

Safety: Insulated and enclosed for protection.

Applications

Industrial Plants: Power distribution for heavy equipment.

Commercial Buildings: Reliable power for HVAC and lighting.

Data Centers: Efficient power management for servers.

Utilities: High-capacity power distribution.

BBD systems ensure efficient, safe, and reliable power distribution in demanding environments.

HIGH QUALITY CABLE TRAY & EARTHING

Bhardwaj cable trays and ladders provide high-strength cable protection that protects the cables from external factors. Our cable trays are mass produced with the "Roll Forming" method on automatic production lines.

Cable tray supports and protects power cables, communication cables and wires, and helps to expand, make stable and restructure the cable network. They are made in compliance with the number, diameter, weight of the cables that will pass through the duct and the environment it is to be utilized in.

ELECTRICAL EARTHING FOR INDUSTRY

Earthing, or grounding, connects electrical systems to the earth to prevent electric shocks and equipment damage. It provides a safe path for fault currents, ensuring excess electricity dissipates into the ground. This safety measure protects people, appliances, and structures from electrical hazards.

Industry We Serve

Follow us on:

RICE & GRAIN INDUSTRY

SUGAR & JAGGERY INDUSTRY

TEA & COFFEE INDUSTRY

TEXTILE & JUTE INDUSTRY

PHARMACEUTICAL INDUSTRY

DAILY MILK INDUSTRY

POWER GENERATION

PAPER & PACKAGING INDUSTRY

FOOD & BEVERAGE INDUSTRY

EDIBLE OIL INDUSTRY

BHARDWAJ AUTOMATION AND CONTROL
Powering Your Future, Today!

BHARDWAJ ELECTRIC WORKS

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