APS

ARUNA POWER SERVICES

Electrical Control Panel Manufacturer

PCC | MCC | APFC | AMF | PMCC | FEEDER PILLAR | & MORE

ISO 9001:2015
CERTIFIED

OUR PRODUCTS

PCC (POWER CONTROL CENTER)

Main LT Panels focused on total power distribution.

Power Control Centre is used for distribution & control of various power source used in industry.

Normally PCC is installed near power source. It is generally designed to withstand faulgned t o autre level 50 KA or 65 KA for 1 sec.

Current Rating of PCC shall be up to **6300 Amps.**

Best quality Aluminium or **Copper** Bus bars are used for reliable and efficient performance.

Panels are manufactured in a perfectly compartmentalizee.
Premium quality insulators/FRP are used to ensure safety.

Protective relays are provided as per specific project requir

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ACB/MCCB/SDFU/MCB used in Incoming and **Outgoing circuit** based on the need of the client.

MCC (MOTOR CONTROL CENTER)

In commercial & **Industrial** applications, electric motors are often desirable to control some or all of the motors from.
The combination of motor controller called **starters.**

Motor Control Centres(MCC) are simply **physical groupings** of starters in one assembly.

It consists of multiple enclosed sections having a common and with each section containing a combination starter.

A typical starter includes **fuse** or circuit breaker, contactor, overload relay, timer, push button, indicating lamp etc.

Starter can be categorized into **DOL, Star-Delta,** VFD, **Soft Starter, Auto transformer starter** etc.

Local / Remote operation facility is provided for ease of **control** as per commissioning maintenance.

APFC (AUTOMATIC POWER FACTOR CORRECTION)

Inductive loads in the plant result in a lagging power factor, due to which energy is wasted. Additionally, the electricity board levies heavy penalties for low power factor.

Hence, APFC Panels of required KVAR ratings are d desitaining thad tor close to unity by connecting ca plants power banks close to unity inver t.

The power factor is maintained at maintvalue using a Microprocessor-based APFC relay in automatic mode whereas ON/OFF push buttons are provided for manual operation in case of APFC relay failure.

Depending on the nature of load, Standard / Heavy Duty **Ultra Heavy Duty** capacitors are provided. Typically,

MPP / APP type capacitors are used to form the capacitor bank.

Two types of capacitor switching are there, viz. **Contactor** and **Thyristor** switching. In case of non/ tinear load. suitable **reactor** (**copper** or aluminiurn wound) are used along with capacitors to filter harmonics and ensure system stability.

AMF (AUTO MAINS FAILURE PANEL)

Automatic Mains Failure Panels(AMF)- often called ATS (*Automatic* Transfer Switch) panels, switch the power to Backup Generator in case of Mains supply failure.

Without AMF Panels, Generators need to be **operated** manually and that can mean huge amounts of disruption.

It monitor the main **Incoming AC** supply continuously and when the supply fails, it send a **start command** to genset and **transfer the load**, When main supply, resume, again load is transferred from genset to main.

Genset is **stopped after a suitable cooling run**

These all controlling are provided between changeover sources.

Electrical interlocking are provided between changeover sources to avoid any accident.

VFD (VARIABLE FREQUENCY DRIVE PANEL)

A Variable Frequency Drive (VFD) is a type of motor controller that, drives an electric motor by varying the frequency and voltage suppiled. to the electric motor.

Other names for a VFD are variable speed drive, adjustable speed drive, adjustable frequency drive, AC drive etc.

VFD panels are widely used in drilling, pumping, rolling mills, paper mills etc.

Our VFD panels are available in various technical specification in order to meet customers requirement.

These panels are manufactured with advance technology according to the quality norms.

Low maintenance, Long Service, Thermal Resistance, Energy Efficient, Easy Monitoring - these features makes VFD panel more superior in Automation industry.

SOFT STARTER PANEL

In an electric motor application sometimes it is necessary to start the motor softly. For such purpose, Soft starter panel is introduced. It reduces the current input or voltage and make the motor starts softly by reducing torque.

It generally consists of solid state devices like thyristors to control the application of supply voltage to the motor. In pump applications Soft start panels are valued because they ward off pressure surges. These starters

offer ultimate protection and light load energy efficiency. Soft start panels are bencficial because they increase the longevity of the motor by reducing thestress it undergoes during start up and efficiency.

FEEDER PILLAR

A Feeder Pillar panel, also known as power distribution panel, is used to supply and control low voltage electrical power for commercial, industrial, and utility applications.

Feeder Pillars integrate functions like street lighting control, metering, and providing circuit protection for pumps, motors, and lighting systems.

These panels are housed in weatherproof, robust, enclosures that protect the electrical components from dust, dirt, and moisture.

Feeder Pillars offer safety, reliability and easy maintenance. These panels can be tailored to meet customers specific requirements.

FIRE ALARM CONTROL PANEL (FACP)

A Fire Alarm Control Panel (FACP) is the central hub of a fire alarm system, designed to monitor and control fire alarm devices throughout a buiiding.

FACP detects and reports the status of smoke detectors, heat detectors, manual call points, fire sprinkler systems, and other fire detection devices.

It alerts occupants through audible and visual alarms and communicates with monitoring stations and emergency services.

Our Fire Alarm Control Panels are designed to meet the latest safety standards and are user-friendly, durable, and highly reliable.

Key features include fire detection, zone-wise control, emergency notification, event logging, battery backup, and easy interfacing with other safety systems.

GENERAL TECHNICAL DATA

Mounting	: Floor/Wall
Panel Access	: Front/Front & Rear
Door Arrangment	: Hinged with CAM lock/Knob
Enclosure Material	: CRCA Sheet(Load Bearing-2.0 mm, Non Load Bearing- 1.6 mm, Gland Plate--3.0 mm)
Degree of Protection	: IP- 42/54/55
Lifting Arrangement	: Welded lifting Eye/Removable hook
Main Busbar	: Aluminium/Copper
Earth Busbar	: Aluminium/GI
Busbar Support	: FRP Sheet/SMC or DMC Insulator
Busbar Insulation	: Heat shrinkable PVC Sleeves.
Live part insulation	: FRP/Acrylic sheet
Fixing Arrangement	: MS Angle / 'U' Channel of appropriate size
Paint	: Powder Coating of desire shade after 7 Tank Process (Thickness-60-80 Micron)
Power & Control Cable	: 1100 Volts FR/FRLS flexible Copper cable

1. Power Circuit - As per current rating
2. CT Circuit - 2.5 Sq. mm
3. Voltage Circuit - 1.5 Sq. mm
4. Control Circuit - 1.5 Sq. mm
5. Door Earthing - 2.5 Sq. mm

Labels : Aluminium Anodised/SS(Letters- Engraved/Printed)

PROJECT FLOW CHART

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