

# committed to excellence

www.expertengineers.co.in

**Expert Engineers and Automation Pvt Ltd** 

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### **OUR MANAGEMENT**



RISHI KUMAR GUPTA FOUNDER

A founder of the Company and an enthusiast, who has devoted 42 years in MEP contracting currently enlightening the Team of Expert Engineers



A Co-founder of the Company and an Electrical Engineer. He is a great influencer and a Team Builder who is opening the new opportunity of growth.



#### SAURABH GUPTA DIRECTOR-EXECUTION

A talented personality, who sits at the helm of the organization, steering it, managing its operations, and carrying out its mission according to the strategic directions

Success is a journey, not a destination. journey teach a lot about destination

#### The Journey

The road to success and failure are exactly the same as success is the result of preparation, hard work and learning failure

To get through the journey we need to take only one step at a time. But we must keep on stepping.

If you can't fly, then run

If you can't run, then walk

If you can't walk, then crawl

but keep moving...

# EXPERT

From 2250 sqft to 80000 sqft From Power Press Punching to AMADA CNC Turret Punching From hand tool to Pneumatic technology From Excel to ERP and many more to achieve

## A QUALITY CONSCIOUS INNOVATION

To provide high quality products and services to customers by sustaining business growth, fostering innovations, driving values and protecting environment to be profitable in the process. We are also committed to maintain excellence, respect and integrity in all aspects of our operations, profession and business conduct. We intend to reflect the highest ethical standards in our relationships with our customers, vendors, employees and associates.



### We are **Committed to Excellence...**

Excellence is an art won by training and habituation.

We do not act rightly because we have virtue of excellence but we rather have those because we have acted rightly. We are what we repeatedly do.

"Excellence, then, is not an act but a habit."

# Think Big, Get Bigger

#### Forecast

The day we started we work with hand tools, outsourcing the major component panel enclosure. Our thinking allows us to forecast our aim. Today we are working with laser technology and this allows us to forecast our new aim

and the second second

"Our thinking and Attitude decide our Aim"

### Our Thinking

CONTRACTOR OF A PRESS

# Why Choose Us?

- Customer Oriented
- Innovative Approach
- Rectification First Policy

- Prompt Response Guaranteed
- Database Management
- Close to Perfect Execution

#### WE FOLLOW THE 6 GOLDEN RULES

## **SPECIALIZATION**

Our company specializes in LV/MV panel manufacturing, delivering custom power distribution solutions. We offer turnkey project management, handling everything from design to commissioning. Our automation solutions optimize efficiency and productivity, while our water solutions focus on sustainable treatment and management. We also provide comprehensive installation, maintenance, and support services.

INDUSTRY

Power Management To Automation



Distribution Network



Extraction To Disposal



21211

Govt. Departments & Consultants



Redevelopment Work 06 RENEWABLE SECTOR

Generation to Distribution



| Main Category              | Sub Category                         | Products   |  |  |
|----------------------------|--------------------------------------|--|--|--|
| LV/MV Panels Manufacturing | LV Panels                            | PCC, MCC, ATS, DG Synchronizing Panels, AMF, APFC, Solar 800V LT Panels    |  |  |
|                            | MV Panels                            | 11/33KV HT VCB, 3.3/6.6/11KV HT DOL Starter, APFC                          |  |  |
|                            | Bus Bar Trunking                     | LT Conventional Air Bus Duct, LT Sandwich Bus Duct                         |  |  |
|                            | Compact Substations                  | 11/33KV, 400-2000KVA   |  |  |
|                            | L&T TTA                              | IEC 61439 - Enersys  |  |  |
|                            | C&S TTA                              | IEC 61439 - CX   |  |  |
|                            | Siemens TTA                          | IEC 61439 - SIEPAN   |  |  |
| Turnkey Projects           | Electrical                           | High/Low Electrification, Lighting, Earthing & Lightning Protection System |  |  |
|                            | Mechanical                           | Bridge Fab, DG Stack, Cable Tray Structure, Vessels, Dismantling Joints    |  |  |
| Automation Solutions       | Load Management System               |  |  |  |
|                            | SCADA System                         | Process Automation, WTP/STP/ETP, SCADA, Smart Cities, Irrigation Central   |  |  |
|                            | EMS/BMS                              | SCADA  |  |  |
|                            | Special Purpose Machines Automation  |  |  |  |
|                            | FRTU, Modems                         |  |  |  |
| Water Solutions            | Waterworks / Wastewater / Irrigation | SCADA System, E&M Contracts, Substation Installation                       |  |  |
|                            | Borewell Automation System           | SCADA System, E&M Contracts  |  |  |
|                            | Pumps/Valves                         | All Type of Pumps & Valves   |  |  |
|                            | Others                               | Filtration Vessels, Smart Valves, Flowmeters                               |  |  |
| Services                   | Retrofitting                         | PCC, MCC, ATS, DG Synchronizing Panels                                     |  |  |
|                            | Audits                               | Energy, Power Factor, Earthing & Soil Test Reports                         |  |  |
|                            | Testing                              | Transformer, Cable, HT Panels, Relay Testing                               |  |  |
|                            | AMC                                  | LT/HT Panels   |  |  |
|                            | Misc                                 | Transformer Oil Filtration & Dehydration, Relay Coordination & Programmir  |  |  |

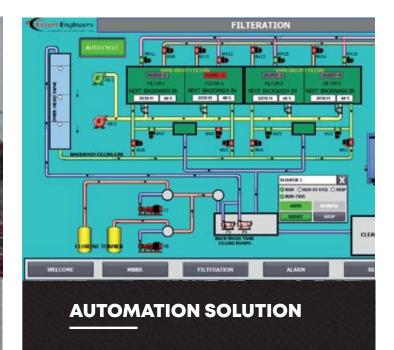
### OUR VERTICALS



#### LV / MV MANUFACTURING



#### **TURNKEY PROJECT**

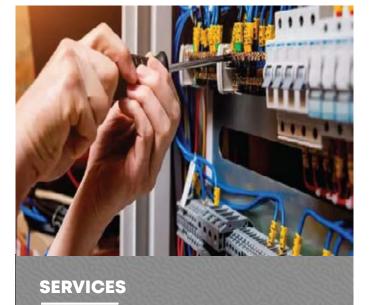


- LV Panels Low voltage panels.
- MV Panels Medium voltage panels upto 33kv.
- **Bus Bar Trunking** Efficient power distribution via bus bars.
- **Compact Substation** Integrated substation for space saving solutions.
- **Cable Tray** Perforated cable trays for industrial, commercial and residential construction to route electrical wires and cables through the building structure safely.
- Electrical Turnkey Projects Expert in HT/LT electrification, lighting, earthing, and lightning protection systems.
- Mechanical Turnkey Projects Precision-driven solutions ensuring flawless, budget-friendly execution of DG Stack, Bridge Fabrication, Cable Tray Sturctures, Vessels, Dismantling Joints etc.
- Load Management System Optimizes power distribution, prevents overloads.
- SCADA System Real-time monitoring, control of industrial processes.
- Energy Management System (EMS) Enhances energy efficiency, reduces operational costs.
- Building Management System (BMS) Automates HVAC, lighting, and security controls.
- **Special Purpose Machine Automation** Custom machines for specific industrial automation.
- FRTU & Modems Enables remote communication for monitoring systems.

### **OUR VERTICALS**



#### WATER PROJECTS



- Water Works Solutions for water supply systems.
- Waste Water Treatment and recycling of wastewater.
- **Borewell Automation System** Automated groundwater extraction control.
- **Pumps –** Efficient fluid transfer and circulation.
- Valves Regulate fluid flow in pipelines.
- Filtration Vessels Remove impurities from liquids.
- Smart Valves Automated flow control with sensors.
- Flow Meters Measure liquid flow rates accurately.

- **Retrofitting Works** Upgrading old systems for better performance.
- Audits Assessing system efficiency, compliance, and safety.
- **Testing** Ensuring system reliability and performance standards.
- AMC (Annual Maintenance Contract) Regular servicing for long-term efficiency.
- **MISC Services** Various support solutions for system maintenance.

### INFRASTRUCTURE



### **Enterprise Management**

### Fabrication

# Surface Treatment & Power Coating

- ERP and CRM System drive complete workflow
- Solidworks is used for 3D Modelling of every Panel
- Estimation and costing software are used
- Customer accessed database portal is provided for instant supporting documents download
- Service support managed by dedicated designed application

- Laser Cutting technology is oped for high accuracy and finish
- CNC Bending Machine results high producitivity
- Flux free strong joints achieved by MIG Welding Technology
- Form 4b and 3b construction adopted
- Supported by Shearing Machine, Power Pressesm Spot Welders, Pneumatic Tools, etc.

- Surface preparation for proper adhesion of Powder is done by conditioning of sheet in 11 tank process with heating and aeration that results strong and durable coating
- Automatic PLC Controlled 11 tank treatment system for precise and faster operation
- German made Electrostatic Guns are used to achieve 60-80 micron controlled coating
- Panel are baked in automatic Temp Controlled Oven at defined temp to maintain to colour as per RAL Standards

### FACILITIES



### Assembly

### Wiring

# Quality Control & Testing

- Pneumatic Torque Wrenches used for torque controlled tightening
- Trivalent coated fasteners for longer life High adhesive and quality gaskets for proper Ingress protection and durability
- 3 in one PLC controlled Busbar Processing Machine
- Prescibed insulation and shrouding of busbar done with perforated Bakelite and acrylic sheets

- Highly experienced engineers design the wiring diagram to ensure requisite functioning of panel
- Proper Labelling of internal components and switchgear
- FRLS-H wires used in Panels
- High quality Accessories
- Proper ferruling and thimbling is done with canon ferrule printing machine, crimping tools, screw drivers, etc

- Inward material Quality check with help of ERP
- In process Quality check and assurance according to QAP
- Proper Functioning test and BOM check is performed on all the panels
- 5KV HV testing
- Primary Injection Kit, CT testing kit, Meggar. DFT Meter

### **DESIGN & ENGINEERINGS**



### **ENERGY**

# ENERGY CAN NEITHER BE CREATED

It just changes from one form to another, i.e. coal, water, nuclear to electricity and then electricity to light, heat, noise etc.

Electricity is vital for the development of society and an essential element for meeting the principal social challenges of sustainable development.

"The electricity is a clean energy that generates no waste in its end use"



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### **MANUFACTURING FACILITIES**

AMADA CNC Turret Punching Machine AMADA 3m 110 Ton Bending Machine Laser Cutting Machine Laser Marking Machine Bending Machine (CNC-Hydraulic) Shearing Machine (NC-Hydraulic) CNC Bus Bar (3-in-1) (Cutting, Bending and Punching) Machine Power Press Machine 0-50 T Power Press Machine 0-20 T Automatic 11 Tank PT line with Drying Oven & Boiler Automatic Conveyorized Baking Oven with Booth Welding Machine (MIG) Cable Tray Perforating Machine CNC 8 ft x 4 ft Wood/Acrylic Cutting Router Ferruling Machine **FRP Sheet Cutting Machine** 5 Ton Fork Lifter Air Reciprocating Compressor (11 KW) D.G. Set



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### **TESTING EQUIPMENT**

2000A Primary Injection Kit 30kV HV Testing Kit 75kV HV Testing Kit Conductivity Meter 1000V Megger 5000V Megger 600V Megger AMF Testing Kit 5KV HV Tester CT Testing Kit DFT Meter Micrometre PH Meter





### LV PANELS

Our electrical distribution and protection solutions built to withstand the rigors of the most demanding environments and industrial facilities and untilities. We do design and engineering to implement IEC standards and IP levels to practicality.

Our build panels are blend of customer needs standards and our experience. We produce a numerous range of LV Panels to create a single window for our customer.

Power Control Centres (PCC) Motor Control Centres (MCC) Auto Transformer Starters

DG Synchronizing cum AMF Panels

Busbar Trunking System

LT Kiosk Panels

Busbar Chamber

**Expert Engineers and Automation Pvt Ltd** 

DANGER

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**Applications : Every where Electricity exists** 



### SOLUTION FOR SOLAR SEGMENTS

We are a leading manufacturer of all types of electrical control panels tailored for solar power projects. With a strong commitment to quality and innovation, we provide reliable, efficient, and tested solutions to meet the demanding needs of the renewable energy sector.

800V CSS 11 KV VCB Panels 33KV VCB Panels

ACDB Panels

BESS

### **Expert TTA IEC 61439**

### **E-Protec**

The Low voltage Switchboards/ panels that meets the IEC 60439-3 standards, with total operational and maintenance security because of their characteristics TTA.

Developed to meet the requirements of the switchboards loads of high electrical currents and high levels of short-circuit current, with switchgear equipment and protection that meet the requirements of quality, security and performance.

#### Their modularity allows future expansions without having to make adjustments during assembly, the modular structure is simple to install and sizing

- Power control centres (PCC PANELS)
- Communication capable intelligent power control centres (IPCCs)
- Energy management PCCs for Plant & Building
- Motor control centres Fuseless and with Fuse
- Intelligent motor control centres (IMCCs)
- Integrated PMCCs for Ethernet connectivity
- Automatic power factor correction panels

#### List of tests for complete design verification

- List of tests for complete design verification
- Construction Requirement:
- Strength of material and parts
- Degree of protection of enclosures
- Clearances
- Creepage distances
- Protection against electric shock and integrity of protective circuits
- Incorporation of switching devices and components
- Internal electrical circuits and connections
- Terminals for external conductors

#### Verification by assessment:

Design verification of strict design rules or calculations applied to a sample of an ASSEMBLY or on parts of ASSEMBLIES to verify that the design meets the requirements of the relevant assembly standards.

#### Verification by test:

Test made on a sample of an ASSEMBLY or on parts of ASSEMBLIES to verify that the design meets the requirements of the relevant assembly standards.

#### **Expert Engineers and Automation Pvt Ltd**

Features -

#### Verification by comparison:

Structured comparison of a proposed design of an assembly or parts of an assembly with a reference design verified by test.

### Expert IS 8623

### **E-Proficient**

E-proficient is IS-8623 Certified Assembly assuring hassle free working and reliability. The product is designed for the customers who understand the practicality of their requirement. Our E-proficient is a fusion of experienced design and engineering mainly focusing on the working and life of Electrical Panel. Here we do engineering on Panel and Accessories ageing which is are the most indispensable and Vital points.

| Application            | Control & Protection of<br>Transformer Power |  |  |
|------------------------|--|--|--|
| Reference Standard     | IEC 62271-200:2003/ IS :<br>3427:1997        |  |  |
| Operational Voltage    | 12 kV  |  |  |
| Operational Current    | 630A to 1600A                                |  |  |
| Phase/Frequency        | 3 Phase/ 50 Hz                               |  |  |
| Insulation Level       | 28 kVrms/ 75 kV Peak                         |  |  |
| Short Time Rating      | 20/26.3/31.5/ 44 kA                          |  |  |
| Peak Withstand Current | 50/66/80/110 kA Peak                         |  |  |
| Degree of Protection   | IP-54 (Indoor) / IP-55<br>(Outdoor)          |  |  |
| Internal Compartment   | IP-2X  |  |  |
| Max. Temp. Rise        | 40°C over 45°C ambient                       |  |  |
| Relative Humidity      | 95%  |  |  |
| Special Test           | Internal arc tested at 10kA for 0.1Sec       |  |  |

#### Features

Optimum design that gives easy termination and flawless ventilation keeping the ambient parameters in permissible limit.

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Complementary Commissioning and installation supervision report

• of the Electrical Panel is provided after analysing of total Distribution system to ensure errorless installation.

### **E-elliptical**

E-Elliptical Packaged Substations are available upto 24KV. The fully equipped packaged substation (PSS), comprises of outdoor duty enclosure, medium voltage switchgear, distribution transformer, low voltage panel & AFPCR panel (optional) is a state of art equipment for all your power distribution requirements. The factory assembled self-contained package substation is a complete weather proof solution. It only requires to connect incoming and outgoing cables and hence the site work involved is an absolute minimum.

It a ready to position solution, provided with four lifting eyes located on the roof for ease of lifting, positioning and placement on a concrete base with the help of crane.

Each substation consists of three main equipment: Transformer, MV switchgear, and LV Switchgear. All the equipment is packed in a separate compartment and accessible individually using the respective compartment door

| Parameter   | Value    |
|---|----------|
| Standard colour                                       | RAL 7032 |
| Installation  | out door |
| Compartmented   | Yes      |
| Optional degree of protection MV/LV Compartment       | IP 54    |
| Optional degree of protection Transformer compartment | IP 23    |
| Rated enclosure class                                 | K 5 - 10 |
| Rated voltage (kV)                                    | 11/33 kV |
| Rated insulation level kV rms, 50 Hz 1 min.           | 28 kV    |
| Rated Current of MV switchgear/CB's (A)               | 630A     |
| Max. allowable impulse current withstand kA rms       | 21 kA    |
| Maximum LV Current (A)                                | 3200A    |
| LV Current withstand (kA)                             | 50/65 kA |



#### Features

Cost effective and economical

Using a Package Sub Station helps to reduce both capital expenditures and operational expenditures.

#### Assured higher safety

EHS performance is improved thanks to Smart Communication and on-site presence

#### Time saving

Delivered in ready to use condition, a PSS saves precious time & money on-site as well.

#### End to End solution

Everything taken care as per your requirement in one go from planning to the installation and commissioning.

#### **Optimized footprints**

Due to its modularity and qualified compact design the footprints are at minimum.

#### Reduced project risk

The civil, mechanical and electrical expertise incorporated in each custom-fabricated PSS solution returns benefits that minimize costs and support performance.



#### Compartments

- Circuit Breaker Compartment
- Cable & CT Compartment
- Busbar Compartment
- Low Voltage Compartment

### **Expert VCB Panel**

### E-Vaccube

Type VHIH Switchgear is totally metal - clad and compartmentalized. The switchgear is completely assembled, wired - up and tested in the factory before delivery.

The VHIH panel is fabricated from high grade pickled and oiled steel sheets, which are chemically treated before painting to provide adequate protection against corrosion and weathering. The Panel consisits of four mutually separated

| Standards                               | IEC 62271-100, IEC<br>62271-102, IEC 62271-200 |
|---|--|
| Voltage                                 | 12/ 24/ 36 kV                                  |
| Frequency                               | 50 / 60 Hz                                     |
| Normal Current (A)                      | 800/1250/2000/3150A                            |
| Short Time Current Rating               | 26.3/ 31.5/ 40 kA                              |
| Duration of Short Circuit Withstand     | 3 Sec  |
| Making Capacity                         | 65.75/ 79/ 100/ 125 kA                         |
| Impulse With stand Voltage              | 75 / 95/ 125/ 170 kVp                          |
| One Minute Power Frequency<br>Withstand | 28 / 38/ 50/ 70 kV (rms)                       |
| Suitable for Operating Sequence         | O-0.3 sec-CO-3 min-CO                          |
| Break Time                              | 3 Cycles                                       |
| Mechanical Life                         | 10,000 operations                              |
| Degree of protection                    | IP4X (Higher IP on request)                    |
| Closing & Tripping coil voltage         | 24V, 30V, 110V, 220V DC                        |
| Spring charging motor voltage           | 110V, 220V DC / 110V,<br>230V AC               |

### **LT Power Factor**

### LT Power Factor Management System

Power Factor Control Panels are extensively used in industries. commercial buildings, housing etc. to improve power factor. The constantly rising power tariff and penalties imposed by the State Electricity Boards/Utility companies make imperative for any HT & LT Industry/Consumer to install and automatic power factor penalty and also to save energy by consistently maintaining higher power factor. Low power factor leads to poor power efficiency thereby increasing the apparent power drawn from the distribution network.

#### **Advantages**

- Minimizing the line Losses, thus saving Power Consumption.
- Decrease in the downtime and enhanced performance of the connected equipment.
- Curtailment of Leading Power Factor.
- Reduction of Current Consumption Charges.

#### Subscategory -

- Normal APFC Panel consisting of MCB's, contactors, capacitors
- Thyristor base APFC Panels consisting of Fuse, Thyristors, Reactors, Capacitors
- Harmonics Reducing APFC Panels consisting of MCB's, Reactors





#### Features

Ample Ventilated design with right size and positioning of exhaust fans and lovers to maintain proper air circulation across capacitors and reactors. This increases the life of Active and Passive components installed in Panel. Selection of type, rating, steps of capacitors, reactors and switching devices is done after analysis of Load details and Energy quality audit report of premises, which ensures accurate PF Correction and long life.



#### Features

ATS maintains a continuous power supply to the motor during the transition from reduced to full voltage. This avoids the high transient switching current characteristic & there in no danger of nuisance tripping. Also, the transition is smooth & no mechanical jerk is forced on the equipment. An ATS provides highest starting torque per ampere of line current drawn. So, it is best used where high torque is required to overcome the inertia of the load, & at the same time starting current must be limited to minimum.

### **Auto Transformer Starter**

Auto Transformer Starters are most popular electro mechanical reduced voltage starting devices providing maximum starting torque and minimum starting current for large induction motors where availability of starting current is limited but a minimal starting torque is require. An induction motors draws 6 to 10 times of full load current while accelerating to full speed if directly connected to power supply. With autotransformer starters the reduced voltage applied to the motors results in lower current and high torque.

| Voltage       | 50% Voltage | 65% Voltage | 80% Voltage |
|---------------|-------------|-------------|-------------|
| Torque        | 25%         | 42%         | 64%         |
| Line Current  | 25%         | 42%         | 64%         |
| Motor Current | 50%         | 65%         | 80%         |

The auto transformer starters manufactured by us are comprise of run contactor, start contactor, star contactor, motor protection relay for protection against overload, single phase, reverse phase, phase imbalance, earth fault, lock rotor current, under/over voltage etc. dry/oil immersed auto transformer, timers and other accessories.

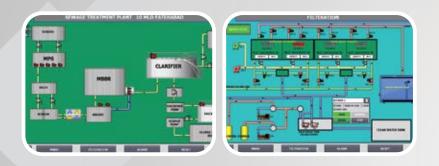
To start the motor, first the star contactor is engaged followed by start contactor supplying reduced voltage through auto transformer limiting input current to stationary motor while accelerating. The motor continues to

Accelerate and after preset time of 8 to 12 seconds the star contactor is opened and momentarily even lower current is supplied by auto transformer winding acting like inductors connected in series with motor. The time is short, just enough to disconnect star contactor and engage run contactor to supply full voltage to the motor to accelerate to achieve full speed. At this point motor can work on full load and transformer is disengaged by opening start contactor.

### Water / Seaways Treatments

### WTP/STP/SCADA

Our numerous installations of WTP and STP SCADA systems enable us to experience and find the real meaning of SCADA. it should be designed to make control and monitoring easy for the operator so that he can easily perform the required task via computer.



We are having an experienced team for understanding and analysing of customer requirement for Automation, Control and Monitoring of their Treatment Plant and equipment installed. This result in correct and timely execution of complete systema as per satisfaction level of customer.

#### **Our Design Features**

- Reporting through graphical representations
- Data Logging
- Historian
- Lowest Maintenance
- Easy to use
- Optimum designing
- Proper Feedback with representation





### **Pump Management**

### Pumps Management System

Water is the most important and first need of every living being Water has numerous uses in different sectors like domestic, Agricultural and Industrial. To endure proper distribution and availability, the system needs to be Automated computerised, systematized, which is required to make pumping system reliable and efficient

There is a Central control Station from where all the Local Pumping Station are controlled. This station communicates with Local Station via mobile network that is easily available everywhere and makes system reliable.

#### System requirements:

- Central Control Panel
- One telephone line at Central Station with static ID
- OPC Server/Cloud Server
- SIM Cards for each Local Pumping Station control Panels

#### **Running Cost** –

- Telephone line monthly payment
- SIM card monthly payments
- Annual Maintenance charges (depends on number of local station)

### Large no's of Pumps or Boosting Station can be controlled from one place

- All-in-One, Well-Integrated Solution
- Supports Maltiple Wireless Solutions
- Enhanced Cyper Security

#### **Expert Engineers and Automation Pvt Ltd**

DAILY WORKING PART DISTORT I AND .  $( \neg )$ (=)

#### Features

This solution-ready platform is suitable for the remote monitoring and control of pump stations of varying size

Different field sites or projects may require different types of wireless connection. The open system architecture allows for 2G/3G/LTE/Wi-Fi solutions with minimal system changes.

3540

### **Expert Sandwich Bus Duct**





### **E-Powerline**

The Bus Duct is a critical component in modern power distribution systems, offering safe and highly efficient electrical power transmission for all types of specialized applications. Our cutting-edge design and construction make the Bus Duct the top choice for those seeking reliability and flexibility in power distribution.

Experience the future of efficient power distribution with Expert's Bus Duct, delivering enhanced performance, safety, and cost-effectiveness.

Experience the future of efficient power distribution with Expert's Bus Duct, delivering enhanced performance, safety, and cost-effectiveness.

| Technical Specifications | IEC-439 Part 2 and IS 8623 Part 2                                |  |  |  |
|--------------------------|--|--|--|--|
| System                   | 415 V, 3 Phase, 4 wire, 50 Hz or 3 Phase 3 Wire                  |  |  |  |
| Rated Insulation Voltage | upto 1000V   |  |  |  |
| Rated Current            | upto 6300 A  |  |  |  |
| Туре                     | Totally enclosed. Air insultaed. Non segregated                  |  |  |  |
| Ingress Protection       | IP 42, IP 52, IP 54, IP 65                                       |  |  |  |
| Bus Bars Material        | Electrolytic Grade Aluminium or Copper                           |  |  |  |
|                          | Aluminium Conductivity > 58%, Copper > 98%                       |  |  |  |
| Enclosure                | CRCA Sheet / Aluminium Housing (optional)                        |  |  |  |
| Enclosure Paint Finish   | Epoxy Powder Coating. RAL-7035 (other shades as required)        |  |  |  |
| Bus Bar Insulation       | Black PVC Insulation with colour coding for phase identification |  |  |  |
|                          | Black Matt paint for Bus Bar Rating 2500A and above              |  |  |  |
| Earthing                 | Separate Earth bus provided on enclosure                         |  |  |  |
| Phase Cross Over         | Optional if required   |  |  |  |

#### Features

Compact structure

Low impedance

- Innovative design with enclosure uses as earth
- Great mechanical strength
- Can withstand high short circuit

Completely safe to use

Low Voltage Drop

Low maintenance

### **Expert Cable Tray**

### **E-Cabtrex**

We are a leading manufacturer of high-quality cable trays and accessories, offering reliable solutions for electrical cable management across a variety of industrial and commercial sectors.

Our cable trays are designed to ensure easy installation, superior protection, and long-lasting durability for all your cabling needs. Our perforated cable trays offer an optimal solution for managing and protecting your electrical cables efficiently. Perforated cable tray is used in industrial, commercial and residential construction to route electrical wires and cables through the building structure safely.

They are typically located within the ceiling space or on the walls of a building. Perforated cable tray protect cables from damage caused by mechanical forces such as impact, vibration and compression.

#### **Specifications**

| Width     | 50-1200mm   |
|-----------|---|
| Height    | 25mm-200mm  |
| Thickness | 1mm-4mm   |
| Length    | 2500mm-3000mm   |
| Finish    | Painted, Power Coated, Hot Dip<br>Galvanized, Pre-Galvanized,<br>electro Plated |
| MOC       | MS, GI, SS, Aluminium   |

#### **Advantages**

- Robust and long-lasting designs
- Quick and easy installation
- Customizable to suit project needs
- Corrosion-resistant coatings
- High load-bearing capacity

**Expert Engineers and Automation Pvt Ltd** 



#### **Features**

- Precision-manufactured for consistent quality
- Smooth edges for cable safety and handling

- Compatible with standard electrical accessories
- Ventilated designs for effective cable cooling
- Available with accessories like bends, tees, reducers, covers, and clamps

### ASSOCIATED PARTNERS



ABB - Medium Voltage Panels ABB Medium Voltage HT VCB Panels Upto 33KV

#### Lauritz Knudsen - Electrical & Automation LK IEC 61439 TTA Panels - Enersys LK Sandwich Busducts LK Automation Solutions - PLC, HMI, BMS, EMS, Water Solutions



C&S Electric - Electrical & Automation C&S IEC 61439 TTA Panels - CX Lauritz Knudsen

Siemens - Electrical & Automation Siemens IEC 61439 TTA Panels – SIEPan ELITE



### CERTIFICATIONS









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#### **EXPERT ENGINEERS**

Expert Engineers are a fast growing professionally managed engineering comapny engaged in the manufacturing of custom built low voltege Electrical Control Panels swichboard/control panel catering the needs of building, water, power and industrial sectors through its products to empower and englighten the lives of people.

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### PORTFOLIO



Auto DG Synchronizing Panel

Client: BHEL Location: BHEL, Hyderabad Application: 2 x 500 KVA DG Synchronizing Panel



Power Control Center

Client: Hindustan Petroleum Corporation Limited Location: Bareily, Uttar Pradesh Application: 160A, 400A DB for Fueling Station



500 KVA AMF Panel with Bypass Changeover

Client: Base Hospital, MES Location: Delhi Cantt, New Delhi



Manual DG Synchronizing Panel Client: MES Location: Meerut, Uttar Pradesh



Power Control Center

Client: Northern Railway Location: Ghaziabad Locoshed, Delhi NCR Application: 160A, 400A DB for Fueling Station



Pump Automation Panel

Client: WAPCOS Ltd Location: Amabala, Haryana Application: Remote and Local Switching of Valve Actuators



**Power Control Center** 

Client: Dungarpur Medical College Location: Dungarpur, Rajasthan Application: Complete Power Distribution in Building



Power Control Center

Client: Ginger Hotel Location: Sanand, Gujarat Application: Complete Power Distribution in Hotel



Power Control Center

Client: AlIMS, Delhi Location: New Delhi



Power Control Center

Client: JBM Auto Location: Pithampur, Madhya Pradesh Application: Plant Main LT Panel



Scania Gearbox Testing Kit

Client: Indian Army Location: Udhampur, J&K Application: Testing Jig of Scania Gearbox



4000A Busduct

Client: NSRY Project Location: MES, Portblair



Auto DG Switching Panel Client: JCB Location: Ballabgarh, Uttar Pradesh



Fountain Panel

Client: DLF, Camelias Location: Gurgaon, Haryana Application: Centralized Panel for Water Garden



Musical Fountain Panel

Client: Ramalingeswara park Location: Orissa Application: Controlling of compliete fountain inclusing 90 nozzles and Fire show



Power Control Center Client: Indian Oil Corporation Limited, IOCL Location: Bihar Application: 160A, 250A, 400A, 630A DB for Fueling Station



Actuator Panel

Client: Water Treatment Plant Location: PHED, Haryana Application: Remote and Local Switching of Valve Actuators



**FRP Machine Panel** 

Client: Cable Manufacturers Location: Industries





# What does it mean to provide excellent customer service?

Providing excellent customer service means going the extra mile in making sure a customer is happy and satisfied with a company's products or services. It also involves providing service to a customer in a timely, pleasant manner. In order to provide excellent customer service, one needs superb communication and problem resolution skills.

Talk About Exceeding Expectations: Customer service is all about meeting and exceeding the expectations of the customer. The expectations could be different for each type of business- but the principle is the same. Customers expect those assisting them to be extremely helpful- positive and informative.

- Excellent customer service involves meeting and surpassing expectations
- Excellent customer service means making each and every aspect of the customer's experience an absolutely positive one











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" Established in 2009 **EXPERT ENGINEERS** are among top manufacturers of Electrical control Panels,"



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