



Welcome to **R&T ELECTRICALS**

CPRI (6000A, 70KA, IP65) Approved Panel Builder
ISO 9001: 2015 Certified Company & Govt. Licensed Electrical Contractor

Welcome to R & T Electricals. We are one of the leading Consulting and Contracting Company in the field of Electrical and instrumentation in Eastern India.

www.rntelectricals.com

OUR COMPANY

We are pleased to introduce ourselves as Electrical & Automation Service Provider and Product Manufacturer in the field of Power, Metals, Petrochemical, Cement, Textile Plant, as well as for MEP Segment. We also develop and supply Spares Parts and components for various equipment as per Customer's requirement in the area of Electrical & Automation.

Our Main Business areas include:

Electrical Design & Engineering

Industrial Products

Instrumentation & Automation

Repair & maintenance Services

Renewable Energy Projects

EPC Project

VISION & MISSION

- ▲ In R & T Electricals our vision is to be the most preferred company to our customers through our products, services, solutions and relationships.
- ▲ The aim of the company is to provide quality products & services to Clients by delivering efficient and purpose specific designs & solutions.
- ▲ Establish a sustainable business enterprise by innovation, value creation and building excellence in every aspect to meet & exceed Customer's expectations.
- ▲ To practice Quality Management program that puts our team to be experts to provide service satisfaction. Our success is mainly due to the dedication of a highly skilful team, wherein lies our main asset. We value their contribution and will always continue to invest in developing the skills of our team.

OUR VALUES

- ▲ Reliability
- ▲ Customer
- ▲ Centric Trust & Integrity
- ▲ Openness & Transparency

CERTIFICATE



R AND T ELECTRICALS

ADDRESS : 176 U BAKHRA HAT ROAD, THAKURPUKUR,
KOLKATA – 700063, INDIA

QACS INTERNATIONAL

Certify that the quality management system of the above organisation has been audited and found to be in accordance with the requirements of standard detailed below.

ISO 9001:2015

PROVIDING ELECTRICAL JOBS, INCLUDING PANEL MANUFACTURING,
SERVICING & MAINTENANCE SERVICES

Certificate No:- QAIS-Q-RT-12.18.044

This certification was conducted in accordance with the qacs international f.c.c auditing and Certification procedures and it is remain valid subject to annual surveillance audits.

Certificate Issue Date: 13th February 2018 2nd Surveillance Date: 12th February 2020
Date of Initial Registration: 13th February 2018 Expiry Date:- 12th February 2021
Certificate Validity:- 3 Years

Note: Certificate shall be valid after surveillance, only if continuation letter by QACS is present.

To Check the certificate validity please
Refer Web:- (www.qacsintl.com).



Authorised Signatory

QACS INTERNATIONAL
info@qacsintl.co, operationqacs@gmail.com
www.qacsintl.co

CENTRAL POWER RESEARCH INSTITUTE TEST REPORT



Test Report Number : CPRIBPLSTNBMISC24T0385 Date: 06 January 2025

Name and Address of the Customer : R AND T Electricals,
176 U, Bakhrat Road, Thakurpukur,
South 24 Parganas, West Bengal - 700063

Name and Address of the Manufacturer : R AND T Electricals,
176 U, Bakhrat Road, Thakurpukur,
South 24 Parganas, West Bang'l - 700063

Particulars of Sample Tested : 415 V, 6000A, PCC Cum MCC LT Panel (Non Extendable)

Condition of sample(s) on receipt : New

Type : PCC/MCC/ACDB/DCDB

Description of test sample : Refer sheet 2 of 6

Serial Number : RATTYPETEST/01

Number of Samples Tested : One

Date(s) of Test(s) : 30 December 2024

CPRI Sample code Number(s) : STNBMISC24S0642

Particulars of test(s) conducted : Verification of the short circuit withstand strength test.

Test(s) in accordance with Standard/Specification : As per customer's requirement and proceed-re generally followed as per CI.10.11.5.3.3 & 10.11.5.3.5 of IS/IEC:61439-1, 2020 & IS/IEC:61439-2, 2020

Sampling Plan : Nil

Customer's Requirement : SCWS test to be conducted on LT Panel consists of main busbars only.

Deviations, if any : SCWS test was conducted on LT Panel consists of main busbars only.

Name of the witnessing persons
Customer's representative : Mr. Chandra Bhusan Shaw
Other than Customer's representatives : Nil
Test subcontracted with and address of the laboratory : Nil

Documents constituting this report (in words)
Number of Sheets : Six
Number of Oscillogram(s) : Two
Number of Graph(s) : Nil
Number of Photograph(s) : One
Number of Test Circuit Diagram(s) : Two
Number of Drawing(s) : Three

(Prabakaran T)
Test Engineer



(Himangshu Roy)
Head of Division
Reviewed and Authorized by

SWITCHGEAR TESTING & DEVELOPMENT STATION
GOVINDPURA, BHOPAL - 462023, M.P., INDIA
Telephone: +91(0)755 2586682 Fax: +91(0)755 2587774

Sheet No. 1 of 6

Sl. No.	Descriptions	Document No.
1	Trade License No. (Office)	005857122555
2	Trade License No. (Factory)	KGP/420/2018-19
3	PAN No.	AATFR4429H
4	GST No.	19AATFR4429H1ZM
5	Govt. Contractor License	202001040302
6	SO Reg. No. ISO 9001 : 2015	QAIS-Q-RT-12.18.044
7	MSME Reg. No. (Udyam Adhar No.)	UDYAM-WB-10-0015234
8	Farm Reg. No.	L82972
09	CPRI	
	a. Short Circuit Test 70 KA 6000 A	CPRIBPLSTNBMISC24T0385
	b. Short Circuit Test 70 KA 4000 A	S2140435
	C. Temperature Rise Test 4000 A	2014/STL/813
	d. Degree of Protection IP65	CPRIBLREATD18T0357
10	PTAX Reg. No.	192059338558
11	ESIC Reg. No.	410007221900006006
12	EPFO Reg. No.	WBCAL1856972000

ELECTRICAL PANEL BOARDS

Electrical panels are designed & manufactured as per IEC / IS standard. Electricals panel Board (PCC, MCC, MPDB) are necessary for any industry, facilities, corporate, IT parks, high-rise building, etc to centralize the central of the electrical distribution system. Compartments are sized to provide uniform height for each switchgear assembly. Various components such as circuit breakers, instrumentation and control equipment, transformers, relays, three-phase bus work, all internal wiring, connectors, and other supporting equipment are included in each assembly as per the specific requirements. We also provide to be made electronic items.

PRODUCT RANGE

Range of Electrical panel

- ▲ PCC Panel
- ▲ MCC Panel
- ▲ IMCC Panel
- ▲ APFC Panel / Capacitor Panel
- ▲ Auto Mains Falure (AMF) Panel
- ▲ Pump Starter Panel
- ▲ Fire Pump Panel
- ▲ VFD Drive Panels
- ▲ DG Synchronization Panel
- ▲ AHU Panels
- ▲ Soft Starter Panel
- ▲ PLC Panel
- ▲ Mimic Cum Control Desk
- ▲ Electronic logic control panel
- ▲ Annunciator Panel



AC Distribution Board & JB

- ▲ Power Junction Box
- ▲ Instrument Junction Box
- ▲ Industrial Socket Panels
- ▲ Lighting DB
- ▲ SLDB panels
- ▲ AC DB/DC DB



LT & HT Busducts

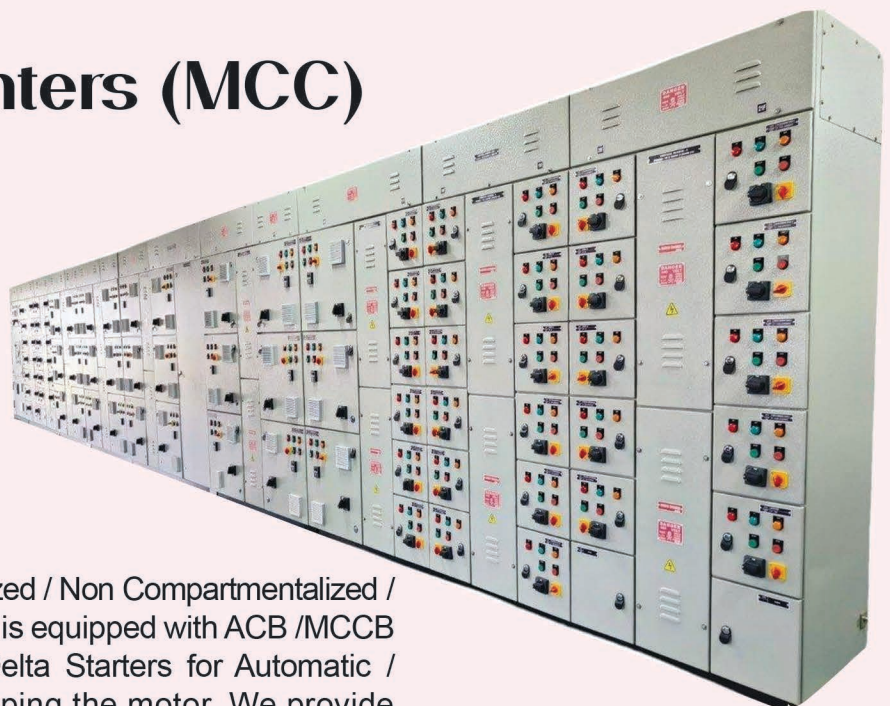
- ▲ MS/ Aluminium Enclosure
- ▲ Copper / Alumimium Busbar

Power Control Center (PCC)

We offer PCC Panel with a current carrying capacity up to 6300A & Fault level up to 70KA for 1-sec as per customer requirements. Our PCC panels are fabricated using 1.6/2/2.5/3 mm thick CRCA sheet of high quality & undergo 7/10 tank pre-treatment processes before being powder coated with high quality epoxy paint as per approved colour shade. Non-hygroscopic SMC/DMC Busbar supports of reputed makes are used along with Al/Cu busbars in our panels to meet the relevant standards.



Motor Control Centers (MCC)



We offer MCC Panel, 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. SCADA. We offer intelligent MCC which can communicate with PLC.

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

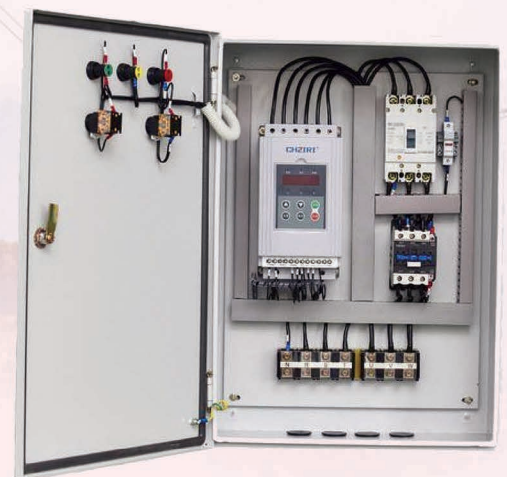


VFD PANEL

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 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 by either a potentiometer / by a choicable preset speed of motor.

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 / DG SYNC / LOAD SHARING PANELS

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.



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.

Application are intended to shoulder peak saving or base load operation in heavy energy consuming industries such as oil refineries, petrochemical refineries, steel mills, mines, cement factories, food processing, Multi storied residential colonies, Hospitals. Malls. Hotels. Telecommunication sectors etc.

STAND ALONE MOTOR STARTER PANELS

We offer a wide range of starter panels such as DOL starters, Star-Delta Starters, Soft Starters etc for a wide range of industrial applications.

A soft starter control panel houses and utilizes soft starters as a method of motor control. A soft starter itself is designed to control the acceleration and deceleration motors. It also starts up motors with a reduced power load. They are used across industrial and commercial applications to control three-phase and single -phase motors. Soft starters are common components of a control panel as they can increase a motor's lifespan by relieving it from harsh electrical stresses.

We are also able to offer retrofit solutions to control motors feeders automatically using specialized controllers thereby allowing optimum utilization of energy.



FEEDER PILLARS

Switchboard assemblies that provides local isolation to electrical distribution equipment, protecting both the cabling and the transformer from faults. Feeder pillars allow simple and local maintenance to your equipment, reducing site downtime and reducing overall maintenance costs. E-Cube offers a wide range of feeder pillars as per customer requirements.



INDUSTRIAL PLUG SOCKET BOARD

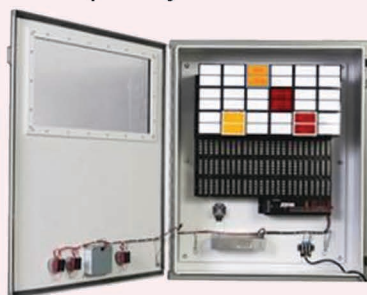
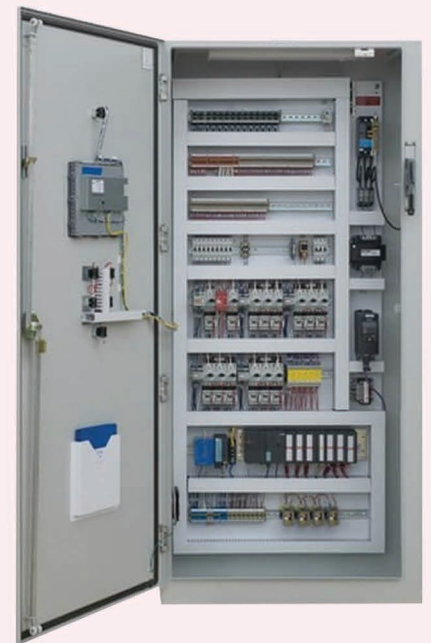


We offer complete range of Industrial Plug & Socket Boards that are used to distribute power to loads in Construction, Industrial Areas. Our Industrial Socket Board comes in various configurations suitable for wide range of Indoor & Outdoor applications.

PLC PANEL

Segregation of signals received from field instruments as delivered via digital input modules to PLC. The digital signals received from the field switches as "1/0" as +24 volts DC supplied from the SMPS (common ground), Signals received from thermocouples (as milli volts) sent to thermocouple modules and then to PLC, analog signals received (as 4-20 milliampere) from regulators, Variable pressure gauges etc. Sent to analog modules and then to PLC.

PLC itself is a processor regulated by a software introduced in by dint of a computer (known as ladder diagram including timers, counters, Shift registers, arithmetical functions, logical functions, sequentially arranged in by steps to help PLC to execute operations according to human machine interface/ Scada (touch screen) handled by operators in the field. Outputs of PLC may be of 2 types, viz digital (1/0) to operate relay boards and then several contactors serially & analog outputs such as opening of dampers, orifice plate or specially speed control of motors operated via variable frequency drives.



ANNUNCIATOR PANEL

We also deliver different types of annunciator panels & accessories as per clients requirements for Oil Industries, Chemical Industries, Gas Plants for annunciation of danger zones

MIMIC CUM CONTROL DESK

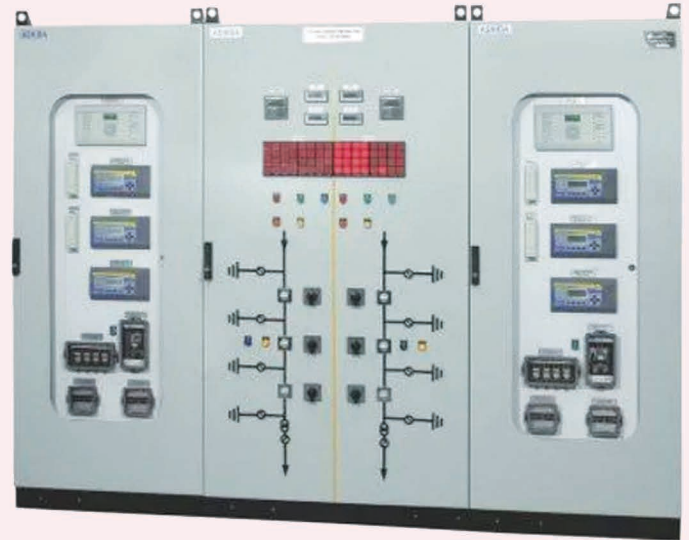
MIMIC screen generally used to give relief the user by a visual effect sequentially shown on the screen on/off hold on circuits (miniature type) included in the desk with indicator lamps & to carry forward the electrical signals to the main panel via cable sets from the control desk manipulated by push buttons.

MIMIC display are of 2 types, viz, auto LED type & LCD screen type with a small processor.



ELECTRONIC LOGIC PANELS

We provide low voltage low current panels for controlling PCC, MCC & Other Power Panels through Electronic Circuit Boards remotely at different locations.



BUSDUCTS

We offer up to 6300A HT or LT, Segregated or non-segregated phase bus duct has been designed to meet specific installation requirements for reliable power distribution. Typical of such applications are the connections from transformers to switchgear assemblies in unit substations, connections from switchgear assemblies to generators, and tie connections between switchgear assemblies. Non-segregated phase bus duct is an assembly of bus conductors with associated connections, joints and insulating supports confined within a metal enclosure without inter-phase barriers. Because of its compact dimensions, relative light weight and user-friendly design, non-segregated phase bus duct is easy to install.



HT Electrical products

- ▲ HT Panels
- ▲ Oil Type & Dry Type Transformers

Others Industrial Electrical products

- ▲ GI Ladder & Perforated Cable Trays
- ▲ Electrical Transmission Tower Accessories
- ▲ Servo Voltage Stabilizer
- ▲ Industrial Battery Chargers



TRANSMISSION & DISTRIBUTION TOWERS FOUNDATION & ERECTION UPTO 765 KV

We have carried out a number of HT Tower installation work at different Transmission Lines in India. We also work for manufacturing Tower accessories. We have well qualified and experienced engineers and super visors in our project division, We have adequate number of machineries, tools & tackles and testing equipments for carrying our project works.



Range of Transmission Line Accessories

- ▲ Earthing Device
- ▲ Anti climbing Device
- ▲ Bird Guard
- ▲ Circuit Plate
- ▲ Phase Plate
- ▲ Number Plate
- ▲ Danger Board
- ▲ Trifoil clam upto 400KV



ELECTRICAL REPAIR & MAINTENANCE SERVICES

HT TRANSFORMER YARD MAINTENANCE



We are engaged in offering of our clients a most reliable and desired range of power HT Transformers & yard Maintenance Services. Offered by our qualified and adroit professionals, Latest Advanced Testing Equipment These services are highly acknowledged by the clients spread across the nation. Advanced techniques are used in our Testing Methods, which further keep us a step ahead of our close business operators. We provide services to the clients all Over India & Abroad.

We also offer most reliable Transformer Oil Filtration Service. We bring forth a comprehensive and most reliable array of Transformer Truck Mounted Oil Filtration Machines in 12KL, 6KL, 4.5KL for easy movement with High Vacuum Pumps.

Our Service :

- ▲ Power Transformer Oil filling
- ▲ Old Oil purification
- ▲ New Oil Circulation
- ▲ IR value improvement by vacuum arrangement
- ▲ Oil Testing



OUR BUSINESS AREA INCLUDES :

- ▲ Industrial/Commercial Electrifications
- ▲ Transformer Oil Filtration & Testing
- ▲ Annual maintenance Central preventive/predictive Maintenance
- ▲ Preparation Of Drawing & Getting DOE & Utility Approvals Retrofitting Job

Our Industrial customers can expect service in electrical installations of equipment, panel building, troubleshooting, plant maintenance, preparation of yearly preventative maintenance schedules. This may also include IR Scanning of all equipment for preventative maintenance failure, design, safety upgrades, for all types of machines and automated systems.

OUR MAIN BUSINESS AREAS INCLUDE

PROJECT ENGINEERING

- Basic & Conceptual Engineering
- Engineering Specifications
- Bid Evaluation / Recommendations
- Post Contract Engineering / Review & Approval of Vendor
- Documents
- Detailed Design and Drawings

DESIGN ENGINEERING & CONSULTANCY

ELECTRICAL, INSTRUMENTATION & AUTOMATION

R & T Electricals offers a range of consultancy services for Electrical, Instrumentation, Communication & Automation Systems and conceptual planning, designing, engineering and procurement services for electrical, instrumentation, communication and automation systems as well as for the various industrial and infrastructure projects executed by the company.

NATURE OF SERVICES OFFERED

The main activities of this division are primarily preparation of feasibility reports, detailed project reports as well as planning, design and engineering of the above mentioned systems. The details of major activities are as follows:

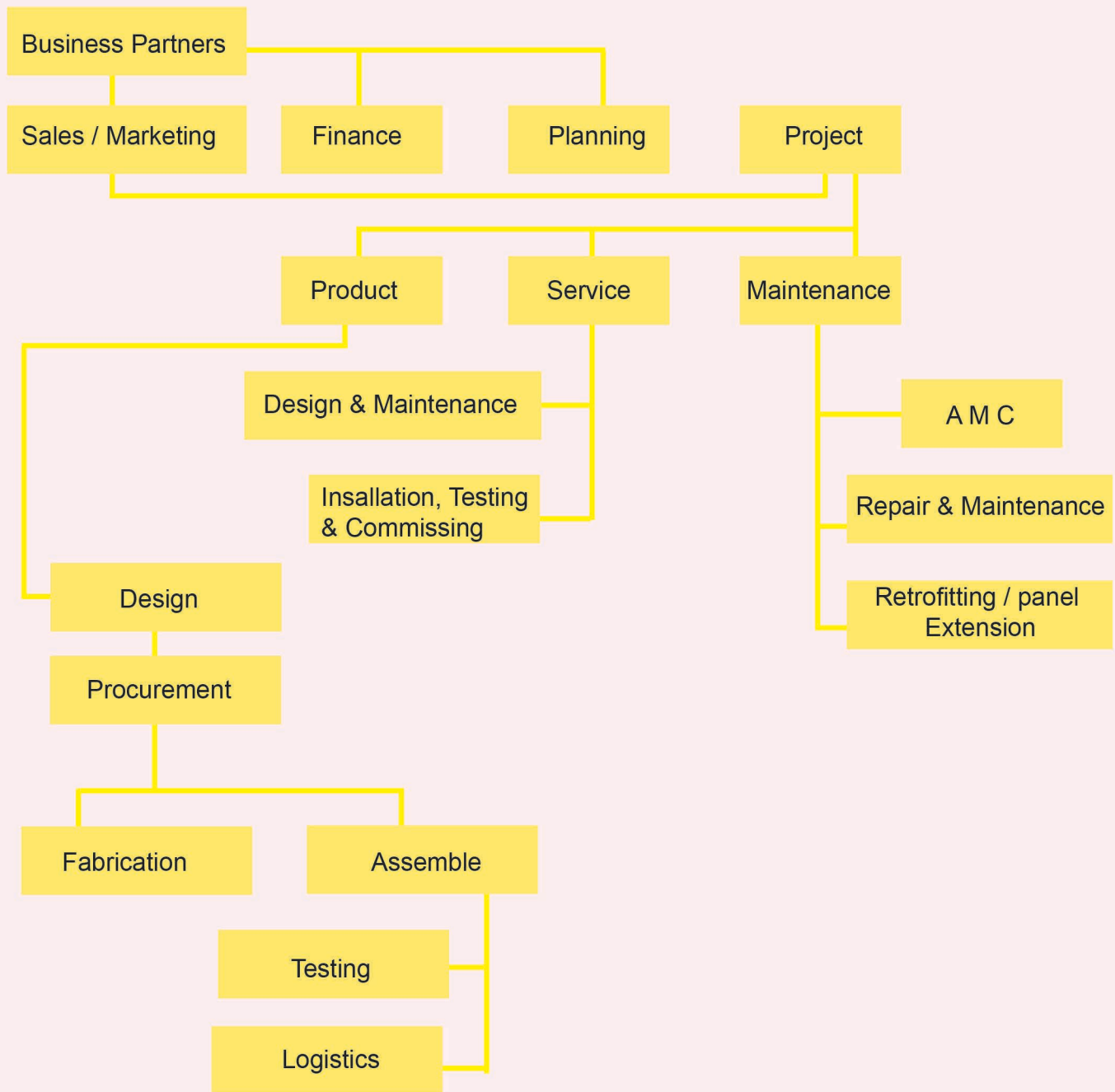
Electrical Design & Engineering

- ▲ Load Study.
- ▲ Electrical Panel Design and Specification.
- ▲ Electrical equipment layout.
- ▲ Electrical Equipment Specification & Data sheets for Equipments.
- ▲ Cable tray routing, Cable sizing, Cable estimation and inter connection chart and Cable Schedule.
- ▲ Earthling Layout & Lightning Arrestor Systems.
- ▲ Lighting System design for offices, Commercial complexes, Residential & Industrial Installation.
- ▲ Preparation of Tender Specification, Evaluation & Supervision during Execution.
- ▲ Substation layout, sizing & BOQ up to 132 KV Substations.

EPC Projects - Electrical & Instrumentation

- ▲ Detailed Design & Engineering
- ▲ Procurement of Equipments & Delivery to site
- ▲ Installation of Equipments & Systems at site
- ▲ Testing of Equipment & the integrated system Commissioning & plant Start up
- ▲ Post Commissioning Trial Runs & Handover Project management.

GENERAL ORGANIZATIONAL STRUCTURE



OUR SWITCHGEAR PARTNER



Our Valued Customer



Other Clients :

Essel Mining & Industries Ltd
ABS Fujitsu General Pvt Ltd
JK ENTERPRISE
NOUVELL AUTOMATION PVT. LTD.
Haldia Energy Ltd (HEL)
Electro Power
Oasis Agency
Chocolate Hotels Pvt Ltd
Rajasthan Seva Samity Trust
Brainware Consultancy Pvt Ltd
NWT Mall Management Pvt Ltd
Asoka Flat Owners Association
Repose Clinic & Research Centre
Goyenka Realtors Pvt Ltd
Dimaond Residency Apartment Owners Association
Eden Real Estate Pvt Ltd
Panache Apartment Owners Association
Crest Test System Pvt Ltd
The Dream Makers
Silvertoss Industries Pvt Ltd
Forum Projects Pvt Ltd
Adarsh Height Pvt Ltd
Abrol Infrastructure
Godrej Boyce Mfg Co Ltd
Suchita Builders
Prativa Engineers
Anisha Enterprise
Crystal Engineering
SK Power
Suprime Electric
S. R. Infotech
Subodh Mitra Cancer Hospital
Syag Electricals & Constrution
Siddhartha Engineering Ltd
A. K. Das Associates Ltd
Electropeak Future Flooring Pvt Ltd
Delta Electro Polymer Pvt Ltd
Fabworth Promoters Pvt Ltd
Grocery Mart
Nikom Infra Solution Pvt Ltd
Qualicom Solution Pvt Ltd
Quadra Medical Sevices
Aspen Engicon Pvt Ltd
Wills Electro Service
Empowertraner Pvt Ltd
AB IT Solution
One97 Communications Ltd PATYM
Essilor India Pvt Ltd
Kernos India Aluminate Pvt Ltd
Starlite Technologies Ltd
Arnav Powetech
Control Tech Engineers
Technomac Electricals
Power Control CGR
Nirman Enterprise
Sohum Industrial Sales Corporation
ABC Controls
Anglo India Jute & Textile Industries Pvt Ltd
Integrated Automated & Service Solution
Maity Engineerings
SNB Associates
SMPL Infra Ltd
Metropolis Mall Shop Owners Welfare Association
Asia Automation Group
LAKE MALL
Rivera Commercial
MR Shoppee
Shivam Electricals
Umesh Kumar Singh (BPCL)
Saha Commercal Construction (IOCL)
Elta Fans India Pvt td
Shree Ayyappa Engineering
Jahnabi Electric
Bala Sai Earth Movers Pvt Ltd
Joy Bharat Enterprise
S. R. Associates
SB Electro Structural
Sanaj Enterprise
New Indian Tea Blenders
Filtrair India Pvt Ltd
Balmer Lawrie & Co Ltd
Footware Design & Development Institute
Dharmendra Prasad Srinivas
SA Enterprise
Shiv Shankar Kundan
Shiva Sankar Electricals
Jagat Jyoti Electric
Vivanta
Ayon Enterprise
Ipsen Technologies Pvt Ltd



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