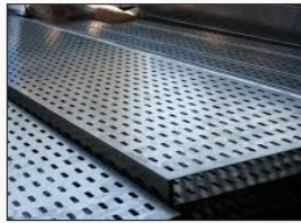


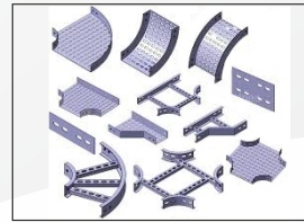
# Cable Tray and accessories



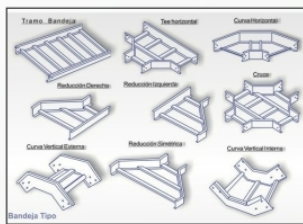
LADDER CABLE TRAY-1



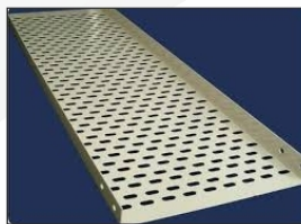
HOT DIP GALVANIZED CABLE TRAY PERFORATED



PERFORATED CABLE TRAY ACCESSORIES



LADDER CABLE TRAY



POWDER COATED CABLE TRAY PERFORATED



LADDER CABLE TRAY

## PERFORATED CABLE TRAYS

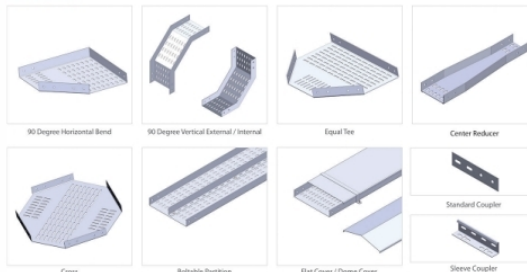
### Features

- Punch pattern adopted as per international practices.
- Pattern adopted results in less distortion during various processes. When contract provides, intermediate coupler holes provided on flanges folds.
- Choice of Straight or Reverse inward flange available to customer.
- Bottom coupling on wider than 600mm trays ensures full alignment during installation and reduces deflection at joints.
- Liberal space between punch lines gives adequate space for easy cutting shorter.
- Additional features like cutouts and knockouts can be provided as per mutual agreement.
- Innovative earth flat mounting clamp available.
- Available finishes : Hot Dip Galvanized (HDG), Pre Galvanized, Aluminum, SS304, SS316, Powder Coated (PC), HDG+PC (special applications)
- Standard length : 2500/3000mm
- Certified for electrical continuity and impact test in accordance with IEC61537

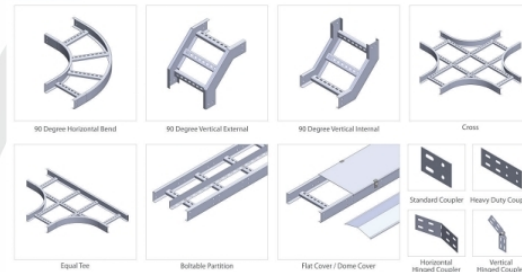


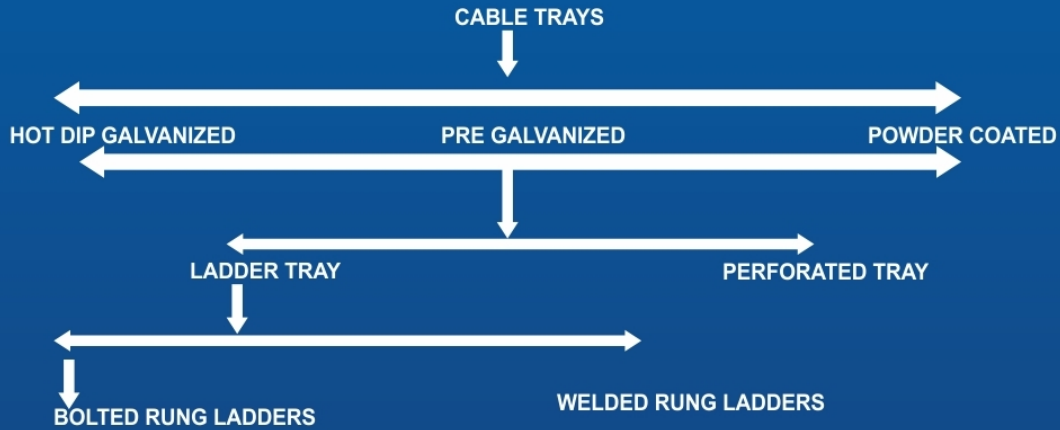
PRE GALVANIZED PERFORATED CABLE TRAY

ACCESSORIES:



ACCESSORIES:





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For **Ti**

## BOLTED RUNG LADDERS

### Features

- Interchangeability of rungs means faster deliveries and flexible/faster assembly at site.
- Ease of storage and accounting at site. Compact packing ensures fresh finish at assembly time.
- Excess quantities from site and be easily diverted or stored for later use.
- Intermediate couplers holes mean no drilling on cuts, holes pattern display material thickness.
- Transport & Handling costs are a fraction of those for rigid welded ladders. Zero damage during transit.
- Best suited for pre galvanized, aluminum & stainless steel materials. Best suited for powder coated finish.
- Innovative clamps for earth flats, cables, covers and hold down clamp arrangement options available.
- Used all over India and abroad at prestigious project locations over ;ast 25 years. Stock of popular sizes usually available.
- Minimized assembly time as only 2nd & 4th rung from each end needs to be bolted.
- Available finishes : Hot Dip Galvanized (HDG), Pre Galvanized. Aluminum, Ss304, Ss316, Powder Coated (PC), HDG+PC (special applications)
- Certified for electrical continuity and impact test in accordance with IEC61537

## WELDED RUNG LADDERS

### Features

- Standardized side rail and rung sections ensure faster delivery and uniformity.
- Data available on load tests of various sizes, different combinations.
- Intermediate coupler holes facilitate mounting of accessories like earth flats, provide ready coupling holes on cutting and promote better drainage during galvanizing. Holes pattern also display thickness of materials used.
- Larger bends designed with rungs welded to frames, ensure good hot dip galvanization.
- Assembly of ladders of pattern adopted by PUK group companies offered for better galvanizing result.
- Innovative clamps for earth flats, cables, covers and hold down clamp arrangement options available.
- Available finishes : Hot Dip Galvanized (HDG), Pre Galvanized, Aluminum, Ss304, Ss316, Powder Coated (PC), HDG+PC (special applications)
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Precision with an unbeatable expertise

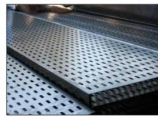
**RR ISPAT** (A Unit of Godawari Power and Ispat Limited)

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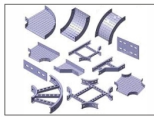
## Cable Tray and accessories



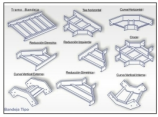
LADDER CABLE TRAY-1



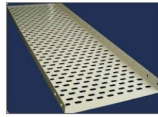
HOT DIP GALVANIZED CABLE TRAY PERFORATED



PERFORATED CABLE TRAY ACCESSORIES



LADDER CABLE TRAY



POWDER COATED CABLE TRAY PERFORATED



LADDER CABLE TRAY

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### WELDED RUNG LADDERS

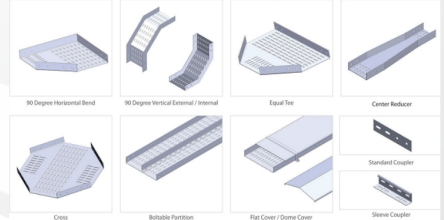
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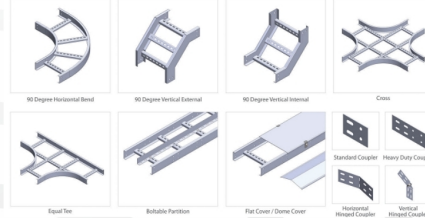


PRE GALVANIZED PERFORATED CABLE TRAY

#### ACCESSORIES:



#### ACCESSORIES:



### PERFORATED CABLE TRAYS

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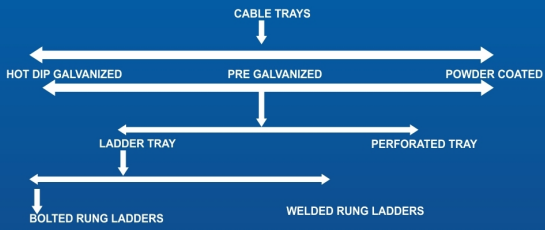


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Corporate Office : 490/1, 491/2, Urla Industrial Area, Raipur - 492 003, Chhattisgarh, INDIA  
Phone : 0771 408 2456 / 408 2350 | Fax : 0771 408 2445  
Email : marketing@consoulindia.com, servicesupport@consoulindia.com

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# PRODUCTS

We have evolved as a leading manufacturer of electrical control and distribution panels. We have also undertaken complete turnkey installations. Our range of products includes:



### Motor Control Centre (MCC)

Application	Protection & Control of Power Distribution
Operational Current	200 to 2500A
Operational Voltage	415V

### Variable Frequency Drive Panel

Application	Protection & Control of Power Distribution
Operational Current	32A to 6300A
Operational Voltage	415V

### Power Control Centre (PCC)

Application	Protection & Control of Power Distribution
Operational Current	32A to 6300A
Operational Voltage	415V

### Power Distribution Panel

Operational Current	200 to 5000A
Operational Current	415V
Ambient Temperature	45° C

“Experienced engineers and in-house quality ensure the final product matches all relevant international standards”

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### Control & Relay Panel

Application	Power Distribution, Switchyard Generator & Protection Control System
Type	Simplex Duplex
System Voltage	11KV / 33KV / 132KV

### Synchronization Panel

Supply System	3 Phase, 4 Wire
Rated Service Voltage	415
Synchronization of DG Sets	

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# HT Panel

## List of Type Tests as per IEC 62271-100 Sl. NoType tests

- |   |  |
|---|--|
| 1 Dielectric power frequency test for main ckt  | 8 Out of phase making breaking tests         |
| 2 Dielectric test for main ckt- Impulse Voltage | 9 Capacitor current breaking test            |
| 3 Temperature rise test                         | 10 Cable charging current breaking test      |
| 4 Milli volt drop test                          | 11 Degree of protection test                 |
| 5 Short time test for 3 second                  | 12 Environment test for special purpose      |
| 6 Mechanical Endurance test                     | 13 Seismic test for special FOR OUTDOOR VCBs |
| 7 Short-circuit duty test                       |  |

### TECHNICAL DETAILS FOR 11KV VCB

RATED VOLTAGE	12KV
RATED CURRENT	1600/1250AMP
S.T.C	25KA, 3SEC
BIL	12/28/75KV
WEIGHT	800KGS
FREQUENCY	50HZ
RATED BREAKING CAP	25KA
RATED MAKING CAP	62.5KA
RATED OPERATING DUTY	O-0.3S-CO-3M-CO
MACHANISM TYPE	Motor Wound Spring Operated
MOTOR VOLTAGE	230 V DC/AC
CLOSING COIL VOLTAGE	24-220VDC
SHUNT TRIP COIL VOLTAGE	24-220V DC

### TECHNICAL DETAILS FOR 33KV VCB

RATED VOLTAGE	36KV
RATED CURRENT	1600/1250AMP
S.T.C	25KA, 3SEC
BIL	36/70/170KV
WEIGHT	750KGS
FREQUENCY	50HZ
RATED BREAKING CAP	25KA
RATED MAKING CAP	62.5KA
RATED OPERATING DUTY	O-0.3S-CO-3M-CO
MACHANISM TYPE	Motor Wound Spring Operated
MOTOR VOLTAGE	230 V DC/AC
CLOSING COIL VOLTAGE	24-220VDC
SHUNT TRIP COIL VOLTAGE	24-220V DC

## INDOOR TYPE VCB PANELS(33 KV/11 KV)

### Features

- Sub-cubicle for system voltage 11kV and a short time current rating of 26.3kA
- Half panel for system voltage 11kV and short time current rating of 26.3kA and 40kA
- Half panel comes with an option of Copper/Aluminium bus-bar
- VCB current rating upto 3150A
- Provision of manual and electrical spring charging in VCB
- Spring charging motor voltage 230V AC and 110V DC/220V DC
- Closing/Tripping coil voltage 24V DC/110V DC/220V DC
- VCB comes with inbuilt anti-pumping feature



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For



## **PORCELAIN CLAD OUTDOOR VCB(33 KV/11 KV)**

### **Features**

- Simple in construction and easy to operate.
- Factory assembled Porcelain pole part and operating mechanism so that no site adjustment is required and reduction in erection time.
- Fully Type Tested as per IEC-62271-100/IS-13118.
- Restrike free, Suitable for capacitor switch application.
- Suitable for rapid auto-reclosing duty .
- Negligible maintenance.
- Very high reliability.

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# LT Panel

## Power Control Centre (PCC)

Application	Protection & Control of Power Distribution
Operational Current	32A to 6300A
Operational Voltage	415V

## Motor Control Centre (MCC)

Application	Protection & Control of Power Distribution
Operational Current	200 to 630A
Operational Voltage	415V

## Power Distribution Panel

Operational Current	200A to 630A
Operational Voltage	415V
Ambient Temperature	45 degree C

## Synchronization Panel

Supply System	3 Phase, 4 Wire
Rated Service Voltage	415V
Synchronization of DG Sets	

## Control & Relay Panel

Application	Power Distribution, Switch Yard, Generator & Protection Control System
Type	Simplex Duplex
System Voltage	11KV/33KV/132KV

## L&T Ti Panels Specifications

Operation Voltage	380-690 V AC
Rated Frequency	50 / 60 Hz
Insulation Voltage	690 V
Short time withstand	Up to 50 kA for 1 sec *
Peak withstand	Up to 105 kA
Rated Current (maximum)	Up to 4000A *
Conforming Standards	IS8623, IS13947, and IEC 61439
Form of Separation	Form 3B, Form 4A, Form 4B
Degree of protection	Up to IP 54
Panel types	SUP (for ACBs) – 440, 600,800,1000 (W) DB Panel type – A , AA, AB, B, BB
Horizontal Bus bar Material	Aluminum : Up to 3000A / Copper : 4000A
Horizontal Bus bar Location	Top / Bottom
Cable Entry	SUP (for ACBs) – Top / Bottom DB Panel type – Top / Bottom



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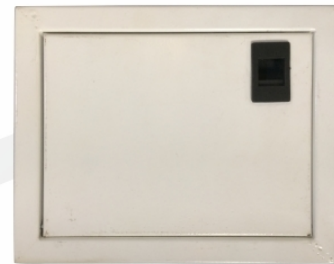
# MCB Distribution Board

## SPN DOUBLE DOOR DISTRIBUTION BOARD

No. of Ways	4, 6, 8 & 12 ways
Type of Installation	Surface & Flush mounting
Color/Finish	RAL 7035 Gery (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	63A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Provision for Incomer slots	8 slots
Voltage Rating	240/415V~, 3 Phase/4 Wire
Incoming Options	Three phase MCB/RCCB/Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25mm <sup>2</sup> , Split on both sides
Earthing Bar Terminal Capacity	25mm <sup>2</sup> , Split on both sides
Ingress Protection (IP)	Ip43
Rated Insulated Voltage (Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5KV
Ambient Temperature	-5°C to 40°C
Distribution Board - Reference Standards	IS 8623; IS 13032



MCB DB



MCB DISTRIBUTION BOARD-SPN



MCB DISTRIBUTION BOARD-TPN



SUBMERSIBLE PUMP CONTROLLER

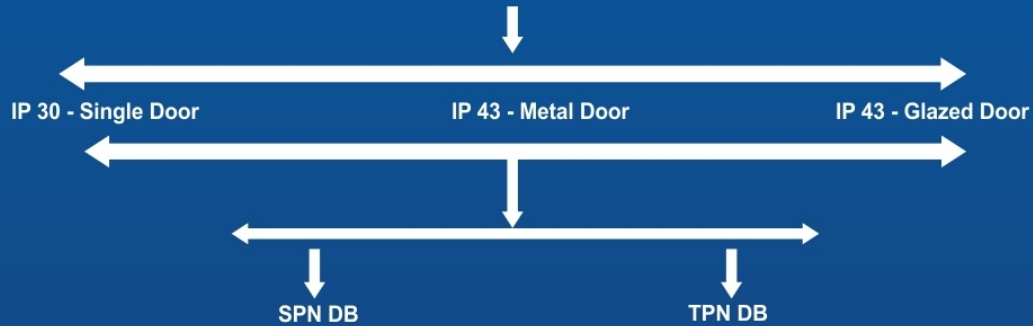


SUBMERSIBLE PUMP CONTROLLER

## TPN DOUBLE DOOR DISTRIBUTION BOARD

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Type of Installation	Surface & Flush mounting
Color/Finish	RAL 7035 Gery (Semi Glossy)
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## MCB DISTRIBUTION BOARD



### TECHNICAL FEATURES

Manufactured as per IS standard - IS 13032 / IS 8623 - 3  
Manufactured using special 1mm / 1.2mm thickness CRCA Sheet as per IS 513D grade.

Fully powder coated in RAL 7032 Light Gray Color with matt finish and 50-70 micron powder coating thickness

IP 43 (degree of protection) compliant Metal Double door offers added safety. Reversible door facility imparts flexibility at the installation point for customer convenience.

Pan assembly for eas of installation of MCBs/RCCBs

Corner shields with smooth edges provide added security to the boards and shield them against physical damages such as bending and peeling of paints etc.

Provision of Installation manual sheet along with the boards enables safe and easy installation of circuit breakers.

Technical Manual of RCCB's in enclosed along with the Boards.

Masking Sheet (Dust Guard) offers added safety by preventing cement from entering the box during plastering thus securing the entire internal components.

Highly shock resistant due to specialized Door earthing provided the board.

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MCB DISTRIBUTION BOARD-SPN



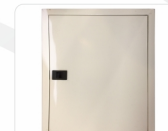
MCB DB



SUBMERSIBLE PUMP CONTROLLER



SUBMERSIBLE PUMP CONTROLLER



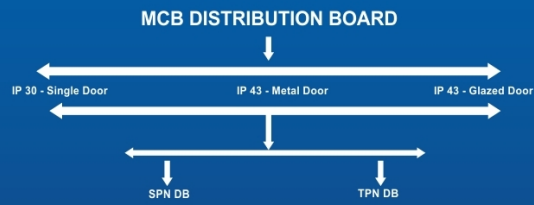
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- Technical Manual of RCCB's in enclosed along with the Boards.
- Masking Sheet (Dust Guard) offers added safety by preventing cement from entering the box during plastering thus securing the entire internal components.
- Highly shock resistant due to specialized Door earthing provided the board.
- Suitable for flush as well as surface mounting.
- Ample wiring space is provided to ensure proper distribution of neutral and earth wires.
- The sides of the distribution boards are equipped with special marking that help to identify box-inserting levels in the wall, when being used for flushed mounting.
- Equipped with Insulated Bus Bar Rating 100A that prevents Short Circuit Current.
- Shrouded Insulated Neutral Links prevent accidental contact with live parts and hence make the board highly shock resistant.
- Independent Shield and Door offers added flexibility and convenience of just removing the shield during maintenance jobs.
- Double door is separately packed for preventing Rusting.
- Equipped with Complete set of wires for the internal wiring of the distribution board.
- Circuit label diagram is enclosed with the DB to avoid any mismatch during wiring.
- Blanking plates, Cable Tie and its base are provided with the board for Cable management.



### SUBMERSIBLE PUMP CONTROLLERS

#### Salient Features and Benefits of Starters

Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1  
 Sheet steel enclosures with IP 54 protection  
 Wide range of relay settings and coil voltages  
 Standardized accessories and spares available

#### Salient Features and Benefits of Submersible Pump Controller

Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1  
 Protections Offered - Overload, Single Phasing,  
 Phase reversal, Phase imbalance  
 Auto Restart Feature  
 Vibration proof enclosure with IP54 protection class  
 Indications Offered - ON/OFF, Voltage and Ampere



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