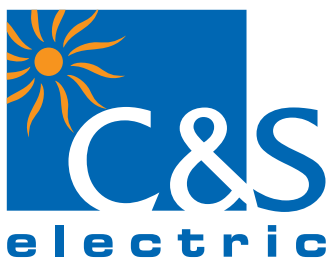


We touch your **electricity** everyday!



**C&S Electric Limited**

## LV Switchboards

- **Modular Motor & Power Control Centers**
- **Intelligent PCCs and MCCs**
  - Close door design
  - Fully draw-out
  - Interchangeability feature
  - Intelligent switchboard.
  - IEC 61439-1 & 2 Complied
  - Form 4B Type -7 construction
  - Internal Arc protected design (IEC 61641)



## CX Partner Program

### An IEC 61439

Design Verified Panel

LV Switchgear Assembly



## LV & MV Busducts

Range offers Medium Voltage and Low Voltage Busduct solutions with Isolated Phase Duct (IPB), Segregated Phase Busduct (SPB) and Non Segregated Phase Busduct (NSPB) ranging from 415V, 630A to 38KV, 30000A

- **Isolated Phase Busduct**  
Rating: 100A-30000A
- **Segregated Phase Busduct**  
Rating: 630A-5000A
- **Non-Segregated Phase Busduct**  
Rating: 630A-6500A
- **MV/ LAVT/ NG Cubicle**

### Salient Features:

- Excellent shielding under short circuit conditions by virtue of non-magnetic metal barriers between phases.
- Minimizes phase to phase faults.
- IPB Conductor & Insulator design eliminates Corona discharge, minimizes skin effects factor & eliminates the effect of cantiliver forces, uniform heat dissipation respectively.
- Conformity to International standards.

Our In-house test laboratories for Temperature rise upto 30000A and Impulse Test Lab upto 200kV are NABL Accredited.



## LV Bustrunking

Range offers Low Voltage Power busbar solutions from 25A to 7000A covering Sandwich Bustrunking, Air Insulated Bustrunking Lighting Trunking & Track Busway.

- **Sandwich Bustrunking**  
Rating: Copper 630A-7000A  
Aluminium 400A-5000A
- **Compact Air Bustrunking**  
Rating: Copper 125A-1250A  
Aluminium 200A-800A
- **Lighting Trunking**  
Rating: Copper 25A,40A
- **Track Busway**  
Rating: Copper 250-1000A

### Salient Features:

- Low impedance and compact size.
- Safety features in terms of compliance resistance to fire propagation and fire penetration, seismic integrity, Interlocks in Plug in boxes.
- Flexibility in distribution, ease of Installation, upgradeability, reusability & aesthetics which makes it easy for users while making a choice.



## Air Circuit Breakers

- Conforms to IS/IEC 60947-2
- Series: AH/AHA - 630A~6300A  
Operational Voltage upto 415V AC  
Winmaster2 / 3 - 630A~4000A  
Operational Voltage upto 800V AC
- Versions: 3P/4P Manual/Electrical, Fixed/draw-out
- Advanced protection - LSIG, ZSI
- Current & power Measurement
- Communication compatible
- Breaking capacity:  $I_{cs}=I_{cu}=I_{cw}$  upto 100kA



## Moulded Case Circuit Breakers

- Conforms to IS/IEC 60947-2
- Series: Winbreak1 - 16A~630A, Winbreak2 - 16A~1600A
- Version: 1 / 2 / 3 & 4 Pole
- $U_i$  upto 1000V AC
- Breaking capacity: upto 50kA;  $I_{cs}=100\% I_{cu}$ ;  $U_{imp}$ : 8kV
- Unique reserve Trip assembly, Trip time <10ms
- Advanced features-Current Measurement
- Communication compatible
- Double Break contact

## Industrial Switches

### Automatic Transfer Switch

- Conforms to IEC-60947-6-1
- Range: 40A ~ 3200A
- External remote control
- In-built Controller

### Switch Disconnectors

- Conforms to IEC 60947-3
- Range: 25A ~ 3150A, 2, 3, 4 & 6 Pole
- Rated impulse voltage 12kV

### Changeover & Bypass Switches (With & Without Fuse)

- Range: 63A~3150A, 3P & 4P; 415V, 50Hz

### Changeover Switch with Fuses

- Range: 125A~800A, 3P & 4P, 415V, 50Hz

### Bypass Switches

- Range: 63A~1600A, 4P; 415V, 50Hz



## Power Contactors

- Conforms IEC 60947-4-1; IEC 60947-5-1
- Series: robusTa / robusTa2 & Exceed
- Power Contactor upto 2100A AC1 Duty, 3P & 4P; control relays
- Overload relays range: 0.1A-1000A; auto/manual reset with built-in single phase protection
- In-built 1NO+1NC auxiliary contacts
- Safety through finger touch proof shield
- Efficient magnet with energy saving coils
- Design flexibility
- Common Add-On Accessories - Saves costs

## Motor Protection Circuit Breaker

- Conforms to IEC 60947-2
- Range: 0.16A~63A
- Overload and Short circuit protection - Toggle and Rotary Type
- Short circuit protection - Rotary Type
- Breaking Capacity upto 100kA
- Finger Safe Terminals
- 35mm DIN rating mounting



## Final Power Distribution Products

### MCB

- Conforms to IEC/EN 60898-1, IEC60947-2
- Range: 0.5A~125A (AC, DC), DC 500V
- Version: 1P, 1P+N, 2P, 3P, 3P+N & 4P
- Breaking capacity: 6kA / 10kA
- Tripping curves: B, C, D & K

### RCCB

- Conforms to 12640-1:2016, IEC 61008-1:2012
- Rating: 16A~100A, 2P & 4P
- Sensitivity: 30, 100 & 300mA

### Isolator

- Rating: 25A~125A; 1P, 2P, 3P & 4P
- Conforms to IEC60947-3

### Distribution Boards

- SPN & TPN Horizontal DB 4, 6, 8, 12 & 16 way
- VTPN DB with MCB / MCCB 4, 8 & 12 way
- PPI Wired DB 4, 8 & 12 way
- Phase Selector DB, TV Telephone DB
- Polycarbonate Consumer DB 6, 8, 10, 12 & 16 way
- IP43 DB available with a Heavy Duty Gasket



## Motor Starters

### Industrial & Agro

- Conforms to IS 13947-4-1
- 3Ø DOL Starter range: 0.5HP~40HP
- 3Ø Reversing DOL Starters range: 0.5HP~20HP
- 3Ø Star Delta Starters range: 4HP~350HP

## Control & Signalling Devices

### Push Buttons & Pilot Lamps

Metallic & Polycarbonate Series

- Ø22.5 mm Push Buttons, Emergency Stop PB, Selector switch Illuminated & Non Illuminated Actuators in Plastic & Metallic variants
- Pilot Lamps in LED/ Filament/ Neon types
- Push Button Stations 1/2/3/4 ways, IP65 / 1 66, NEMA-41/X protection



## Industrial Plugs & Sockets

- 3 Pin 16A, 32A & 63A, 240V AC IP44 & 67
- 5 Pin 16A, 32A & 63A, 415V AC IP44 & 67
- 3, 5 Pin 16A & 32A, 240/415V AC Interlocked Sockets IP44 & 67
- AC Distribution Box with Socket 16A, 32A & 63A, IP40

## Wiring Accessories



### Modular Switches

- Complete Range, A Switch for everyone, Anti-Bacterial Design, ROHS Compliance
- Five Color Accessories and Plates-White, Champagne, Grey, Charcoal Black and Elusio Green, 1M - 18M
- Elegant, Smart, Fire Retardant - Break Proof Design



**COMBI**  
WEATHER-PROOF ENCLOSURES



### Enclosures

- IP55 Weatherproof Enclosures
- All Weather Protection, Break Proof Design
- Suitable for mounting in Outdoor and Wet Conditions

## Primary Distribution - HV/MV Protection

Integrated Protection, Control & Metering IEDs for Feeder/Motor/Transformer



- Multi-protection Relay with Metering & communication
- Drawout Architecture with CT shorting facility
- Fault / Event / Disturbance Recorder
- 1A / 5A Rated CT (Site selectable)
- Model dependent programmable DI, DO
- Front USB / Rear RS-485 / RJ-45 / FO communication port
- Communication Protocols : IEC-61850 / MODBUS / IEC-60870-5-103

## Secondary Distribution Protection

- Self Powered Relay: Overcurrent Protection Ultra low current consumption
- Fault Passage Indicator: SC+EF Fault Indication along with Digital Input / Output with RS485 MODBUS Communication
- VPIS: Voltage presence Indicator as per Latest IEC62271-213 with SCADA Contacts



## LV Protection

## Enabling Edge Control for Motors...

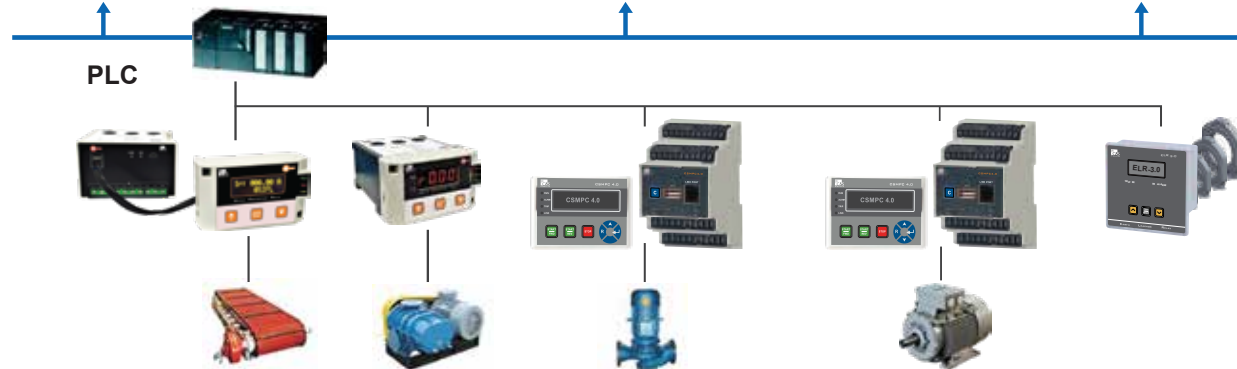
Operator Computer



Engineer Computer



Energy Management



- Application in Intelligent Motor Control Centre
- Current + Voltage based Motor Protection- Stall / Lock Rotor/Phase Reversal / Under-Over Protection/ Thermal/ Phase Loss / No of Start
- Control Via MODBUS-RS485 / Ethernet- TCP/IP
- ADD-ON -DIGITAL INPUT/OUTPUT for Expansion

- RTD Temperature / Analog 4-20mA for PLC Interface
- Control Scheme -FORWARD-REVERSE/STAR DELTA/ INVERTER CONTROL
- Inbuilt PLC for making various scheme
- Earth Leakage Relay: Highly sensitive Leakage protection with CBCT

## LV Measurement

Digital Panel Meters

- Single/Multi-function Meter with Class 0.5/0.5S/1.0 accuracy
- Measurement & Display of line parameters: V,I,P, Cos $\phi$ , kWh, kVarh
- Power Quality Measuring Device with THD
- Communication protocol: MODBUS RTU

Power Factor Controller

- Power factor controller with contactor switching
- Effective PF control, Upto 12 capacitor bank selection
- Communication protocol: MODBUS RTU / GSM / GPS





# Our Values

**We are Responsible**

**We Work for Excellence**

**We are Innovative**

**We Share the Joy**



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