



# Maa Electric Engineering Power<sup>TM</sup>

Excellent Engineering in Power Solution

Schneider  
Electric

ABB

SIEMENS



## Complete Power Solution

- Sub- station & HV/MV/LV switchgear
- Busbar Trunking system
- Industrial / Building Automation & control
- Power Logic & Energy Monitoring system
- Power transmission & Distribution
- Medium voltage distribution and grid automation
- Residential and small business
- Generator automation & control
- Lightning protection system
- Industrial & public lighting system



**Maa Electric Engineering Power<sup>TM</sup>**

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✉ [motinmeep@gmail.com](mailto:motinmeep@gmail.com) 🌐 [www.meepbd.com](http://www.meepbd.com)

## Our Activities

- High voltage systems
- Medium voltage systems
- Low voltage systems
- Motor controls & automation equipment
- Automation PLC, HMI & Energy monitoring system
- Busbar trunking system
- Cable tray & cable ladder
- Industrial & Public lighting system
- Power Transmission & Distribution
- Centralized building management
- Lightning protection system
- Industrial earthing system

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Electric

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## Maa Electric Engineering Power <sup>TM</sup>

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## Certificate of Registration

*This document certifies that the Quality Management System of:*

### Maa Electric Engineering Power

Location: West Doguri, Bhawal Mirzapur, Gazipur Sadar, Gazipur, Dhaka, Bangladesh

*Have been assessed and approved by*  
**IQS Standards Audits Division**

*In accordance with the following standard:*  
**ISO 9001:2015**

*The registered scope of the assessed quality management system is as follows:*

**“Manufacturing, Supply & Installation of Sub-Station & Electro-Mechanical Equipment”**

**Current Certificate Date:**  
28<sup>th</sup> May 2018

**Registration Number:** BAN450813

**For and on behalf of**  
IQS Standards Division

Signed.....*[Signature]*.....

**Certificate Expiry Date:**  
27<sup>th</sup> May 2021

**Issue:** 01

Validation **EXCELLENCE**




This is an accredited certificate issued under the auspices of ASCB the summary details of which are listed in the International Register of Quality Assessed Organizations and at [www.iqsaudits.com/certificate-authenticity](http://www.iqsaudits.com/certificate-authenticity)

Interested parties should check the validity of this certificate by going to the address shown above or using the QR Code and entering this certificate number in the space provided and click on SUBMIT

This certificate remains the property of, and must be returned to IQS Standards Division upon reasonable request

IQS Cert Doc Ref: C155 Rev: 09/17 Ed: 06 Page: 1 of: 1

## Our Major Clients





Technical Advisor

**Engr. Md. Abdullah-Al-Mamun**

B.sc Engineering in EEE(CUET)  
Former Sr. General Manager(PBS)

Electric Engineer with exceptional problem solving and trouble shooting skills served as a Sr. general Manager in different pally biddut Samity around Bangladesh. Excellent Knowledge of the installation and maintenance of electrical system and equipment. Understanding of all the applications of electrical engineering.



Chariman

**Md. Hasan Shah Nawaz**

B.sc Engineering in (IWE)  
Ex. Senior General Manager(PBS)

36 Years working experience in different PBS. Havig vast Knowledge about electrical line, sub station and grid construction.



General Manager

**Md. Sha Jalal**

Former Bangladesh Army Person

Md. Sha Jalal has a long record of working experience in administrative side of Electrical and Mechanical core of Engineering (EME) in Bangladesh Army. He also served as an advisor in Sppa Engineering Company after his retirement. He has an exuberant vast experience in administrative and marketin sector.



## MESSAGE

We are to introduce ourselves as an electrical service provider cum product manufacturer. Our core proficiency and competency is to address the right electrical infrastructure for your small projects to mega projects and industrial zones. We can design civil & electrical layouts, correction schemes for POWER-PLANTS, Substations with all preventive and proactive maintenance.



Managing Director

**MAA ELECTRIC ENGINEERING POWER**

Our product range are: Power Transformer and Distribution transformer, MV & LV Panels, Controls and relay panels. Switches & Sockets, LED tubes, LED bulbs, Meters, HRC fuses, MCB, MCCB, Contactor, DB boards, Capacitors, Instruments, Panel Meters. Load Audit, Pre-commissioning testing and Commissioning, Training of technical team, EPC is also our part of work.

We are here with our profile after 16 years of my business life and 20 years of my professional experience as an Electrical. Many companies of this group, especially manufacturing units, are ISO 9001 certified. This is for your kind consideration. This is our endeavor to associate with you and offer the best products and services to ensure your utmost satisfaction.



## **The Maa Electric Engineering Power**

Maa Electric Engineering Power is one of the leading electric engineering company in Bangladesh. Continual research and development, state of the art production facility, best quality products, competent services and countrywide operations have made it warmly acceptable to the customers.

Maa Electric Engineering Power formerly maa engineering & electric company was established in 2008 as a private company. It is powered by skilled man power and graduated engineers. The relentless efforts and dedication of these people are providing continual help to introduce new technology and best quality new products, Just in time delivery, pre and post sales services to maintain a long term business relationship with the customers.

Maa Electric Engineering Power enhances the business of its customers by providing them complete solutions. While offering better and environmentally compatible technologies, Maa Electric Engineering Power company focuses on the customers demand with appropriate products and solutions as well as services.

## **Our Vision**

Our vision is to reach the leading position in our markets and to ensure continued growth. Our priority is to provide the best efficiency, reliability and value to our customers. We will be the most preferred and reliable business partner of our customers.

## **Our Mission**

We will provide total electric solutions to enhance the productivity of our customers, with reasonable price and better products and services that benefit both the customers and the environment.

## **Our Values:**

1. Honesty is to be practiced by oneself and in born. Maa Electric Engineering Power will always remain honest with all stakeholders and built-up a trust worthily honest relation with customers.
2. We believe that there is no short cut to success. So that company works through hard work, Determine nation and intelligence.
3. We remember that all people working with us are human beings just like us and have feeling, aspiration and therefore we should treat them humanely with respect. Never disrespect another person and even if you do say "Sorry", it cost nothing to use.



## 11 KV/ 33KV HT Equipments

### LA (Lightning Arrester) 16-36KV

Porcelain lightning arrester, the getting through ability of resistance, thereby it brings fundamental change to features of arrester. Under normal working voltage, the current passing by arrester only ua class, when bearing over voltage, the excellent non-linear V-A features of arrester would make effect, the current passing through the arrester increase high to thousands of ampere instant, the arrester is under getting through state, to release over voltage energy, therefore it effective limits the damage to power transmission equipment due to over voltage.

### DOF (Drop out fuse)

Distribution cutout for use on overhead distribution system to provide over current protection. Porcelain insulator (125kv) 11kv-12kv/100-200A fuse available. Provide visible indication of fuse operation and visible break sector analyzing point for maintenance personal. Can function as a load break switch when used in conjunction with a portable load break tool.

### Specifications

1. 11KV porcelain fuse cutout
2. 11KV high voltage fuse cutout
3. Rating voltage: 11kv -12kv, 50Hz
4. Rating continuous current: 100A/200A

### LBS (Load break switch)

Outdoor H.V. Vacuum isolating load switch is designed and manufactured with advanced technology. It is composed of disconnecting blade, vacuum interrupted and operation mechanism. The load switch is characterized by reliable operation performance, high anti-corrosion capability and long service life time. It conforms to the standards of IEC 62271-102 and ICE 60694.

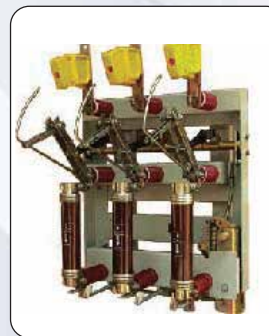
1. Reliable operation performance.
2. High anti- corrosion capability.
3. Long service life time and easy installation.

### Specifications of vacuum load break switch

Rated voltage (KV): 10-15, Rated current (A): 630,50Hz  
 Power Frequency withstand voltage for 1 min: vacuum (KV): 42, Power frequency with stand voltage for 1 min: P to G , Inter-phase (kv): 42

Power frequency withstand voltage for 1 min: Break Gap (KV) 48, Rated Lighting impulse withstand voltage: P to G, inter-phase (kV);75

Rated lightning impules withstand voltage: Break Gap (KV) : 85, Rated closing Short circuit current (KA) : 50 Rated short time withstand current (KA) : 20 (4s) , Rated Peak withstand current (KA) : 50 , Mechanical Life (time): 10000.





## Cast Resin Transformers



Our range of cast resin transformers is from 100KVA to 20MVA with voltages up to 36KV cast resin transforms are distinguished for their customized design which makes them immediately recognizable. And above all the market has appreciated the technical and quality features for more than years. Cast resin transformers are ideal for installation in various applications that range from the production to distribution of electricity.







## Oil Immersed Transformers

Our range of oil immersed transformers is from 100KVA to 5 MVA with voltage up to 145KV. Distribution transformer are appreciated for their reliability and ideal for installation, in indoor and outdoor as required. The traditional oil transformers are available both in the version with oil keeper or hermetic type with integral filling. On indication of the customer, they can be equipped with special control and safety devices and with the use of biodegradable oil.



## Reactors

The reactor is a current limiter in case of short circuits in the system. It is for this reason that its position in at the output of electric power plants or at the input position in substation.

The production range extends up to 6300A with insulation classes up to 36KV.





## HT Switchgear (VCB/LBS)

### HT Switchgear (VCB)

High voltage switchgear comprises the units designed for rated voltage of 11KV and current range up to 1250A switchgear comprises of SF6 Circuit breaker, Vacuum circuit breaker, Load break switch, Vacuum contactor, Disconnecter etc. To meet individual requirement which comply with IEC/BS and other relevant international standard. It has features of long service life, reliability and high degree of quality and safety. High tension switchgears are suitable for electrical substation with transformer feeder, measuring, sectionalizing, ring main unit and motor protection.

Construction : Sheet steel, metal clad

Rated Voltage : 11KV

Rated Current : 630A, 800A, 1250A

Rated Frequency : 20KA ,31.5KA

### HT Switchgear (LBS)

The protective equipment is used at 11KV sub-station. The main load break switch (LBS) mechanism is available for 630A & the over current protection scheme is done through HRC fuse. The panel includes 3 number of CT (Current Transformer) & 2/3 numbers of PT (Potential Transformer) for measuring system current & voltage respectively & 3 numbers of HRC Fuses for protection of overload. The scheme is so designed that if fault in any phase it will isolate the whole three phases from the system instantly. The panel also includes 3 numbers of ampere meters and one number of voltmeter with selector switch for monitoring system current & voltage. The standard panel size is 1800x900x1300 mm & weight is around 450kg.

The construction is or metal clad type and uses high grade CRCA steel of adequate thickness ensuring safety and security. HHV 12 employs rated vacuum interrupters for are extinction. The interrupters are procured from most renowned and the best quality manufacturer of the world, Cutler-Hammer (EATON), USA. Special characteristics of vacuum interrupters are :

- Very low arcing time
- Quick recovery of dielectric strength
- Small contact gap
- Trouble free service
- Low energy mechanism

### Key Features:

- ❖ Long maintenance free operation
- ❖ Fully metal clad design
- ❖ Horizontal isolation
- ❖ Bus-Bar system fully insulated
- ❖ Manual or motor charged main closing mechanist
- ❖ Fully rated with switches
- ❖ Complete set of interlocks and padlocking facilities
- ❖ Isolatable voltage transformer
- ❖ Ampere current transformer accommodation
- ❖ Extensive use in tropical environments
- ❖ Safety interlocks.





## LT Switchgear & PFI Plant

### Low Tension Switchgear

LT switchgear equipped with sheet steel, metal clad, dust and vermin proof, free standing, floor mounting type, 415V, 50Hz up to 6300A, indoor type low tension switchgear and synchronizing panel to control and distribute the power in different installations like power stations, Industries, Mills and Factories, Housing and Commercial Complex and other important installations. Switchgear panels are designed and manufactured for indoor and outdoor, fixed type or fully draw-out type with frame structure for modular construction for easy extension and coupling depending on the condition of installation. The low tension switchgear comprises of air circuit breaker, molded case circuit breaker, fuse switch unit, disconnected etc. To meet individual requirement which comply with IEC/BS and relevant international standard.

Construction	: Metal clad
Rated Voltage	: Up-to 1000V
Rated Current	: Up-to 6300A
Rated Frequency	: 50Hz
Short time current ratings for 1sec	: 50KA



### Power Factor Improvement (PFI) Plant

Power factor improvement plant has designed to meet the need of all forms of power factor correction by capacitor banks from small unit to a large plant. PFI plants are preferable designed to eliminate the penalties for consumption of reactive power reduction of voltage drop, increase in transformer capacity with same losses (load) reduction of line losses. The PFI plant supplied in cubicles of sheet steel metal clad dust & vermin proof free standing and floor mounting. Automatic PFI plant comprises of capacitor Banks, Power factor correction relay regular comply with IEC/BS and other relevant international standard. It has features of long service life, reliability and high degree of quality & safety.

Construction	: Sheet steel, Metal clad
Rated Voltage	: 11KV
Rated Frequency	: 50Hz
Short time current ratings for 3sec	: 20KA, 31.5KA





## LT Switchgear: ATS (Auto Transfer Switch)

Our transfer switch equipment guarantees in a compact space, permanent supply along with safety of electrical installations. Fed by two independent power sources (a preferred and alternate) the transfer switch detects power failure and transfers to an alternate input source. This access to dual independent power sources offers unmatched reliability, availability and service ability the way no other solution do. The broader range, providing all the necessary functionalities from simple automatic transfer with the highest breaking capacities from 100 to 6300A. ATS equipped with interact INS, compact NS, Master pact NT and NW, T max and E max and so on. New installation solutions are available Optimize the size of the switchboard and simplify installation. Which comply with IEC/BS and relevant inter-national standard.

### Features and benefits

- High reliability.
- Based on industrial components.
- Type tested system.
- High withstand to electromagnetic disturbance (EMC).
- Cost optimization.
- Source- changeover combined with circuit breaker protection.
- Maximum continuity of service.
- Optimum energy management solutions.
- Adaptability of the interlocking to the equipment.
- All in one solution ready to install and connect.
- Draw out assembly for easy maintenance.
- Safe maintenance thanks to standard isolation feature.
- Local and remote circuit breaker status indications.
- Push button for automatic test sequence.

Construction	: Metal clad
Rated Voltage	: Up-to 1000V
Rated Current	: Up-to 6300A
Rated Frequency	: 50Hz
Short time current ratings for 1sec	: 50KA





## Motor Control Center (MCC)

Our low voltage industrial motor control center (MCC) combine time proven designs and components with the latest in technological advances to meet any application. No matter how customized your needs may be, you can be assured that you are getting a finished product that represents the state of the art in low voltage motor control technology.

### Features and benefits

1. Safer and sturdier design- heavy gauge steel is used for framing and side panels. Sections are separated by 14/16 gauge steel barriers that are formed to provide rigidity and durability.
2. Smallest footprint- with the availability of the latest technology in our MCC, customers can now take full advantage of the benefits of smart control. Which comply with IES/BS and relevant inter-national standard.

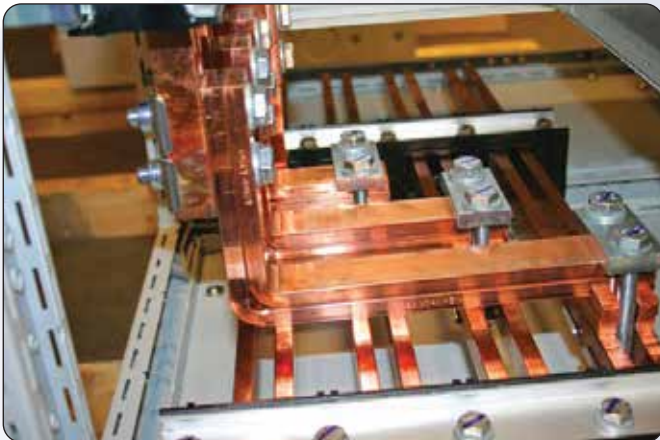
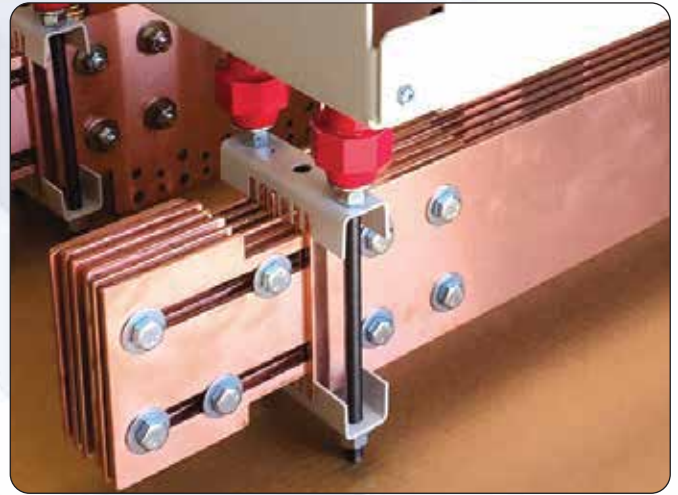
Construction : Metal Clad  
Rated Voltage : Up-To 1000V  
Rated Current : Up-To 6300A  
Rated Frequency : 50Hz





## Switchgear Copper Bus-bar Processing

- High mechanical strength.
- Advantage of high cooling surface area.
- Less isolator requirement for high short circuit withstands.
- Temperature rise and short-circuit withstand tested according to IEC 61439-2.
- 3 Different cross section sizes up to 4000A.
- Drilling is not required for the connection.
- Easy connection via special nuts and bolts.
- Advantage of using standard M10bolts for the connections.
- No-drilling save power- off time for changes to be made after commissioning.





## SDB & MDB Equipments

### SDB

- Compact
- Simple & easy to install
- High breaking capacity
- A modern look, well designed

Low power distribution board up to 250A designed and made in accordance with IEC 61439.1 & IEC 61439.3

### MDB

Low voltage panel system designed and made in conformity to IEC 61439.1, IEC 61439.2 and is used to compose LV switchboards up to 1000V for all type of application:

- LV power distribution
- Process control
- Motor control center and so on in accordance with IEC 61439.1 & IEC 61439.2 internal partitions between individual compartments can be provided or omitted depending on the type of separations (2a-2b, 3a-3b, 4a-4b)





## Vacuum Circuit Breaker

### Vacuum Circuit Breakers (Indoor Type) 12 – 36KV, 630-1250A, 16-50KV

The new type VCB are a synthesis of renowned technology in designing and construction Vacuum interrupters embedded in poles and excellence in design engineering and production of circuit breakers. The VCB medium voltage circuit breakers use vacuum interrupters embedded in the poles. This construction technique makes the circuit breaker poles particularly sturdy and protects the interrupter from impacts, dust deposits and humidity. The vacuum interrupter houses the contacts and makes up the interrupting chamber.

#### Features

1. Vacuum interruption technique
2. Vacuum contacts protected against oxidation and contamination
3. Vacuum interrupter embedded in the pole
4. Interrupter protected against shocks, dust and humidity
5. Operation under different climatic conditions
6. Limited switching energy
7. Stored energy operating mechanism with anti pumping device supplied as standard
8. Simple customization with a complete range of accessories
9. Fixed and with draw able version. Compact dimensions
10. Sealed for life poles
11. Sturdiness and reliability
12. Limited maintenance
13. Circuit breaker racking in and racking out with door closed
14. Incorrect and hazardous operations are prevented thanks to special locks in the operating mechanism and in the truck
15. High environmental compatibility.

#### Fields of application

The VCB are used in power distribution for control and protection of cables overhead lines, Transformer and distribution substations, motors, Transformers, generators and capacitor banks.

#### Standards

The circuit breakers comply with the IEC 62271-100, VDE 0671 Part. 100 CEI EN 62271-100 file 7642 (2005-5) standards and with those of the major industrialized countries. The VCB have undergone the tests indicated below and guarantee the safety and reliability of the apparatus in service in any installation.

#### Live tank vacuum circuit breaker (Outdoor type)

The breakers are designed as per the latest IEC standards. Vacuum circuit breakers are designed for distribution systems rated at 36KV and are of live tank design. The vacuum interrupters are housed in follow porcelain insulators filled with SF<sub>6</sub>/ Nitrogen gas at 0.5 bar above atmospheric pressure to safeguard against condensation. A spring operated mechanism is housed in a weather-proof cabinet and a sturdy extruded steel angle structure is used for mounting the breaker.







## Air Circuit Breaker/ Molded Case Circuit Breaker Master Pact NT/ NW

High current air circuit breaker  
from 600 to 1600/4000/6300A

The Master pact NT/NW range benefits from the outstanding features developed for the industrial version: Electrical switchboard standardization, optimization of volumes and ease of installation. High shock and vibration resistance systems have been added to these circuit breakers to meet the severe requirements of optimum continuity of service of industries applications.

### Master pact NT

Nominal Current: 630 to 1600A

Breaking performance: 42 to 150 KA at 220/415V AC

Voltage rating: UP to 690V

1 Single physical size from 630A to 1600A

A single pole pitch of 70mm

3-pole with draw able version

### Master pact NW

Nominal current: 800A to 4000A

Breaking performance: 42 to 100KA at 220/415V AC

Voltage rating: up to 690V

2 Physical sizes from 800 to 4000A

A single pole pitch of 115mm

3-pole with draw able Version

Switch-disconnect or version

### Micro logic control units

2.0A, 5.0A, P, H enriched by measurement, energy management and network analysis functions. Specific design with anti-shock and vibration systems to meet the server requirements of industrial applications:

18g-11ms ½ sine shock pulse# Vibration: 2g acceleration

5 to 60 Hz insensibility to naval displacement. Compliance with international standards IEC 60947-1-2-3, CEI 60068-2-27 for high shock resistance CEI60068-2-6 for vibration resistance. Compliance with specifications of marine classification companies: VERITAS, Lloyd's.

### CVS/NSX/T max

The range achieves a significant technical advance in the evolution of molded-case circuit breakers. Circuit breakers offer users a long term safety, and the best probability of continuing energy supply and convenience of operation compliance with most standards and convenience of operation: compliance with most standards and agreements world wide. Service breaking capacity  $I_{cs} = 100\% I_{cu}$  (according to IEC 947-2). Natural discrimination of protection devices. suitability for isolation with positive break indication. On request, numerous functions for indication, measurement and control.

### Compliance with standards

International IEC 947-1 ti 5 Europe EN 60947 France NF EN 60947 Germany VDE 0660 Great-Britain BS 4752 Italy CEI EN 60947





## Miniature Circuit Breaker

### Multi 9 System C60 Circuit Breaker

This is a popular Schneider electric Multi 9C60 family of DIN mountable circuit protection devices. Designed to meet global applications and code requirements, the multi 9 breakers are the product to carry IEC 947-2 and CSA C22.2 ratings as well as the CE mark. The multi 9 breaker family features an extensive array of accessories.

#### Features

1. 1-2-3-4 Pole configurations
2. Seventeen UL 489 ratings from 1A to 63A
3. Three trip curves available: B curve, C curve, D curve
4. Small size: less than  $\frac{3}{4}$ " wide per pole
5. Interrupting ratings 10K AIR standard
6. System voltages include
7. Padlock attachments
8. Common tripping of all poles
9. Variety of accessories

### Multi 9 Residual current circuit breakers

The RCCB residual Current devices are simply natural complements to C60 and C120 circuit breakers. The "SI" type RCCBs are completely immune to disturbances.

#### Features

1. Nominal current: 1to 125A
2. 30mA Sensitivity: Additional protection against direct contact (in accordance with IEC 364)
3. 30,100,300,500mA Sensitivities: Additional protection against fire and indirect fire and indirect contact B type: Protection of installations with three-phase rectifier
4. Type "SI" Protection of sensitive circuits and those prone to disturbances
5. Selective version: Tripping of the device the closest to the fault
6. Compliance with standards: IEC EN 61008 certified by national official authorities
7. Suitable for isolation in accordance with industrial standards: IEC 6097
8. Operating auxiliaries: Indication of state and tripping, shunt trip, under voltage trip, over voltage trip

#### Functions

Residual current circuit- breakers combine the following functions:

1. Control
2. Automatic circuit breaking in the event of an insulation fault between phase and earth greater than or equal to 30, 100or 300mA.
3. Residual current circuit-breakers are used in the residential, service and industrial sectors.
4. The residual current release is electromechanical and operates without any auxiliary source of supply.





## Magnetic Contactors

### Tesys D-Line LC1D/LC1F/LC1K Series Contactors

The D-line contactors and overload relays are the largest selling line of contactors and starters in the world. They offer high reliability with long mechanical and electrical life and the most complete line of accessories in the industry.

#### Contactors ratings

- D-line contractor sand overload relays are available in 11 contractor ratings for the USA Market for inductive motor applications up to 150 full-load amps and resistive loads up to 200A. They offer motor control and overload protection for motors rated up to 100hp at 480vac or 125hp at 600Vac
- 3-pole and 4-pole contactor versions available.
- All contactors include built in auxiliary contactors.
- All screw connection have IP 20 rated touch-safe terminals with both North American and international terminal markings.
- D-line contactors can be panel mounted with screws or DIN rail mounted.

#### Installed accessories

- Auxiliary contact blocks with serrated wiping action
- Front mount dust tight auxiliary contact blocks
- Pneumatic time delay blocks
- Transient voltage surge suppressors
- Interface modules and electronic timers
- Mechanical latching blocks

#### Control Circuit Flexibility

The D-line contactors are available with ac or dc operating coils. Several devices utilize a low consumption dc coil with built-in transient suppression for operation with a low level dc signal from a computer or PLC without need for an interposing relay. LRD series relays, Overload relays, Class 10 of class 20 bimetallic overload relays are available up to 140A. They are bimetallic ambient compensated and are available with or without single- phase sensitivity for phase unbalance and phase loss protection. New solid state overload relays are available for 90 to 150A applications. Both bimetallic and solid-state overload relays

#### Include the following features:

- Isolated N.C trip contact and N.O.alarm contacts
- Manual or automatic rest function (bi-metallic versions only).
- Tamper-resistant window for FLA settings.
- Test trip button.





## Motor Protection Circuit Breaker GV2M/GV2P MPCB

The GV2 manual protector provides manual isolation, manual motor control, and thermal over current protection in one compact unit. The basic motor starter GV2M controls motors with full load currents up to 32A. The GV2P, high performance manual protector, offers a higher withstand rating and visible trip indication for convenience. The GV2P has an additional UL 508 type E rating as a stand alone self-protected manual combination protector.

### Features

- UL 508 Listed CSA certified, and CE marked to meet global needs
- UL listed for group motor applications when used alone or in combination with TeSys D-line contactors in accordance with NEC 430-53
- Motor control and protection in accordance with standards IEC 947-2 and IEC 947-4-1
- 10-100KA UL-Listed short circuit current rating depending on application size and voltage
- 3-Pole, 30hp@575v maximum
- Designed for motor full load currents up to 32A
- Compact size 45mm wide
- Class 10 ambient compensated overload relay
- Single phase sensitivity
- Magnetic instantaneous short-circuit protection
- Test trip mechanism
- The addition of an under voltage trip enables the motor circuit-breaker to be tripped if voltage is lost
- The addition of a shunt trip enables remote control of tripping
- Provision for padlocking in the off position standard
- Finger safe terminals (meets IP 20 standards)
- Available with screw clamp and screw type terminals for flexibility
- North American and European terminal markings

### Timer

The timing relays are designed to provide cost-effective solutions for your industrial time delay relay needs. Being one of the widest time delay relay offers available in the marketplace, we are likely to have the timer you need commercially off the shelf. Available in a wide array of forms, fits and functions; timers offer the ultimate in flexibility and performance. Accurate adjustments, legible wiring diagrams and an interactive timer demo make selection quick and easy.

### Benefits key features

Reduced panel space-smaller units require less installed space installation flexibility-units can be DIN rail or panel-mounted tamper resistant-these units feature a sealable cover increased functionality-RE8 and RE9 timers with single functions and a choice of electro mechanical or solid state functionality CE declaration of conformity.





## LV Aluminum Can Capacitors

### VarplusCan capacitors

Varpluscan are low voltage aluminum can capacitors

#### Features

- High life expectancy up to 160,000hours
- Voltage up to 830V
- Power ratings up to 50KVAR
- Operating temperature up to 70° C
- Degree of protection IP20
- Compliant with standards IEC 60831-1 and -2

VarplusCan capacitors must be selected depending on the a safe, reliable and high-performance solution for power

#### Safety

- Self-healing
- Pressure-sensitive disconnecter
- Discharge resistors fitted-Finger
- Proof Clamptite terminals
- High thermal efficiency

#### Compacity

- Optimized geometric design (small dimensions and low weight)
- Available

#### Easy to install, easy to maintain

- Vertical or horizontal installation
- Unique termination system for maintained tightening

#### For Professionals

- Very high overload capabilities and good thermal
- Economic benefits due to its compact size.
- Easy maintenance.
- Unique finger proof termination to ensure tightness.

#### Power Factor Regulator (PFI Meter)

the power factor regulator combines comprehensive operations with user-friendly control settings. It uses numerical techniques to compute the phase difference between the fundamentals of current and voltage, enabling precise power factor measurement even in the presence of harmonics.

#### Key benefits

Microprocessor based intelligent auto switching control Automatic C/K and rated step adjustment programmable sensitivity easy to read digital display complies with IEC 61000-6-2 standards

#### Applications

Detect and correct displacement power factor due to inductive loads.





## Inverter & Soft Starter

### Inverter

The variable speed drive from Schneider electric/ABB/LS provides high performance and improved connectivity, while reducing panel space, improving uptime and maximizing machine through-put. Its extra-slim, book-style design allows side-by-side mounting, as well as the direct attachment of a self-protected disconnect. The Altivar can be mounted in smaller spaces, minimizing wiring, and reducing machine costs.

### Specifications

1. 3-phases 200/24V – 380/480V – 500/690VAC
2. Single phase 200/240VAC

### Technical Parameter

a. From 0.75 to 800kw b. Speed range : 1;100in open loop mode  
c. Overload 110%-120% -60 s d. Graphic keypad: Plain text, navigation button, Simply start menu to start immediately and profit at once from the full performance e. Energy saving low quadratic motor control law f. Conformity to the international standards and certifications: CE , UL , CSA , C-Tick g. Input/ Output extension cards. h. More than 150 Functions available i. Protection of motor and drive j. Safety function included.

### Benefits

1. In the heart of your applications
2. Open to main building and industry communication networks.
3. Ingenious, the inverter can be customized to meet your needs.

### Applications

Range dedicated to verity of pumps motors and fans applications for the industry and building markets. Exceptional performances , advanced functionalities. High performance variable torque applications

1. Motor: safety with forced function (fault inhibition, selection of operation direction and the reference speed ).
2. Multi pump : With the programmable card multi pump , offer you flexibility, user-friendliness and adaptability.
3. Pumps: Essential functions for your installation protection under load, overload and fluid absence detection.

### Soft Starter

The altistart TM unit supports the controlled starting and stopping via voltage and torque – of three-phase squirrel cage asynchronous motors for power ratings between 4 and 400kW. It comes ready to use for standard applications with class 10 motor protection. The altistart soft start/soft stop unit has been designed to satisfy the performance requirements of applications where ruggedness the safety of personnel and equipment and easy commissioning are at a premium. The bypass function (based on a bypass contactor) has been made easier to use by integrating it into the starter. This approach suits applications where it may be necessary to bypass the starter at the end of the starting process, in order to limit the starters heat dissipation.

### Simplifies Installation and Operation

Saves time on wiring (6 terminals instead of 12) optimizes the size of your enclosures (very compact product) keeps temperature rises to a minimum (low heat dissipation) reduces the number of components to manage (multifunction product).





## Power Monitoring System

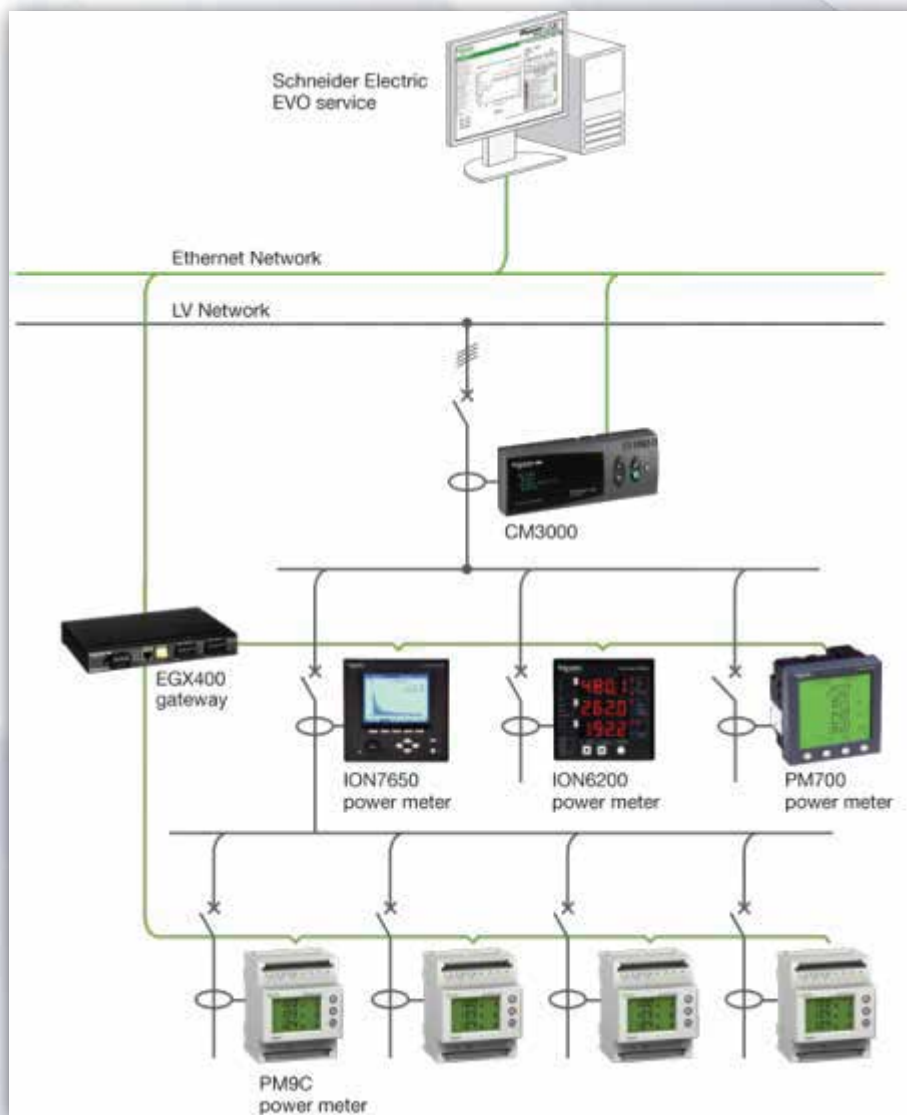
Advanced power quality analyzers/ high accuracy revenue transient detection, ABT application, Embedded web pages, Mudbugs mastering, GPS time Sync, SOE, Expandable IO, IEC PQ compliance

Patented disturbance detection, Intermediate PQ, on board memory, Alarms, waveform capture, sags & swells, smart demand controller.

Energy and Power Monitoring, VA F- PF

Harmonic monitoring Predictive demand monitoring multitariff, WAGES integration.

**Optimizing the electrical network with data driven decision through energy management software.**



- Acts like a layer of intelligence on top of energy assets.
- Integrate your entire facility, campus or service area.
- Gives you're the tools to monitor, analyze and control your entire power distribution network.



## BBT General Information

Feeder bus bar trunking  
Plug-in bus bar trunking  
Horizontal elbow  
Vertical elbow  
Double vertical elbow (off-set)  
Horizontal double elbow (off-ser)  
Horizontal + vertical elbow (combined off-set)  
Vertical + horizontal elbow (combined off-set)  
Horizontal (T)  
Reducer  
Elbow horizontal connection unit  
Connecting unit vertical elbow  
Connection unit double vertical elbow+  
Vertical + Horizontal elbow connection unit  
Elbow Horizontal + Vertical connection unit  
Center feed unit  
End feed unit  
Line disconnecter  
Expansion unit  
Phase parallel connection unit (Horizontal)  
Phase parallel connection unit (V)  
Connection unit (transformer or panel ) (AL)  
Connection unit (transformer of panel) (CU)  
Bolton tap off with  
Tap-off unit with MCCB disconnecter  
Tap- off unit with MCCB  
End cap Fire barrier  
Column (riser) spring suspension unit  
Horizontal suspension unit  
Riser connection  
Connection unit modules (AL-CU)  
Size and weight aluminum bus bar trunking  
Size and weight copper bus bar trunking  
Missing link of BBT  
Measuring horizontal elbow  
Measuring vertical elbow  
Measuring up double horizontal elbow  
Installation information  
Installation instruction  
Technical data  
Electric dates







## Bus-bar Trunking System Lighting or low power busbar

Lighting busbar trunking system is used for the distribution of lighting energy or low-power energy. It is offered with nominal rating from 25A to 63A where the active conductors are enclosed in a copper coextruded sheet made of self-extinguishing halogen-free thermo plastic material.

The circuit configuration are 2P+2P, 4P+2P, 4P+4P and 6P+6P in a double case which divides mechanically the two circuits along the entire length to ensure the continuity of the service (for example, in cases when there is a need for an emergency circuit) IP4X/IP5X

Tap off-plug from 6A to 32A without fuse or with fuse  
standards: IEC60439-2 > > 61439

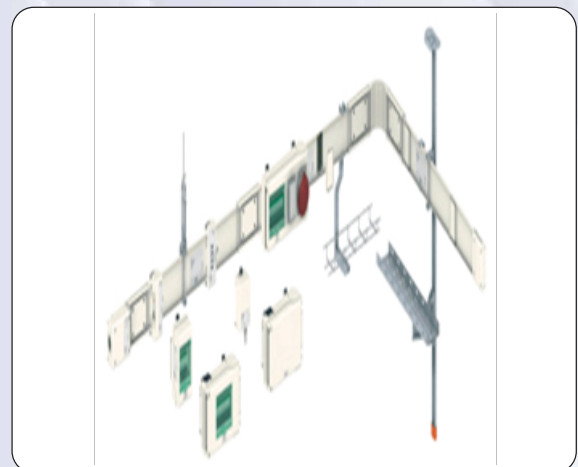
### Medium Power Busbar

Medium power busbar is a patented range of busbar trunking designed and manufactured in accordance with IEC60439-1 and IEC 60439-2 that is utilized within building and industrial applications to deliver power to sub distribution units.

Medium power busbar has been developed primarily for distributed riser applications within multi-tenanted, multi-functional commercial and industrial premises.

The medium power busbar range complements the high power busbar is manufactured in our EN ISO9001:2015 certified facility.

- Rating -160A, 250A 400A, 630A, 800A
- Feeder and distribution busbar
- Fully ASTA tested and certified
- Operating temperatures to IEC 60439-2
- Air Insulation
- Aluminum housing
- Copper or aluminum conductors
- Degree of protection IP4X, IP5X, IP6X Multiple five bar configuration.
- Is available to suit all your project requirements:
- TP & N
- TP & N complete with 100% Earth (Case)
- TP& N complete with 100% Clean earth





## Bus-bar Trunking System

### High Power Busbar

High power busbar is a patented range of busbar trunking designed and manufactured in accordance with IEC60439-1 and IEC60439-2 that is utilized within building and industrial applications to deliver power to sub distribution units.

High power busbar is a range of busbar trunking that is manufactured with an electrostatic application of non hygroscopic, chemical resistant, insulating resin coating on each conductor. This allows minimum separation and a sandwich type compact construction that reduces electrical losses, optimized dimensions and is creatical for high current applications.

High power busbar is manufactured in our EN ISO9001:2015 Certified facility.

Rating-800A, 1000A, 1250A 1600A , 2000A, 2500A 3200A, 4000A, 5000A, 6300A feeder and distribution busbar fully ASTA tested and certified.

Low impedance sandwich construction

Operating temperatures to IEC 60439-1 & 2 Copper or aluminum conductors Degree of protection IP4X,IP5X,IP6X

Multiple six bar configuration to suit project requirements:

TP & N

TP%N with 100% earth (Case)

TP&N completed with 100% claon earth

TP&N (200% Neutral)

### Trolley Busbar

Rail trolley TR 85 is a safety conductor system for mobile power feeding of: Automated storage-electric power tools electric hoists-overhead cranes and require on maintenance.

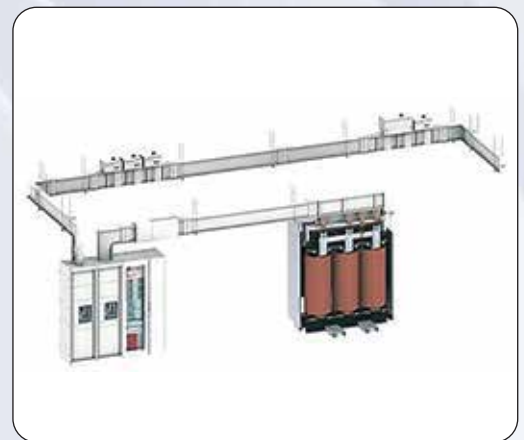
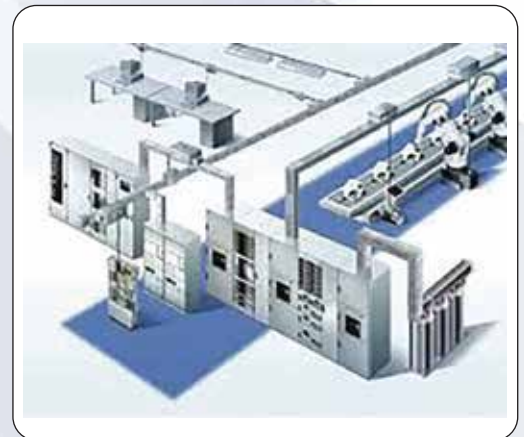
TR 85 rail trolleys can be supplied as follows:

a. PVC rail with copper conductors already inserted to extension at installed line the copper conductors connection between tow bars are fixed with copper tape clamps.

b. PVC rail with copper conductors furnished separately in coils, to insert the conductors the multitask should be installed for all length.

For longer systems the copper conductors have to be inserted with tape roll holder and carrier for tape.

Quick and easy installation to avoid voltage drop.





## Lightning Protection System

The consequences of an unexpected lightning strike can be catastrophic for a facility:

1. Personal are at risk.
2. Critical equipment may be damaged.
3. Data will be lost.
4. Company damage cost will be rise.

### Prevectron 2/OPR

French standards NFC 17-102 Compliant

The latest prevectron 2 millennium/ OPR series provides optimal protection against the direct effects of lightning

### Operation

The prevectron 2 is operating in three stage:

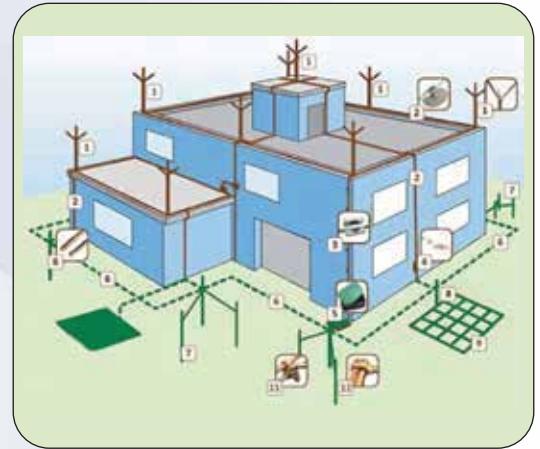
- The ionization device is charged via the lower electrodes using the ambient electrical field (several million volts / meter when storms are prevalent). This means the prevectron 2/OPR is a fully autonomous system requiring no external power supply.
- The ionization phenomenon is controlled by a device which detect the appearance of a downward leader: The local electrical field increases rapidly when a discharge is imminent. The prevectron 2/OPR detects changes with in the field, making it the first E.S.E air terminal to react at the precise moment the downward leader develops from the cloud to the ground.

### Prevectron 2 features

In an intense electrical field, the lower set of sensors charges the ionization device with electrical energy and when the lightning strikes the upper set of electrodes generate sparks allowing an channel the current down to earth through the central tip. Central pickup tip made of electrolytic copper or stainless steel passes through the lighting conductor creating to flow down. A stainless steel waterproof housing, connected to earth. An upper set of spark-generating electrodes. An electrical triggering device, shielded in its protective housing. A lower set of sensors for absorbing ambient energy.

### Key benefits of prevectron 2

- Lightning conductors offering a host of key benefits:
- 5-model range offering customized solution.
- Fully automats operation
- Total reliability. even in extreme climatic conditions





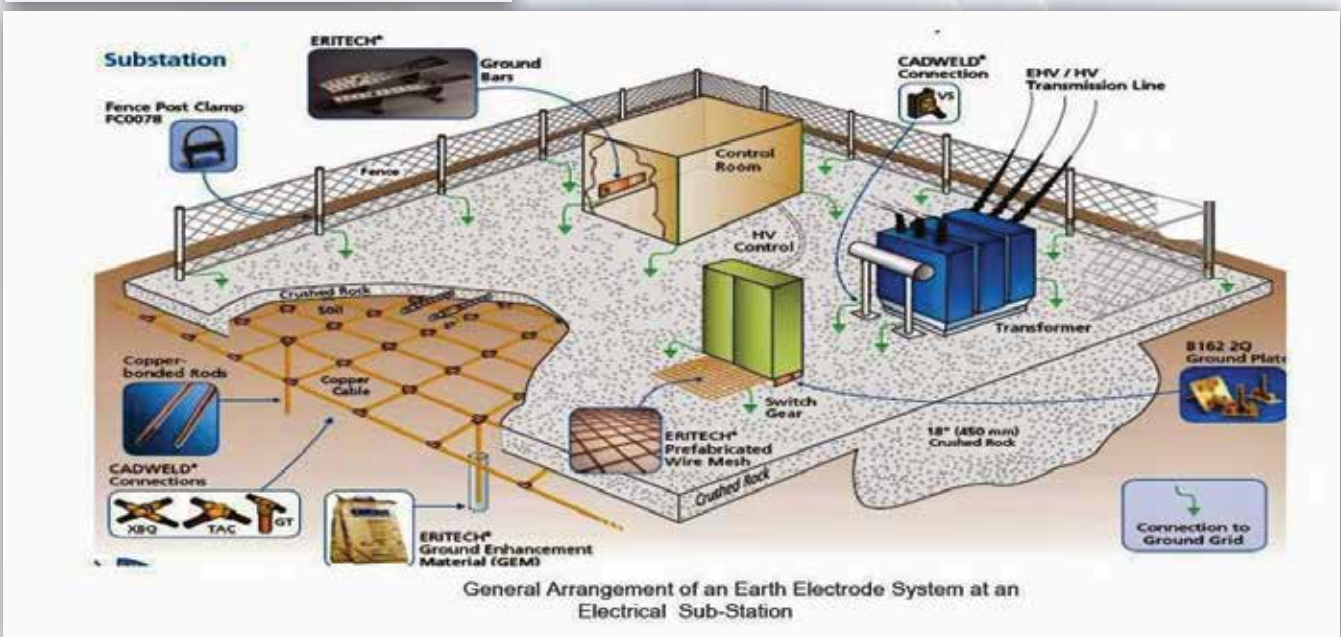
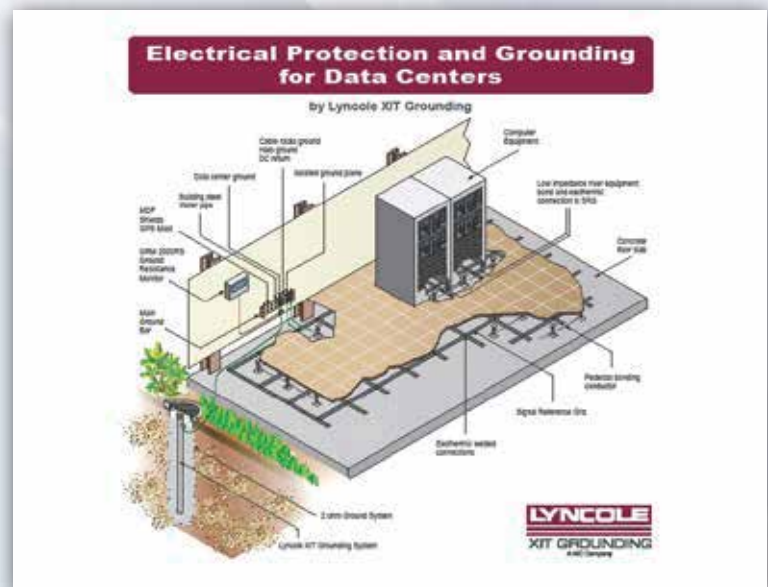
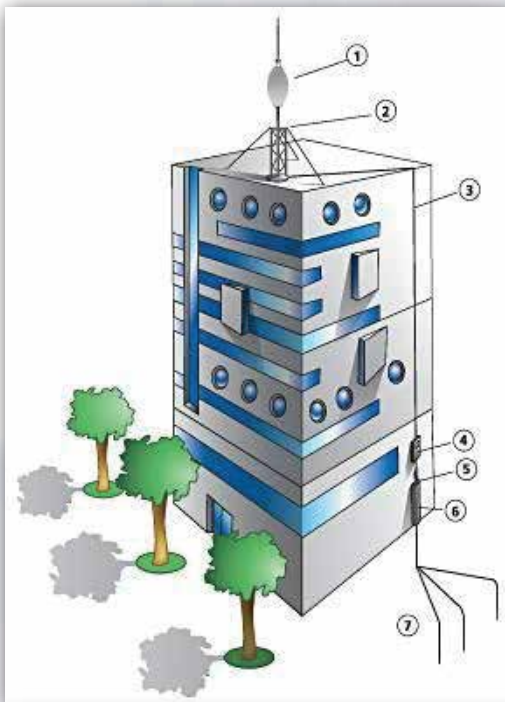
### SOLAR PANEL:

Photovoltaic solar panels absorb sunlight as a source of energy to generate electricity. A Photovoltaic (PV) module is a packaged, connected assembly of typically 6x10 PV solar cell. PV modules constitute the PV array of a PV system that generates and supplies solar electricity in commercial and residential applications.

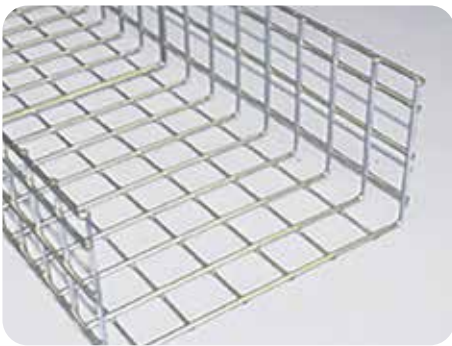
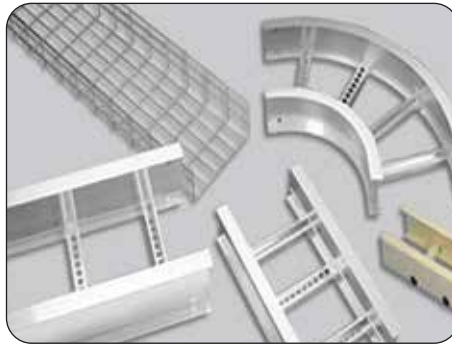
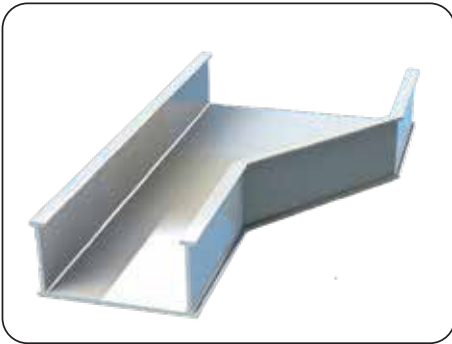
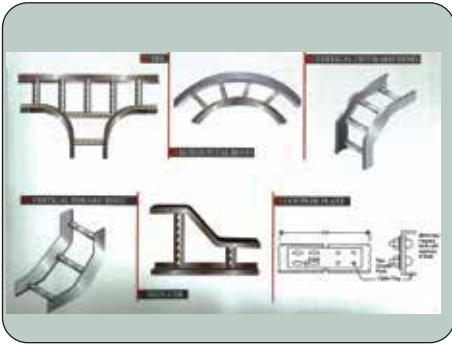
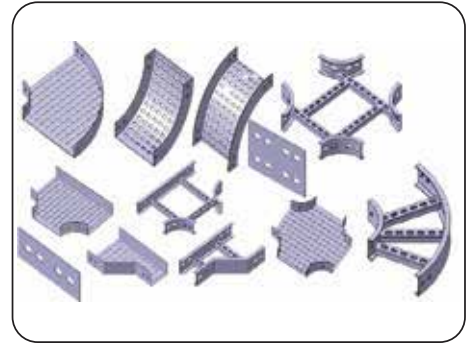
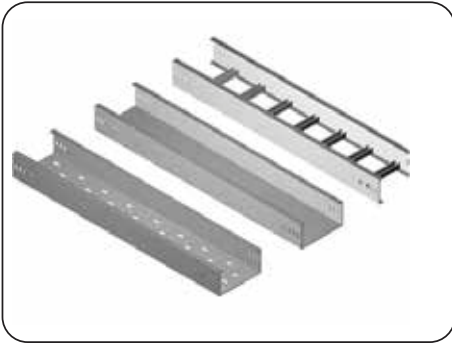
Maa Electric Engineering Power has a significant presence in the energy sector of Bangladesh and offers a wide range of renewable and conventional energy solutions. Maa Electric Engineering Power is a future looking manufacturing outfit aimed to serve the energy needs of the future.



### Industrial Earthing System:



## Maa Electric Engineering power. Cable Tray & Cable Ladder



## Maa Electric Engineering power. Factory Working Machine



**Maa Electric Engineering power.  
Factory Working Team**





# Maa Electric Engineering power.

