Product Catalogue

Superior Electric Ltd.
www. superiorelectricbd.com

CONTENT

SUPERIOR ELECTRIC LTD. was established in 2014, and is the leading distributor of industrial electrical products as well as commercial & domestic products. We started our journey with the slogan " All prestige brand on your demand". We received wide acceptance of our products and services from our clients. Specially in the field of LPS & Earthing System, Indoor & Outdoor Lighting, Busbar Trunking System(BBT), Industrial & Gang type Switches & Sockets.

Our wide product selection includes Gang Type Switch & Sockets, Industrial Plug & Sockets, SPD's, MCB's, MCCB's, ACB's, Distribution Boards, BBTs, Cable Trays, Fire Detections & Protections, LPS & Earthing System, Solar and Battery management Solutions, LED Lighting, Outdoor Lighting. Our current range consists of quality brands and is continually being expanded as per our customer's needs.
As our products are procured both locally and internationally, they are fully compliant with recognized local and international safety standards and specifications.

Vision:
Our vision at Superior Electric Ltd. is to the leading provider of advanced, effective, safety & protective devices, electrical distribution and LED Lighting product and service solution in Bangladesh.

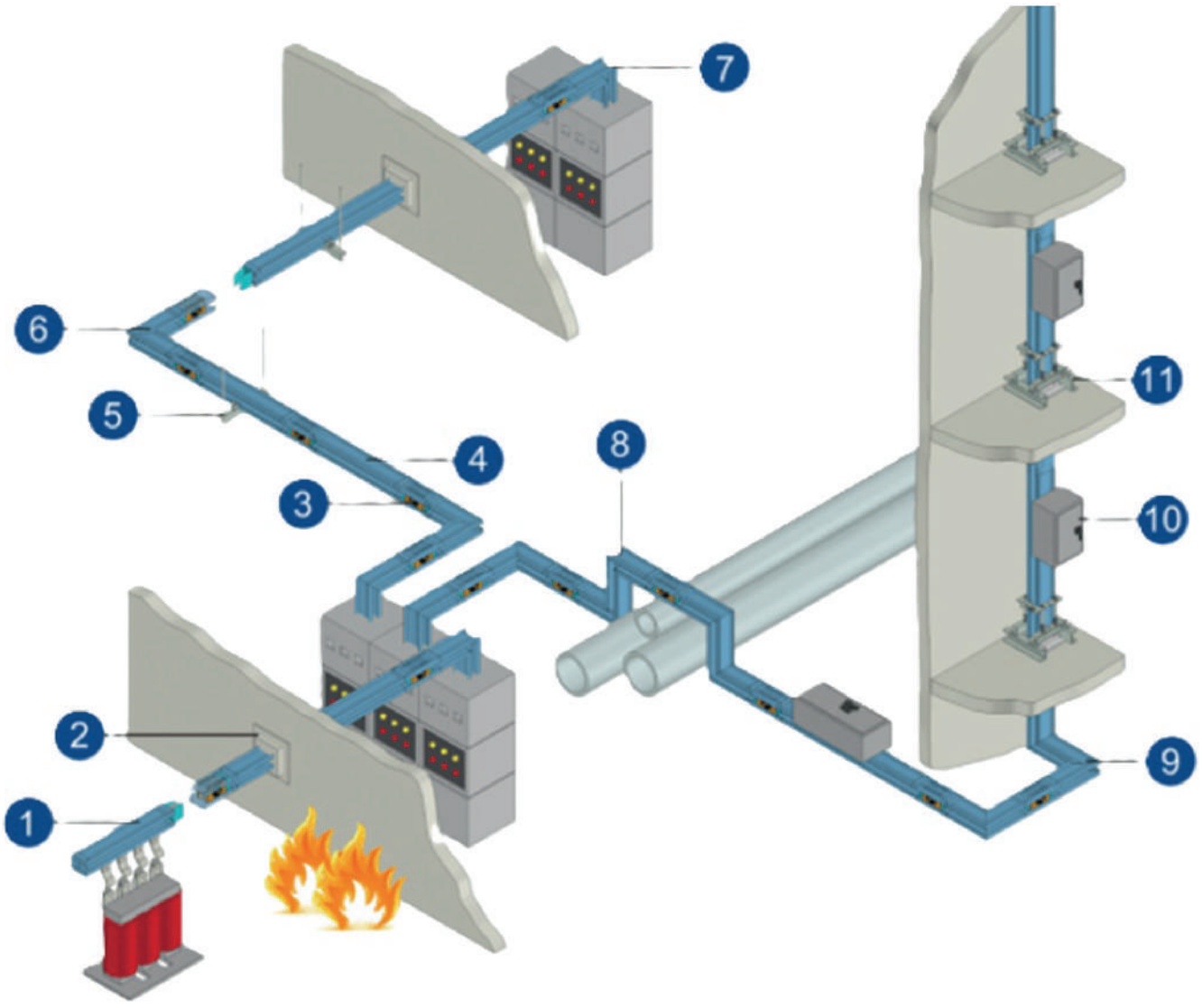
Mission:
Our mission is to deliver the advanced electrical, Safety & Protective Products and enhance the efficiency of our clients' operations. We are dedicated to providing innovative, dependable solutions that safeguard lives, assets, and critical infrastructure.

Our Brands

BUSWAY SYSTEM (BBT)

Our Busway system is a reliable and efficient electrical distribution system with sandwich construction and superior performance. It is a safe and robust power distribution system with high electrical efficiency, low voltage drop, high mechanical strength.

The system offers a full line of busway to meet the world market suitable for three-phase three-wire, three-phase four-wire, Three- phase five-wire power supply and distribution, with rated current from 250A to 4000A (for aluminium conductor) & 400A to 6300A (for copper conductor), rated operation voltage up to 690V (rated insulation voltage up to 1000V), IP degree up to IP66 and the frequency 50-60Hz.



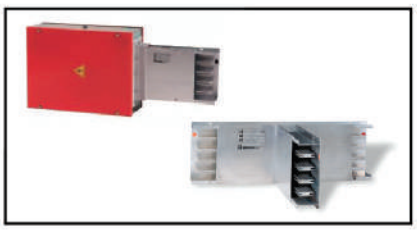
1.Tranformer Connection Unit	2.Fire Barrier	3.Elbow	4.Strighr Part
5. Horizontal Hanger	6.Horizonta Elbow	7.Distribution Panel	8.Vertical Elbow
9. Elbow	10. Tap off Box	11.Spiring Hanger	

GRAZIADIO & C. SPA

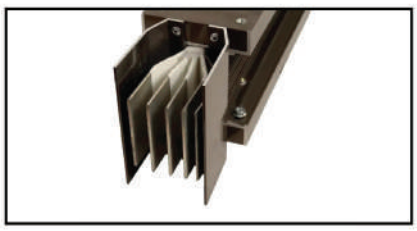
MAX ELECTRIC

Graziadio & C. SpA. Italy

GLS	J SERIES	GDA	ISOLSBARRA	K SERIES	GMT	ISOLFLEX	MULTI CONDUCTOR	PRODUCTOR
25 - 63 A	63 - 160 A	63 - 2500 A	630 - 6300 A	1000 - 5000 A	800 - 5000 A	800 - 6300 A	50 - 300 A	50 - 400 A



Zhejiang Mandexi Electric Equipment Co. Ltd., China



ISO 9001 | ISO 14001 | OHSA 18001 | SA 8000 | GB/T 27922 | GB/T 39490

CE | ROHS | UL | KEMA | ASTA

COPPERBOND ROD

SUPELEC copper bond earth rods are feasibly the best and most reasonably priced earth rods that an installer can purchase. They are made by molecularly bonding 99.9% pure electrolytic copper onto a low carbon steel core. They are extremely corrosion-resistant and can be pushed to significant depths by power hammers due to the high tensile strength of the steel utilized.

Copper Purity	Corrosion	Tensile Strength	Standard
99.9%	Highly Resistant	Very High	IEC/BS EN 62561-2

Technical Data:

Item No.	100101	100102	100103
Type	Earth Rod	Earth Rod	Earth Rod
Diameter D	12.7mm	14.2mm	16mm
Length L	3 Meter	3 Meter	3 Meter
Material	Steel	Steel	Steel
Surface	Copper-Plated	Copper-Plated	Copper-Plated
Surface Symbol	Cu	Cu	Cu
Copper Bonding Thickness	254mμ. to 300 mμ.	254mμ. to 300 mμ.	254mμ. to 300 mμ.
Smallest Sales unit	1 Piece	1 Piece	1 Piece
Weight	300.00Kg/100 pc	400.00Kg/100 pc	480.00Kg/100 pc
Complies	BS EN 50164	UL 467	IEC 62561-2

Applications:

Lightning Protection Systems	Electrical Grounding Systems	Industrial Equipment's	Telecommunications Tower

Advantages:

- High conductivity due to the copper layer.
- Strong mechanical strength from the steel core.
- Resistant to corrosion, even in aggressive soil conditions.
- Easy to install and maintain.

Coupler

Driving Stud

Driving Head

EARTH INSPECTION PIT

An earth inspection pit acts as a convenient access point that design to protect the earth electrode for the grounding system. It allows electricians or engineers to maintain a safe, effective, and compliant earthing system by simplifying inspections and tests.

Technical Data:

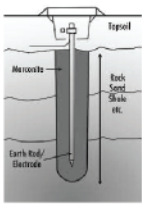
Item No.	100104	100105
Type	Inspection Pit	Inspection Pit
Dimension	300x300x210	300x300x300
Materials	Plastic	Concrete
Color	Black	White
Sales Unit	1 Piece	1 Piece
Weight	2.30 Kg	12.5 Kg
Brand	SUPELEC	SUPELEC

Technical Data:

- Easy to install and maintain.
- Durable and long-lasting.
- Safe earthing components

MAINTENANCE FREE EARTHING:

Wallis Low Res provides a permanent simple solution to substantially lower the resistance of an earthing system. It is a high performance low-resistance earthing compound which when mixed with cement and water forms a high strength electrically conductive concrete to last for the life of the system.
Low Res is supplied in a fine granular form available in 25 kg and convenient 10kg bags suitable for health and safety lifting regulations. It is widely used in earthing and grounding applications where permanent low resistance and high compressive strength solutions are required.



By mixing Low Res with cement at a ratio of 2:1 the resulting concrete is electrically conductive whilst offering a solid electrical connection between the earthing system and the ground.
Low Res is a non leaching, maintenance free stable earthing compound ideal for use in ground conditions where conductivity is very poor such as rock or shale.
Low Res provides a permanent path for excellent conduction of current instead of attempting to employ large diameter difficult to drive earth rods.
Low Res applications include static control for aircraft aprons and fuel tankers, RF and microwave screening and earthing fer a wide variety of applications in Oil and Gas installations, Telecommunications industry, Defence Establishments, Rail and Underground installations, Electricity and Water Companies.

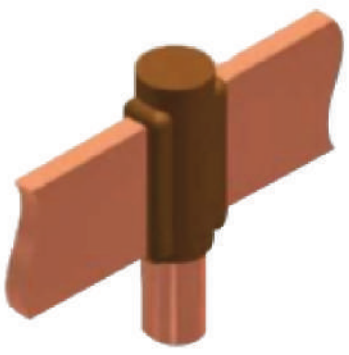
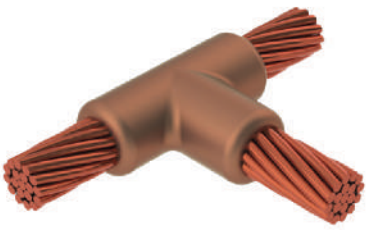
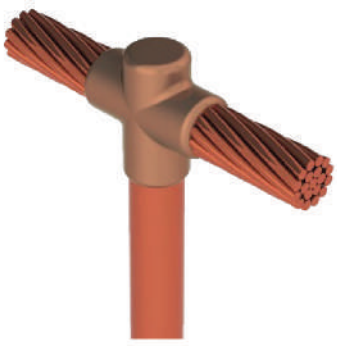
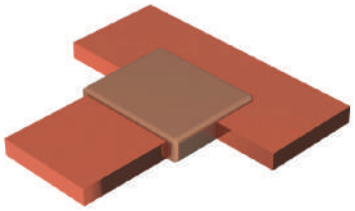
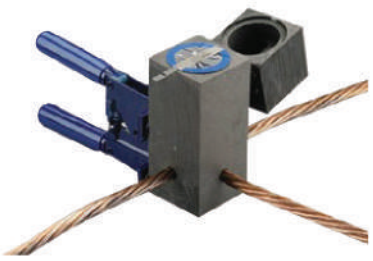
Comparison with Traditional Earthing

Aspect	Maintenance-Free Earthing	Conventional Earthing
Material	Advanced, corrosion-resistant and long-lasting	Basic, corrosion-prone materials like GI and salt
Maintenance	Minimal to none, no need for refilling or watering	Frequent maintenance (watering, chemical refilling)
Stable Resistance	Permanent & consistent low resistance of 0.001 Ωm	Minimal
Lifespan	30-50 years, durable	5-10 years, may require replacement
Installation	Quick installation with pre-fitted compounds	Labor-intensive, requires periodic refilling and watering
Performance	Stable, unaffected by soil conditions	Decreases over time due to soil conditions and corrosion
Environmental Impact	Eco-friendly, no harmful chemicals	Can harm soil and environment with chemicals like salt
Cost	Higher initial cost but cost-effective long-term	Lower initial cost but higher long-term maintenance costs
Safety	Reliable, continuous protection	Risk increases over time if system degrades

EXOTHERMIC BOND

Exothermic bonding is ideal for applications where permanent, low-resistance, and corrosion-resistant connections are critical, such as in grounding systems and high-current applications.

Feature	Exothermic Bonding	Conventional Bonding
Process	Chemical (thermite) reaction, no external power	Mechanical (clamps, crimping) or soldering with heat
Durability	Permanent, corrosion-resistant	Requires maintenance, can corrode
Electrical Resistance	Low, highly conductive	Higher resistance, depending on method
Speed	Fast process	Slower, requires more tools and setup
Applications	Grounding, high-current, harsh environments	General electrical connections, low-current circuits
Cost	Higher initial cost, low maintenance	Lower initial cost, potential for ongoing costs
Safety	High-temperature process, requires safety gear	Moderate safety, depends on method (e.g., soldering)

		
Type Tape to Rod	**Type Rod to Rod**	**Cable to Rod**
		
Type Busbar to Busbar	**Powder**	**Exothermic Welding**

SURGE PROTECTION DEVICE

A Surge Protection Device (SPD) is designed to protect electrical systems and equipment from surge events by limiting transient voltages and diverting surge currents. Surges can originate externally, most intensely by lightning, or internally by the switching of electrical loads. The sources of these internal surges, which account for 65% of all transients, can include loads turning on and off, relays and/or breakers operating, heating systems, motors and office equipment. Without the appropriate SPD, transient events can harm electronic equipment and cause costly downtime. The importance of these devices in electrical protection is undeniable.

How SPD Works:

In the most basic sense, when a transient voltage occurs on the protected circuit, an SPD limits the transient voltage and diverts the current back to its source or ground. To work, there must be at least one non-linear component of the SPD, which under different conditions transitions between a high and low impedance state. At normal operating voltages, the SPDs are in a high-impedance state and do not affect the system. When a transient voltage occurs on the circuit, the SPD moves into a state of conduction (or low impedance) and diverts the surge current back to its source or ground. This limits or clamps the voltage to a safer level. After the transient is diverted, the SPD automatically resets back to its high impedance state.

Table: SPD Standard Definition

Description	**Direct Lightning Stroke**	**Indirect Lightning Stroke**	
IEC 61643-1	Class I test	Class II test	Class III test
IEC 61643-11/2011	Type 1 : T1	Type 2 : T2	Type 3 : T3
EN/IEC 61643-11	Type 1	Type 2	Type 3
Former VDE 0675v	B	C	D
Type of test wave	10/350	8/20	1.2/50 + 8/20

Note 1: There exist T1 + T2 SPD (or Type 1 + 2 SPD)combining protection of loads against direct and indirect lightning strokes.

Phoenix Contact, a Germany based company, is worldwide popular for SPD ranges of products. TRABTECH is the name of the range of surge protection devices from Phoenix Contact. Phoenix Contact split the SPD types into the following categories based on applications:

Lightning Current Arrester: Takes the fright out of lightning (Combination of TYPE I/Class B - 10/350µs and TYPE II/Class C- 8/20 µs)

It offers high-capacity surge arresters in a standardized, user-friendly installation design. It should be installed at main distribution panel.

Features

- Single high capacity spark gap arresters.
- Pluggability with status and remote indication facility.
- Free from line follow current and no need of fuse in series.

Surge Voltage arrester (Valvetrab): Surge Protection for the control cabinet (Type II/Class C - 8/30µs)

VALVETRAB is for protection against switching surges. "Valvetrab" family with KEMA certification can fit into the small space requirements common with industrial, telecom and control cabinets and for the sub-distribution level power supply.

Features

- Pluggable with mechanical & remote indication.
- Thermal disconnect device.
- No need of fuse up to 315 A load current.

Surge protection for data networks up to 1 Gbps. For use in Ethernet, Power over Ethernet (PoE, mode A and mode B), token ring, ISDN, and DS1.

Features

- RJ45 attachment plug
- Separate grounding cable and
- Snap-on foot for NS 35 DIN rails.

Standard and Certificates

EARTHING SYSTEM

An earthing system also called a grounding system is a crucial safety mechanism in electrical installations. It provides a path for electricity to flow safely into the ground in case of faults, such as short circuits or lightning strikes, and helps to prevent electric shocks. The system also stabilizes voltage levels in electrical installations to ensure the safe operation of electrical equipment.

Key Functions:

Safety for Personnel	Voltage Stability	Protects Equipment	Prevents Fires

Earthing Functionalities

Functionality	Main Objective	Typical Use
Protective Earthing (PE)	Prevents electric shock hazards by safely directing fault currents to the ground.	Used in appliances, machines, metallic enclosures of electrical equipment.
Functional Earthing (FE)	Maintains proper voltage levels and system stability.	Used in transformers, signal systems telecommunication equipment.
Equipotential Bonding	Ensures all conductive parts are at the same potential to prevent dangerous voltage differences.	Used for metallic pipes, frames electrical systems in buildings.
Lightning Protection Earthing	Directs lightning energy safely into the ground to prevent damage.	Used in lightning rods, towers and tall structures.
Grounding of Electrical Equipment	Provides safe return paths for fault currents and prevents electrical fire hazards.	Grounding of transformers, motors and electrical panels.
Signal Earthing	Reduces noise and ground loops in communication systems.	Used in telecommunication systems data transmission lines, data centers.
Safety Earthing	Protects personnel from electric shock.	Earthing of appliances, machines and electrical wiring.
System Earthing	Establishes stable neutral points for proper system operation.	Used in transformers, generators star points of systems.
Shock Prevention Earthing	Reduces the risk of electric shock from exposed conductive parts.	Used in appliances, metal parts of electrical installations, machines.
Surge Protection Earthing	Diverts excessive voltage from surges (e.g., lightning) to the ground.	Used in surge protection devices UPS, power panels.
Earthing for Fire Safety	Minimizes electrical fire risks by safely diverting fault currents.	Used in distribution boards RCDs, circuit breakers.

IEC-International Standards:

According to IEC 60364, which is the international standard for electrical installations in buildings, there are several types of earthing systems that can be used, including:

TN-S: In this system, the neutral and protective conductors are separated throughout the installation, and the earth is connected to the ground at a single point, typically at the main switchboard.

TN-C-S: In this system, the neutral and protective conductors are combined at the source of the supply, but are separated throughout the rest of the installation. The earth is connected to the ground at a single point, typically at the main switchboard

TT: In this system, each piece of equipment is connected to the ground via its own separate earth electrode. There is no connection between the neutral and the earth at any point in the installation.

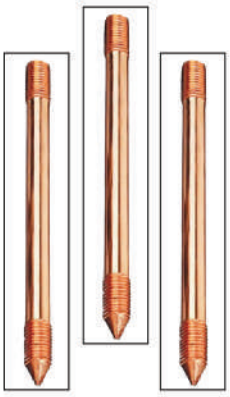
IT: In this system, the neutral is isolated from the ground, and each piece of equipment is connected to the ground via an impedance, such as a resistor or a reactor. This system is typically used in high-voltage applications.

The choice of earthing system depends on various factors, such as the type of electrical equipment being used, the location of the installation, and the level of fault protection required. It is important to follow the appropriate IC standards to ensure the safety and reliability of electrical installations.

Specifications of Solid Copper Earth Rod/Wire:

Copper earth rods are designed for use where extremely high corrosion resistance and exceptionally long life are required. Solid copper earth rods are produced from solid copper bar with a 99.9 % pure copper and are internally threaded for jointing. When deep driving a solid copper earth rod the usual practice is to insert the rod into a bore hole and backfill with either Low-Resistance Earthing Compound.

Outer Dia (actual)	Length
7 mm	100 m
8 mm	100 m
9 mm	100 m
10 mm	100 m
12.7 mm	1500 mm
12.7 mm	3000 mm
16 mm	1500 mm
16 mm	3000 mm
20 mm	3000 mm
25 mm	3000 mm



LED LIGHTING

BRIGHT Lighting is a LED Lighting Brand of Superior Electric Ltd. (SEL).Since 2014, Superior Electric is in developing, production and marketing of LED Lighting Products under BRIGHT Lighting Brand. The Mission is to create a cleaner, greener, healthier environment by developing/sourcing more energy efficient LED light fixture. Through years of hard work and continuous innovation, BRIGHT has won the excellent reputation as one of the high quality and trusted LED Lighting Brand in Bangladesh.

We is offering a wide range of LED Light Fixture both Indoor and Outdoor application . The Indoor LED Light includes LED Bulbs, LED Tubes, T5 Batten, UFO High Bay, Linear Pendant, Down Light, Surface, Ceiling Panel, Battens, Low Bay etc. Outdoor LED Light includes LED Flood Light, Street Light (AC & DC), and LED Spot Light etc. Apart from the LED light fixture, SEL is also offering Industrial Light Shade (Single & Double) both powder coated and Aluminum, 2xT8 2FT, 4X T8 2FT, 2xT8 4FT Louver Set, Dust Proof Shade (Single & Double), Emergency Charging LED Light, Light Sign and Solar Street Light etc.

LED Bulbs (5 -18 W)

LED Power Bulbs (20-50W)

2x2 LED Panel Light

T5 & T8 Tubes

Surface Panel Light

Ceiling Panel

LED Wide Tube (10-60W)

Pendent Linear 40/56 W

D65 T8 Artificial Day Light

UFO High Bay

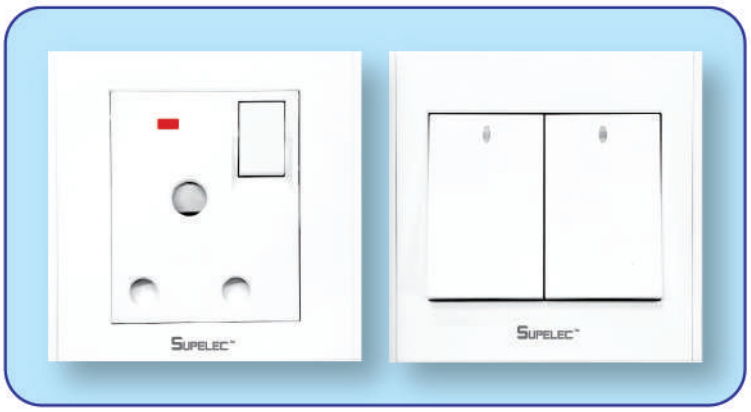
Solar Street Light

AC Street Light

SUPELEC™

SWITCH & SOCKET

SUPELEC is a Brand of Superior Electric Limited (SEL) founded in 2018, the SEL provides safe, reliable and stable industrial electrical products and solutions for energy efficient management systems. With 8 years of development, it has grown good reputation in low-voltage electrical product supplier and is the popular brand of the industrial electric in Bangladesh.



SUPELEC Brand Switch & Sockets (Superior series) is calm yet stylish, simple & powerful.


1 Gang Switch


2 Gang Switch


3 Gang Switch


4 Gang Switch


2 Pin Socket


3 Pin & USB Socket


3 Pin Round Socket


3 Pin Universal Socket


10 Pin Socket


Bell Push


DP Switch


Fan Dimmer


Net Outlet


Telephone Outlet


TV & Telephone Outlet


TV Outlet

Valued Client

PURBANI

STERLING GROUP

Continental Garments Industries (pvt) Ltd.

CRC TEXTILE MILLS LTD.

J M Fabrics Ltd.

HossainDyeing

BANGLADESH BLADE FACTORY LIMITED.

NewAsia Group

COATS

PRAN

RUPAYAN

YOUTH GROUP

বাংলাদেশ সেনাবাহিনী

BANGLADESH MACHINE TOOLS FACTORY LTD.

DUET

INTRACO SOLAR

sonali

YOUNUS GROUP

DHAKA GROUP

ANZ PROPERTIES

JTI

TK GROUP

AMG

Amin Mohammad Group

committed to build the best since 1993

MIR HOLDINGS LTD.

JINLITE

RAK CERAMICS

SPECTRA ENGINEERS LIMITED

adzi

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