

COMPANY PROFILE



For Advanced Engineering Industries

INTEGRATED ELECTRICAL SOLUTIONS

مبنى ثقة تدوم

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MHG is a leading Egyptian company dedicated to delivering the highest standards of quality in the field of electrical works and supplies. With a commitment to excellence,

MHG provides a comprehensive range of innovative solutions and products designed to meet the evolving demands of the engineering sector.

Our priority is achieving unparalleled customer satisfaction while adhering to the highest industry standards and addressing the growing needs of the market.



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FROM US

WELCOME

Thank you for choosing us. We fully understand the value of the time and effort you invest in searching for reliable and high-quality services. Your trust is highly appreciated, and our primary goal is to meet your needs in the best way possible."

نشكركم على اختياركم لنا. فنحن ندرك تماما أهمية الوقت والجهد المبذولين في البحث عن خدمات موثوقة وعالية الجودة. إن ثقتكم بنا محل تقدير كبير، وهدفنا الأساسي هو تلبية احتياجاتكم بأفضل صورة ممكنة.



Thank you for choosing us, We know the value of each penny you spend on searching for good service.
We appreciate you for trusting us..

Satisfying your needs is our mission



For Advanced Engineering Industries

WHO WE ARE

MHG for Advanced Engineering Industries

MHG is a leading Egyptian company dedicated to delivering the highest standards of quality in the field of electrical works and supplies. With a commitment to excellence, MHG provides a comprehensive range of innovative solutions and products designed to meet the evolving demands of the engineering sector. Our priority is achieving unparalleled customer satisfaction while adhering to the highest industry standards and addressing the growing needs of the market.

نحن شركة مصرية رائدة ملتزمة بتقديم أعلى معايير الجودة في مجالات الأعمال الكهربائية والمعدات. نسعى لتوفير حلول ومنتجات مبتكرة وشاملة تلبي الاحتياجات المتزايدة في القطاع الهندسي، مع ضمان رضا عملائنا التام والوفاء بمعايير الصناعة المتطورة.



Our Vision

We strive to establish a clear and forward-thinking vision that guarantees client satisfaction and long-term loyalty. By ensuring every product we offer combines technical excellence, creative innovation, and social responsibility, we embrace a collaborative approach to deliver exceptional results across all projects.

نطمح إلى بناء رؤية واضحة تضمن رضا العملاء وولاءهم على المدى الطويل. من خلال تقديم منتجات تجمع بين التميز التقني، الابتكار الإبداعي، والمسؤولية المجتمعية، نعتمد على نهج تعاوني لتحقيق نتائج استثنائية في جميع مشاريعنا.



Our Mission

Our mission is to lead the industry by exceeding client expectations through groundbreaking innovation, state-of-the-art solutions, and exceptional service delivery. We are committed to becoming a trusted partner for our clients by consistently delivering value and excellence in everything we do.

نهدف إلى الريادة في القطاع الصناعي من خلال تجاوز توقعات عملائنا عبر الابتكار المتجدد، تقديم حلول متطورة، وخدمة استثنائية. نحن ملتزمون بأن نكون شريكاً موثوقاً لعملائنا من خلال تقديم القيمة والتميز في كل ما نقوم به.

PDU Series System



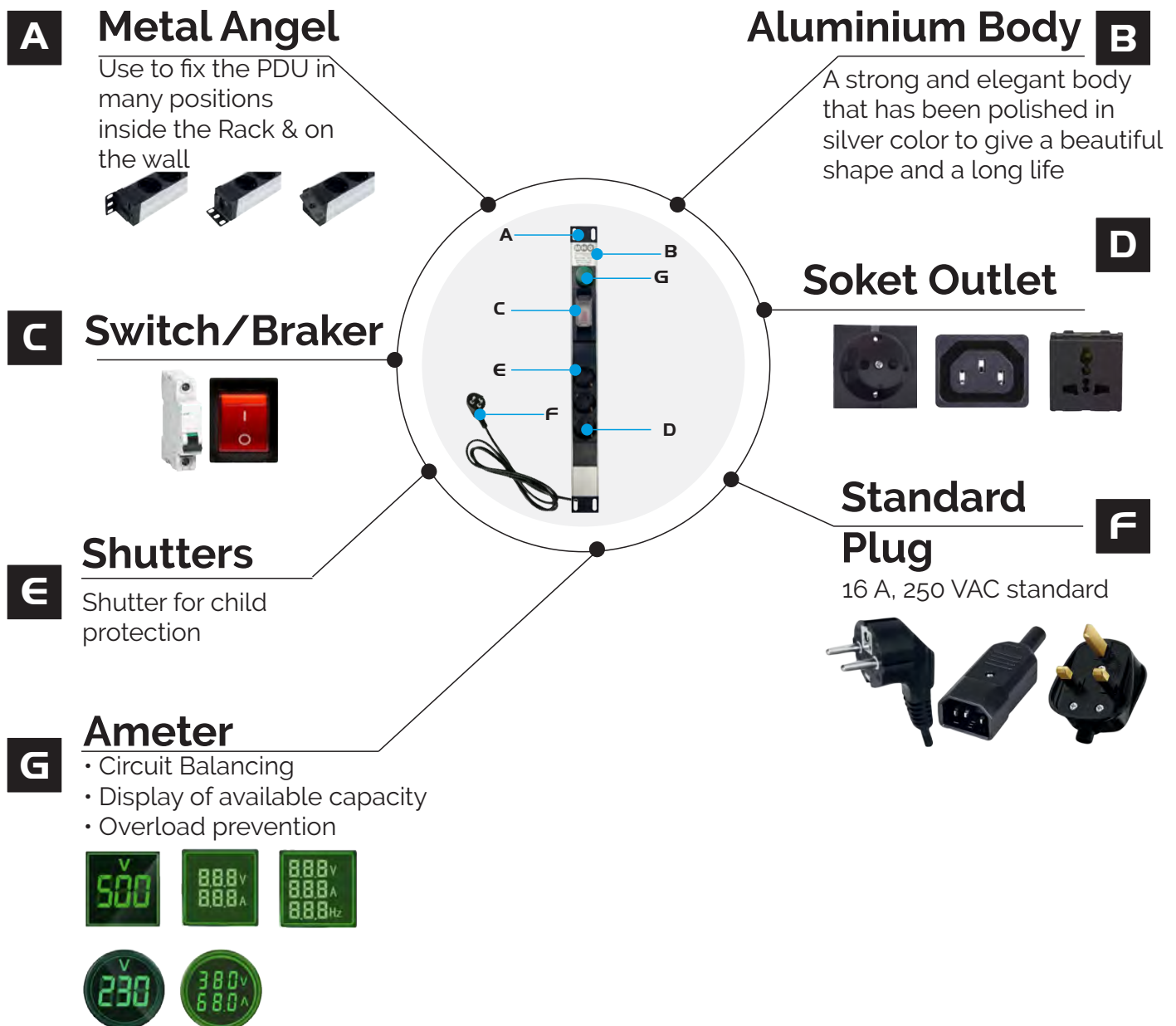
PDU Intelligence

Are designed for supplying power to equipment for incorporation into each of data center.

Within the rack, the PDU deliver the necessary power for the server and network components via a given number of suitable connector sockets. Thanks to via a given number of any IT rack may be quickly and easily equipped with a professional power distribution system, In addition to commercial and industrial uses.

PDU

Simple units that provide power distribution to multiple devices.





Applications:

- Offices: Powering multiple office equipment like computers, printers, and phones.
- Small Server Rooms: Basic power distribution to servers and networking equipment without the need for monitoring or control.
- Home Use: Providing additional power outlets for home electronics.

Server Cabinet



Distribution Room

Computer Room

Production

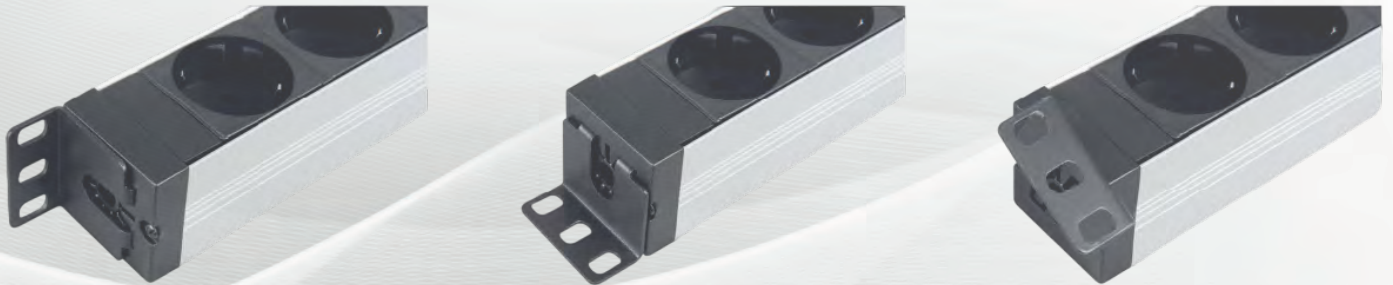
- HIGH QUALITY ELECTRICS
- HIGH QUALITY CONNECTION
- SOCKETS EQUIPPED WITH SAFETY SHUTTER

Power Distribution Units (PDUs)

And their applications Design standards

POWER DISTRIBUTION UNITS (PDUS) ARE CRITICAL COMPONENTS IN MANAGING POWER DISTRIBUTION IN VARIOUS ENVIRONMENTS. THEIR APPLICATIONS VARY BASED ON THEIR TYPES AND THE SPECIFIC NEEDS OF THE FACILITY OR EQUIPMENT THEY SUPPORT. HERE ARE DETAILED DESCRIPTIONS OF THE MAIN TYPES OF PDUS AND THEIR APPLICATIONS:

Horizontal or Vertical



Designed for horizontal toolless mounting, 1-U PDU can also be mounted vertically simply by rotating the mounting lugs.

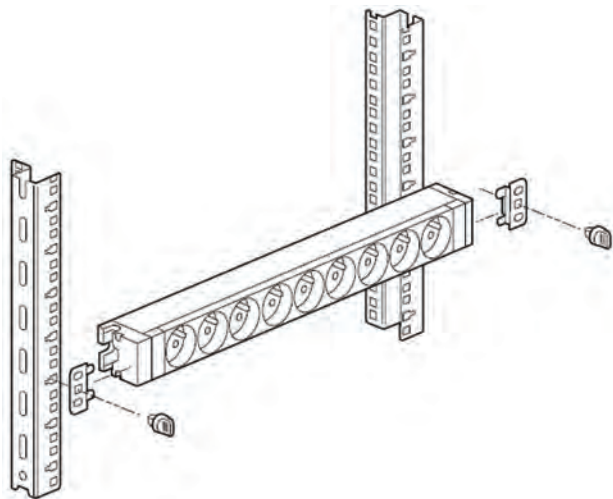
Vertical mounting requires a bolt and nut to fix the PDU securely to the racker.





GE
OF

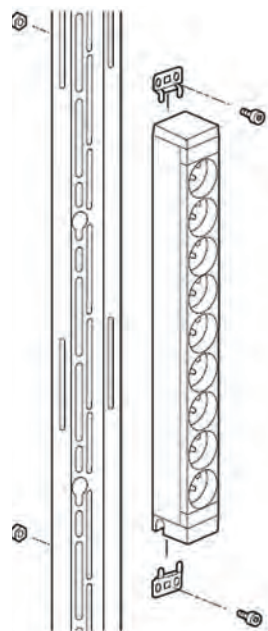
Mounting Brackets



Horizontal Mounting

In MHG 19" Cabinets

Can be mounted in all 19" cabinets except for 19" HD racks which require the use of equipment screws.



Vertical Mounting

In freestanding Cabinets with support

UPGRADE TO THE **NEXT** **GENERATION** INTELLIGENT PDU'S



Serial Number	Product Description
19-3WZCN-V01	■ German Plug ■ 4000 WATT ■ 250 V ■ 16 A ■ PDU 3-WAY WITH C.B 1.5 MTR ■ DIM (L x W x D) 488MM x 46MM x 46M M



Serial Number	Product Description
19-3WZBN-V01	■ German Plug ■ 4000 WATT ■ 250 V ■ 16 A ■ PDU 3-WAY WITH SWITCH 1.5 MTR ■ DIM (L x W x D) 488MM x 46MM x 46M M



Serial Number	Product Description
19-3WZAN-V01	■ German Plug ■ 4000 WATT ■ 250 V ■ 16 A ■ PDU 3-WAY WITHOUT SWITCH 1.5 MTR ■ DIM (L x W x D) 488MM x 46MM x 46M M

Basic Power Distributio Uits (PDU)

Comprehensive and Advaced Reliale Power Solution

Power Solution



Serial Number

19-6WZCN-V01

Product Description

- German Plug
- 4000 WATT
- 250 V
- 16 A
- PDU 6-WAY WITH C.B
- 1.5 MTR
- DIM (L x W x D)
- 488MM x 46MM x 46M M



Serial Number

19-6WZBN-V01

Product Description

- German Plug
- 4000 WATT
- 250 V
- 16 A
- PDU 6-WAY WITH SWITCH
- 1.5 MTR
- DIM (L x W x D)
- 488MM x 46MM x 46M M



Serial Number

19-6WZAN-V01

Product Description

- German Plug
- 4000 WATT
- 250 V
- 16 A
- PDU 6-WAY WITHOUT SWITCH
- 1.5 MTR
- DIM (L x W x D)
- 488MM x 46MM x 46M M



Serial Number

19-9WZBN-V01

Product Description

- German Plug
- 4000 WATT
- 250 V
- 16 A
- PDU 9-WAY WITH SWITCH
- 1.5 MTR
- DIM (L x W x D)
- 488MM x 46MM x 46M M



Serial Number

19-9WZAN-V01

Product Description

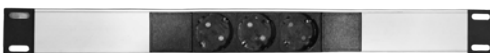
- German Plug
- 4000 WATT
- 250 V
- 16 A
- PDU 9-WAY WITHOUT SWITCH
- 1.5 MTR
- DIM (L x W x D)
- 488MM x 46MM x 46M M



Serial Number	Product Description
16-3WZCN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH C.B 1.5 MTR - DIM (L x W x D) 430MM x 46MM x 46M M



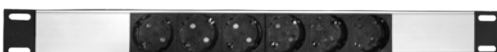
Serial Number	Product Description
16-3WZBN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH SWITCH 1.5 MTR - DIM (L x W x D) 430MM x 46MM x 46M M



Serial Number	Product Description
16-3WZAN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITHOUT SWITCH 1.5 MTR - DIM (L x W x D) 430MM x 46MM x 46M M



Serial Number	Product Description
16-6WZBN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 6-WAY WITH SWITCH 1.5 MTR - DIM (L x W x D) 430MM x 46MM x 46M M



Serial Number	Product Description
16-6WZAN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 6-WAY WITHOUT SWITCH 1.5 MTR - DIM (L x W x D) 430MM x 46MM x 46M M

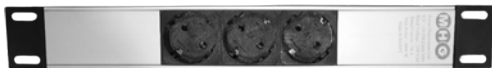
PDU for Data Center and IT Infrastructure



Serial Number	Product Description
10-3WZCN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH C.B 1.5 MTR - DIM (L x W x D) 347MM x 46MM x 46M M

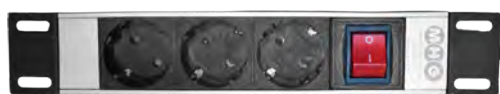


Serial Number	Product Description
10-3WZBN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH SWITCH 1.5 MTR - DIM (L x W x D) 347MM x 46MM x 46M M



Serial Number	Product Description
10-3WZAN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITHOUT SWITCH 1.5 MTR - DIM (L x W x D) 347MM x 46MM x 46M M

- Highest availability with the Kentix SmartPDU
- Seamless rack monitoring including early fire detection
- Reliable power supply for IT, OT, edge data centres and large data centres
- PDU without compromise for critical applications
- Continuous residual current measurement (RCM) to increase electrical safety and fire protection



Serial Number	Product Description
8-3WZBN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH SWITCH 1.5 MTR - DIM (L x W x D) 270MM x 46MM x 46M M



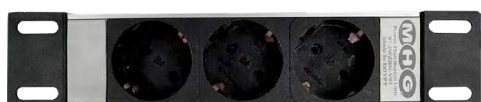
Serial Number	Product Description
8-3WZAN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITHOUT SWITCH 1.5 MTR - DIM (L x W x D) 270MM x 46MM x 46M M



Serial Number	Product Description
8-3WXBN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITH SWITCH 0.5 MTR - DIM (L x W x D) 270MM x 46MM x 46M M



Serial Number	Product Description
8-3WXAN-V01	- German Plug 4000 WATT 250 V 16 A - PDU 3-WAY WITHOUT SWITCH 0.5 MTR - DIM (L x W x D) 270MM x 46MM x 46M M



Serial Number	Product Description
3WAY SOCKET MODULE	- German Plug 4000 WATT 250 V 16 A - PDU 3WAY SOCKET MODULE 0.3 MTR - DIM (L x W x D) 224 MM X 46 MM X 46 MM

Patch Panel

Category 6-6A UTP

12 - 24 Port



Main

Serial Number	PP6A-1U-12
Product or Component Type	Patch Panel
Communication Network Category	6
Accessory / Separate part Designation	Insulation Displacement Connector
Cable Shielding Type	UTP
Number of Port	12 / 24



Simple Compact Beautiful

Help you build neat and reliable room



Complementary

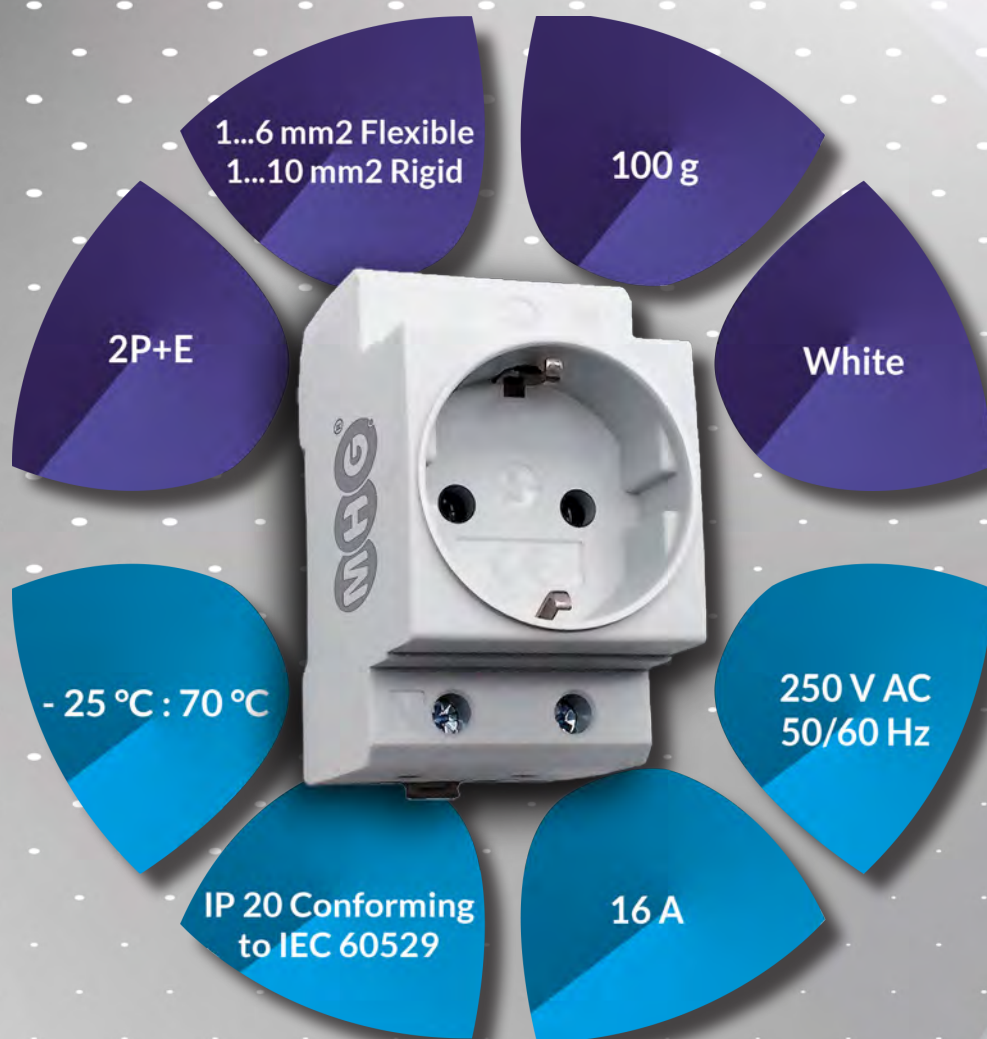
Serial Number	PP6A-1U-24	
Product or Component Type	Patch Panel	
Communication Network Category	Steel	
Accessory / Separate part Designation	10 Inch W 254mm H 44.2mm	19 Inch W 482.6mm H 44.2mm
Cable Shielding Type	1U RJ45	

Enviroment

Standards	ANSI/TIA-568-C.2 ISO/IEC 11801 Class E EIA/TIA TSB 40 A
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DinRail Power Socket Module



2P+E, 16A
250 AVC

Main

Serial Number	MHG-PS16A-V01
Product or Component Type	DinRail Socket-Module
Poles Description	2P+E

Enviroment

Standards	VDE 0620 UNE 20315-1-1 IEC 60068-1
IP Degree of Protection	IP 20 Conforming to IEC 60529
Amient Air Temperature for Operation	- 25 °C : 70 °C



Complementary

[In] Rated Current	16 A
[Ue] Rated Operational Voltage	250 V AC 50/60 Hz
Mounting Mode	Fixed
Mounting Support	DIN Rail
Height	81 mm
Width	45 mm
Depth	55 mm
Net Weight	100 g
Color	White
Connections - Terminals	1...6 mm ² Flexible 1...10 mm ² Rigid

PIERCING CONNECTOR



Waterproof



Anti-corrosion



Shockproof



Warranty



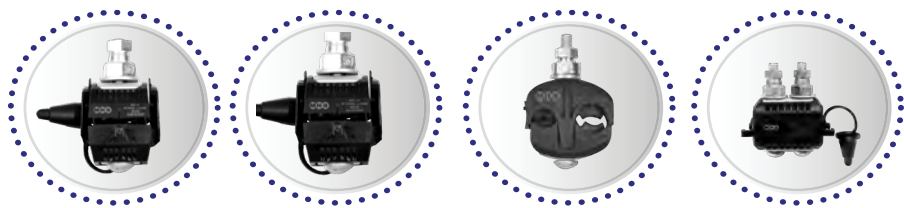
Product Overview:

The Insulated Piercing Connector (IPC) is an advanced engineering solution designed for efficient electrical connections without the need to strip cable insulation. Its waterproof, corrosion-resistant, and durable design ensures a reliable and long-lasting connection, making installation fast, secure, and hassle-free.

General Feature:

- Piercing connector, simple installation, need not strip the cable coat
- Moment nut, piercing pressure is constant, keep good electric connection and make no damage to conductor
- Self-seam frame, wetproof, waterproof, and anti corrosion, extend the using life of insulated lead and connector
- Adopted special connecting tablet apply to joint of Cu(Al) and Al
- Small electric connecting resistance, impulse current can be up to 15KA
- Special insulated case body, resistance to illumination and environmental aging, the insulation strength can up to 6KV, Arc surface design, apply to connection with the same(different) diameter, wide connection scope(1.5-240mm²).

1 Bolt 1KV Series



	MH 2-95	MH 2-150	MH-6	MH-55
Main Cable (mm2)	16 - 95	50 - 150	120 - 300	35 - 185
Branch Cable	4 - 50	6 - 50	10 - 120	4 - 50
Current (A)	157	157	276	316
Torque (Nm)	20	20	35	18

The Insulated Piercing Connector (IPC) is an advanced engineering solution designed for efficient electrical connections without the need to strip cable insulation. Its waterproof, corrosion-resistant, and durable design ensures a reliable and long-lasting connection, making installation fast, secure, and hassle-free.

Raw Materials and Their Properties

To ensure superior performance, the Insulated Piercing Connector (IPC) is manufactured using high-quality materials that provide durability, electrical conductivity, and resistance to environmental factors.

Torque Nut



•Function & Importance

The torque nut is a critical component of the Insulated Piercing Connector (IPC).

It ensures consistent and precise tightening, preventing over-tightening or under-tightening, which could compromise the electrical connection.

Designed to shear off at a pre-set torque, guaranteeing optimal contact pressure.

Eliminates the need for torque wrenches, ensuring easy and reliable installation. Prevents conductor damage and ensures long-term performance.

Sealing & Waterproofing Components:

Material: Silicone Rubber or Thermoplastic Elastomer (TPE)

Key Properties:

Ensures IP67 waterproofing to prevent moisture ingress.

Provides electrical insulation, protecting against short circuits.

Highly flexible, allowing for a secure, tight fit around cables.



KEY FEATURES & BENEFITS:

01

Easy Installation – No need to strip the cable insulation.

02

Consistent Contact Pressure
Ensures a reliable and durable electrical connection.



KEY FEATURES & BENEFITS:

03

Superior Protection – Waterproof, moisture-resistant, and UV-resistant for enhanced durability.

04

Versatile Application – Suitable for both aluminum-to-copper and copper to aluminum connections.

05

High Electrical Performance – Low contact resistance for optimal conductivity.

06

Excellent Insulation Strength – Withstands voltages up to 12 kV, ensuring safety and reliability

Testing & Performance Standards:

- Mechanical Strength: The clamping force exceeds of the conductor's breaking strength, ensuring a secure connection.
- Thermal Stability: Designed to withstand high current loads while maintaining temperature stability.
- Environmental Resistance: Built to endure extreme weather conditions, including moisture, salinity, and UV exposure, making it ideal for outdoor applications.
- Fire Resistance: Made from flame-retardant insulating materials for enhanced safety.



Bolts And Gaskets

Material: Hot Dip Galvanized Steel

Key Properties:

High tensile strength to withstand mechanical stress.

Corrosion resistance, especially in marine or high-humidity environments.

Anti-rust coating ensures a longer lifespan.



INSULATION BODY & HOUSING:

Material: Glass-Fiber Reinforced Polyamide (PA66)

Key Properties:

High mechanical strength and impact resistance.

Excellent thermal stability, capable of withstanding extreme temperatures.

UV-resistant for long-term outdoor durability.

Flame-retardant properties for fire safety compliance.

RED COPPER BLADE

This bimetallic connector is specifically engineered to work seamlessly with both aluminum and copper cables, eliminating compatibility concerns and enhancing its versatility for various electrical applications.

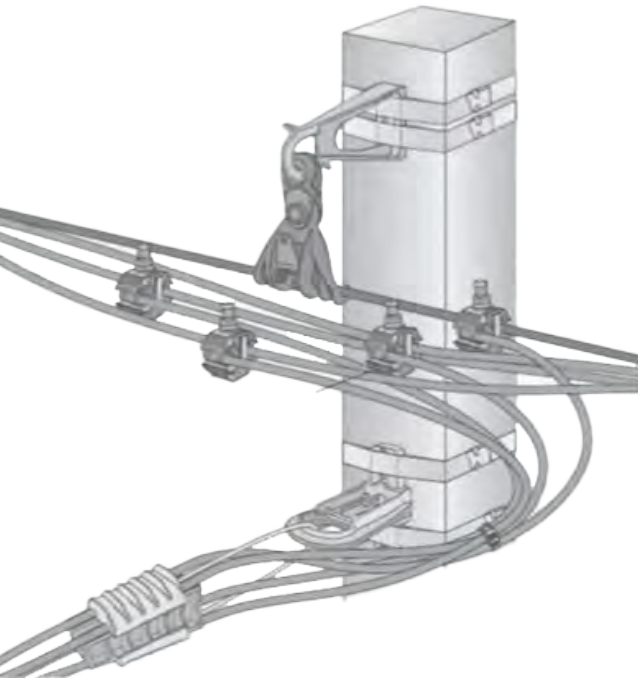
INNOVATIVE USE OF TIN COATING:

- The contact blade is coated with tin to prevent direct electrochemical reactions between copper and aluminum. When these metals come into direct contact, they are prone to galvanic corrosion, leading to rapid degradation.
- From a chemical perspective, tin (Sn) belongs to Group 14 of the periodic table, the same group as lead (Pb) and silicon (Si). It is known for its high resistance to oxidation and low reactivity with both aluminum and copper.
- Why Tin? Tin has a stable oxide layer (SnO_2), which prevents further oxidation and chemical reactions with other metals.
- Why Not Direct Copper-Aluminum Contact? When aluminum and copper come into direct contact, a galvanic couple forms due to their different electrochemical potentials, accelerating corrosion and failure of the connection.
- Tin as a Protective Barrier: Since tin is chemically more stable and does not easily form galvanic couples with either aluminum or copper, it acts as an intermediate layer, effectively preventing corrosion and ensuring long-term electrical stability.



THIS BIMETALLIC CONNECTOR IS SPECIFICALLY ENGINEERED TO WORK SEAMLESSLY WITH BOTH ALUMINUM AND COPPER CABLES, ELIMINATING COMPATIBILITY CONCERNS AND ENHANCING ITS VERSATILITY FOR VARIOUS ELECTRICAL APPLICATIONS.

Installation



General Features of insulation piercing connector (IPC)

- Piercing connector, easy installation, no need to strip the cable insulation.
- Torque nut, constant piercing pressure, Ensures good electrical connection and does not damage the conductor. Self-sealing frame, waterproof, moisture-proof,
- anti-corrosion, extends the service life of insulated conductor and the connector.
- Special connecting plate, suitable for joint of Cu (Al) and Cu (Al) or Cu and Al.
- Low electrical resistance, resistance less than 2.5 times of the resistance of the branch.
- Special insulated case body, resistance to sunlight and environmental aging, the insulation strength can reach 12KV.
- Arc Surface design, applicable to connection with the same (different) diameter, wide connection range 0.75mm² - 400mm²/td

PERFORMANCE TESTING

- Mechanical performance: the grip force of the wire clamp is 1/10 larger than the breaking force of the conductor, it complies with EN50483
- Temperature rise performance: under the condition of high current, the temperature rise of the connector is lower than that of the connection conductor.
- Thermal cycle performance: conforms to GB/T2317.3-2000, thermal cycle test standard for electrical fittings.
- Waterproof Insulation performance: conforms to the relevant testing requirements in part 2 of GB/1-13140.4-1998.
- Resistance to corrosion performance: under the condition of acid and salt spray, it can withstand three cycles of fourteen days testing.



- Environment aging performance: under the condition of ultraviolet, radiation, dry ad moist, expose it to temperature changes and heat impulses for six weeks.
- Fire-Proof performance: insulation material of the connector passing glowing filament test.
- Conforms to the requirement in chapter 4-10 of GB/T5169.4 6 Screw the nut continuously until the top is cracked and dropped down.

Important Usage Notice:

For optimal performance and maximum efficiency, this IPC should be used exclusively with single-insulated cables to guarantee perfect electrical contact and long-term durability.

Out Door ONT Panel



Description

Open and close door is smoothly when the door closed, the gap between door and frame is uniformity.

Width mm.: 400 | Height mm.: 400 | Depth mm.: 212 Ventilation Rate: $\geq 80\%$

Pre-Galvanized & Electrostatic Paint

Grounding requirement: The resistance is less than 0.01Ω between metal parts and grounding components

In Door ONT Panel



Description

Open and close door is smoothly when the door closed, the gap between door and frame is uniformity.

Width mm.: 606 | Height mm.: 450 | Depth mmm.: 130
Sheet Metal Thicknes: 1.5 mm

Compatible with: Patch Panel 19" - PDU 19"

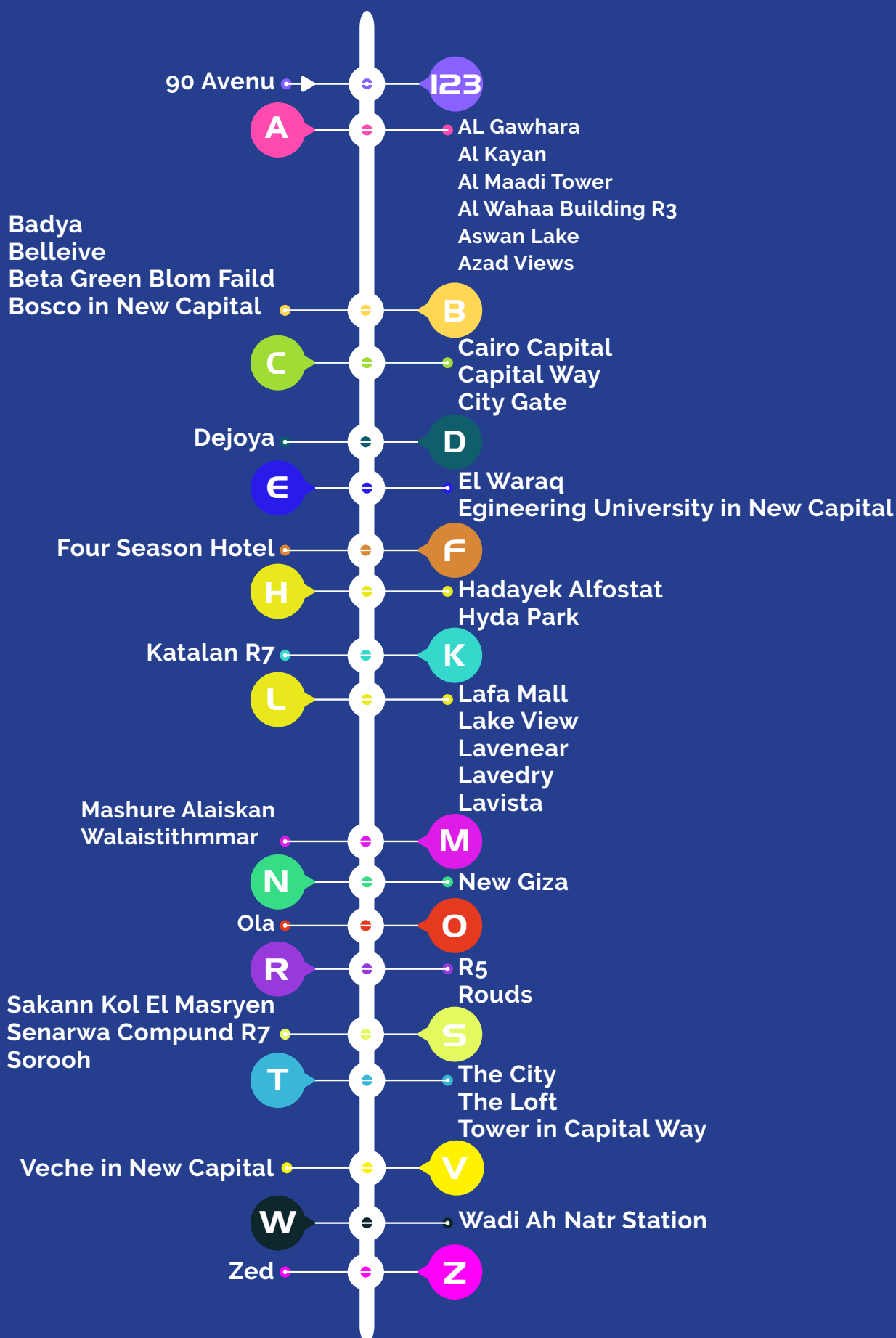
Pre-Galvanized & Electrostatic Paint

Special Thanks To Our Sponsors

We appreciate your efforts and generosity in supporting us.



Data Reference List



Projects Name Alphabetical



CONTACT US.



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