

# COMPANY PROFILE



For Advanced Engineering Industries

## INTEGRATED ELECTRICAL SOLUTIONS

مبنى ثقة تدوم

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/mhg.series



/mhg.series



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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.



# TABLE OF CONTENTS

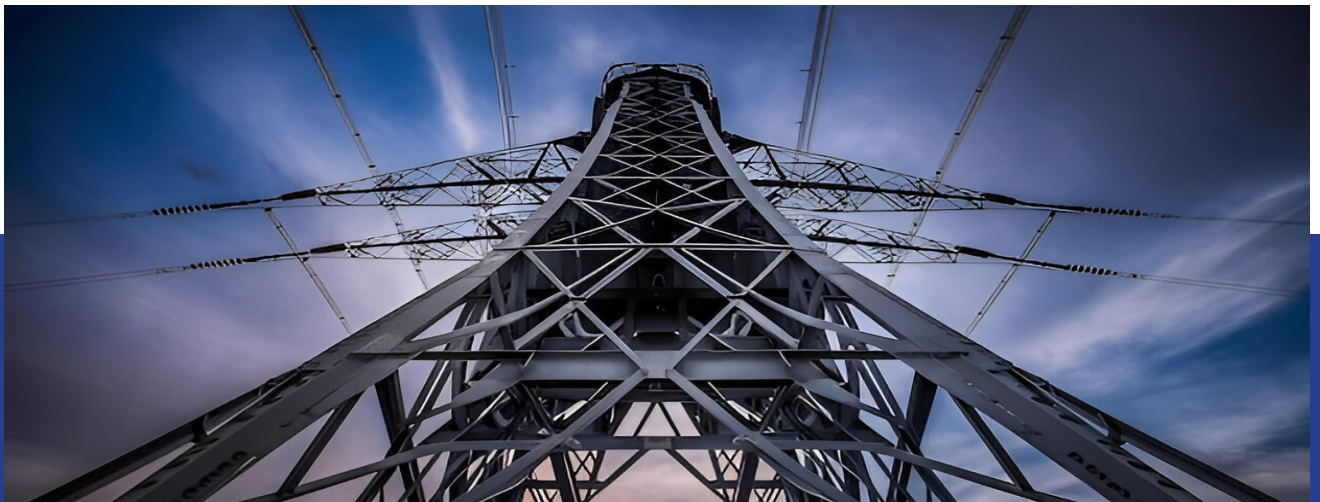
8	PDU	
		
		
20	DIN RAIL SOCKET	
		
		
30	OUT DOOR ONT PANEL	
		
		

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

## Modern Horizon Group

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 ملتزم 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



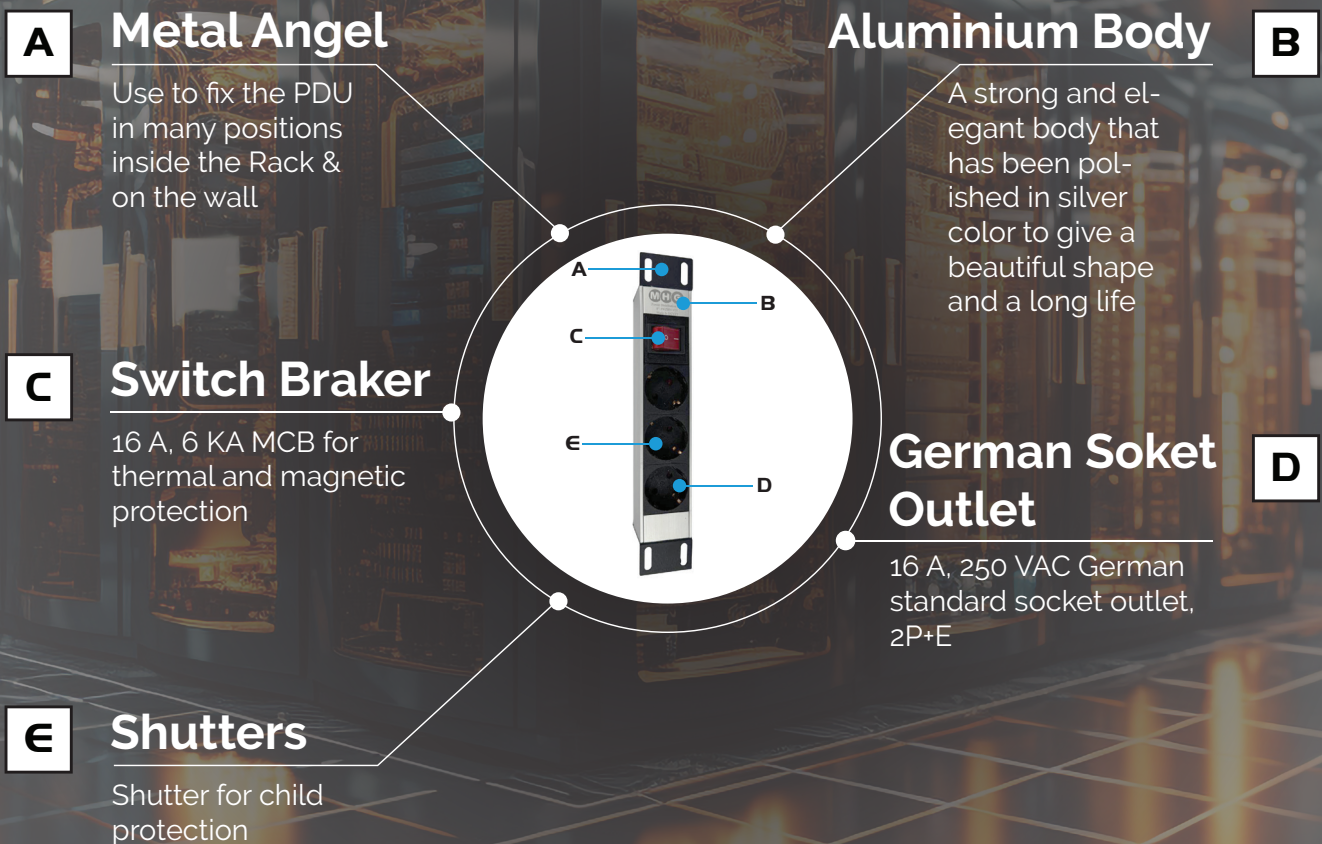
# PDU Intelligence

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.

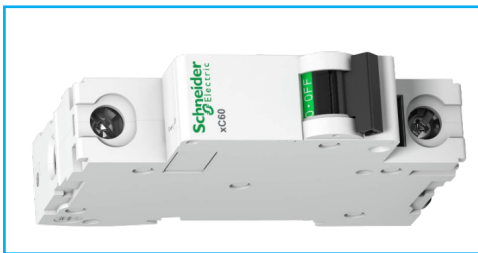




## Applications:

- 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.

### Circuit Breaker holder



#### Enhanced Protection

Circuit protected by a circuit breaker.  
Holder with overhanging edges to prevent accidental breakages.

### Socket



16A 250V Germany  
European AC Power  
PDU Socket.

### Ameter

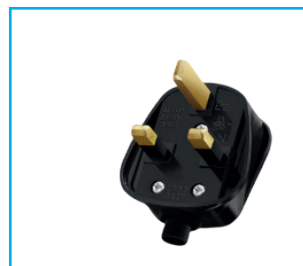
#### Consumption Indicator

- Circuit Balancing
- Display of available capacity
- Overload prevention



### Europe Power Cord 3-PIN Schuko Straight VDE Plug

Our European power cord and European three core plug products comply with ROHS, PAHs and reach standards. Comply with ISO quality system standards.



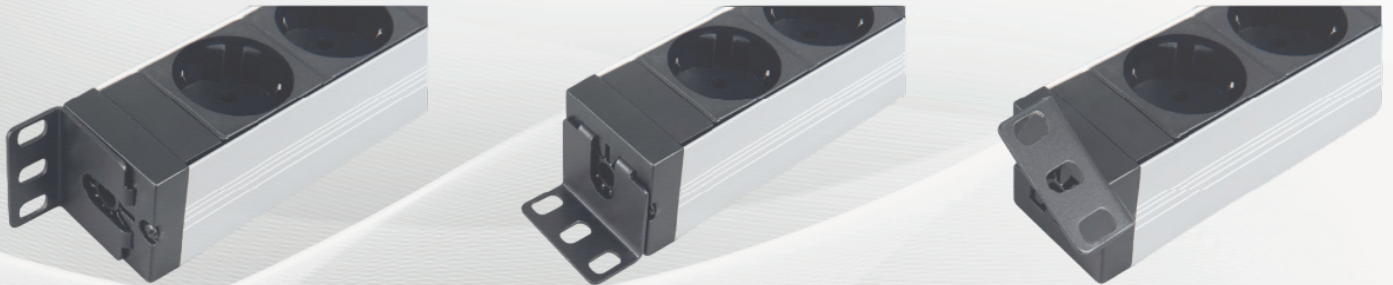
- HIGH QUALITY ELECTRICS
- HIGH QUALITY CONNECTION
- SOCKETS EQUIPPED WITH SAFETY SHUTTER

# Power Distribution Units (PDUs)

## And their applications Design standards

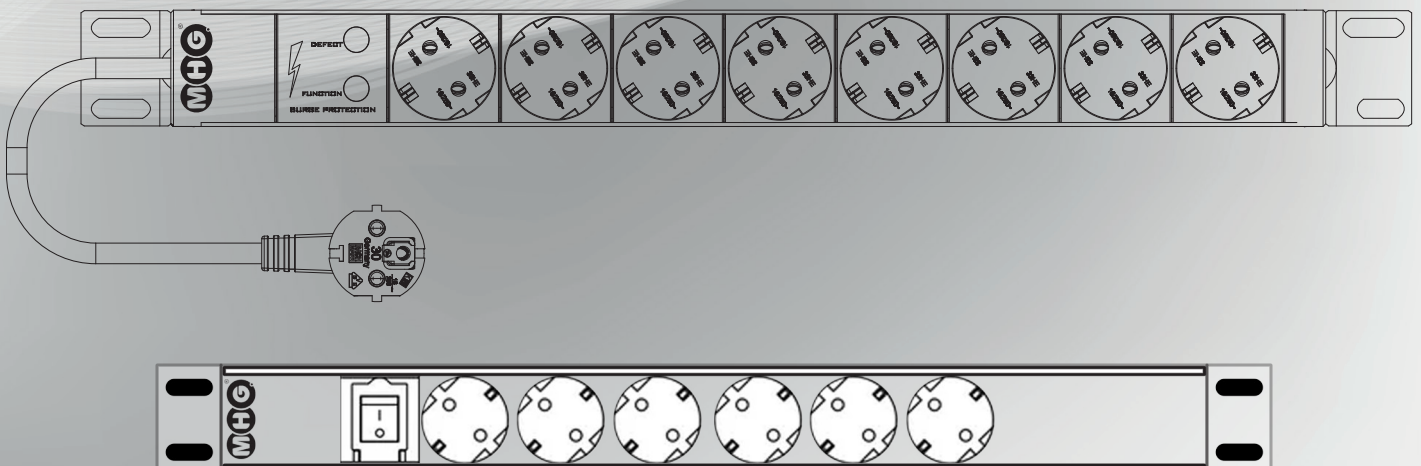
POWER DISTRIBUTION UNITS (PDUS) ARE CRITICAL COMPONENTS IN MANAGING POWER DISTRIBUTION IN VARIOUS ENVIRONMENTS. THEIR APPLICATIONS VARY BASED ON THEIR TYPES AND THE SPECIFIC NEEDS OF THE FACILITY OR EQUIPMENT THEY SUPPORT. HERE ARE DETAILED DESCRIPTIONS OF THE MAIN TYPES OF PDUS AND THEIR APPLICATIONS:

### Horizontal or Vertical



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

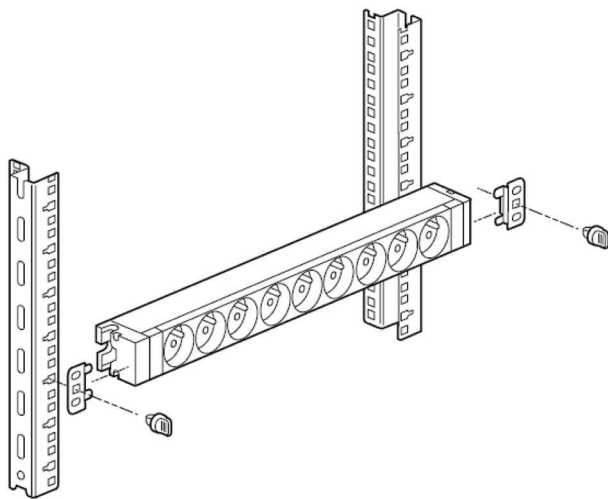
Vertical mounting requires a bolt and nut to fix the PDU securely to the ratchet.





**GE**  
**OF**

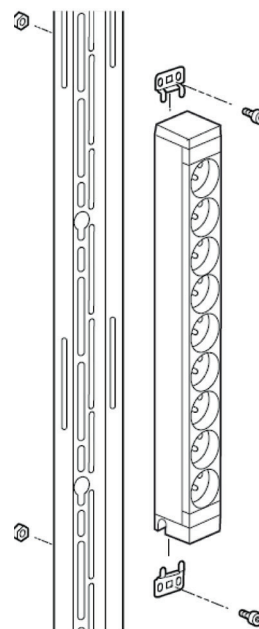
## Mounting Brackets



### 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



Model Numer	Series	Product Description
19-3WZCN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-Way With C.B 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM



Model Numer	Series	Product Description
19-3WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-Way With Switch 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM



Model Numer	Series	Product Description
19-6WZCN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 6-WAY WITH C.B 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM

# Basic Power Distributio Uits (PDU)

Comprehensive and Advaced Reliale Power Solution

## Power Solution



Model Numer	Series	Product Description
19-6WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 6-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM

Model Numer	Series	Product Description
19-6WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 6-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM



Model Numer	Series	Product Description
19-9WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 9-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM

Model Numer	Series	Product Description
19-9WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 9-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 488 MM * 46MM *46MM



Model Numer	Series	Product Description
16-3WZCN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITH C.B 1.5 MTR DIM ( L*W*D) 430 MM * 46MM *46MM

Model Numer	Series	Product Description
16-3WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 430 MM * 46MM *46MM

Model Numer	Series	Product Description
16-3WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 430 MM * 46MM *46MM

Model Numer	Series	Product Description
16-6WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 6-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 430 MM * 46MM *46MM

# PDU for Data Center and IT Infrastructure

Model Numer	Series	Product Description
16-6WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 6-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 430 MM * 46MM *46MM

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

Model Numer	Series	Product Description
10-3WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 347 MM * 46MM *46MM

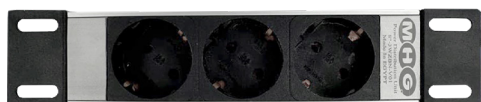
Model Numer	Series	Product Description
10-3WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 347 MM * 46MM *46MM



- 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



Model Numer	Series	Product Description
8-3WZBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITH SWITCH 1.5 MTR DIM ( L*W*D) 270 MM * 46MM *46MM



Model Numer	Series	Product Description
8-3WZAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITHOUT SWITCH 1.5 MTR DIM ( L*W*D) 270 MM * 46MM *46MM

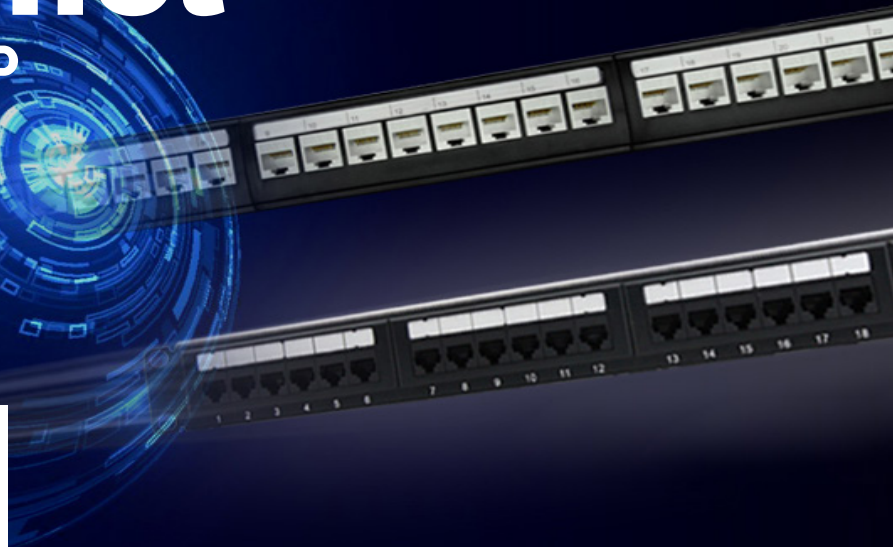
Model Numer	Series	Product Description
8-3WXBN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITH SWITCH 0.5 MTR DIM ( L*W*D) 270 MM * 46MM *46MM

Model Numer	Series	Product Description
8-3WXAN-V01	* German Plug * 4000 WATT * 250 V * 16 A	PDU 3-WAY WITHOUT SWITCH 0.5 MTR DIM ( L*W*D) 270 MM * 46MM *46MM

# Patch Panel

Category 6-6A UTP

12 - 24 Port



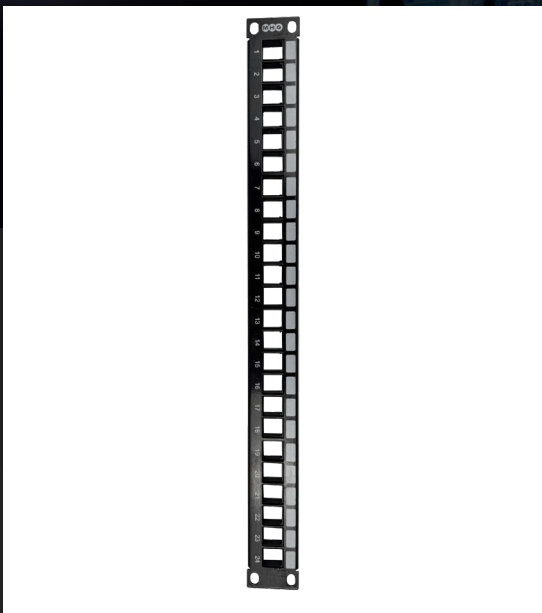
## Main

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

Product or Component Type	RJ45	
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	

## Environment

Standards	ANSI/TIA-568-C.2 ISO/IEC 11801 Class E EIA/TIA TSB 40 A
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# DIN SOCKET

2P+E, 16A

250 AVC



## Main

Product or Component Type	Modular Socket-Outlet
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 <sup>2</sup> Flexible 1...10 mm <sup>2</sup> Rigid

# PIERCING CONNECTOR



Waterproof



Anti-corrosion



Shockproof








Warranty



## 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( 1.5-240mm<sup>2</sup>).

# 1 Bolt 1KV Series

						
	MH-70	MH 2-95	MH 2-150	MH-6	MH-7	MH-55
Main Cable (mm <sup>2</sup> )	6 - 70	16 - 95	50 - 150	120 - 300	150 - 240	35 - 185
Branch Cable (mm <sup>2</sup> )	4 - 25	4 - 50	6 - 50	10 - 120	10 - 25	4 - 50
Current (A)	157	157	157	276	102	316
Torque (Nm)	20	20	20	35	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.



- 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.



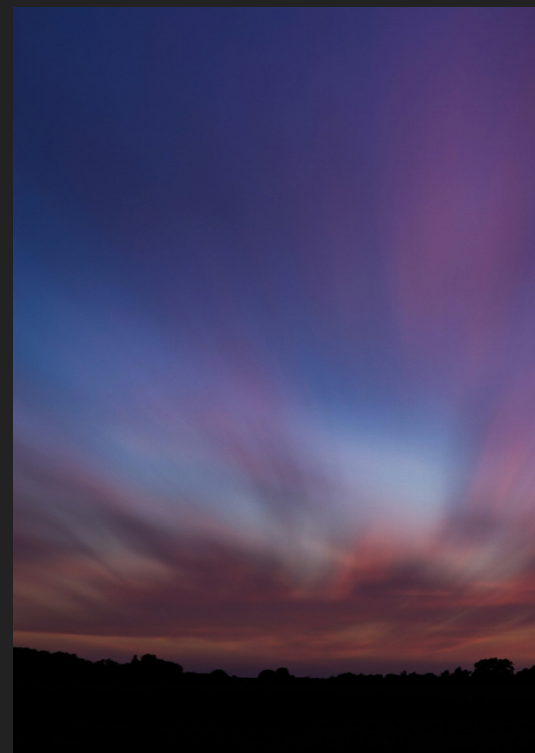
## KEY FEATURES & BENEFITS:

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





## Bolts And Gaskets

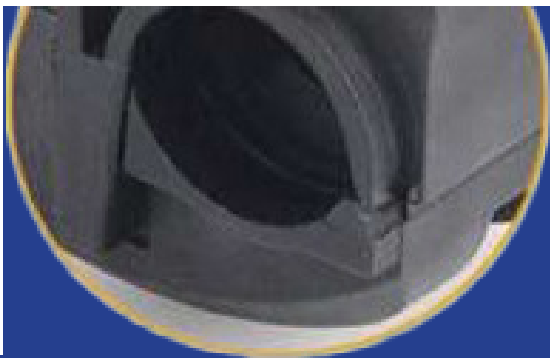
**Material: Hot Dip Galvanized Steel**

**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.



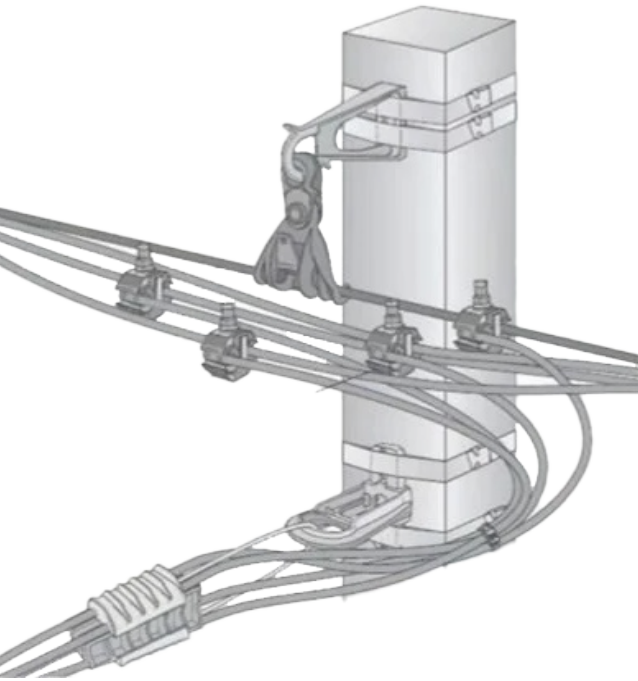
## INNOVATIVE USE OF TIN COATING:

- 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 ( $\text{SnO}_2$ ), 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 0.75mm<sup>2</sup> - - 400mm<sup>2</sup>/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: confirms 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 and 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.

# 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  $0.01 \Omega$  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 mm.: 130**  
**Sheet Metal Thickness: 1.5 mm**

Compatible with: Patch Panel 19" - PDU 19"

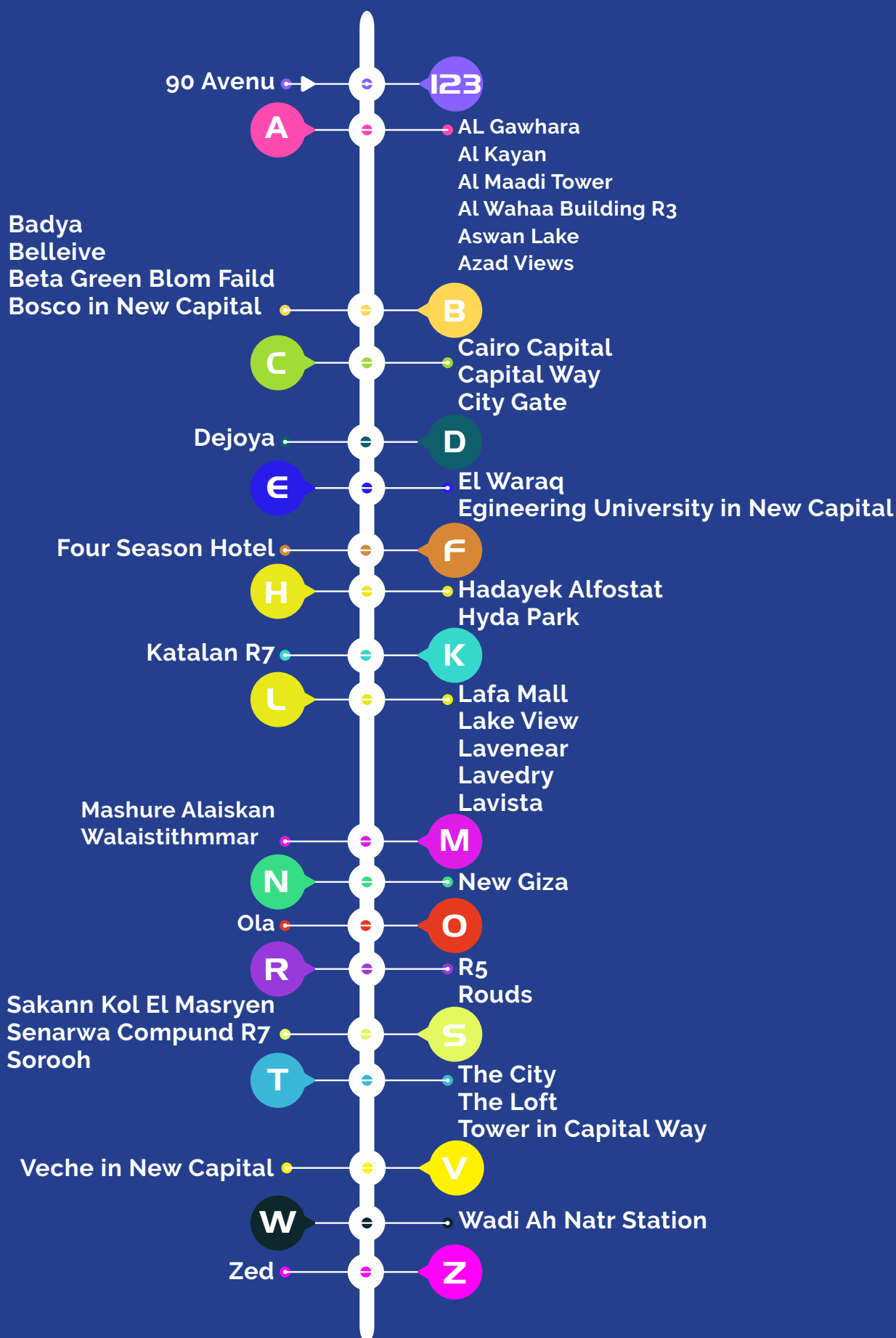
**Pre-Galvanized & Electrostatic Paint**

# 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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