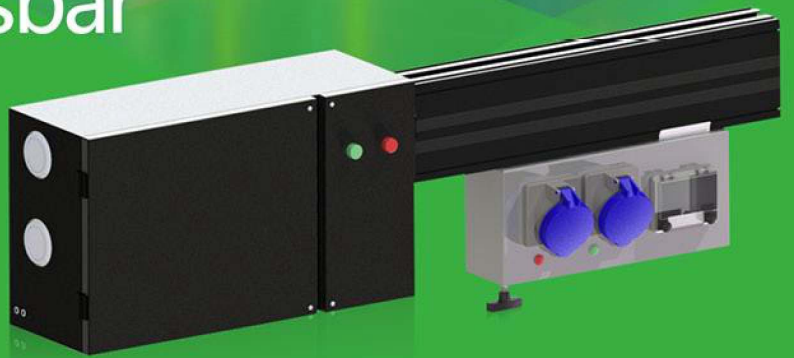


XLMC-RY Series
Data center busbar
(100A-630A)



<https://www.rybusway.com>

 **RENYUN**



Challenges Faced by Power Systems in Data Centers

The new - generation data centers are characterized by larger scales, more equipment, more complex systems and higher reliability. These features put forward higher requirements for the "heart" of data centers - the power supply system: the infrastructure of data centers is iterating rapidly. However, continuous technological

- innovation has to bear the risk of unexpected power outages, so reliable and efficient power supply equipment is needed as the operation foundation of IT rooms.
- The requirements for the investment, construction and launch speed of data centers are getting higher and higher, which requires the power system to meet the needs of rapid construction. Data centers designed and built.
- based on current needs often face the upgrading of changing demands from the business side and increasingly complex management systems. Therefore, a digital management system is needed, which can not only have an insight into the current situation, but also provide a basis for continuous optimization, and at the same time facilitate the realization of automated operation and maintenance.



Table of contents

Company Profile	2
System advantages	6
Product Overview	12
Application Scenarios	15
Busbar Numbering Rules	16
Plug-in Box Numbering Rules	17
Specifications and Dimensions	18





Company Profile

Renyun (Hunan) Busbar Co., Ltd. (founded in 2008) is a technology-driven power transmission & distribution enterprise. Focused on busbar R&D, production, sales, and service, we aim to build a world-class brand.

Key Strengths:

50,000m² production base with 8 automated lines

12 global offices ensuring worldwide coverage

Comprehensive busbar solutions: compact, air-insulated, fire-resistant, high-voltage enclosed, resin-cast, tubular, flexible, and energy-saving types

Certifications:

ISO 9001, ISO 14001, ISO 45001, CE

8S management standard implemented



Mission: Enable the world to enjoy advanced, safe, and energy-efficient busbar power supply systems.

Goal: Continuously push technological boundaries while consistently delivering service beyond customer expectations.

● ISO system certificate



● Patent certificate, CCC, CE, Kema-Keur certificate

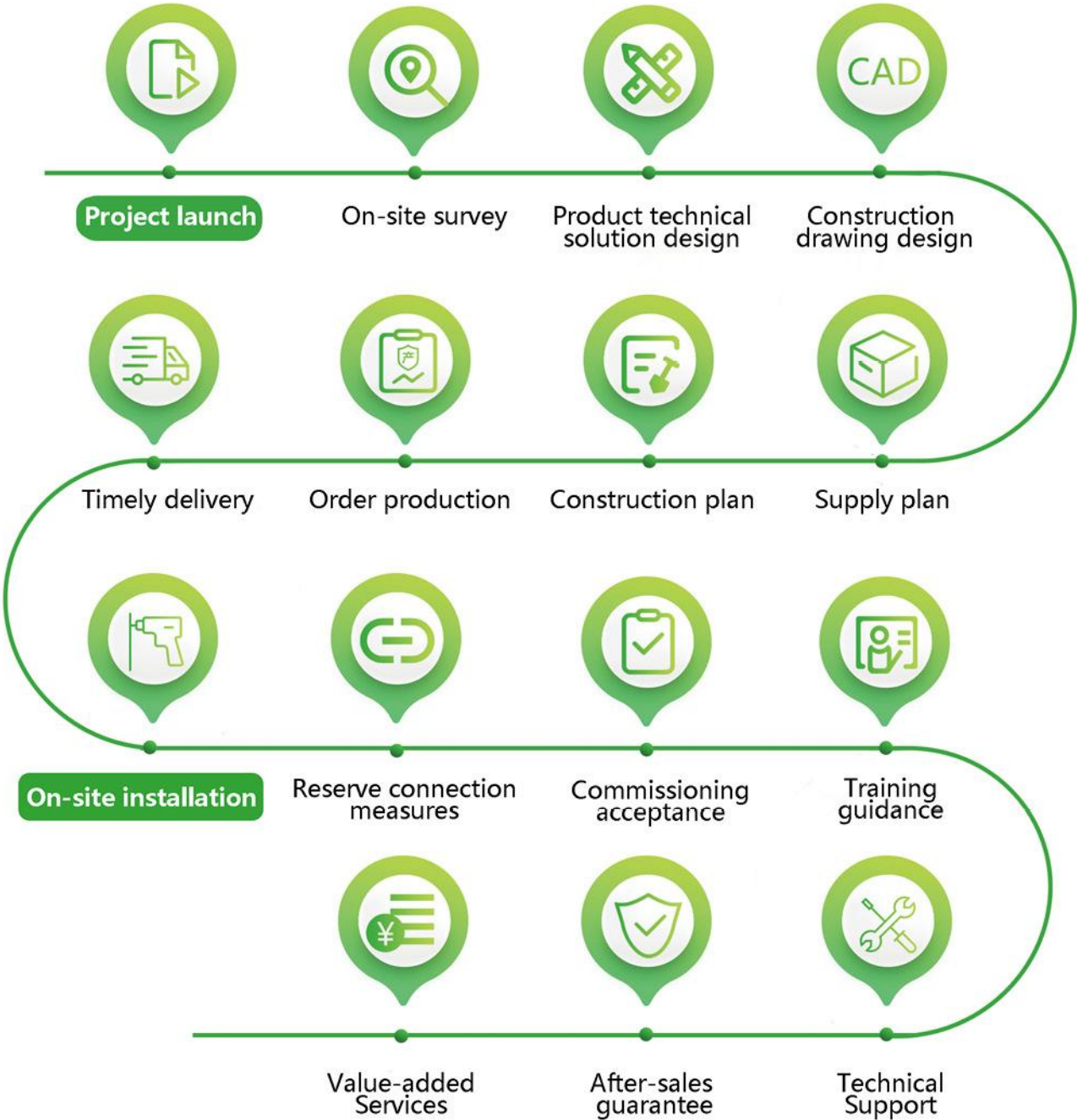


● Trusted by Numerous Renowned Enterprises



One-stop busbar system supplier
Professional, High quality, Trustworthy

Renyun busbar overall solution



RenYun Global Strategic Distribution



60+

Exporting countries
and regions

10+

Global Service
Network

100+

Professional and
technical personnel

300000+

Cumulative customer
service

Renyun (Hunan) Busbar Co, Ltd.

Add: No. 147, South Section of East 11th Road, Economic Development Zone, Changsha, Hunan Province

Tle: +86 151 1634 2188

Middle East: United Arab Emirates, Saudi Arabia, Qatar

Africa: Egypt, South Africa, Nigeria

Australia: Australia, New Zealand

Europe: Germany, Poland, Netherlands, Russia

North America: United States, Mexico

South America: Brazil, Peru, Chile

Southeast Asia: Singapore, India, Indonesia, Malaysia, Bangladesh

Advanced production technology



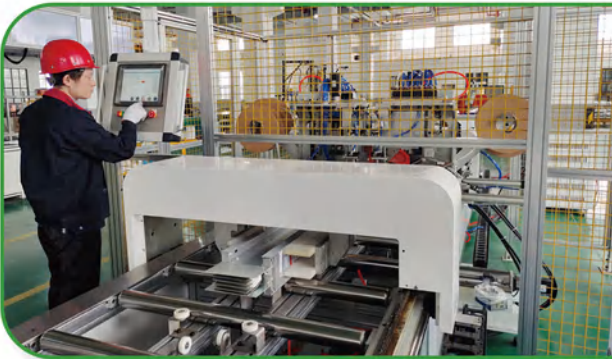
Automatic Busduct Housing Blanking and Forming Line

Fully automated equipment is used to perform blanking, forming, punching, punching insertion interfaces, and cutting operations on high-quality carbon structural steel housings for busducts, effectively ensuring the strength, quality, and precision of the produced housings.



Advanced Welding Process

The busbar welding adopts the advanced friction stir welding technology in the industry, which makes the weld seam uniform and smooth. It greatly reduces the impact of welding on the electrical conductivity, reduces heat generation, and is energy - saving and environmentally friendly.



Automatic busduct riveting and assembly line

The fully automated busduct riveting line perfectly combines robots with self-piercing riveting technology. It can intelligently adjust the riveting force and the spacing between rivets, ensuring that the assembled busduct has a compact, regular and aesthetically pleasing structure.



Precise sawing of special-shaped bent housings

In the design of busducts, various elbows require the housing to be cut at different angles. A fully automatic double-head CNC cutting machine is used to saw and cut the material according to the required dimensions and specified angles, ensuring that the special-shaped bent housings are perfectly horizontal and vertical and fit tightly after welding, without any angular deviation.

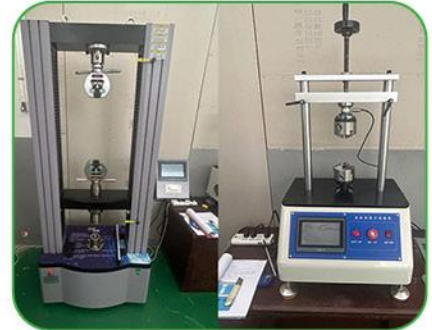
Strict quality control



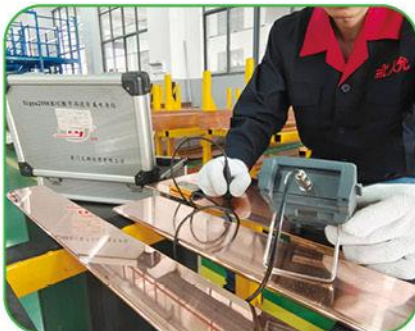
**High-current emperature rise
performance detector**



**Integrated Tester for
Intelligent Busbar System**



**Fully Automatic Tensile/
Torsion Force Detection**



**Conductivity Detection of
Busbars**



**Coating Thickness Detection
of Copper Busbars**



**Salt Spray Test for
Components and Parts**



**Paint Film Thickness
Detection**



**Paint Film Performance
Testing**



**Flatness and Appearance
Inspection of Copper Busbars**

Professional Project Management

Comprehensive Business Plan

An experienced business team conducts project and user needs analysis, incorporates relevant standards to ensure the rational implementation of user requirements, customizes business solutions, and offers a variety of cooperation models for selection.



Professional Technical Solution

A seasoned industry technical team conducts on - site surveys and customizes professional technical solutions for each project. They can appropriately select or design different types of busbars for various scenarios such as factories, real - estate projects, data centers, residential electrical shafts, and distribution rooms, providing customers with a safe busway power supply system.

Comprehensive Process Control

Develop comprehensive supply and construction plans before project implementation to ensure each project phase proceeds in an orderly manner. Conduct objective and accurate risk assessments, and strictly adhere to customer delivery schedules from both product manufacturing and on-site installation perspectives.



Comprehensive Service Assurance



Powerful Service Team

Senior installation service engineers have served clients such as Changsha Rail Transit Group, Changsha Huanghua International Airport, Hunan Television Station, China National Petroleum Corporation, BYD, and Huawei, earning unanimous praise and trust from users. The service team, spread across major cities nationwide, ensures prompt on-site arrival based on project proximity.

Comprehensive Service Provisions

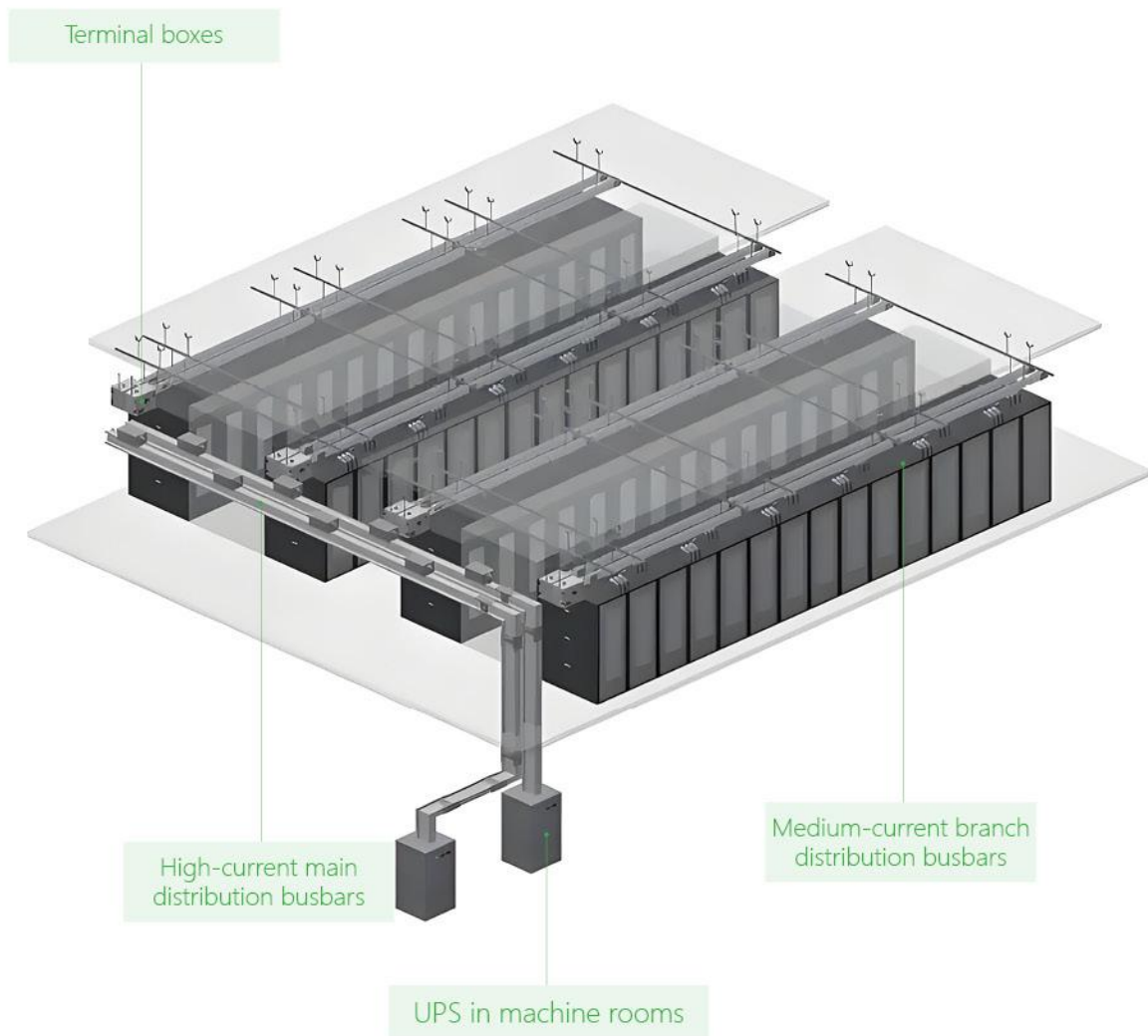
Provide standardized service support for customer projects, including: professional training programs, comprehensive technical documentation, 2-hour prompt response with rapid on-site arrival, first-year warranty and lifetime maintenance support, spare parts availability at any time, and support for upgrades and retrofitting. Ensure customers experience all-round service comparable to a dedicated caretaker.



Thoughtful Value-Added Services

Drawing on years of industry experience, we have customized a variety of value-added services to meet the diverse service needs of different clients, including annual inspection service, trade-in replacement, upgrade & retrofitting, and customized accessories. We always prioritize client-centric thinking and actively listen to their voices.

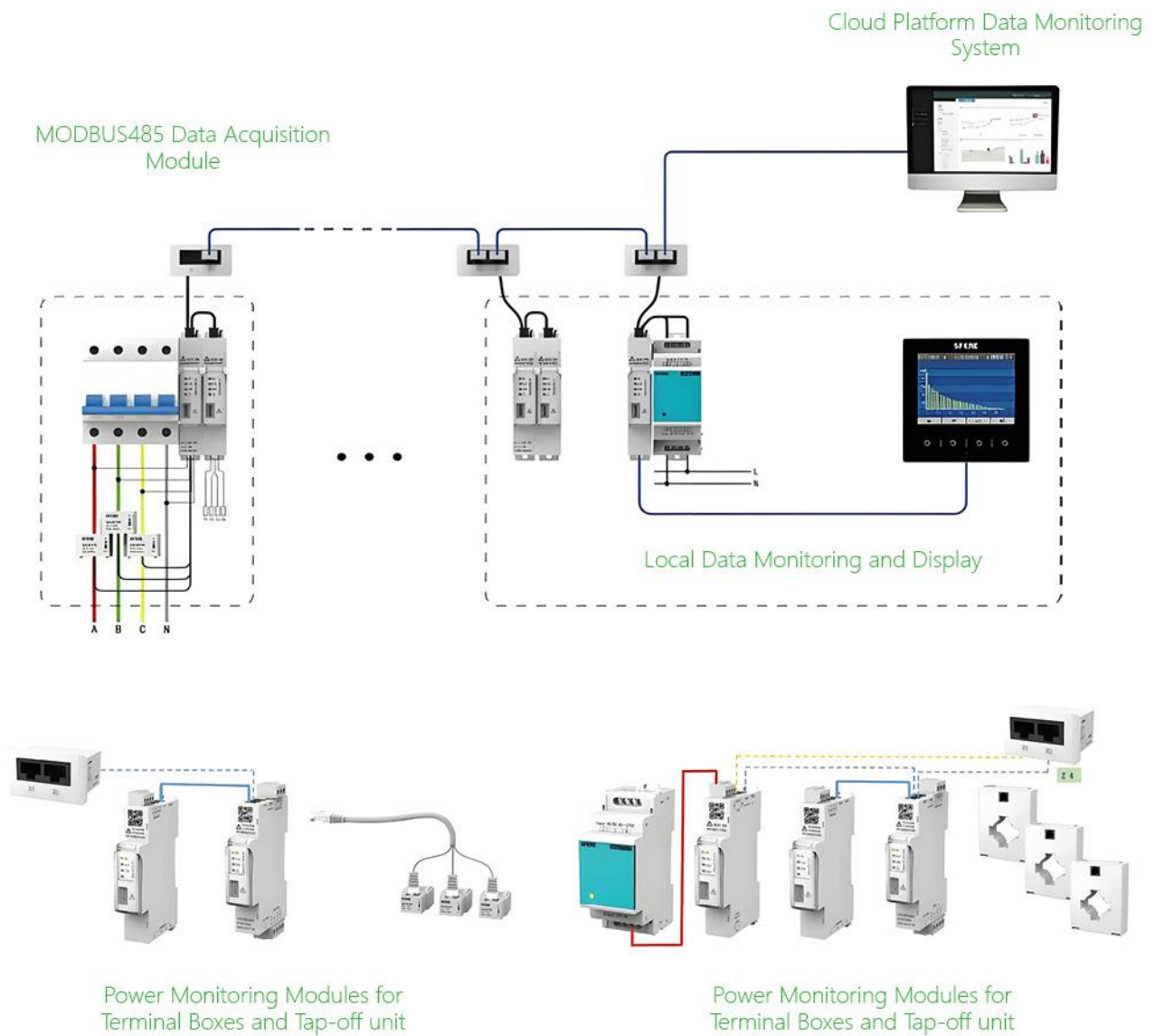
Main Applications of Busbars in Data Centers



Two Levels of Power Distribution in Data Centers

- Primary distribution connection solutions, including transformers, standby generators, and low-voltage main distribution cabinets
- Terminal distribution solutions, including UPS (uninterruptible power supplies), low-voltage secondary distribution cabinets, cabinet racks, and other critical loads

Internet of Things (IoT) Intelligent Monitoring System



Intelligent Operation Monitoring for Guaranteed Protection

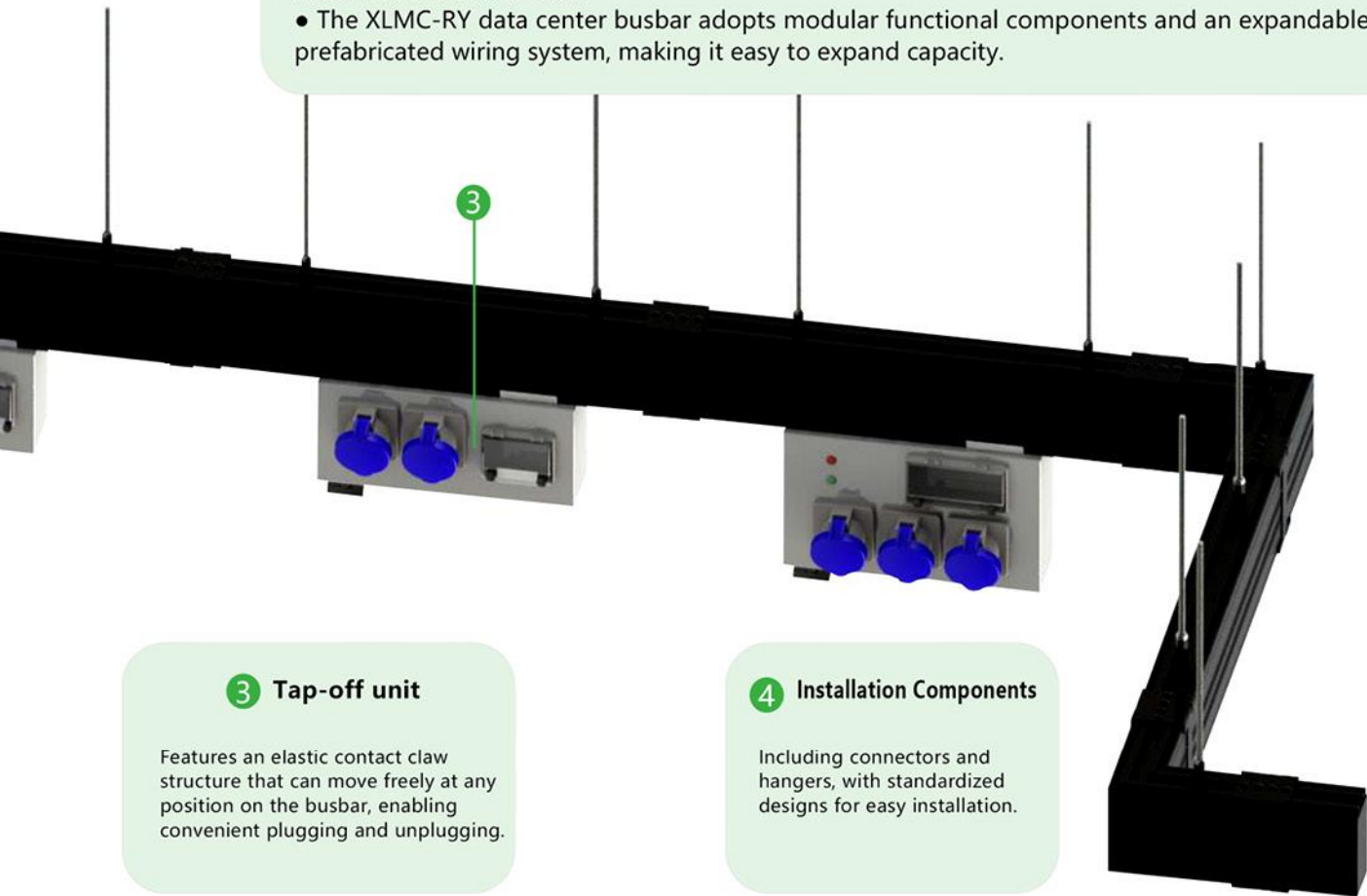
Analysis and consulting services for custom busbar products according to customer needs;
Seamless connection with digital temperature measurement, humidity measurement and power monitoring modules to predict electrical faults in advance

Product Overview



XLMC-RY Series Busbars - Tailor-made for Modern Data Center

- Busbars for the XLMC-RY data center busbar, after the UPS outgoing cabinet, there is no need for a power distribution column head cabinet. It can be directly connected to the busbar and cooperate with the plug-in unit to supply power to the equipment in each cabinet. Power supply units can be flexibly configured on the main busbar as needed, and can be added at any time with plug-and-play functionality.
- The XLMC-RY data busbar can flexibly distribute power according to the different load sizes of various cabinets. If capacity expansion or phase adjustment (in case of three-phase imbalance) is required, only the corresponding Tap-off unit needs to be adjusted without any modifications to the lines.
- The XLMC-RY data center busbar adopts modular functional components and an expandable prefabricated wiring system, making it easy to expand capacity.

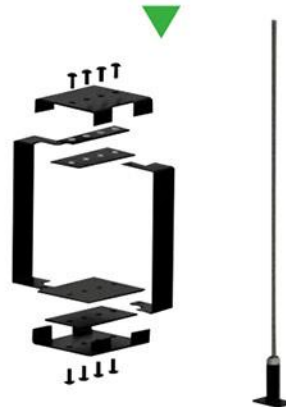
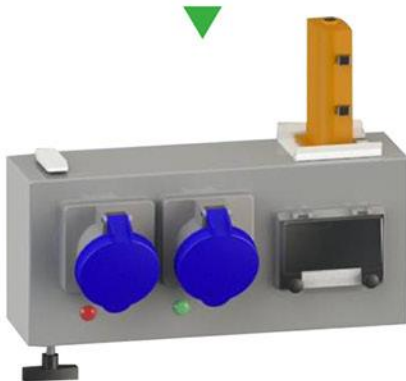


3 Tap-off unit

Features an elastic contact claw structure that can move freely at any position on the busbar, enabling convenient plugging and unplugging.

4 Installation Components

Including connectors and hangers, with standardized designs for easy installation.



Technical Parameter Table of XLMC-RY Series Busbar Products

Copper conductor

Standards		GB/T7251.6-2015(CCC)、EN61439-6:2012(CE)							
Conductor Materials		Cu*Ag ≥ 99.95%							
Enclosure		6063 aluminum-magnesium alloy							
Per Unit Length		The standard length is 3 meters, and other lengths from 0.5 meters to 6 meters can be customized							
IP Rating		IP54 (Without Tapping Unit); P34 (With Tapping Unit)							
Rated Insulation Voltage	V	800V(without tap changer)/500V(with tap changer)							
Rated Voltage	V	415V							
Rated Frequency	Hz	50							
Phase Configuration		Four-line 3P+100%N and five-line 3P+100%N+50%PE are available for selection							
Rated Current	A	100A	160A	200A	250A	315A	400A	500A	630A
Resistance (R20)	mΩ/m	0.0363	0.0290	0.0242	0.0207	0.0173	0.0134	0.0101	0.0076
Reactance (X20)	mΩ/m	0.0122	0.0105	0.0094	0.0089	0.0083	0.0072	0.0060	0.0050
Impedance (Z20)	mΩ/m	0.0390	0.0307	0.0258	0.0221	0.0187	0.0149	0.0114	0.0091
Voltage Drop at Power Factor (cosφ) = 0.9	V/m	0.0262	0.0260	0.0277	0.0308	0.0324	0.0322	0.0332	0.0299
Mechanical Load Capacity	kg	37							
Rated Short-Time withstand Current	kA	30							
Rated Peak withstand Current	kA	63							
Rated Impulse withstand Voltage	kV	6kV(without tap changer)/4kV(with tap changer)							
Clearance	mm	≥ 8.0							
Creepage Distance	mm	≥ 12.5							
Insulation Resistance	MΩ	≥ 20							
Dielectric Properties		No breakdown or flashover at 4KV/5s							
Temperature Rise	K	≤ 70 (at all conductive connection points) ≤ 55 (on the surface of the casing)							
Number of Tap-Off Points	m	1.4							
Maximum Fixed Spacing		Vertical							
Installation Method		Vertical or horizontal							
Operating Conditions		Ambient air temperature: maximum +40°C, minimum -5°C. Humidity conditions: Daily average relative humidity ≤ 95%; The monthly average relative humidity is ≤ 90%. The average daily pressure of water vapor and argon gas without entanglement is 2.2kPa. The monthly average water vapor pressure does not exceed 1.8kPa. The altitude is no more than 2000m and the magnitude of the earthquake does not exceed 8 There are no places with long-term severe vibration, shock or explosion hazards There are no media around that can corrode metals or damage electrical insulation When used under conditions exceeding the normal regulations and the above-mentioned normal environment, the user shall negotiate with our factory for a solution							

Raw Material Properties



High-Quality Conductor

High-purity electrolytic copper is preferably selected. Its electrical conductivity reaches over 57 MS/m (100% ACS), and the copper content is over 99.95%. Special processing techniques are adopted to strictly control the impurity content within the conductor. Compared with traditional busbars of the same cross-section, the loss is reduced by 3% - 5%. There are multiple options for the conductor surface treatment, such as tin plating and silver plating. The alloy electroplating process is adopted, leading to a 5% - 8% reduction in contact resistance compared with the common electroplating process of traditional busbars.

(Note: Aluminum conductors can also be selected, with an aluminum content of >99.50%. The surface of the conductor is treated with copper plating and tin plating processes.)



Superior Insulating Materials

The conductor surface is covered with flame-retardant and glass fiber-reinforced PC (polycarbonate) extruded profiles, with insulation class B (130°C) and flame retardancy rating V0, meeting the UL94 standard. It has passed the ROHS environmental certification and will not produce toxic gases at high temperatures. All busways undergo a 3750V AC high-voltage test before leaving the factory to ensure 100% qualification of their insulation performance.



High-Strength Enclosure

Adopting 6063 aluminum-magnesium alloy three-sided integrated profiles with a thickness of 3.0mm, the enclosure has a Brinell hardness of 260HB and a tensile strength of over 260MPa. Its thermal conductivity reaches 200W/m·K, approximately three times that of steel enclosures, providing excellent heat dissipation and dynamic-thermal stability resistance for the system. The surface of the enclosure is sprayed with fire-retardant plastic powder, ensuring corrosion resistance (passing over 1800 hours of salt spray testing) and preventing flame spread in various environments. (Customization of spray color is available.)



Tap off unit

The box body is made of high-quality carbon structural steel with spray coating, featuring a 2.0mm thickness, high strength, and corrosion resistance.

High-elasticity and high-conductivity beryllium copper electrical terminals ensure long-lasting contact stress and low temperature rise.

The dual-grounding-pole top-mounted design ensures that the grounding poles make contact first during insertion and separate last during extraction.

Full electrical parameters + four-point temperature monitoring enable real-time monitoring and early warning of the system's operating status.

Options include single-circuit, dual-circuit, three-circuit, and six-circuit configurations, as well as fixed/movable plugs to meet diverse needs.

Equipped with an anti-phase-misalignment positioning plate to ensure automatic phase sequence alignment between the plug-in box and the busbar.

A quick-locking mechanism allows for convenient and fast installation and replacement.

Busbar Numbering Rules

XLMC-RY Series
Data center busbar
(63A-630A)

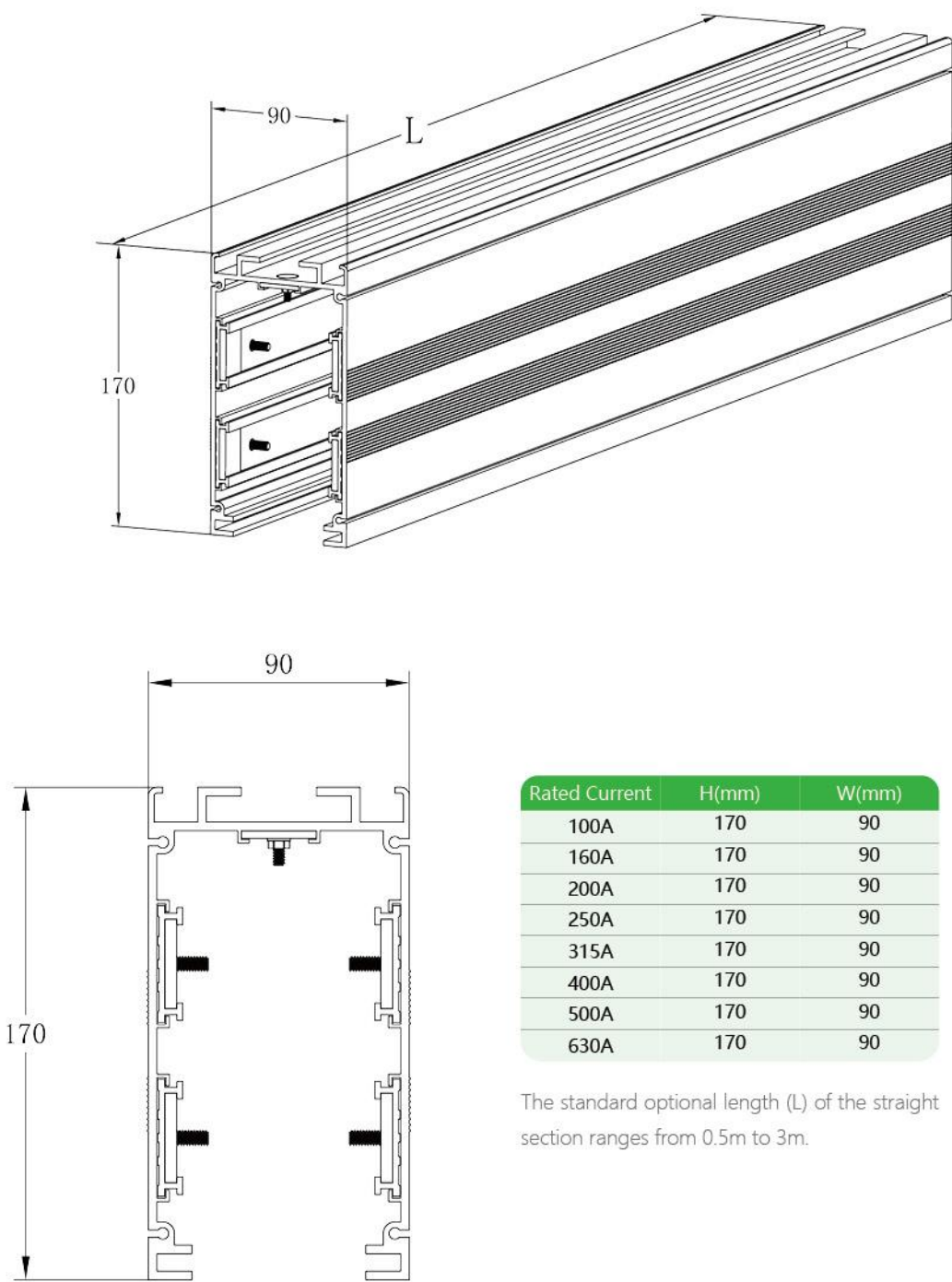
		X	25	T	L
Product series	Code	└─┘	└─┘	└─┘	└─┘
XLMC-RY series	X				
Current rating	Code	└─┘	└─┘	└─┘	└─┘
100A	10				
160A	16				
200A	20				
250A	25				
315A	32				
400A	40				
500A	50				
630A	63				
System wiring		└─┘	└─┘	└─┘	└─┘
Made of 3L+N+PE(copper)	T				
Made of 3L+N+PE(aluminum)	L	└─┘	└─┘	└─┘	└─┘
Component type	Code				
Straight posture	L				
Starting flange	FE				
Elbow	LR				
Double bends	ZR				
T-bend	T				
Head cover	FT				

Plug-in Box Numbering Rules

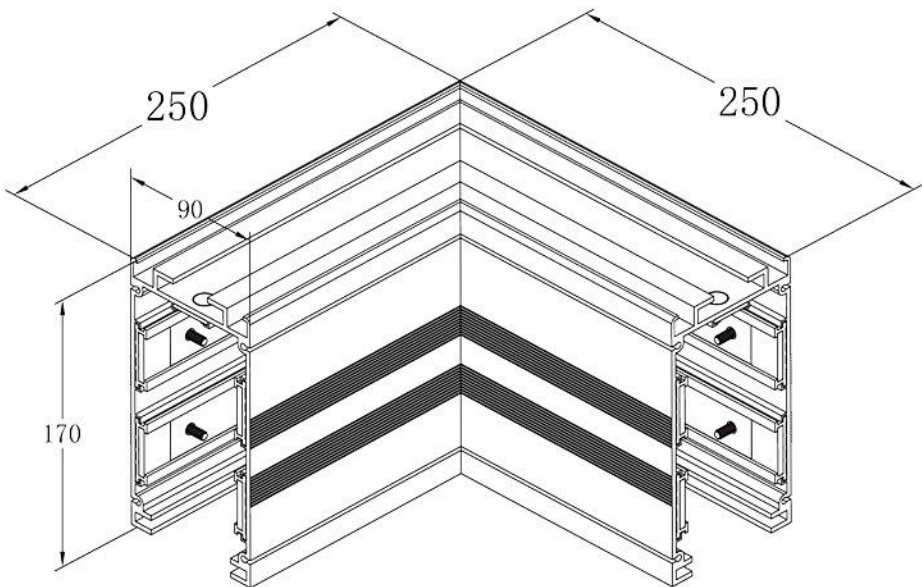
XLMC-RY Series
Data center busbar
(63A-630A)

		X	3	63	D
Product series	Code	└─┘	└─┘	└─┘	└─┘
XLMC-RY series	X				
Number of plug-in interfaces	Code	┌─┐	└─┘	└─┘	└─┘
1P	1				
2P	2				
3P	3				
6P	6				
Single socket current of plug interface	Code	└─┘	└─┘	└─┘	└─┘
16A	16				
25A	25				
32A	32				
63A	63				
Type of plug-in interface		└─┘	└─┘	└─┘	└─┘
Fixed	D				
Active	H				

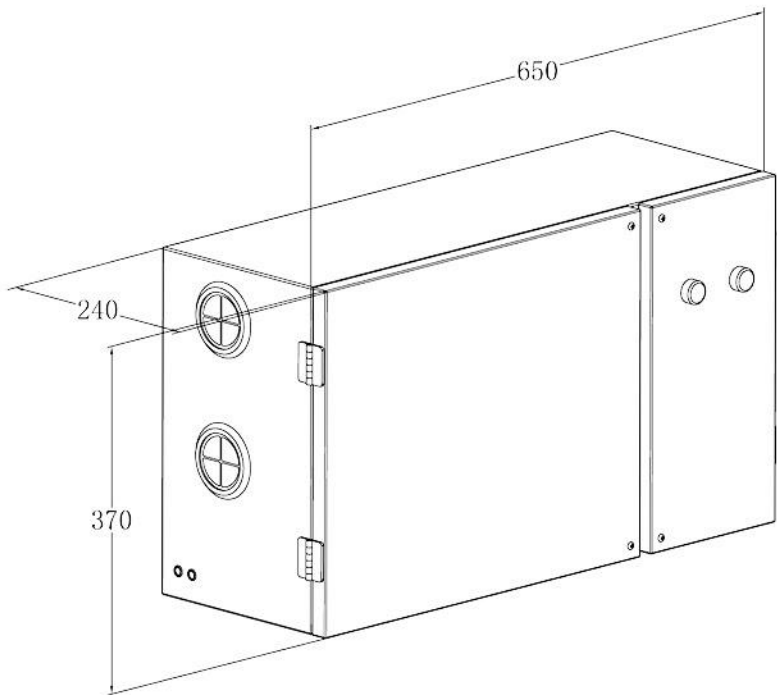
Straight Section



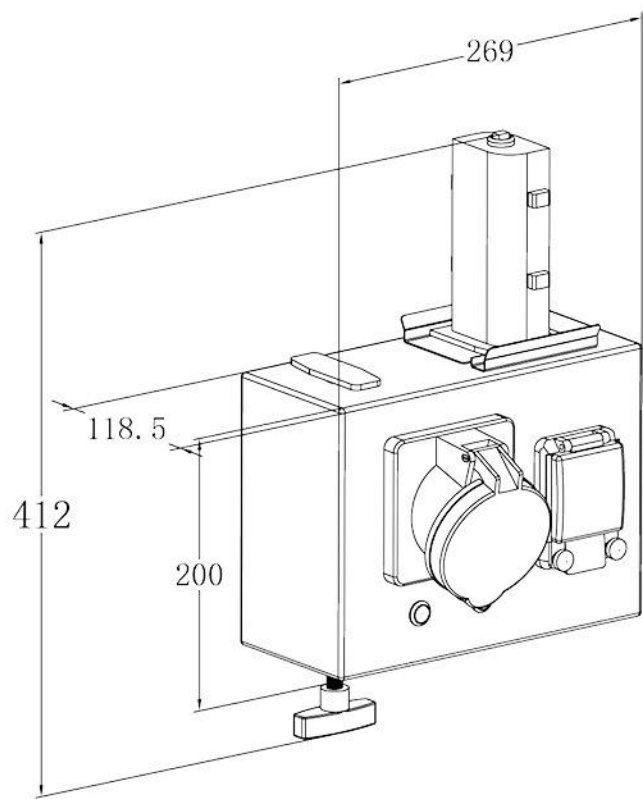
Horizontal Elbow



Start Box



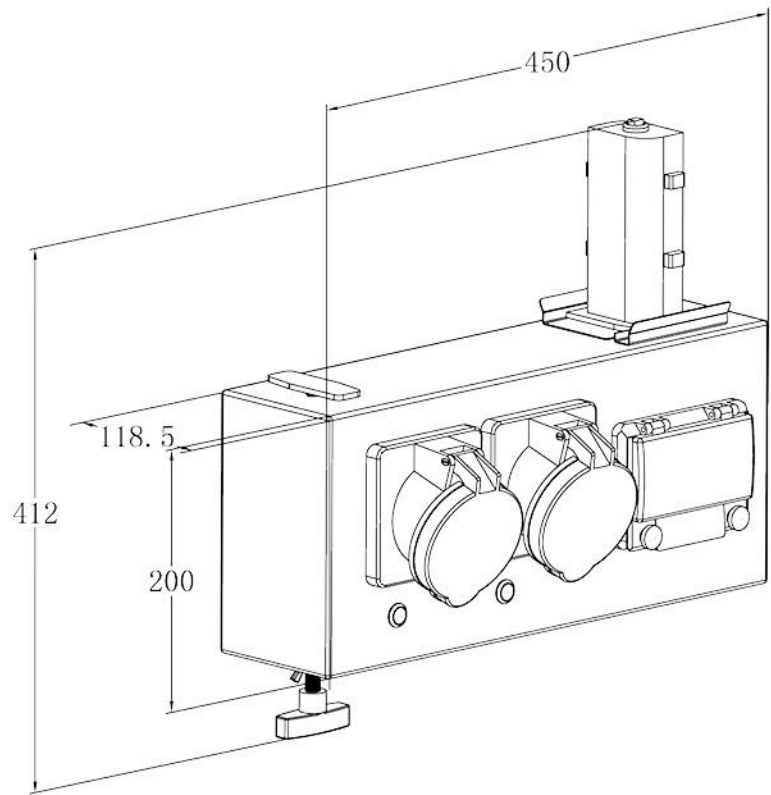
Plug-in Box



(Single socket)

Rated Current	Plug-in interface current			
63A	1*63A	1*32	1*25	1*16

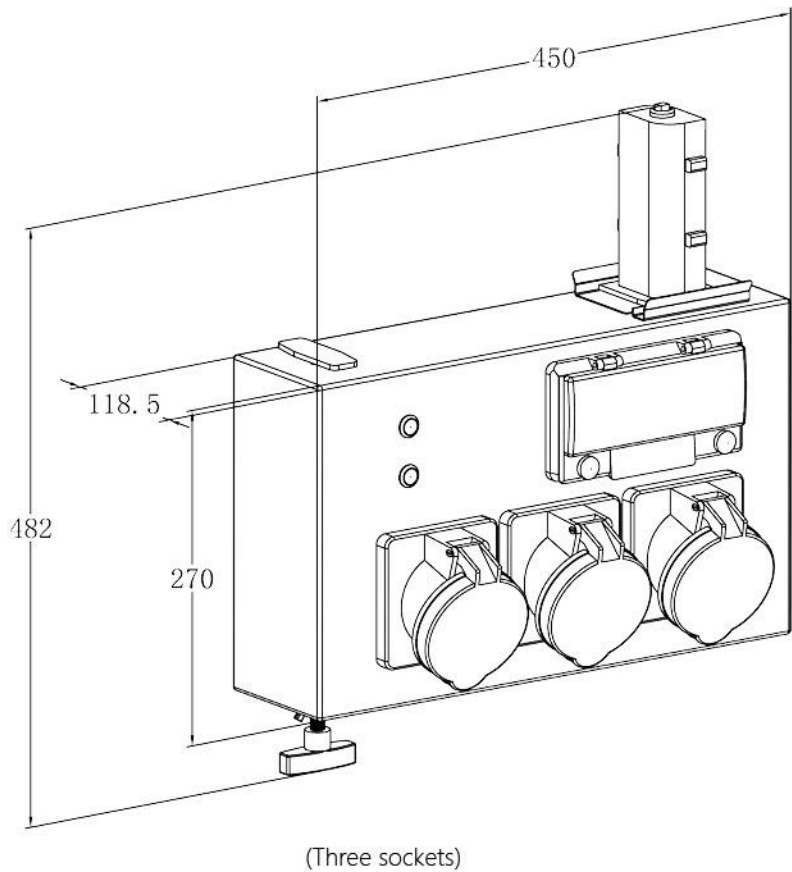
Plug-in Box



(Double socket)

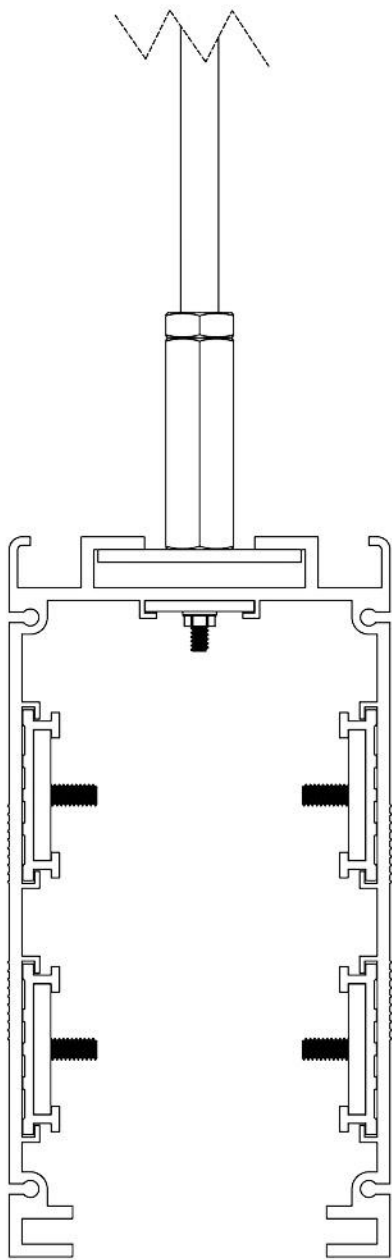
Rated Current	Plug-in interface current			
125A	2*63A	2*32	2*25	2*16

Plug-in Box



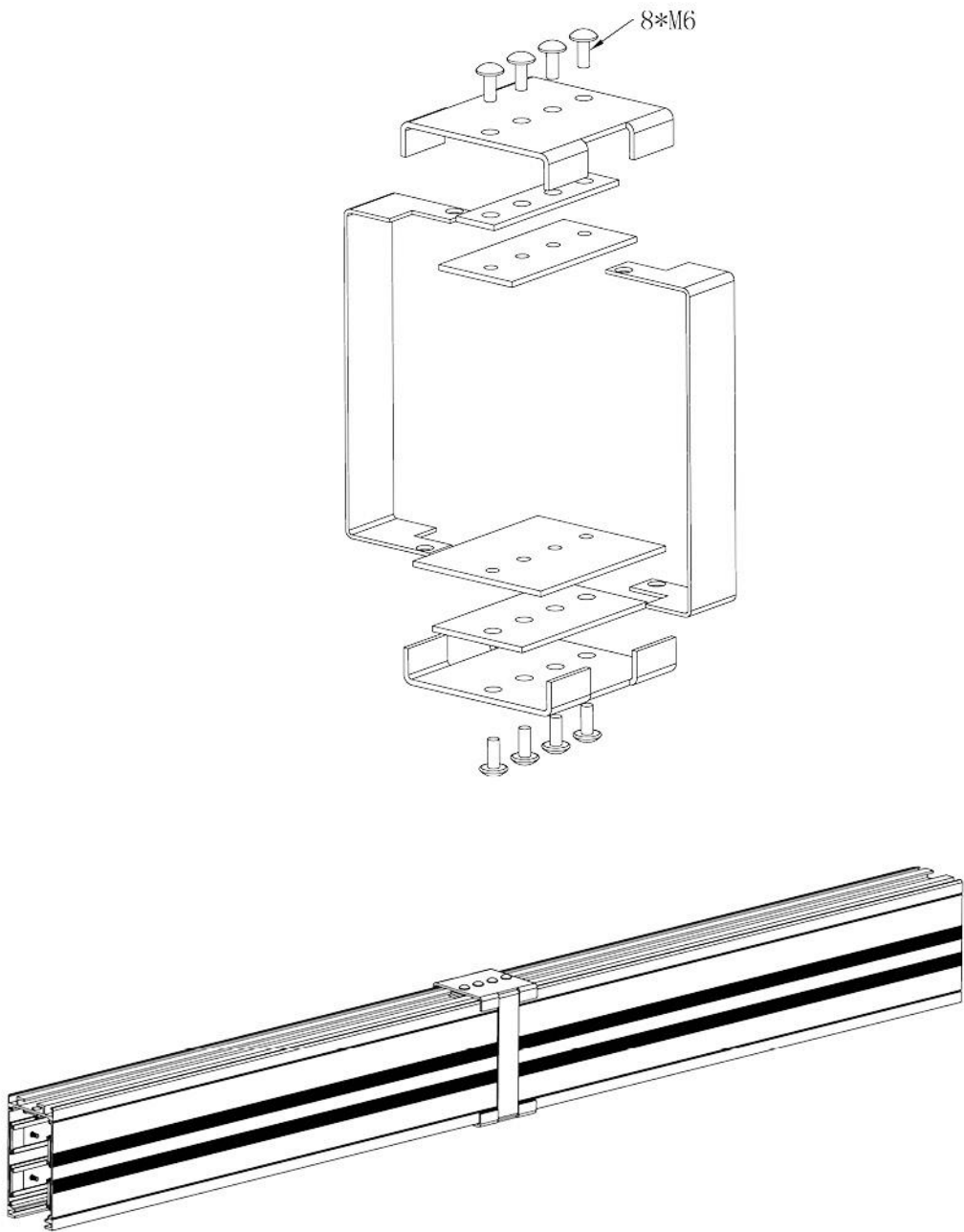
Rated Current	Plug-in interface current			
	3*63A	3*32	3*25	3*16
200A				

Hanger

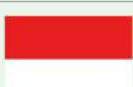


(Section diagram of hanger)

connecting member



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	Iraq	TalentIraq Iraq-Kurdistan Dania Trade Center Floor2-Office 15	00964-7701490090
	Egypt	202 Street No.28, Shuwaifat, Fifth SettlementCairo, Egypt 11835	0020-0225604342
	Indonesia	Golf Island - Rukan Beach Boulevard Blok G No.3 Kamal Muara - Penjaringan Pantai Indah Kapuk - Jakarta Utara	0062-21-08119790857
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These materials will only be binding on us after confirmation by our business department.

