

铜铝复合母线排及其应用

Copper and Aluminum Composite Busbar and Applications



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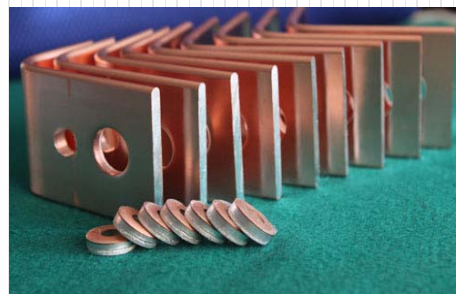
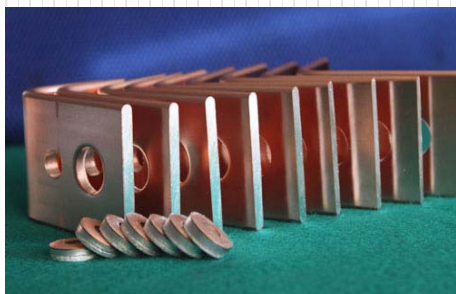
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铜铝复合母线

Copper Clad Aluminum Composite Busbar

铜铝复合材料具有铜和铝的物理及化学特性，集合了铜和铝各自的优点，具有良好的导电、导热性和耐腐蚀、重量轻、价格经济的特点。其结构为铜包覆层和铝芯层加冶金结合层的三层结构，铜铝界面在形变与温度场作用下实现铜铝原子键合。

Copper clad aluminum composite (“CCAC”), possesses physical and chemical properties of copper and aluminum, is characterized by good electrical and thermal conductivity, good corrosion resistance, light weight and affordability. Structured as three layers comprising of copper cladding layer, aluminum core and metallurgical bonding layer, the bimetal interface has achieved metallic bonding.

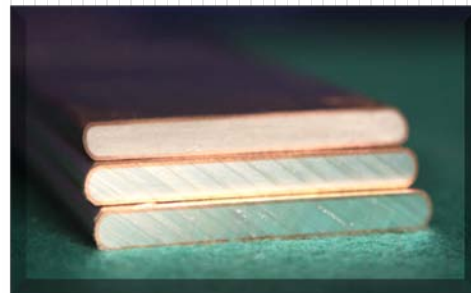
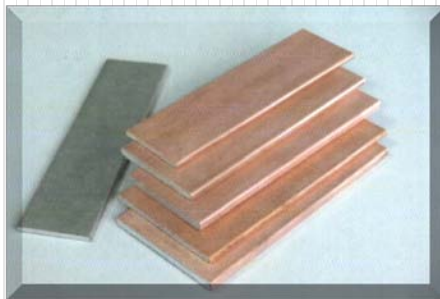
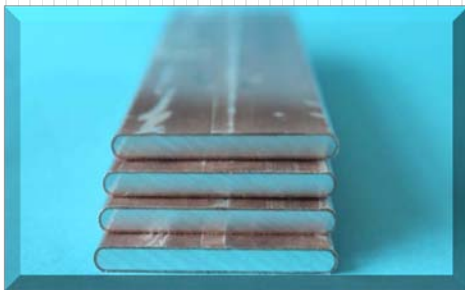


层状铜铝复合材料的特性

Properties of Layered CCAC

层状铜铝复合材料有着多方面超越单一金属的优异物理及机械加工特性，质量轻、抗爆炸、抗振动疲劳强度高，适应性强，是综合性能优良的材料。层状铜铝复合成型的核心是界面形成冶金结合层，以及包覆层和芯层材料的均匀一致性

The layered CCAC, possesses various advanced physical and mechanical properties, along with anti-blast, superior intensity and strength of anti-vibration fatigue, which beyond a single metal, is an excellent overall performance material. The key to CCAC is the bimetal interface formed solid and reliable metallurgical bonding, as well as the consistency and uniformity of the cladding layer and core layer after rolling deformation,



铜铝复合母线材料的主要特性

Key Properties of CCAC Busbar

优异的导热、导电性能，散热性能好，接触电阻小，载流量大；极佳的焊接与电镀禀性，韧性好易于加工；经典的外观，重量轻、强度高；界面原子间冶金结合；充分的延展特性确保了成型及深度形变加工的需要；自硬态到软态区间的材料柔韧度。

High electrical and thermal conductivity, good to dispatch heat, low contacting resistance and high current-carrying-capacity; Excellent soldering and electroplating properties, Highly malleable, easy to fabricate; Provides classic appearance, high intensity and light weight; Bimetal interfacial atoms metallurgically joined by passing through hot-rolling & deformation; Sufficiently malleable to permit fabrication such as forming and deep drawing; Tempers are available from “annealed soft” to “hard”.

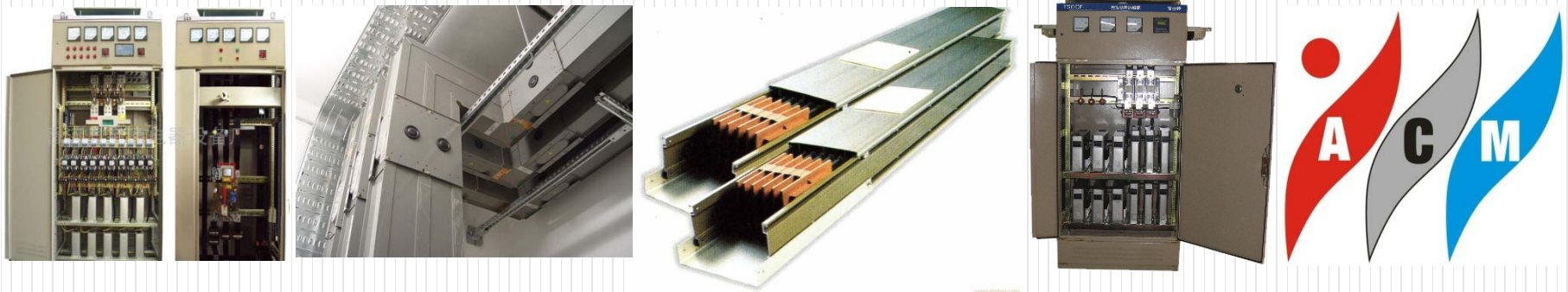


铜铝复合汇流排及开关柜电极

Copper Clad Aluminum Composites Used as Busbar & Switchgear Electrode

铜铝复合母线在新近开发的铝合金外壳密集型汇流排系统应用可满足各类输、配电需求，结构简单、使用方便，以及各类开关柜系统作为电极使用。其特点是运行安全、可靠，极大地节省了成本（比传统的纯铜系统节省 30%~45%）。

Copper clad aluminum composite (“CCAC”) bus is used in the latest developed compact busbar trunking system is applied in the fields of transmitting and distributing power, along with simple structure, convenient installation, it is also used as electrode in various switchgear. It is characterized as safe and reliable running, great saving on cost (about *30%~45% saving* by comparison to traditional copper bus system)

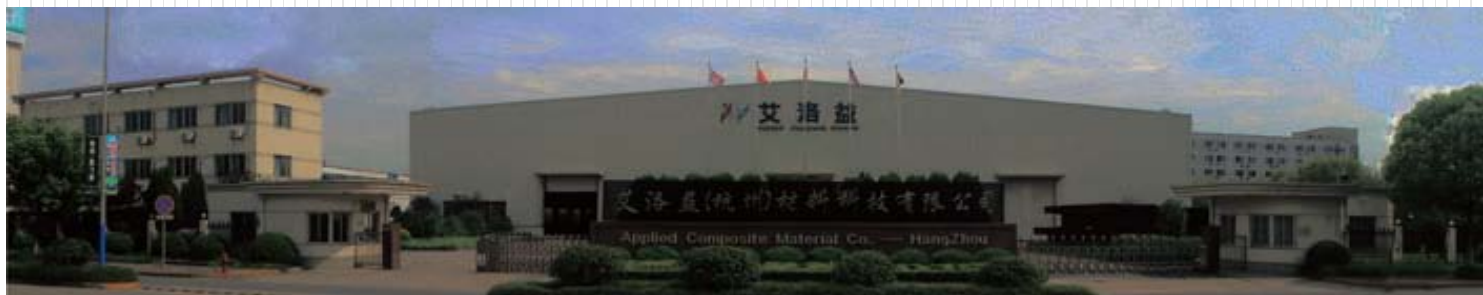


ACM公司介绍

Introduction of ACM

Applied Composite Material Co. (“ACM”) 的前身Sycaching Corp. 1995年创建于美国加利福尼亚州洛杉矶市。经过数次并购与重组，ACM在美国、德国、香港、开曼群岛、中国设有子公司。ACM拥有铜铝复合材料的短流程自动化连续制备工艺及专有设备的美国及全球专利，工厂设有世界一流水准的短流程、自动化连续生产设施，

Sycaching Corp., the predecessor of Applied Composite Material Co. (“ACM”), was established at Los Angeles, California, USA. After several M&A, ACM owns subsidiaries in US, Germany, Hong Kong, Cayman Island, and China at present. The factories are equipped with world-class, large-scale, US and International patented short-flow, continuous automation CCAC processing facilities.

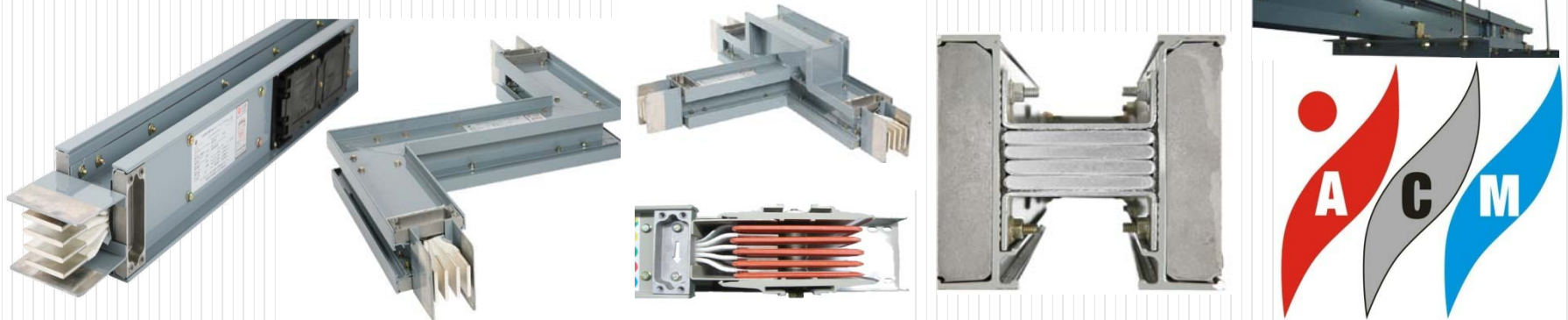


ACM – Robutic 铜铝复合汇流排

ACM-Robutic CCAC Busbar

ACM与奥地利罗伯特在产品配套上建立了全面战略合作伙伴关系，其ACM-KHM母线主要由以下部分组成：* 各种规格铜铝复合母线；* 标准铜铝复合母线与铜母线满足86%载流量关系；* 高强度铝合金母线槽材料；* 双头力矩单螺栓连接器；* 专利技术的插口装置；* 高防护(IP65)装置；* 带操作手柄和机械联锁的插接箱。

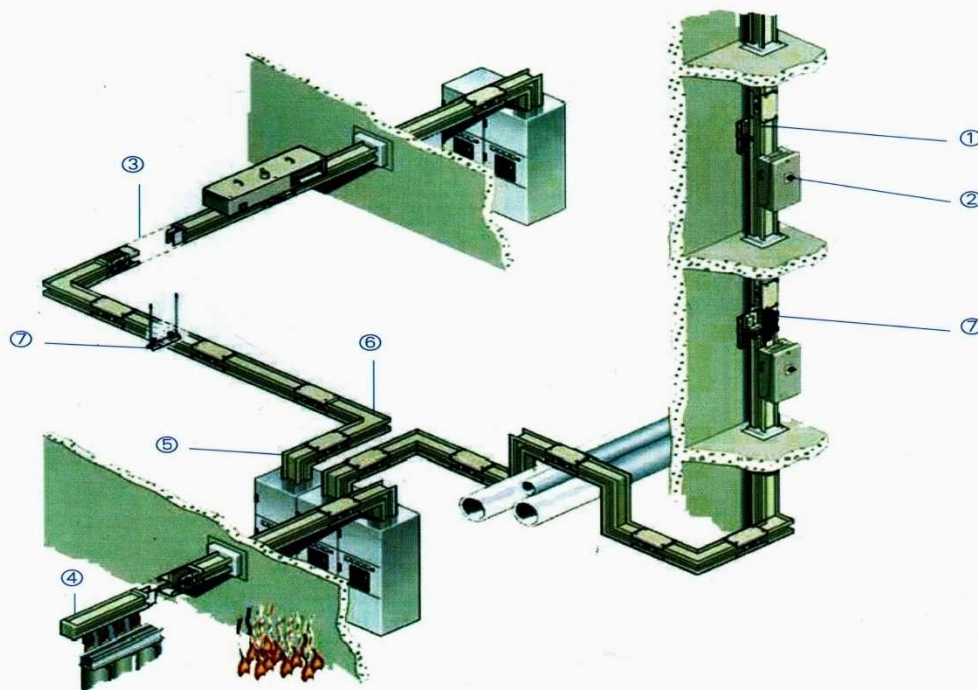
ACM & Robutic are overall strategic partnership alliance on matching products, the ACM-KHM busbar system is composed of following parts: * various specification CCAC bus; * the current-carrying-capacity of same CCAC bus vs. copper bus satisfies the relation of 86%; * high strength aluminum profile extrusion; * double heads and single bolt joint pack; * patented outlet devices; * IP65 devices; * tap-off box with interlock and operating handle.



铜铝复合汇流排系统描述

CCAC Busbar System Overview

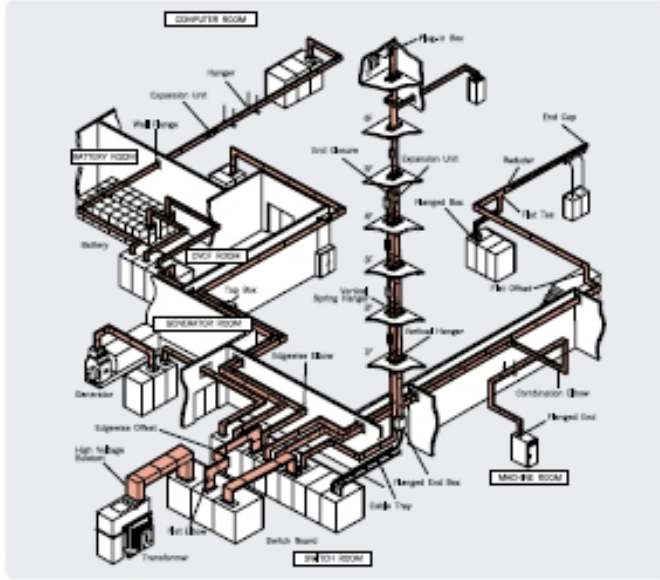
1、直线段单元 Straight trunking units (with or without tap-off points); 2、插接箱单元 Tap-off units; 3、连接器单元 Joint pack units; 4、变压器连接AS单元 Feeder units; 5、低压柜联络单元 Connection to Siemens power distribution boards; 6、换向单元 junction units; 7、安装附件 Additional equipment for wall/ceiling mounting



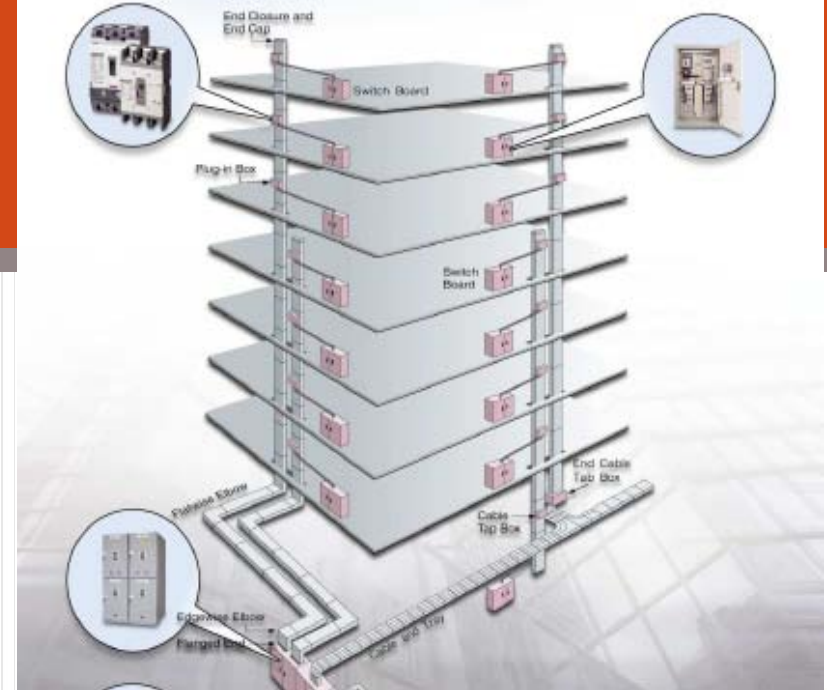
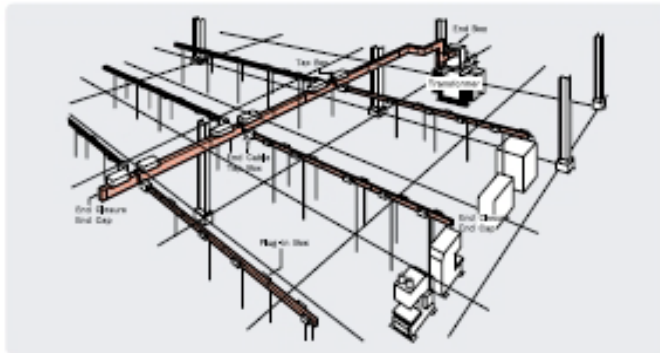
铜铝复合汇流排系统

CCAC Busbar System

Building distribution system



Plant distribution system



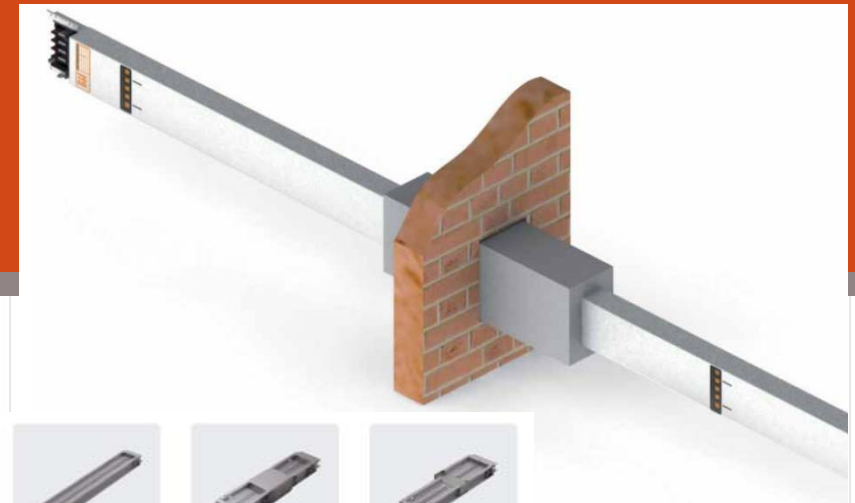
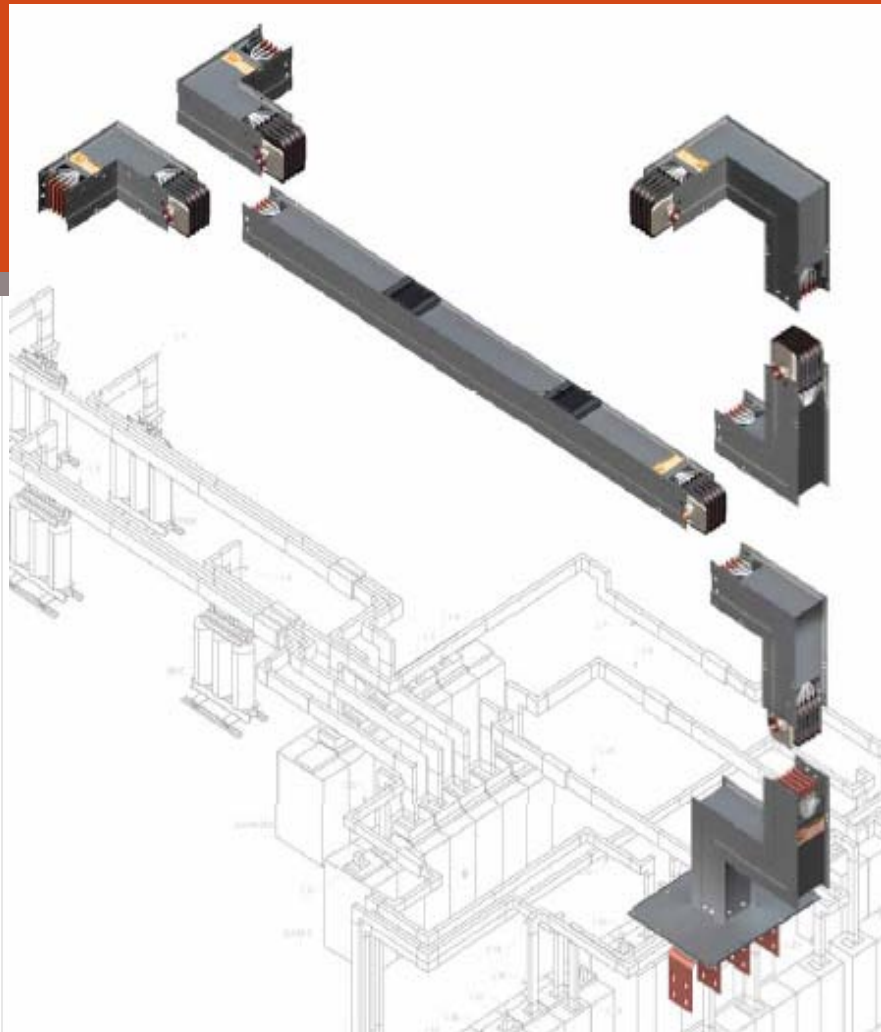
铜铝复合汇流排系统

CCAC Busbar System



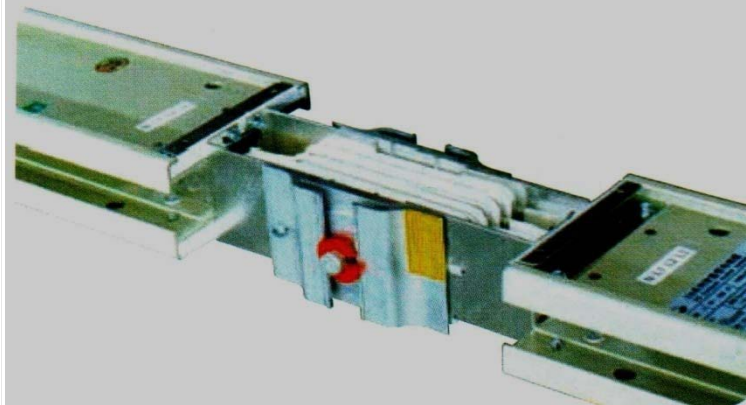
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CCAC Busbar System



铜铝复合汇流排系统

CCAC Busbar System



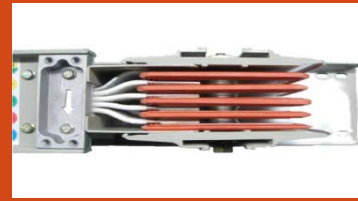
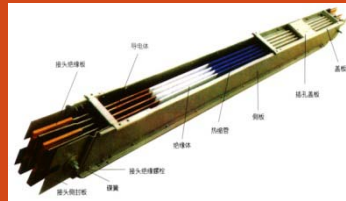
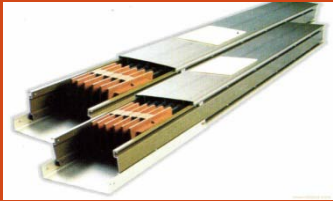
电源开关柜铜铝复合电极

CCAC Used as Switchgear Electrode



电源开关柜铜铝复合电极

CCAC Used as Switchgear Electrode



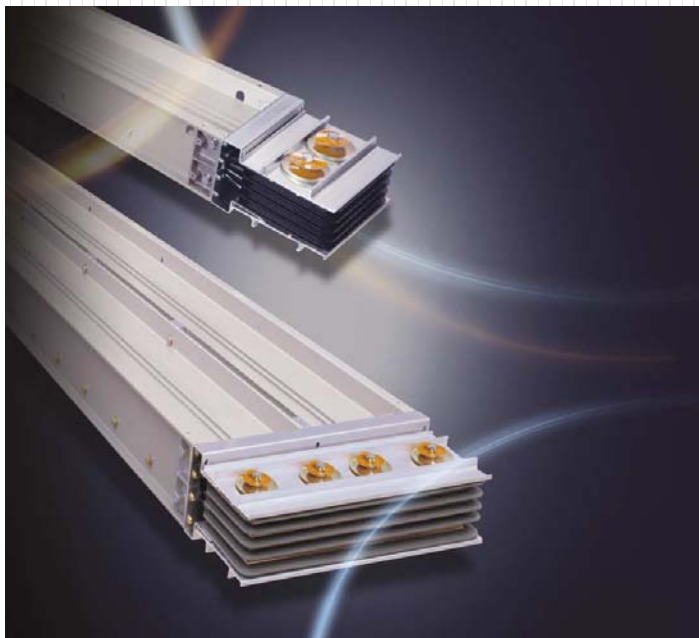
铜铝复合母线的其他应用

Other Applications of CCAC



铜铝复合母线的其他应用

Other Applications of CCAC



谢谢！ Thank You!



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