

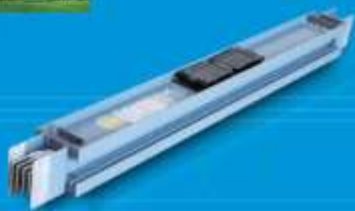


柏亚电气
BOYADIANQI



母线槽系列

BUSWAY SERIES



科技创新 优质服务 追求完美

江苏柏亚电气有限公司
JIANGSU BOYA ELECTRIC CO.,LTD.



以诚待人

以信立企

企业 简介

ENTERPRISE INTRODUCTION

江苏柏亚电气有限公司座落在中国生态示范城市、闻名遐迩的电器之乡——扬州市。公司占地面积3.8万平方米，固定资产投资4000多万元，现有员工280人，其中各类中高级专业人才30余人。

江苏柏亚电气有限公司是专业生产高低压成套设备、输配电设备、母线槽、各式电缆桥架、安全消防触的现代制造业企业。拥有集科研、开发、教育、生产、创新、贸易于一体的输配电、高低压成套设备研发生产应用型厂区。公司先后荣获荣获省市级名牌产品的称号，荣获“重合同、守信用”单位、市级明星企业等称号。

江苏柏亚电气有限公司有着雄厚的技术开发力量和先进的生产、检测设备，公司已率先通过ISO9001质量管理体系、标准化管理体系和计量检测管理体系三大体系并保持良好有效的运行，主营产品均获“CCC”认证、型式试验报告等认证。产品为国内外众多的大型输配电工程项目所采用，广泛应用于电力系统、大型厂矿、机场港口、高档地产、高速公路、机关单位等系统。且与全国众多建筑安装公司、电力安装公司等厂家达成常年供货合作伙伴，产品远销东南亚、中东、东欧、南美、非洲等20多个国家和地区。

江苏柏亚电气有限公司坚持管理精细化、管理科学化、品牌国际化的发展思路；坚持以市场为导向，质量生命，科技为动力，效益为目标的企业经营理念。坚持以一流的品质、合理的价格、完善的服务，创造用户满意工程。

如今，相宜立足经济全球化的战略发展视野，柏亚人有信心完成产品从优质到卓越的蜕变，将产品营销网络推向世界，愿与社会各界精英、有识之士精诚合作，互利互惠，共同发展。为中华民族工业同创辉煌。



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CCX3-1

CCX3-1 铝壳铜母线槽

CCX3-1 AL-Cover Busbar Trunking



■ 系统概述 General Introduction

CCX3-1铝壳母线槽适用于交流三相四线、三相五线制，频率50-60Hz，额定电压至690V，额定工作电流100-5000A的供电系统，作为一种供工业厂房、医院、商场、高层建筑或高科技研发用的低成本、高效率的供电方案，从而使您在性价比方面进行权衡时，整个系统能实现高性价比。

CCX3-1 AL shell busbar channel is used in the system of 3 phases, 4 wires, 3 phases 5 wires, 50-60Hz, with rated current 100-5000A power supply and distribution, as a scheme of low cost and high efficiency for industrial factories, hospitals, stores, highrise buildings and those environment with high-tech, to achieve good cost performance.

■ 结构特点 Structure Features

一、体积小、灵活性高 Small size, good flexibility

紧凑的“三明治”结构，既节省了占用空间，又具有优良的电压降特性。各种功能单元可应用于任何转角和高度的改变。安装于夹层、沿墙等任何建筑空间。

Close sandwich type of structure saves space, and has good performance of reducing voltage. Each functional unit, whose angle and height can be changed, can be installed in interlayer, alongside wall and other architecture.

二、连接方便快捷 Convenient and fast connection

1. 锥形绝缘板加强机械强度，锁压补充保证压力和边锋不起。

2. 大规格碗形锰钢垫圈，确保了接触面压力均匀。

3. 一把普通的“19”扳手就可紧固带有红色指示标志的双头螺栓。当指示标志自然脱落时，无需任何检测工具就可判定连接接头已经紧固。

4. 螺栓可以在维护时再次使用。

5. 接头有 $\pm 15\text{mm}$ 可调节。

1. Cone insulation plate reinforces mechanical strength, the modularized shell guarantees pressure without sharp edge.

2. Big scale bowl type manganese steel washer guarantees contact face even pressure.

3. Common 19 wrench can fix double heads angle bolt with red indication, if the red indication fall off, we can judge that the connection joint is fixed without any other testing tools.

4. Bolts can be reused during maintenance.

5. The joint has adjustable place of $\pm 15\text{mm}$.

三、全铝外壳 Full Al shell

1. 母线槽系统采用重量轻、横过成型的全封闭铝合金型材作为外壳，独特的结构让你不再需要考虑最佳安装位置的任何降容系数。

2. 经过镀锌的全铝外壳能经受1000小时的盐雾试验。

3. 全铝外壳具有极好的抗锈蚀、散热性能和导电性能（整体外壳具有50%的接地容量）。

1. The shell is full close Al which is light and modularized, the special structure is fit for any installation place without thinking of any coefficient of reducing capacitance.

2. Sprayed full Al shell withstand 1000 hours of salt mist test.

3. Full Al shell features dust-proof performances good ventilation and electric conduction.

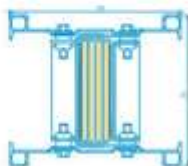
四、优质的导电和绝缘材料 Good electric conduction and insulation

1. 母线槽系统采用优质镀锡或镀银铜排、铝排作为导电材料，导电排的外表面均有良好的防腐保护。
 2. 导电排采用B级（130℃）的热成型聚酰亚胺绝缘材料整体包裹，极大地提高了母线的绝缘强度和抗冲击强度。
 3. 采用环保型绝缘材料，通过ROHS要求的SGS六项物性检测及UL认证。
1. The busbar adopts good copper and aluminum coated with tin or silver, so the coating features good protection of anti-corrosion.
 2. The conductor is wrapped by B class (130°C) Mylnex, which is insulative.
 3. Adopt environmental protection insulative material, which is ROH required SGS 6 items of physical tests and is UL certified.

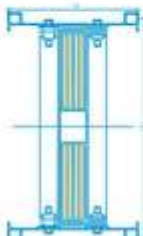
五、箱体箱结构 Jack box structure

1. 母线箱的操作手柄可以安装在箱体的正面或侧面，设置了更精确的分、合闸指示。
 2. 联锁机构用于防止母线箱误合闸和防止未经许可的强电电力行为。
 3. 带锯齿的母线箱设置了专门的母线操作工具。
 4. 接口槽盖板防止手指无意触及导电体。
 5. 内部接地和外壳接地采用专用触点。
1. The knob of jack box is installed in box body neck or side place, clear indication of switch on/off is provided.
 2. Interlock mechanism is provided for fault switch on or other activity of getting power without permission.
 3. Jack box with special fuse tool to get fuse easily.
 4. Modularized cover prevent finger contact conductor unconsciously.
 5. Special contactor is provided for internal earthing and shell earthing.

额定电流(A) Rated current	三相三线制 3 Phases 3 Lines		三相四线制 3 Phases 4 Lines		三相五线制 3 Phases 5 Lines	
	H	重量Weight (kg)	H	重量Weight (kg)	H	重量Weight (kg)
250	80	11.8	80	13	80	13.1
400	80	11.7	80	13.3	80	14.3
530	80	13.3	80	15.3	80	16.5
800	90	15.5	90	18.1	90	19.5
1000	105	17.1	105	21.2	105	23
1250	120	19.7	120	23.8	120	26
1600	155	26.4	155	32.8	155	36
2000	175	29.9	175	37.3	175	41
2500	220	43.3	220	53.1	220	58
3150	360	73.9	360	87.6	360	95
4000	450	107.1	450	126.2	450	136
5000	540	130.2	540	152.7	540	165

■ 技术参数 Technical Parameters


三相四线 100A~2500A



三相四线 3150A~5000A

100A ~ 1250A

额定电流	A	100	250	400	630	800	1000	1250
外形尺寸	mm	—	100×80	100×90	150×90	150×90	150×100	150×100
重量	kg	11.3	13.1	14.3	16.3	18.8	23	28
额定短时耐受电流	kA(1s)	25	25	30	30	30	30	30
额定分断能力	kA(1/2)	0.440	0.381	0.230	0.13	0.087	0.068	0.050
短路容量	MVA	0.44	0.205	0.234	0.128	0.081	0.062	0.05
额定电压	kV	0.388	0.007	0.03	0.014	0.033	0.027	0.022
电压降	U ₁₀₀ ± 0.7 %	0.30	0.36	0.524	0.524	0.602	0.30	0.30
	U ₂₅₀ ± 0.9 %	0.337	0.381	0.544	0.544	0.605	0.304	0.300
	U ₄₀₀ ± 0.9 %	0.33	0.38	0.533	0.533	0.606	0.304	0.304
	U ₆₃₀ ± 0.95 %	0.338	0.385	0.533	0.533	0.604	0.302	0.302

1600A ~ 5000A

额定电流	A	1600	3000	3500	4100	4800	5000	
外形尺寸	mm	—	100×120	100×170	150×220	150×300	150×420	150×540
重量	kg	26	41	58	80	106	140	
额定短时耐受电流	kA(1s)	30	30	30	30	30	30	
额定分断能力	kA(1/2)	0.032	0.003	0.007	0.016	0.012	0.009	
短路容量	MVA	0.25	0.023	0.010	0.014	0.011	0.008	
额定电压	kV	0.314	0.311	0.008	0.007	0.006	0.004	
电压降	U ₁₆₀₀ ± 0.7 %	0.340	0.360	0.30	0.303	0.077	0.073	
	U ₃₀₀₀ ± 0.9 %	0.360	0.360	0.360	0.367	0.007	0.070	
	U ₃₅₀₀ ± 0.9 %	0.360	0.363	0.003	0.360	0.002	0.074	
	U ₄₁₀₀ ± 0.95 %	0.364	0.360	0.003	0.360	0.001	0.074	

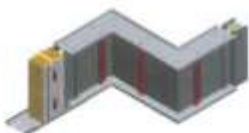
■ 转向单元 Commutation Unit



L型水平弯通(LS)
L type horizontal bend (LS)



L型垂直弯通(LC)
L type vertical bend (LC)



Z型水平弯通(ZS)
Z type horizontal bend (ZS)



Z型垂直弯通(ZC)
Z type vertical bend (ZC)



T型水平弯通(TS)
T type horizontal bend (TS)

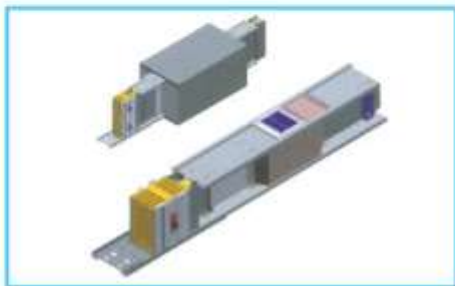


T型垂直弯通(TC)
T type vertical bend (TC)

CCX3-2

CCX3-2密集型铜铝复合母线槽

CCX3-2 Intensive Copper-AL Complex Busbar



■ 产品概述 General Introduction

CCX3-2密集型铜铝复合母线槽系统是一种灵活可靠的配电设备。其完备的分支单元和详细的CAD现场立体走向设计方案，能让您得到一种优化的输电解决方案。来满足您在工程现场的专用设计要求。

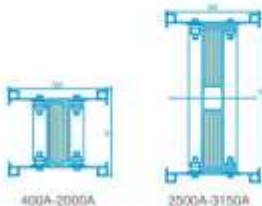
- 结构合理，安装快捷。
- 独特的结构设计，使母线系统拥有超强的抗短路能力和消弧灭弧保护功能。
- 母线槽体积小，并拥有各种灵活的走向功能单元。
- 不管是水平立式安装、水平卧式安装还是竖井垂直安装，均拥有稳定的安装平台，且槽盖不受任何安装形式的影响。

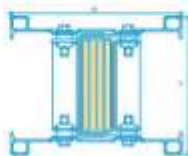
CCX3-2 type Copper & Al complex busbar channel system is very flexible and reliable, with complete branch off units and detailed CAD site 3D dimensional layout scheme, providing you with better electricity distribution solution to meet your special requests at construction site.

- reasonable structure, convenient installation.
- unique structure design features super function of anti-short circuit, removing harmonic wave.
- small size and flexibility, with diversified functional unit.
- No matter it is installed horizontally or vertically, it has stable and reliable installation level, and its load is not affected.

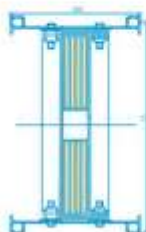
■ CCX3-2型母线槽外型尺寸

CCX3-2 Busbar Channel Size



■ 技术参数 Technical Parameters resistance, reactance, impedance, voltage drop


三相电抗 250A~2000A



三相电抗 2500A~3500A

250A ~ 1000A

额定电流	ϕ	250	400	630	800	1000
外形尺寸 mm	mm	100x80	150x90	180x100	180x120	180x150
重量	kg / m	8.5	7.8	8.7	8.8	12.8
阻抗 Z	$\omega L / \omega$	0.111	0.100	0.100	0.100	0.117
电抗 X	$\omega L / \omega$	0.100	0.100	0.100	0.100	0.114
感抗 X	$\omega L / \omega$	0.020	0.020	0.020	0.020	0.02
电压降 U _{100%} / U _{100%}	%	0.012	0.000	0.110	0.000	0.000

1250A ~ 3000A

额定电流	ϕ	1250	1600	2000	2500	3100	3000
外形尺寸 mm	mm	150x170	180x220	210x200	180x180	180x430	180x340
重量	kg / m	18.1	20.2	24.8	20.9	38.4	41.8
阻抗 Z	$\omega L / \omega$	0.200	0.000	0.020	0.018	0.02	0.018
电抗 X	$\omega L / \omega$	0.000	0.007	0.000	0.007	0.018	0.018
感抗 X	$\omega L / \omega$	0.018	0.01	0.000	0.008	0.000	0.000
电压降 U _{100%} / U _{100%}	%	0.000	0.000	0.007	0.007	0.007	0.007

额定电流 Rated current (A)	三相三线制 3 Phase 3 Lines		三相四线制 3 Phase 4 Lines		三相五线制 3 Phase 5 Lines	
	H	重量 Weight (kg)	H	重量 Weight (kg)	H	重量 Weight (kg)
250	80	4.9	80	5.3	80	5.6
400	90	6.5	90	7.2	90	7.5
630	105	7.3	105	8.2	105	8.7
800	120	8.1	120	9.2	120	9.8
1000	155	10.1	155	11.7	155	12.6
1250	175	13.2	175	15.0	175	16.1
1600	220	16.0	220	18.9	220	20.3
2000	265	18.9	265	22.6	265	24.4
2500	360	24.2	360	28.7	360	30.9
3150	450	30.6	450	36.5	450	38.4
3500	540	36.6	540	44.1	540	47.9

■ CCX3-2型母线槽性能参数表 TLMC Busbar Channel Performance Parameters

400A-1000A

额定电流 Rated current	A	400	630	800	1000
阻抗Z(35°C) Impedance	mΩ/m	0.105	0.105	0.105	0.077
电阻R(35°C) Resistance	mΩ/m	0.102	0.102	0.102	0.074
电抗X(35°C) Reactance	mΩ/m	0.026	0.026	0.026	0.020
电压降(cosφ=0.9) Voltage drop	V/m	0.098	0.113	0.088	0.096

1250A-3150A

额定电流 Rated current	A	1250	1600	2000	2500	3150
阻抗Z(35°C) Impedance	mΩ/m	0.058	0.038	0.029	0.024	0.020
电阻R(35°C) Resistance	mΩ/m	0.056	0.037	0.028	0.023	0.019
电抗X(35°C) Reactance	mΩ/m	0.014	0.010	0.008	0.006	0.005
电压降(cosφ=0.9) Voltage drop	V/m	0.064	0.068	0.093	0.083	0.062

■ 结构配置 Structure

CCX3-2系列母线槽采用合理的“三明治”相线紧密叠压结构设计,使母线槽外形更加紧凑,体积更小,并增强了母线系统的动热稳定性,使得线具有阻抗低、电压降低的优点,杜绝了发生火灾时母线槽“烟囱效应”的形成。

CCX3-2 busbar channel adopts reasonable sandwich type overlaying design, to achieve close and small structure, thermal stability, and to make busbar feature low impedance, voltage dropping to prevent "chimney effect".

■ 母线外壳 Busbar Shell

外壳采用加强型控制钢板型材制成或采用电工用铝合金整体式钢板型材与冷拉钢板型材混合而成，既拥有较高的抗弯强度又具有良好的抗蚀性和极好的散热性、接地性。

The shell reinforced steel sheet of Al alloy integral bar section, so it features good anti-bending and anti-corrosion and good ventilation and earthing.

一、钢制外壳盖侧板用优质钢板制成，比较经济实惠
The cover is also made of good quality steel sheet, which is economical and practical.

二、铝合金外壳 Al shell

1. 整体式铝合金侧板结构，将导体整体包裹在金属侧板内，完全阻止了水汽的渗透和有害微粒的侵入，使母线整体的防护等级达到真正的IP54防护。

2. 特殊的铝壳外壳，形成无磁性阻流圈，可消减小电流母线相间涌流的现象，减少主母排谐波电流的通过，降低上述原因引起的发热现象，降低长距离输电的电压降，显著增强导电能力。

3. 整体式铝壳侧导体的铝制侧板结构，可以从侧板、盖板等多方位直接散热，散发热量，改善母线系统的散热能力，提高载流量。

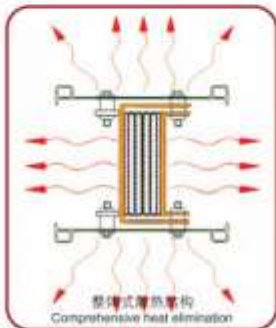
4. 在外壳壳体内构成了整体式接地系统，用户可以选择此具有 >50%相线容量的整体铝质外壳作为接地导体，在发生大容量接地短路故障时，短路电流可先经过大截面的铝质金属外壳作有故障线，保护整条母线系统的安全运行保障作业者的安全。

1. complete Al alloy side plate wraps the conductor, and prevent moisture and air and dust, so that the levels of protection can reach IP54;

2. special Al shell form non-magnetic choke, reducing heavy current busbar phase bow wave and harmonic wave, so as to reduce heat and voltage drop, increase current load.

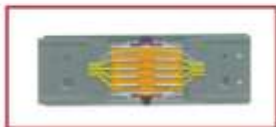
3. side plate can transmit and emit heat from a lot of direction, to improve heat elimination capacity and enhance load current.

4. Comprehensive earthing system; customers can select Al shell which is >50% phase wire capacitance as earthing conductor, in case of heavy current earthing fault, the short circuit current can pass shell and protect the whole busbar channel operation and the operator's safety.



■ 接头组件 Connector

采用两种形式，一种是普通型的，用绝缘螺栓锁紧设计，另一种采用现行国际通用的先进单臂螺栓锁紧设计，即只需用力矩扳手在装置一边对高强螺栓进行锁紧，无需其他辅助工具，详见各规格螺栓规定力矩值。接头箱内也可配备单臂双头力矩螺栓，当锁紧力矩达到定值，螺栓的一个端头将会自动脱开，螺栓尚有另一螺栓头留作将来维修或取用，操作时无须采用力矩扳手。



接头合理的结构设计, 可使母线各单元能从上直接松插入, 两压力板内部的大面积球形轮廓使整个接头内部的接触面压力均匀, 防止震动, 使整个装置各种环境均达到稳定的电气连接, 各种相同规格的接头器具均有互换性, 使母线系统在安装中灵活使用。

2 forms one is common type, is insulated bolt lock design, another is advanced single arm bolt lock design, that is: use a wrench to lock high strength bolt on one side, with no need of other auxiliary tools. detailed in various bolt rated torque, inside the connector, there can be single arm double heads bolts, when lock torque reach a certain value, the bolt's another end will fall off, there is still another end left for maintenance, so there is no need of torque wrench.

Reasonable structural design of connector allow busbar functional unit to plug from above, big ball washer inside the pressure plate guarantees even pressure of contact face, prevent vibration, and make all the environment of all the device reach stable electrical connection, various connectors are universal, and this guarantees flexible installation of busbar system.

■ 普通直线母线单元 Common Straight Busbar Unit

CCX3-2型密集型母线单元为全封闭式, 防护等级IP54, 全铝合金配置的外壳可作为短路接地最短路径, 最大限度的保护用户安全操作, 使用, 标准单元母线长度<3米。

一般配置为垂直立式安装, 也可根据需求水平卧式安装, 每节单元配置一套接头附件。

铜铝复合导体, 200A-2000A为单槽配置,

2500A-3150A为双槽配置。

CCX3-2 intensive insulative busbar is close type with IP54, complete Al alloy shell can be used as the protection incase of short circuit, and protect the operator; the standard unit busbar length is <3 meter.

generally speaking, it is vertically installed, and it can also be installed horizontally according to demands, each unit is provided with a pair of connector.

Al copper conductor: 200A-2000A is single channel,

2500A-3150A is double channel.



■ 直线馈电母线单元(带插孔) Straight Feeding Circuit Busbar Unit

CCX3-2型密集型母线单元为全封闭式, 防护等级IP54, 全铝合金配置的外壳可作为短路接地最短路径, 最大限度的保护用户安全操作, 使用。

可灵活设计插孔位置, 双槽均可设计, 绝缘插孔为先进的防意外触电设计, 插孔间距≥0.5米, 每节母线可按客户要求间隔连接配置插孔。

标准单元母线长度<3米。

一般配置为垂直立式安装, 也可根据需求水平卧式安装。

每节单元配置一套接头附件。

铜铝复合导体, 200A-2000A为单槽配置,

2500A-3150A为双槽配置。



CCK3-2 intensive insulative busbar is close type with IP54, complete Al alloy shell can be used as the protection in case of short circuit, and protect the operator to maximum extent.

Universal designed socket piece has double faces available, insulated jack is contact-proof, jack distance is >0.5 meter, each section of busbar can be provided with continuous jacks according to customer's demands.

the standard (and busbar length is <3 meter;

generally speaking, it is vertically installed, and it can also be installed horizontally according to demands;

Each unit is provided with a pair of connector;

Al copper conductor: 200A-2000A is single channel,

2500A-3150A is double channels.



■ L垂直弯头 L Vertical Elbow

可方便的改变一段母线槽垂直面的走向，
接头附件转移到另一面，也可改变垂直方向走向，
每个弯头配置一套接头附件。

铜铝复合导体，200A-2000A为单槽配置，
2500A-3150A为双槽配置。

单槽母线，L1、L2标准中心长度为0.5米。

双槽母线，L1、L2标准中心长度为0.6米，
参数长度L1、L2也可根据现场的实际情况设定。

Can change a section busbar direction of vertical direction;

If the connecting parts are changed to another and, the vertical direction is changed.

Each elbow is provided with a set of connecting parts;

Al copper conductor: 200A-2000A is single channel,
2500A-3150A is double channels;

Single channel busbar L1,L2 standard center length is 0.5meter;

Double channels busbar L1,L2 standard center length is 0.6 meter;

L1 and L2 is set according to practical situation.

■ L垂直+始端组合弯头 L Vertical Elbow + Initial Combined Elbow

L垂直+始端组合弯头一般用于母线槽十分接近低压柜并且

没有足够空间安装标准始端L垂直弯头的地方。

前面母线槽供与低压配电箱、交流柜低压铜、始端进线柜
及其他配电设备的直接连接。

每个弯头配置一套接头附件。

铜铝复合导体，200A-2000A为单槽配置，
2500A-3150A为双槽配置。

单槽母线，L1 [始端爪长] 标准中心长度为0.2米。

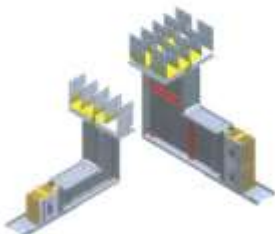
L2、L3标准中心长度为0.5米。

双槽母线，L1 [始端爪长] 标准中心长度为0.2米。

L2、L3标准中心长度为0.5米。

始端爪间标准间距A长度0.1米。

所有参数长度可根据现场的实际情况设定。



L vertical elbow + initial confined elbow is usually used in the place near to LV switchgear and there is no enough room:

Initial busbar can be connected to LV switchgear, transformer, initial advancing wire box and other electrical appliance.

A set of connector for each elbow;

Al copper conductor: 200A-2000A is single channel;

2500A-3150A is double channel;

Single channel busbar L1 standard center length is 0.2 meter

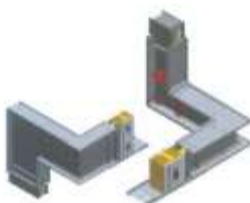
L2, L3 standard length is 0.5 Meter;

Double channels busbar L1 standard center length is 0.2 meter

L2, L3 standard length is 0.5 Meter;

Initial end paw gap standard space A is 0.1meter;

All the length can be adjusted according to the practical situation.



■ L垂直+L水平W组合弯头

L vertical and L horizontal W combined elbow

可方便的改变一段母线槽垂直面转变为水平面的走向。

接头组件转移到另一侧，可形成水平面转变为垂直面的走向配置。

水平弯头为固定的PE在外配置。

每个弯头配置一套接头组件。

铜铝复合导体，200A-2000A为单槽配置。

2500A-3150A为双槽配置。

单槽母线，L1, L2, L3标准中心长度为0.5米。

双槽母线，L1, L2, L3标准中心长度为0.6米。

所有参数长度可根据现场的实际情况设定。

Can change a section busbar direction from vertical to horizontal;

If the connecting parts are changed to another end, the horizontal direction is changed to vertical direction;

Horizontal elbow is fixed PE outside equipment;

Each elbow is equipped with a set of joint assembly;

Copper & Al conductor: 200A-2000A is single channel;

2500A-3150A is double channel;

Single channel busbar L1,L2,L3 standard center length is 0.5meter;

Double channels busbar L1,L2,L3 standard center length is 0.6 meter;

All the length can be adjusted according to the practical situation.

■ L垂直+L水平N组合弯头 L vertical + L horizontal N combined elbow

可方便的改变一段母线槽垂直面转变为水平面的走向。

接头组件转移到另一侧，可形成水平面转变为垂直面的走向配置。

水平弯头为固定的PE在内配置。

每个弯头配置一套接头组件。

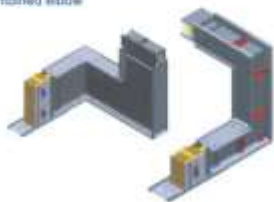
铜铝复合导体，200A-2000A为单槽配置。

2500A-3150A为双槽配置。

单槽母线，L1, L2, L3标准中心长度为0.5米。

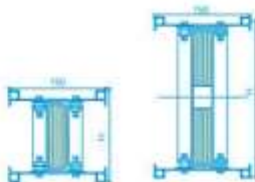
双槽母线，L1, L2, L3标准中心长度为0.6米。

所有参数长度可根据现场实际情况设定。



Can change the direction of busbar channel from vertical to horizontal;
If the connecting parts are changed to another end, the direction is changed;
Horizontal elbow is fixed PE matched;
Each elbow is provided with a set of connecting parts;
All copper conductor: 200A-2000A is single channel,
2500A-3150A is double channels;
Single channel busbar L1,L2,L3 standard center length is 0.5meter;
Double channels busbar L1,L2,L3 standard center length is 0.8 meter;
All the length can be adjusted according to the practical situation.

■ 外形尺寸及重量 Size And Weight



■ 技术参数 Technical Parameters

1. CCX3-2母线槽频率为50-60Hz，额定电流250-3150A，额定绝缘电压1000V以下的三相四线三相五线制供配电设备。
2. 母线槽能承受50Hz，3750V试验电压历时1min无击穿或闪络现象。
3. 母线长期通过额定工作电流时，任何导体温度升不超过60K。
4. 母线槽电流等其它性能表。
1. CCX3-2 busbar channel frequency is 50-60Hz, rated current 250-3150A with rated voltage of 1000V, 3 phases 4 wires and 3 phases 5 wires.
2. Can withstand 50Hz, 3750V test voltage for 1 min without penetration or flash.
3. during long term rated operation, no conductor temperature rise exceeds 60K.
4. busbar channel current and other parameters.

额定工作电流 Rated working current	(A)	250	400	630	800	1000	1250	1600	2000	2500	3150
电阻值 Resistance value	Re10°C/m	18.4	10.9	7.8	5.8	4.5	3.5	2.7	1.9	1.5	1.1
电压降 Voltage drop	V/m	0.078	0.072	0.061	0.078	0.077	0.078	0.07	0.07	0.066	0.055
短路强度(kA) Short circuit strength	峰值(peak)	50	70	70	70	100	100	100	100	175	170
t-ta	有效值(rms)	20	30	30	30	50	50	50	50	80	80

■ 接线箱外形参考尺寸 Jack Box Size For Reference

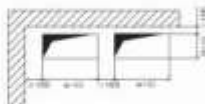
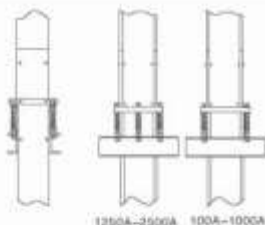
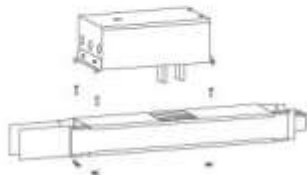
型号 Type	用途 Application	额定电流(A) Rated current	外型参考尺寸 L x W x L size for reference
X-1	从母线槽引以电源分路, 该箱内无开关 Achieve a branch current circuit from busbar channel, there is no switch inside the box.	100	220 x 273 x 430
		250	
		630	
X-2	箱内含有各种塑壳式空气开关, 能对所连接的分支 进行过载和短路保护, 开断容量用户要求选择整 定值 There are various plastic air switches, to protect branches in case of short circuit or overload, the break value can be set according to customer's demands.	100	285 x 273 x 550
		250	335 x 273 x 700
		630	435 x 273 x 1030
		100	295 x 305 x 550
		250	345 x 305 x 715
		630	445 x 305 x 1015
X-3	适用于多回路配电应用, 有多种接线方案 与柜 for multi-loop; and there are several wiring schemes.	100	285 x 273 x 550
		250	335 x 273 x 700
		630	435 x 273 x 1030
X-4	含有各种塑壳式空气开关, 适用于要求高分断能力 的大电流场合, 开断容量用户要求选择整定值 There are various plastic air switches, for high- breaking capacity A.C. circuit, the break value can be set according to customer's demands.	100	265 x 272 x 612
		250	315 x 272 x 792
		630	415 x 272 x 1012

注: 具体外形尺寸按用户选型元器件适当调整。

Attention: the specific size can be adjusted according to the selected components.

安装形式 Installation Type

■ 插接箱安装型式 Jack Box Type



CCX3-2型插接箱根据左图型式安装。先要按母线的相线标志与插接箱相线标志吻合对应后才可插入母线槽，不得带负荷插拔。插入后将固定压板卡牢紧固螺钉，并接好接地线，保持外壳电气绝缘连续性。

CCX3-2 jack box is installed according to the left drawing, the symbols of busbar channels phase and jack box's should be the same, and during plugging, there should be no power, after plugging, press the pressure board onto the fixing box, and connect the earthing wire, keeping the insulation continuity.

■ 垂直(竖井)安装示意图

Vertical Shaft Installation Scheme

母线槽垂直安装为确保安全使用运行。高层建筑的每一楼层或垂直安装高度大于4m时都必须增设弹簧支架，以支撑绝缘的母线槽自身重量，以及垂直调整。

In order to ensure safe operation of vertically installed busbar channel, each floor of highrise or those height more than 4 meters needs spring supporting frame, to support busbar weight and vertical adjustment.

■ CCX3-2母线竖井安装预留孔，及沿墙安装方式示意图

CCX3-2 Busbar Shaft Installation Pre-set Whole, And Alongside Wall Installation Scheme

当相邻母线槽在同一高度都有插接箱时，为保证插接箱使用方便，母线槽间应留有适当距离。

母线水平安装时，可采用吊架或沿墙壁用支架支撑母线槽进行安装敷设，且保证母线槽新制截面的尺寸，使插接箱能顺利插入母线。

Proper space should be reserved between adjacent busbar channels of the same height for safe plugging jack box.

If horizontally installed, suspension installation or supporting frame may be adopted, to ensure the size between busbar channel and wall, to make it convenient for plugging of busbar.

■ 安装验收 Installation And Acceptance

母线槽安装完工后，必须全线检查各个连接点及外壳绝缘线是否牢固和绝缘接电气规范要求，进行全线性检查。

母线槽水平安装或垂直安装时，要求母线槽的水平直线度及垂直度不得超过 $\pm 5/1000$ 。

母线槽全线安装完毕，供电线及分支引线全部切断，不与电器设备相连。常温常压下，用1000V兆欧表测量其相与相、相与地的绝缘电阻 $> 20M\Omega$ 。若温度在 30°C 以上，相对湿度在 90% 以上时，其绝缘电阻不小于 $0.5M\Omega$ 。经过供料后绝缘电阻且能显著上升，绝缘耐压每分钟 2000V 耐压无闪络现象，则可连接通电试运行。

After the finish of installation, according to the electrical requirements, check each connecting joints compliance to see that whether the earthing is firm and whether there is leakage.

After being installed the horizontal straightness or vertically should less than $\pm 5/1000$.

After installation, switch off power end and all off wires. Under common temperature, tested by 1000V megameter: the insulation resistance between phase and phase, between phase and earth should be more than $20M\Omega$. If temperature is over 30°C , the relative humidity is over 90% , the insulation is less than $0.5M\Omega$ after working for a time, the insulation resistance will increase obviously, insulation withstand Voltage $2000\text{V}/\text{min}$, without flash, then it can be switched on for test run.

■ 订货及配送 Order And Transportation

1. 母线槽型号、规格、长度、外壳装要求及交货期。
2. 各组件规格、数量，如有插接箱时，箱内元件规格。
3. 安装走向及插接箱布置图。
4. 具有特殊要求，可作非标设计。
5. 本公司可代办运输，若用户自行运输，应防跌落及撞击。
6. 堆放时应平放，上架不得堆压无关重物，宜远离高温场所。

1. Models, specifications, length, coatings and delivery time.
2. Assembly parts models, quantity, jack box components.
3. Installation paths and jack box layout drawing.
4. Special requests and non-standard design.
5. Whether needs of transportation, if transportation by customers, avoid of falling off and impact.
6. The storage place should not be hot, there should be no heavy block upon the channel.

TLMG

CMC

CMC密集绝缘母线槽

CMC Compact Insulation Busbar Trunking

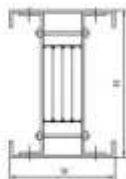
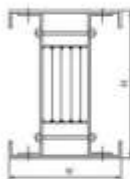


CMC型密集绝缘母线槽适用于交流三相四线或三相五线制配电系统，额定电流250A-5000A，结构采用优质钢制外壳，内部导体采用绝缘材料包裹后紧贴在一起并与外壳接触，具有结构紧凑、散热量大的特点，特别适用于电力变压器和低压配电箱以及重型负载的连接等大电流输电场所使用。

CMC型母线槽直线段标准节长度为2m或3m，连接箱最大分接电流630A，箱内安装元器件可按顾客要求进行选择。

CMC compact insulation busbar used in AC 3 phase 4 lines or 3 phase 5 lines distribution system, rated current is 250A-5000A, the frame is good steel, inner cooper is covered with insulation material and after that they are merged in one and contact frame, it has compact structure, large abstract heat and so on features. It is special used in electrical transformer, LV distribution and heavy load and so on large power transmission place.

Standard node linear measurement is 2m or 3m of the CMC type busbar, the Max. tap off current of the connecting container is 630A, users can chose different device to installation in the inner box at will.


 三相四线
 3 Phase 4 Lines

 三相五线
 3 Phase 5 Lines

符合标准 Applicable standard	IEC60439-1-2, GB7251.1-2, JB/T9662											
额定电流 Rated current I _n (A)	250	400	630	800	1000	1250	1600	2000	2500	3150	4000	5000
额定工作电压 Rated working voltage U _m (V)	380 (400)											
额定绝缘电压 Rated insulation voltage U _i (V)	690 (690)											
额定频率 Rated frequency (Hz)	50 (60)											
额定短时耐受电流 Rated short time with stand current I _{sc} (kA)	30						60			100		
过电压类别 / 污染等级 Over voltage category / Pollution degree	III / 3											
防护等级 Protection grade	IP40, IP54											
外形尺寸 Dimension W × H	三相四线制 3 Phase 4 Lines	140 × 98	140 × 108	160 × 118	160 × 128	180 × 148	180 × 178	198 × 208	198 × 248	198 × 288	198 × 358	198 × 438
	三相五线制 3 Phase 5 Lines	150 × 98	160 × 108	165 × 118	165 × 128	185 × 148	185 × 178	198 × 208	198 × 248	174 × 288	195 × 358	174 × 438
重量 Weight	三相四线制 3 Phase 4 Lines	20	22	23	25	31	38	31	53	63	96	161
	三相五线制 3 Phase 5 Lines	22	25	26	28	35	43	57	62	71	107	174
在50Hz和35℃环境温度时，相对中性线阻抗 When frequency is 50Hz and the temperature is 35℃, the impedance relatively to neutral line												
电阻 Resistance R (mΩ)	0.100	0.074	0.059	0.042	0.035	0.027	0.020	0.015	0.012	0.009	0.007	0.006
电抗 Resistance X (mΩ)	0.120	0.106	0.059	0.050	0.039	0.033	0.025	0.023	0.023	0.024	0.014	0.010
阻抗 Impedance Z (mΩ)	0.157	0.129	0.083	0.060	0.052	0.043	0.032	0.027	0.026	0.026	0.016	0.012
介电强度 Media strength	交流工频电压1分钟有效值 3750V 1min AC Frequency Voltage: 3750V 1min											
绝缘电阻 Insulation Resistance	相与相及相间之间不小于20MΩ Between Phase and phase and enclosure ≥20MΩ											

KFM 空气型母线槽



◆ 单螺栓安装端子

母线槽设计采用了先进的单螺栓安装端子,为母线槽单元连接元件,由于它的特殊构造,可以防止安装时的错误操作。同时只需旋紧一个螺栓,就能可靠地、迅速地两个母线槽单元连接起来。

◆ 高防护等级插孔

母线槽在插孔处设计了安全防护挡板,只有当防护挡板打开时,插接箱才能插入,插孔平时不用时可防挡板拉闭并加铅封锁死,防止了各插孔处灰尘和异物的进入,从而提高了母线槽的防护性能,防止误操作,使母线的安全性得到了极大的提高。

◆ 外壳(防护壳)级次高

母线槽设计5个电流等级,只采用了3个级次的外壳,这样当系统按级等电流变换容量时母线槽无需更换外壳,如400A变630A时,外壳尺寸相同,因此大大方便了安装。

◆ 传输电能大

母线槽设计为分离空气绝缘式,改善了母线槽的散热性,降低了阻抗,达到了母线槽最佳经济输电。

◆ 成套性好

母线槽设计了各种功能的连接单元,可满足所有输配电工程的需要。

KFM 空气型母线槽



A 直线型母线
Straight Line Type of bus



LS 垂直弯头
Elbow Bend



Z62 型弯头
Type Z Bend



各种角度形状的连接元件
Connective Components in Various Forms



TST 型弯头
Type T Bend



连接箱
Connection Box

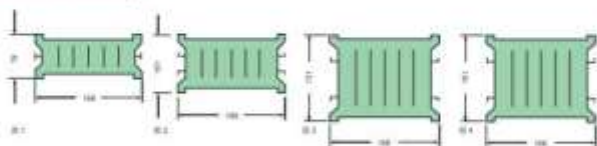


连接端子
Connective Terminal

KFM 空气型母线槽

外型尺寸及重量

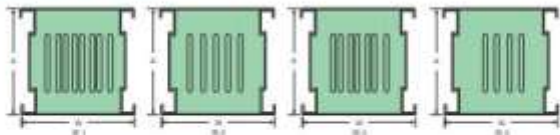
Dimension and Weight



电流 (A) Current(A)	三相五线 Kg/m 3 phases 5 wires	三相四线 Kg/m 3 phases 4 wires	序号 (Drawing)
250	17.168	15.618	1
400	19.315	16.800	2
630	23.745	20.465	2
800	28.714	24.615	3
1000	34.004	29.125	3
1250	41.615	33.803	4
1600	48.865	40.025	4

外型尺寸及重量

Dimension and Weight



电流 (A) Current(A)	三相四线 3 phases 4 wires		三相五线 3 phases 5 wires	
	外形 W×H	重量 (Kg/m)	外形 W×H	重量 (Kg/m)
1250	190×180(图1) (Drawing1)	42.92	205×180(图3) (Drawing3)	46.80
1600	190×180(图1) (Drawing1)	48.28	205×180(图3) (Drawing3)	52.16
2000	190×180(图1) (Drawing1)	53.60	215×180(图3) (Drawing3)	57.50
2500	240×180(图2) (Drawing2)	66.58	255×180(图4) (Drawing4)	72.48
3150	240×180(图2) (Drawing2)	78.55	255×180(图4) (Drawing4)	82.45
4000	240×180(图2) (Drawing2)	85.54	255×180(图4) (Drawing4)	89.44

屏蔽绝缘管型母线

适用范围

主要用于各类变电站、火电、水电及电厂
适用于钢铁厂和大型化工厂等污染、腐蚀严重场合的自备电站

产品优点

载流量大,集肤效应低,功率损失小
散热条件好,温升低
允许位方 σ 大,机械强度高
电力绝缘性能强,绝缘材料耐热系数高
抗电晕放电能力强,不受环境干扰,可靠性高
布置精确,安装方便,免维护运行
产品使用寿命大于30年



Shield-insulation Circular Bus duct

This type bus duct is used for current transforming between the transformer and switchgear in the transformer substations, thermal power plants, and hydropower stations. Also it can be used in the self-power stations which are the corrosive and contaminative places such as the steel and iron works and large chemical plants.

规格型号(KV/A) Specification	绝缘等级(KV) Insulation Grade	热稳定电流(4S)(KA) Rated short time withstand current	动稳定电流(KA) Rated momentary withstand current	温升(K) Temperature rise	局部放电(KV μ p) Partial discharge
10 / 4000	42 / 105	50	125	≤ 40	1.5I _m /V ³ , ≤ 20
35 / 3150	95 / 200	50	125	≤ 40	1.5I _m /V ³ , ≤ 20

规格型号(KV/A) Specification	管径 Material	导体规格 mm Conductor	截面积 mm ² Area of section	弯曲半径 r mm Bending radius	间距 mm Space	间距 σ Type
10 / 4000	铜 Cu	$\Phi 100 \times 10$	2826	450	≥ 225	≤ 8
	铝 Al	$\Phi 120 \times 15$	4848	450	≥ 225	≤ 6
35 / 3150	铜 Cu	$\Phi 100 \times 8$	2311	450	≥ 225	≤ 8
	铝 Al	$\Phi 100 \times 15$	4883	450	≥ 225	≤ 6

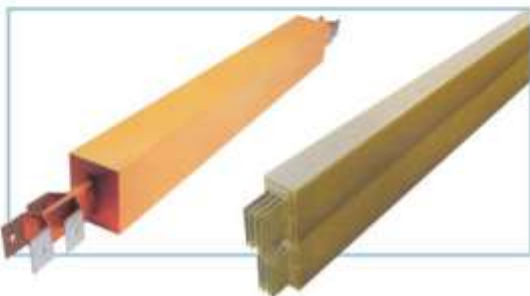
※ 在保证导体载流量的情况下,导体规格可以进行协商调整。

※ The specification of the conductor can be adjusted, under the circumstances of guaranteeing the conductor's ampacity is qualified.

FSMC

FSMC防水母线槽

FSMC Water-proof Busbar



- 外壳采用不饱和聚酯树脂加石棉粉等无机材料整体浇筑而成
 - 树脂中添加光稳定剂和阻燃剂，提高了母线的抗老化性能和阻燃性能
 - 树脂外壳可长期用于户外及有腐蚀性气体环境中，也可加制金属外壳更能延长使用寿命
 - 母线系统一经安装使用后，无须维护保养
 - 母线防护等级为IP68
 - 母线铜排采用聚酰亚胺(黄金带)增加绝缘，绝缘等级为H级
-
- Enclosure is made of unsaturated polyester resin and asbestos powder etc which is cast
 - Add light stabilizer and burn check, rise the anti-ageing and anti-combustibility
 - The enclosure can be used outdoors and in aggressive gas environment, can also be enclosed in metallic cover in order to make the service life longer
 - Once the busbar trunking system is mounted and used, it is maintenance-free
 - Degree of protection is IP68
 - The Cu busbar is insulated with polyimide, it's insulating degree is H


母槽槽结构及尺寸表 The Table of Busbar Trunking System Structures and Sizes

外形尺寸 Dimension	W × H	125 × 118	128 × 118	128 × 118	128 × 148	128 × 148	128 × 188	128 × 188	
额定电流 Rated current	A	350	400	430	600	1000	1250	1600	
额定电压 Rated voltage	V	750	750	750	750	750	750	750	
阻抗 Z Impedance	mΩ/m	0.1341	0.1085	0.0897	0.0699	0.0568	0.0412	0.0323	
电阻 R Resistance	mΩ/m	0.1306	0.105	0.0806	0.0609	0.0349	0.0388	0.0290	
电抗 X Reactance	mΩ/m	0.0305	0.0273	0.0269	0.0205	0.0152	0.0159	0.0125	
电压降 Voltage Drop	cosφ = 0.7	I ² (R + jX)	0.1951	0.1811	0.1371	0.1064	0.0854	0.0642	0.0515
	cosφ = 0.8		0.2127	0.1739	0.1466	0.1182	0.0919	0.0662	0.0542
	cosφ = 0.9		0.2267	0.1843	0.1538	0.1198	0.1871	0.071	0.0559
	cosφ = 1		0.2260	0.1818	0.1483	0.1109	0.1901	0.0672	0.0518
母线重量 Weight of busbar	kg/m	26.25	28.5	31.2	34.8	44.4	59.55	89.15	

外形尺寸 Dimension	W × H	128 × 208	128 × 258	328 × 188	328 × 228	328 × 258	528 × 238	528 × 358	
额定电流 Rated current	A	2000	2500	3200	4000	5000	6300	7500	
额定电压 Rated voltage	V	750	750	750	750	750	750	750	
阻抗 Z Impedance	mΩ/m	0.0243	0.021	0.0161	0.0120	0.0105	0.0081	0.007	
电阻 R Resistance	mΩ/m	0.0222	0.0193	0.0149	0.0111	0.0095	0.0073	0.0064	
电抗 X Reactance	mΩ/m	0.01	0.0084	0.0062	0.005	0.0042	0.0034	0.0028	
电压降 Voltage Drop	cosφ = 0.7	I ² (R + jX)	0.0390	0.0338	0.0258	0.0196	0.0168	0.0131	0.0112
	cosφ = 0.8		0.0412	0.0355	0.0271	0.0206	0.0177	0.0137	0.0118
	cosφ = 0.9		0.0422	0.0364	0.028	0.0211	0.0182	0.014	0.0121
	cosφ = 1		0.0385	0.0334	0.0258	0.0182	0.0167	0.0128	0.0111
母线重量 Weight of busbar	kg/m	90.9	101.65	136.3	181.8	203.7	272.7	305.55	

NHMC

NHMC系列耐火型母线槽

NHMC Series Fire Bearing Busbar



NHMC系列耐火型母线槽是我公司结合密集型母线槽的结构特点，采用防火隔热、阻燃材料自行研制的产品。具有结构紧凑、体积小、耐高温、耐火、传输容量大等优点。主要应用于高层建筑、重要的控制中心、地铁等人流量大的公共场所和其它防火要求较高的场所。使用该产品能保证在发生火灾时维持一段时间的供电，并有足够的时间启动灭火设备、排烟通风、疏散人员，尽可能地减少人员伤亡和财产损失。

NHMC series fire bearing busbar used fire prevention and heat isolation, to make by themselves. Such products have many characterics, such as compact structure, small volume, high temperature resistance, fire prevention. It is mainly used in public and other place fire prevention high required where people are in large flowing. Using such products can keep electricity supplying for one section time, it has enough time to start usher which put out fire, smoke displacing and air ventilating, people scattering. It can reduce people injured and fortune damaged.

BMC-3A

BMC-3A空气绝缘母线槽

BMC-3A Air Insulation Busbar Trunking



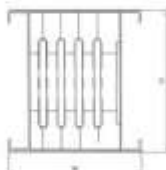
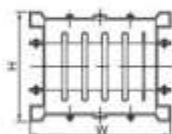
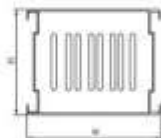
BMC-3A系列母线槽适用于交流三相四线、三相五线制、频率50-60Hz、额定电压至660V、额定工作电流250-5000A的供电系统。承担配电任务，用于低压配电屏与大、中型负载的连接，作为大电流的输电。用于电力变压器与低压配电屏以及重型负载的连接。主要应用于现代化的车间、汽车制造厂、电机制造业的电焊钳、工业用电炉、厂房和高层建筑等。

该系列母线槽适合大跨距安装且安装极为方便，结构安全可靠，布线灵活，互换性强。

BMC-3A series busbar applies to distribution system of AC 3 phases 4 lines, 3 phases 5 lines, frequency 50-60Hz, rated voltage 660V below, rated current 250-5000A. It is the connecting part between LV distribution board and heavy, medium load. It is the connecting part between transformer and LV distribution board and heavy board. It mainly applies to modern workshop, auto manufacture, the welding cable for electrical manufacture, electric cooker used in industry, factory building and high building.

This busbar suit for long span installation, convenience installation, extremely safety reliable, flexible to arrange line, compatibility.




BMC 5线制
BMC 5 lines

250A-1000A

1250A-5000A
BMC三相带N线制
BMC 3 phases 4 line

符合标准 Approve standard	IEC60439-1-2, GB7251.1-2, JB/T8511											
额定电流 Rated current (A)	250	400	630	800	1000	1250	1600	2000	2500	3150	4000	5000
额定工作电压 Rated working voltage (kV)	380/400V											
额定绝缘电压 Rated insulation voltage (kV)	690/690V											
额定频率 Rated frequency (Hz)	50/60Hz											
额定短时耐受电流 Rated short time with stand current (kA)	30							50		100		
过电压类别 / 污染等级 Over voltage category / pollution degree	III / 3											
防护等级 Protection grade	IP40											
外形尺寸 Dimension (mm)	180 × 102	180 × 112	180 × 122	180 × 132	180 × 152	180 × 180	180 × 202	180 × 252	210 × 254	210 × 304	195 × 300	180 × 370
重量 Weight (kg)	21	23	24	26	31	40	51	56	65	101	129	168
阻抗 Impedance (mΩ)	23	26	27	29	35	44	57	64	73	109	152	181
注:50Hz和30°C环境温度时, 相对于中性线阻抗 When frequency is 50Hz and the temperature is 30°C, the impedance relative to neutral line												
电阻 Resistance R (mΩ)	0.118	0.099	0.085	0.048	0.036	0.030	0.034	0.020	0.017	0.012	0.008	0.0074
电抗 Reactance X (mΩ)	0.056	0.063	0.067	0.056	0.045	0.038	0.035	0.028	0.022	0.041	0.030	0.028
阻抗 Impedance Z (mΩ)	0.146	0.129	0.093	0.074	0.057	0.041	0.042	0.034	0.026	0.042	0.031	0.030
介电强度 Media Strength	交流工频电压/有效值: 3750V/1min AC Frequency Voltage: 3750V/1min											
绝缘电阻 Insulation Resistance	相间和相对地之间不小于20MΩ Between Phase and phase and phase to (20MΩ)											

CFW-2A

CFW-2A 高强封闭母线槽

CFW-2A High Strength Enclosed Busbar Trunking



CFW-2A高精度封闭母线槽额定工作电流由250A-4000A，外壳采用冷轧冲压型材拼装，铜排采用环保型绝缘材料整体包裹，该新型绝缘材料耐热等级达B级（130℃），极大地保证了母线的动热稳定性。母线结构强度高，标准节可制成3m、6m、8m（按用户需求选择），可根据客户要求任意位置设置插口，插口间最小间距不小于0.6m。

该型母线槽分三相四线或三相五线两种型式，具有安装迅速、使用方便、安全可靠等特点，适用于汽车制造车间、大型商场、展览馆、体育馆、机场及高层建筑等场所供电使用。

CFW-2A high strength enclosed busbar rated working current from 250A to 4000A, frame material is cold rolling steel, cooper is cover with protect environment type insulation material, the heat-resisting degree of the material can up to B degree (130°C), it can protect the commitment moving and heating stability mostly of the busbar. High strength structure, standard node is 3m, 6m, 8m(chose according to user), it can set socket from user's request, between the socket the least pitch is not less than 0.6m.

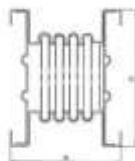
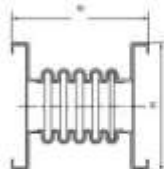
The busbar has two type: 3 phase 4 wire and 3 phase 5wire, it has many features such as: facility use, safety and reliable, faster installation and so on, it can be used in car manufacture house, large emporium, exhibition building, PE building, airport, high building so on to be used as electric power supply.



连接容器单元 Connecting container unit



始端容器单元 Beginning container unit


 三相五线制
3 phase 4.5 lines

 三相五线制
3 phase 5 lines

符合标准 Applicable standard	GB1983-1-2, GB7251.1-2, JB/T9662, JB/T9811											
额定电流 Rated current (A)	250	400	630	800	1000	1250	1600	2000	2500	3150	4000	
额定工作电压 Rated working voltage (kV)	380 (400)											
额定绝缘电压 Rated insulation voltage (kV)	660 (690)											
额定频率 Rated frequency (Hz)	50 (60)											
额定短时耐受电流 Rated short time with stand current (kA)	30						65			80		
过电压类别 / 污染等级 Over voltage category / pollution degree	III / 3											
防护等级 Protection grade	IP40, IP54											
外形尺寸 Dimension	三相四线制 3 phase 4 lines	152 × 81	152 × 101	152 × 111	152 × 126	152 × 141	152 × 176	152 × 196	152 × 221	152 × 320	152 × 380	152 × 430
	三相五线制 3 phase 5 lines	171 × 81	171 × 101	171 × 111	171 × 126	171 × 141	171 × 176	171 × 196	171 × 221	171 × 320	171 × 380	171 × 430
重量 Weight (kg)	三相四线制 3 phase 4 lines	18	21.5	24	28	32	42	45	76	90	107	121
	三相五线制 3 phase 5 lines	21	24	27	31.5	35.5	48	58	84	88	120	137
在 50Hz/35°C 环境温度时，相对中性线阻抗 When frequency is 50Hz and the temperature is 35°C, the impedance relative to neutral line												
电阻 Resistance R (mΩ)	0.111	0.079	0.059	0.042	0.035	0.025	0.020	0.016	0.013	0.009	0.007	
电抗 Resistance X (mΩ)	0.144	0.109	0.058	0.050	0.039	0.032	0.025	0.024	0.023	0.020	0.016	
阻抗 Impedance Z (mΩ)	0.182	0.134	0.083	0.060	0.052	0.041	0.032	0.029	0.029	0.022	0.017	
介电常数 Media Strength	交流工频电压 / 有效值 / 3750V 1min AC Frequency Voltage: 3750V 1min											
绝缘电阻 Insulation Resistance	极与极及外壳之间不小于 20MΩ Between Phase and phase and enclosure > 20MΩ											

GM

GM共箱封闭母线槽

GM Common Enclosure Busbar Trunking



高压大电流设备的理想选择

It is the ideal choice of HV large current

GM三相共箱封闭母线系统外壳采用铝合金或弱磁钢板(不锈钢)制造,内部导体为矩形、槽形母排(铜或铝),系统额定电流可达6300A,额定工作电压达35KV,该系统可广泛应用于发电机出线与变压器之间或变压器与高压配电柜之间的电流传输,也可应用于发电机交、直流励磁回线,变电所所用电引入或其它工业、民用设施的电源引线。

The frame of GM three phase in common enclosure busbar is aluminum alloy or weak magnetic steel plate (stainless steel), inner shape conductor is rectangle, channel type (copper or ally), system current can up to 6300A, rated working current up to 35KV, it is widely used between outgoing of power and transformer or between transformer and HV switchgear to transmission current, it can also used in DC or AC field circuit of power, it can be used as power lead wire of electric substation or other industry, domestic facilities.

安全可靠

Safety and reliable

母线导体采用优质高强度大跨度绝缘子支撑,使系统具有较高的抗短路与电动性能,合理的绝缘子支撑间距的设置,充分避免了系统共振的危险,全连续外壳并多点接地方式杜绝了人身触电危险。

Support bus bar conductor is high-grade high strength large span insulator porcelain, it can make the system has good ability of prevent short circuit, and the installation support distance of insulator porcelain avoid the danger of system resonance, all over continuative frame and multiple earthing point prevent people contact power.


GGM 不焊相共母线柜
GGM non-welded phase common enclosure bus

GGM 焊相共母线柜
GGM welded phase common enclosure bus

提升位 Lower temperature rise

母线外壳采用铝合金或弱磁材料可避免感应涡流发热, 降低其温升, 同时提高了散热性能, 导体接头表面采用镀银或镀锡处理, 降低了接触电阻, 使导体接头处拥有较小的温升, 提高了导电性能。

The frame of bus bar is aluminum alloy or weak magnetic material can prevent induction eddy current heat, lowering temperature rise, and improves abstract heat ability, conductor connection face is covered with silver, it can lowering contact resistance, make the connection point has litter temperature rise, improve conducting power.

防护等级高, 运行维护方便 High protection degrees, easy operation and maintain

母线柜大防护等级达 IP54, 可消除外界湿气, 灰尘及异物引起的接地故障, 在系统两端或重要部位可设置温度窗, 温度警示标记, 或温度远程监测装置等, 运行维护方便。

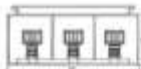
Protection degrees of the frame up to IP54, it can elimination outside moisture, dust and earthing trouble because of outside objects. Watching window, temperature remind lap or long distance supervisory control device of temperature test and so on to the two point of system or important area.



I 型



II 型



III 型



IV 型

符合标准 Applicable standard	IEC364-5-54, GB/T8348, JB/T9639				
环境温度 Environment temperature	-40 ~ +40				
相对湿度 Relative humidity	年平均值不大于95%, 月平均值不大于90% Only the average is not above 95%, monthly the average is not above 90%				
防护等级 Protection grade	IP40, IP54				
额定电压 Rated voltage	3.15	6.3	10.5	35	
最高工作电压 Max work voltage	3.45	6.8	11.5	40.5	
绝缘等级 Insulated grade	18/40	23/60	37/75	60/185	
额定频率 Rated frequency (Hz)	50(60)				
额定工作电流 Rated work electric current	外形尺寸 (W × H) (mm × mm) Cabinet size				
1000-3000	A	1 750 × 600 ② 850 × 320 ③ 1000 × 440	1 800 × 560 ② 1080 × 480 ③ 1400 × 520	1 800 × 560 ② 1200 × 560 ③ 1400 × 580	1 1500 × 620 ② 1800 × 680
3500-4000	B	1 750 × 440 ② 850 × 480 ③ 1000 × 440	1 800 × 560 ② 1080 × 480 ③ 1400 × 520	1 900 × 580 ② 1200 × 560 ③ 1400 × 580	
4000	A	1 750 × 440 ② 850 × 480 ③ 1000 × 440	1 900 × 560 ② 1080 × 480 ③ 1400 × 520	1 900 × 580 ② 1200 × 560 ③ 1400 × 580	
5000	A	1 1400 × 600	1 1600 × 700	1 1800 × 700	
6000	A	1 1400 × 680	1 1600 × 780	1 1800 × 780	

ZM-3A

快速安装、流线化设计的ZM型照明母线系统

Faster installation, ZM-3A Type Lighting Busbar System of Flow Line Design



ZM-3A型照明母线系统额定工作电流为25A~125A。该系统特别适用于大开间场所的照明供电，如：大型商场、超市、展览厅、车站、机场、办公楼、工业厂房等。该系统提供的防护等级为IP54，能在比较潮湿或较多粉尘的环境中使用。

The rated working current of ZM-3A type lighting busbar system is 25A-125A, it is used in lighting of big house, such as: big emporium, supermarket, exposition hall, station, airport, office building, factor house and so on. The system's protecting grade is IP54, it can work in the environments of most moisture or lots of fragment.

可靠的流线化设计

Reliable streamline design

ZM-3A型照明母线外形美观，结构紧凑，单元间连接采用专用连接器，接口分布均匀，用户可就近取电。系统配置齐全，配置有专用吊架及灯具吊架等，可满足各种类型灯具的吊架。

ZM-3A type lighting busbar has beautiful appearance, impact structure, between unit it use special connector to connect. Uniformity socket, user can use power as near as possible. It has fully system, and has special hanger and lamp hanger and so on, they can meet with all kinds of type lighting fixture.

插座可靠，安装快捷

Reliable socket, faster installation

ZM-3A型照明母线设有电流分接插头装置，可有效保证插接可靠性。专用连接器使安装过程简单、快捷，不需专用工具。

Current tap joint of ZM-3A type lighting busbar has pin device, it can make socket reliably, and special connection can make the installation process easy and faster, not use special device.

诚 信 高 效 求 实 进 取



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