波罗 欧帝马斯配电柜

配电柜系列
Distribution Cabinet Series



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美嘉科技(鎮江)有限公司
MEGA TECHNOLOGY (ZHENJIANG) CO.,LTD.
衆孚企業有限公司
OPTIMUS TECHNOLOGY CO.,LTD.
美嘉能源（泰國）有限公司
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歐帝馬斯電力技術有限公司(印度)
OPTIMUS POWERTECH PRIVATE LIMITED(INDIA)

概 述>>>
General Description

美嘉科技（镇江）有限公司主要设计制造中压成套开关设备：KYN28-24中压柜、KYN61-40.5中压柜与低压成套开关设备：ATS双电源配电箱、MNS低压抽出式开关柜、GGD交流低压配电柜、GCS低压抽出式开关柜、GCK低压抽出式开关柜、JXF非标配电箱、GXL落地配电箱和PZ-30壁挂式配电箱。

公司生产的配电柜及配电箱在出厂前均经过严格测试，严谨的国际化设计方案，使用简单易行，可以很轻松地满足设计院及用户的各种要求。

美嘉科技(镇江)有限公司设计的高低压配电产品，以高防护等级适用于沙漠、油田、化工、轻纺、建材、粮食等粉尘多、污染重、环境恶劣的照明和动力配电场所。

美嘉科技结合国际高端设计方案制作的动力照明配电箱适用于各种工业建筑及民用住宅等环境较好的场所。箱体形式及结构特点为设计单位及用户提供了更大的选择空间，尤其是对于同一项目有多种应用场合需要时，美嘉科技种类齐全的配电箱系统将使您的方案设计更为得心应手。

在配电领域，我们为您提供的不仅仅是产品，从咨询、规划、设计、制造直到试运行、售后服务、我们为用户提供一切需要的技术支持。美嘉科技(镇江)有限公司永远是您最可信赖的合作伙伴。



Mega Technology (Zhen Jiang) Co., Ltd. the main design and manufacture medium voltage switchgear: KYN28-24 medium voltage switchgear, KYN61-40.5 medium voltage switchgear and low-voltage switchgear equipment: ATS(Double power distribution box)、MNS(drawable type low voltage switchgear)、GGD（low-voltage AC power distributing box）、GCS(drawable type low voltage switchgear)、GCK(drawable type low voltage switchgear)、JXF(Non-standard distribution box)、GXL(ground distribution box) and PZ-30(wall distribution box).

The company production of power distribution cabinet, power distribution box are rigorously tested before leaving the factory, the international design rigorous, the use of simple, can easily meet a variety of Design)Institute and the user's requirements.

Mega Technology (Zhen Jiang) Co. Ltd., low-voltage distribution products design, with a high level of protection for the desert, oil, chemical, textile, building materials, food, dust, heavy pollution, environment lightingand power distribution sites.

Our technology combined with dynamic lighting distribution box international high-end design scheme made applicable to places of various industrial buildings and residential environment good. Form and structure characteristics of box provides more choices for Design Institute and the user, especially for the same project has many application situations, distribution box system, a variety of mega technology will enable the design of the programme you are more comfortable.

In power distribution field, we supply you with not only products, from consultation, engineering, manufactureto test running, you could get complete support and service form us. Mega Technology (Zhen Jiang) Co, Ltd. is always the most reliable and closed partner of you.

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Optimus PRO

KYN28-24金属铠装移开式开关设备

KYN28-24 Metal armored removal switchgear series

一、总 则 General

概 述 General introduction

KYN28-24金属铠装移开式开关设备（简称：KYN28-24开关柜）是三相交流户内成套配电装置。适用于额定电压为24kV单母线及单母线分段电力系统，具有完善的“五防”功能。主要用于电厂、变电站、工矿企业及高层建筑中，作为接受和分配电能之用，并具有对电路进行控制、保护和监测等功能。

KYN28-24 metal armored removable switchgear series (shortened form: KYN28-24 switchgear) is a three-phase AC indoor complete power distribution device, suitable for single-bus and single-bus segmented power systems with a rated voltage of 24KV. The perfect "five defenses" function is mainly used in power plants, substations, industrial and mining enterprises and high-rise buildings for receiving and distributing electrical energy, and has the function of controlling, protecting and monitoring circuits.



产品型号及含义 Product model and meaning

K Y N 28 – 24 / □ – □

- K：铠装式 Metal Armored type
- Y：移开式 Removable type
- N：户内 Indoor
- 28：设计序号 Design Serial Number
- 24：额定电压 Rated voltage
- □（/ 后）：额定电流 Rated current
- □（– 后）：额定短路开断电流 Rated short-circuit breaking current

适用标准

KYN28-24开关柜满足下列国内外标准
IEC60298,IEC60694,IEC62271-100GB3906GB/T11022.GB/T 1984,DL404等.

工作条件

正常工作条件

◇KYN28-24开关柜正常工作条件如下

环境温度:

最高温度	+40℃
日平均值不大于	+35℃
最低温度	-15℃

环境湿度:

日平均相对湿度	95%及以下
月平均相对湿度	90%及以下

安装场所的最大海拔高度: 1000m

地震烈度不超过8度,没有火灾、爆炸危险,没有严重污秽及化学腐蚀的场所。

◇特殊工作条件

对于超出上述正常工作条件的特殊工作环境,订货时必须向制造厂咨询或协商。

*当安装场所的海拔高于1000m时,必须考虑空气介质强度的降低对绝缘水平的影响。

*若环境温度超出极限值,则必须在母线和分支母线的设计上加以补偿或限制载流量。在柜内安装通风装置将有利于开关柜散热。

◇特别注意事项:

中国许多地区的湿度较高,温度波动速度较快且幅度较大,开关柜在这种气候环境下运行,就有凝露的危险,因此开关柜在备用和运行状态下,用户应保证加热器全天候投入!但在大电流(如1600A以上负荷电流)运行中,可以不投入。

Applicable standards

KYN28-24 switchgear meets the following domestic and foreign standards IEC60298, IEC60694,IEC62271-100GB3906GB/T11022.GB/T1984,DL404,etc.

Working conditions

◇Normal working conditions

The normal working conditions of KYN28-24 switchgear are as follows

Ambient temperature:

Max Temperature:	+40℃
Daily average value is not greater than	+35℃
Min temperature:	-15℃

Environment humidity:

Daily average relative humidity:	95% and below
Monthly average relative humidity :	90% and below

Maximum Altitude of Installation Site: 1000m

The earthquake intensity does not exceed 8 degrees, there is no fire and explosion danger, and there is no place with severe pollution and chemical corrosion.

◇Special working conditions

For special working environments beyond the above normal working conditions, you must consult or negotiate with the manufacturer when placing an order..

*When the altitude of the installation site is higher than 1000m, the influence of the reduction of the strength of the air medium on the insulation level must be considered.

*If the ambient temperature exceeds the limit value, the design of the busbar and branch bus bar must be compensated or the current carrying capacity must be limited. Install ventilation equipment in the cabinet

The installation will help the switchgear to dissipate heat.

◇Special attention items:

Many regions of China have high humidity, rapid temperature fluctuations and large amplitudes. When the switchgear is operated in this climate, there is a danger of condensation. Therefore, the user should ensure the heater in the standby and operating state All-weather investment! But in the high current (such as 1600A load current) operation, you can not invest.

二、技术数据 Technical data

KYN28-24开关柜主要技术参数 KYN28-24 switchgear main technical parameters
断路器柜主要技术参数 Main technical parameters of circuit breaker cabinet

额定电压 Rated voltage		kV	24
额定绝缘水平 Rated Insulation Level	1min工频耐压(有效值) 1min power frequency withstand voltage (effective value)	kV	65
	雷电冲击耐压(峰值) Lightning impulse withstand voltage(peak)	kV	125
额定频率 Rated frequency		Hz	50
主母线额定电流 Rated current of main bus		A	1250,1600,2000,2500,3150,4000
分支母线额定电流 Branch bus rated current		A	630,1250,1600,2000,2500,3150,4000
额定短时耐受电流(有效值) ,4秒 Rated short-time withstand current (RMS), 4 seconds		kA	20,25,31.5
额定峰值耐受电流(峰值) Rated peak withstand current (peak)		kA	50,63,80

KYN61-40.5金属铠装移开式开关设备

KYN61-40.5 metal armored removable switchgear series

一、总 则 General

■ 概 述

KYN61-40.5金属铠装移开式开关设备简称:(KYN61-40.5开关柜)是公司总结同类产品基础上设计开发的先进户内成套配电设备,适用于三相交流50Hz额定电压为40.5kV的单母线及单母线分段电力系统,具有完善的“五防”功能。主要用于电厂、变电站、工矿企业及高层建筑中,作为接受和分配电能之用,并具有对电路进行控制、保护和监测等功能。



■ General introduction

KYN61-40.5 Metal Armored Removable Switchgear’s abbreviation:KYN61-40.5 switchgear) is an advanced indoor complete power distribution equipment designed and developed on the basis of the company's summary of similar products.It is suitable for three-phase AC 50Hz rated voltage 40.5kv single bus and single bus section power system, with perfect "five protection" function. It is mainly used in power plants, substations, industrial and mining enterprises, and high-rise buildings. It is used for receiving and distributing electrical energy, and has functions such as controlling, protecting and monitoring circuits.

■ 产品型号及含义 Product model and meaning

K Y N 61 – 40.5 / □ – □

- K Y N: 铠装式 Metal Armored type
- K Y: 移开式 Removable type
- K Y N: 户内 Indoor
- 61: 设计序号 Design Serial Number
- 40.5: 额定电压 Rated voltage
- /: 额定电流 Rated current
- –: 额定短路开断电流 Rated short-circuit breaking current

■ 设计制造标准及规范 Design and manufacturing standards and specifications

KYN61-40.5开关柜主要符合下列标准和规范 但不限于此:
KYN61-40.5 switchgear mainly meets the following standards and specifications but is not limited to this:

IEC60298-1990	额定电压1kV以上52kV及以下交流金属封闭开关设备和控制设备 AC metal-enclosed switchgear and control equipment with rated voltages from 1kV to 52kV
IEC60694-1996	高压开关设备和控制设备标准的共用技术要求 High-voltage switchgear and control equipment
IEC62271-100-2008	高压开关设备和控制设备 High-voltage switchgear and control equipment
IEC6056-1987	高压交流断路器 HV AC circuit breaker
GB3906-2006	3.6~40.5kV交流金属封闭开关设备和控制设备 3.6 ~ 40.5kV AC metal-enclosed switchgear and control equipment
GB/T11022-1999	高压开关设备和控制设备标准的共用技术要求 Common technical requirements for high-voltage switchgear and control equipment standards
GB1984-2003	交流高压断路器 AC high voltage circuit breaker
DL/T404-2007	3.6~40.5kV交流金属封闭开关设备和控制设备 3.6 ~ 40.5kV AC metal-enclosed switchgear and control equipment

使用条件
Design and manufacturing standards and specifications

◇1.4.1正常使用条件

环境温度:

最高环境温度	+40℃
最低环境温度	-15℃
环境湿度:	日平均相对95%及以下
	月平均相对90%及以下

安装场所的最大海拔高度 1000m

地震烈度不超过8度,没有火灾,爆炸危险,没有严重污秽及化学腐蚀的场所。

◇1.4.2特殊使用条件

对于超出上述正常使用条件的特殊使用环境,用户在订货时可向我公司垂询,共同协商.例如:当开关柜安装的海拔高度超过1000米时:设备安装在高盐雾,高温或高湿环境下时等.

为防止凝露现象的产生,开关柜内设置电加热器。当开关柜处于备用状态时,应及时投入使用。正常工作时.应视实际情况适时投入使用。

◇1.4.1 Normal use conditions

Ambient temperature:

Max Ambient temperature : + 40℃

Min Ambient temperature: -15℃

Ambient humidity: daily average relative: 95% and below

Monthly average relative: 90% and below

Maximum altitude of the installation site: 1000m

The earthquake intensity does not exceed 8 degrees, there is no fire, explosion danger, and no place with severe pollution and chemical corrosion.

◇1.4.2 Special use conditions

For special use environments beyond the above normal use conditions, users can inquire and negotiate with our company when ordering. For example: When the altitude of the switchgear installation exceeds 1000 meters: the equipment is installed in high salt fog, high temperature or high humidity etc.

To prevent the occurrence of condensation, an electric heater is installed in the switchgear. When the switchgear is in a standby state, it should be put into use in time. In normal work, it should be put into use in a timely manner according to the actual situation.

二、技术数据 Technical Data

2.1 KYN61-40.5开关柜主要技术参数

2.1 Main technical parameters of KYN61-40.5 switchgear

项目 project		单位 unit	主要技术参数 The main technical parameters
额定电压 Rated voltage		kV	40.5
额定绝缘水平 Rated insulation level	1min工频耐压(有效值) 1min power frequency withstand voltage (effective value)	kV	95
	雷电冲击耐压(峰值) Lightning impulse withstand voltage (peak)	kV	185
额定频率 Rated frequency		Hz	50,60
主母线额定电流 Rated current of main bus		A	630, 1250, 1600, 2000, 2500, 3150
分支母线额定电流 Rated current of branch bus		A	630, 1250, 1600, 2000, 2500, 3150
额定短时耐受电流(有效值),4秒 Rated short-time withstand current (effective values), 4 seconds		kA	16,20,25,31.5
额定峰值耐受电流(峰值) Rated peak withstand current (peak)		kA	40,50,63,80
操作电源电压 Operating power voltage		V	DC110V / 220V, AC220V
外壳防护等级 Protection level			IP4X
断路器门打开时防护等级 Protection level when circuit breaker door is opened			IP2X

需采用强制风冷装置 Requires forced air cooling device

2.2 开关柜外形尺寸及重量

2.2 Dimensions and weight of switchgear

项目 project	单位 unit	主要技术参数 The main technical parameters
宽度 Width（W）	mm	1200,1400*,1600*
深度 Depth（D）	mm	2750
高度（H）	mm	2600/2750
重量 weight	kg	850~1850

*采用国产真空断路器
* Using domestic vacuum circuit breaker

**所有变压器柜宽度
** All transformer cabinet widths

特殊方案条件下,订货时需向制造厂核实具体开关柜尺寸。

Under special program conditions, the specific switch cabinet size needs to be verified with the manufacturer when ordering.

GGD型交流低压配电柜

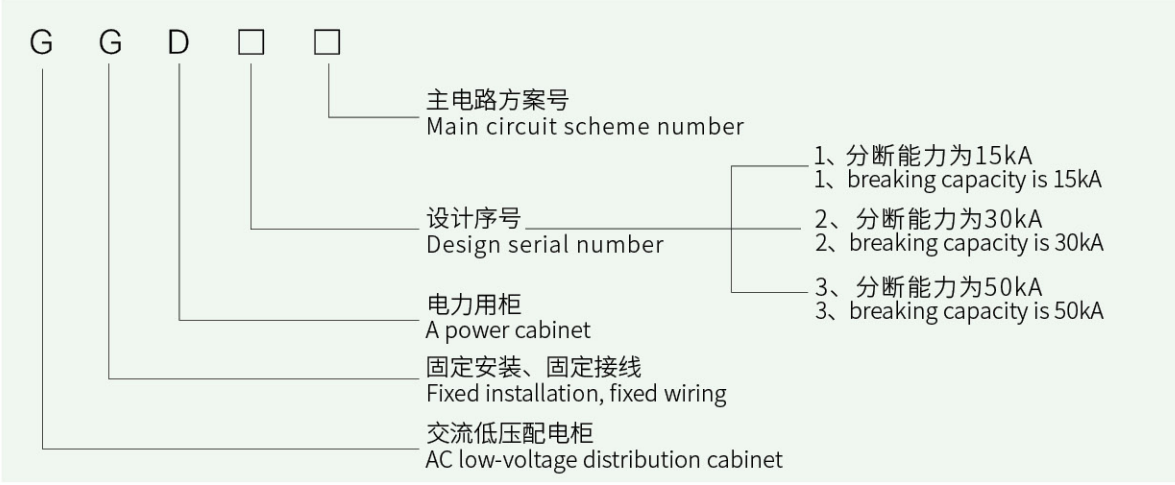
GGD type AC low voltage distribution cabinet series

一、总 则 Technical data

GGD型交流低压配电柜是一种组合式低压配电柜。由能源部低压成套开关设备联合设计研制组(简称NLS)完成设计和研制,目前在全国范围内已广泛使用。

GGD AC low-voltage power distribution cabinet is a combined low-voltage power distribution cabinet. The design and development of the low-voltage complete switchgear has been completed by joint design and development group (NLS) of the Ministry of Energy and has been widely used throughout the country.

二、型号说明 Model description



三、用 途 Uses

GGD型交流低压配电柜适用于发电厂,变电站,厂矿企业等电力用户的交流50Hz,额定工作电压380V,额定工作电流至6300A的配电系统,作为动力,照明及配电设备的电能转换,分配与控制之用。

GGD型交流低压配电柜是本着安全,经济.合理,可靠的原则设计的低压配电柜。产品具有分断能力高,动热稳定性好、电气方案灵活,组合方便、系列性、实用性强.结构新颖,防护等级高等特点。可作为低压成套开关设备的更新换代产品使用。

GGD型交流低压配电柜符合IEC439《低压成套开关设备和控制设备》、GB7251《低压成套开关设备》等标准。

GGD type AC low-voltage power distribution cabinet is suitable for power distribution systems such as power plants, substations, factories and mining enterprises with AC 50Hz, rated working voltage 380V, and rated working current to 6300A.As power, lighting and power distribution equipment for power conversion, distribution and control.

GGD type AC low-voltage power distribution cabinet is a low-voltage power distribution cabinet designed in accordance with the principles of safety, economy, reasonableness and reliability. The product has the characteristics of high breaking capacity, good dynamic and thermal stability, flexible electrical scheme, convenient combination, strong series and practicality, novel structure and high protection level. It can be used as a replacement product of low-voltage complete switchgear.

GGD type AC low-voltage power distribution cabinet complies with IEC439《Low-voltage complete switchgear and control equipment》 , GB7251《Low-voltage complete switchgear》and other standards.

四、使用条件 Use conditions

1. 周围空气温度不高于+40℃,不低于-5℃.
2. 户内安装,使用地点的海拔高度不超过2000m。
3. 周围空气相对湿度在最高温度为+40℃时不超过50% 在较低温度时允许有较大的相对湿度。
4. 设备安装时与垂直面的倾斜度不超过5%。
5. 设备应安装在无剧烈震动和冲击的地方,以及不足使电器元件受到腐蚀的场所。
6. 用户有特殊的要求时可与我公司协商解决。

1.The ambient air temperature is not higher than + 40℃ and not lower than -5℃.
2.indoor installation, the altitude of the place of use does not exceed 2000m.
3.The relative humidity of the surrounding air does not exceed 50% at the maximum temperature of + 40'C. At relatively low temperatures, greater relative humidity is allowed.
4.When the equipment is installed, the inclination with the vertical plane does not exceed 5%.
5.The equipment should be installed in the place without severe vibration and impact, and places where electrical components will not be corroded.
6.users have special requirements can be resolved through consultation with our company.

五、电气性能 Electrical performance

1. 额定绝缘电压 Rated insulation voltage 660V
2. 额定工作频率 Rated operating frequency 50Hz
3. 辅助电路的工作电压 Working voltage of auxiliary circuit
   交流 AC:110V 220V 380V
   直流 DC:110V 220V
4. 基本电气参数 Basic electrical parameters

型号 model	额定电压 Rated voltage（V）	额定电流 Rated current（A）	额定短路开断电流 Rated short-circuit breaking current（kA）	额定短时耐受电流（1s） Rated short-time withstand current（kA）	额定峰值耐受电流 Rated peak withstand current（kA）
GGD1	380	1000	15	15	30
		600(630)			
		400			
GGD2	380	1500(1600)	30	30	63
		2000			
GGD3	380	6300	50	50	105
		4000			
		2500			

5.主电路方案 Main circuit scheme

GGD柜的主电路方案包括:1.架空受电; 2.电缆受电; 3.备用电源受电; 4.联络; 5.空气开关馈电; 6.刀熔开关馈电; 7.限流型空气开关馈电; 8.接触器馈电; 9.熔断器馈电; 10.照明; 11.无功功率补偿柜。共129个方案,298个规格。

其中 GGD1型 49个方案 123个规格
GGD2型 53个方案 107个规格
GGD3型 27个方案 68个规格

根据广大设计使用部门的意见,增加了发电厂需要的方案.额定电流增加至6300A,适合3150KVA及以下的配电变压器选用。

The main circuit scheme of the GGD cabinet includes: 1. Overhead power receiving; 2. Cable power receiving; 3. Standby power receiving power; 4. Contact; 5. Air switch feeding; 6.Knife-fuse switch feed; 7. Current-limiting air switch feed; 8. Contactor feed; 9. Fuse feed; 10. Lighting; 11. Reactive power compensation cabinet. Total 129 programs, 298 specifications.

Of which GGD1 type 49 solutions 123 specifications
GGD2 type 53 solutions 107 specifications
GGD3 type 27 solutions 68 specifications

According to the opinions of the majority of design and use departments, the scheme required by the power plant has been increased. The rated current has been increased to 6300A, which is suitable for the selection of distribution transformers of 3150KVA and below.

6.辅助电路方案 Auxiliary circuit scheme

辅助电路的设计分供用电方案和发电厂方案两部分。柜内有足够的空间安装二次元件,同时NLS还开发研制了专用的LMZ3D型电流互感器已满足发电厂和特殊用户附设继电保护时的需要。

The design of the auxiliary circuit is divided into two parts: power supply scheme and power plant scheme. There is enough space in the cabinet to install the secondary components. At the same time, NLS has also developed a special LMZ3D type current transformer that has met the needs of power plants and special users when attaching relay protection.

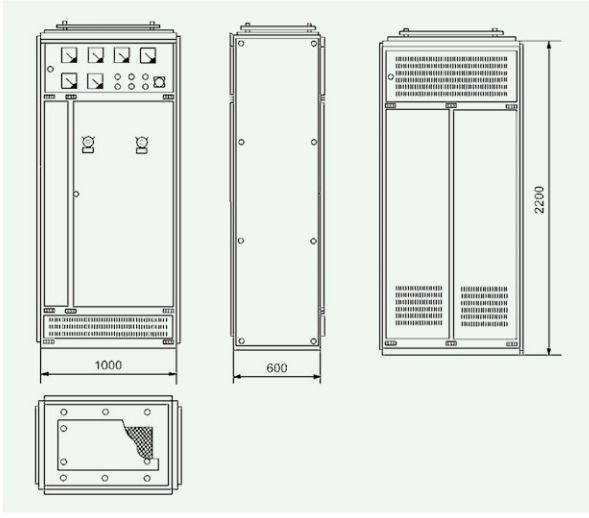
7.主母线 Main bus

考虑到价格比和以铝代铜的可行性,额定电流在1500A及以下时采用单铝排母线.额定电流大于1500时采用双铜排母线。

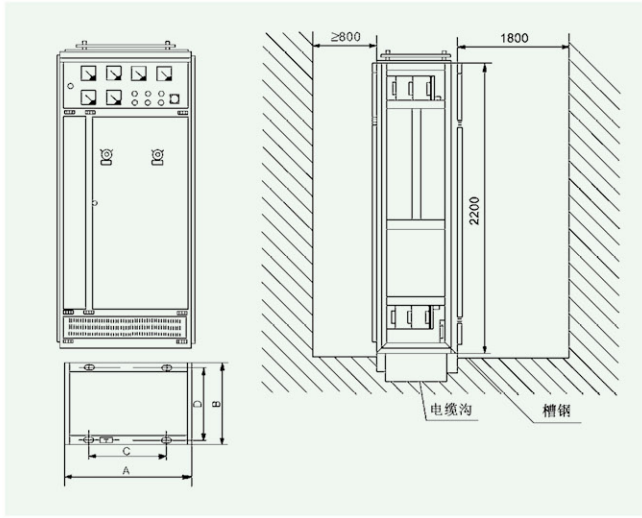
母线的搭接面均采用搪锡工艺处理。

Considering the price ratio and the feasibility of replacing copper of aluminum, a single aluminum bus bar is used when the rated current is 1500A and below. The rated current is greater than 1500A using double copper busbar.

The overlap surfaces of the busbars are all treated with tin plating.



外形尺寸图
Outer dimension drawing



安装示意图
Installation diagram

产品代号	A	B	C	D
GGD 06	600	600	450	556
GGD 06A	600	800	450	756
GGD 08	800	600	650	556
GGD 08A	800	800	650	756
GGD 10	1000	600	850	556
GGD 10A	1000	800	850	756
GGD 12	1200	800	1050	756

MNS 低压抽出式开关柜
MNS low-voltage withdrawable switchgear

一、总则 General

■ 适用范围 Scope of application

ＭＮＳ低压抽出式开关柜由动力中心柜（ＰＣ）和电动机控制中心柜（ＭＣＣ）两部分组成。适用于交流５０ＨＺ－６０ＨＺ，额定工作电压６９０Ｖ及以下的控配电系统，用于所有发电，配电和电力使用的场合。如：

MNS low-voltage withdrawable switchgear is composed of power center cabinet (PC) and motor control center cabinet (MCC). It is suitable for the control and distribution system with AC 50Hz ~ 60Hz and rated working voltage of 690V and below. It is used in all occasions of power generation, power distribution and electric use. Such as:

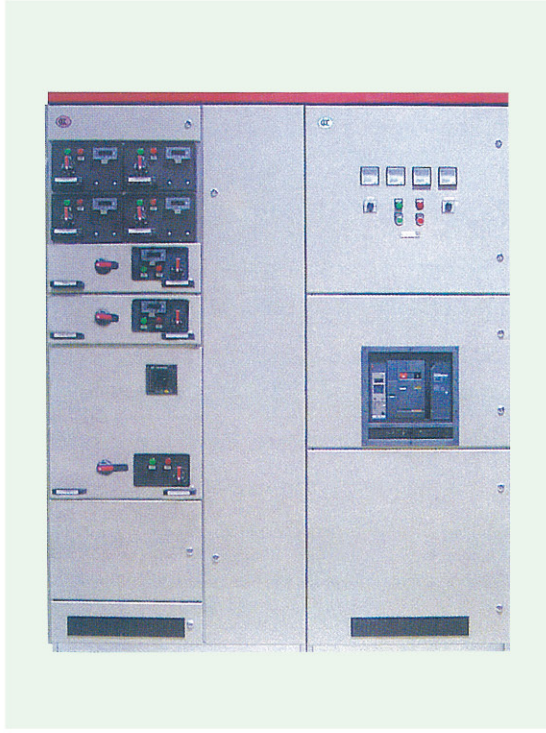
☆ 主、副动力柜、配电柜
Main and auxiliary power cabinets and power distribution cabinets
☆ 电动机供电和电动机控制系统
Motor power supply and motor control system
☆ 开环或闭环控制系统电子柜
Open-loop or closed-loop control system
☆ 公用事业 Utilities treatment
☆ 电力系统 Power system
☆ 石油化工 Petrochemical industry
☆ 船舶、石油钻井平台 Ships, oil rigs
☆ 工矿企业 Industrial and mining enterprises
☆ 污水处理 sewage treatment
☆ 建筑物、住宅等 buildings, houses, etc.

二、技术数据 Technical data

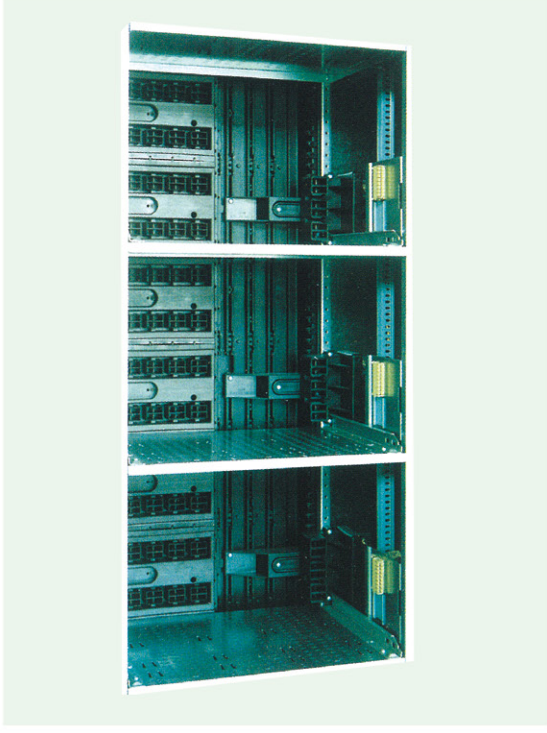
符合标准 Comply with the standard	GB7251.1-1997 IEC/EN60439-1 第500部分并通过型式试验(TTA) Part 500 and passed the type Test (TTA)		
安装条件 Installation conditions 环境温度 Ambient temperature 相对湿度 Relative humidity 海拔高度 Altitude	户内 indoors -5℃/40℃,24小时最高平均温度不高于45℃ -5℃/40℃,the highest average temperature of 24 hours is not higher than 45 ℃. 50%(40℃) ≤2000m		
防护等级 Protection level	IP30、IP40、IP54		
尺寸 Dimensions	2200×400(600、800、1000、1200)×600(800、100) (高×宽×深) (height x width x depth)		
内部分隔 Internal partition	型式1到型式4b Type 1 to type 4b		
额定电压 Rated voltage 额定绝缘电压 Rated insulation voltage 额定频率 Rated frequency 短时耐压 Short-time withstand voltage 冲击耐压 Impact withstand voltage	400V/690V 690V 50Hz/60Hz 3000V(1min) 8kV		
主母线 Main busbar	额定电流 rated current	A	≤6300A
	额定短时耐受电流 Rated short-time withstand current	Icw kA/1s	55-100
	额定峰值耐受电流 Rated peak withstand current	Ipk kA	105-250
垂直母线 Vertical busbar	额定电流 rated current	A	≤1000A
	额定短时耐受电流 Rated short-time withstand current	Icw kA/1s	60
	额定峰值耐受电流 Rated peak withstand current	Ipk kA	130-150



阻燃型塑料功能板中的垂直母线
Vertical busbar in flame-retardant plastic function board



MNS抽出式开关柜（侧出线）
MNS withdrawable switchgear (side outlet)



8E、16E、24E装置小室
8E、16E、24E、Small device room



8E／4、8E／2装置小室、电缆和控制线连接（侧出线）
8E / 4、8E / 2 Small device room、cable and control line connection (side outlet)

GCK低压抽出式开关柜
GCK low-voltage withdrawable switchgear

一、用途与特点 Uses and features

GCK低压抽出式开关柜由动力配电中心(MCC)两部分组成，适用于发电厂、变电站、工矿企业等电力用户作为交流50Hz，最大工作电压至660V，最大工作电流至3150A的配电系统中，作为动力配电,电动力控制及照明等配电设备的电能转换分配控制之用。

本系产品具有分段能力高，动热稳定性好，结构先进、合理，电气方案切合实际、系列性，通用性强、各种方案单元任意组合,一台柜体所容的回路较多，节省占地面积，外形美观，防护等级高，安全可靠，维护方便等特点。

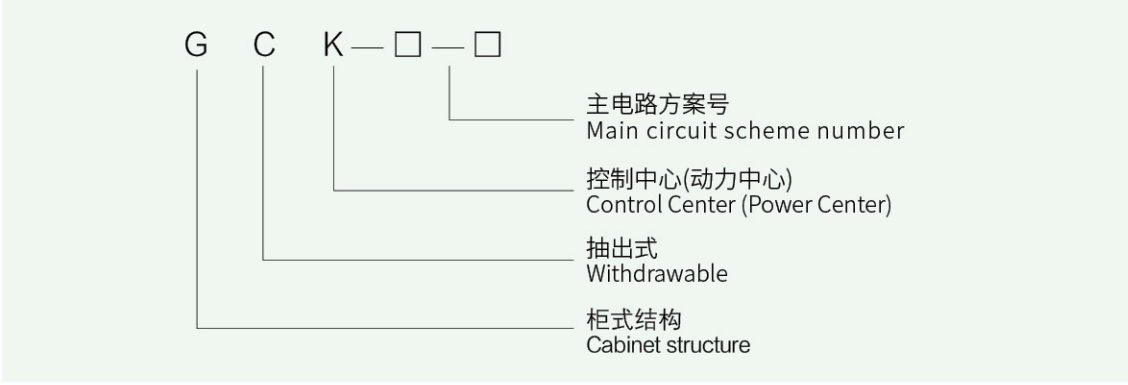
本产品符合IEC60439，NEMA ICS3-322标准，也符合GB7251-1《低压成套开关设备和控制设备》国家标准。

GCK low-voltage withdrawable switchgear is composed of two parts of the power distribution center (MCC), which is suitable for power plants. substations, industrial and mining enterprises and other power users are used as AC 50Hz, the maximum working voltage is 660V, and the maximum working current is 3150A. For power distribution, electric power control and lighting and other power distribution equipment for power conversion and distribution control.

This series of products have high segmentation ability, good dynamic and thermal stability, advanced structure, reasonable, practical electric scheme, series, and strong versatility. Various scheme units are arbitrarily combined. A cabinet contains more circuits. Saves floor space, beautiful appearance, high protection level, safety and reliability, easy maintenance and so on.

This product complies with IEC60439, NEMA ICS3-322 standards, and also meets the national standard of GB7251-1 《Low-voltage switchgear and control equipment》.

二、产品型号及含义 Product model and meaning



三、使用环境 Use environment

1. 海拔高度不超过2000m。
2. 周围空气不高于+40℃,并且24h内平均温度不高于+35℃,周围空气温度不低于-5℃。
3. 大气条件:空气清洁.相对湿度在温度为+40℃时不超过50%.温度较低时允许有较高的相对湿度,例如+20℃时为90%。
4. 没有火灾,爆炸危险,严重污染.化学腐蚀及剧烈震动的场所。
5. 与垂直倾斜不超过5°
6. 本产品适合以下温度运输存储:-25℃~+55℃,在短时间内(不超过24h)不超过+70℃。

1.The altitude does not exceed 2000m.

2.The ambient air is not higher than +40℃, and the average temperature within 24h is not higher than +35℃, and the ambient air temperature is not lower than -5℃.

3.Atmospheric conditions: clean air. Relative humidity does not exceed 50% when the temperature is +40℃. Higher relative humidity is allowed when the temperature is lower, such as 90% at +20℃.

4.There is no danger of fire, explosion, severe pollution, chemical corrosion and severe vibration.

5.Tilt is no more than 5℃ with vertical.

6.This product is suitable for transportation and storage at the following temperature: -25℃~+ 55℃, within a short time (not exceeding 24h), it does not exceed + 70℃.

四、结构特征 Structural characteristics

本系列品的基本框架为组合装配式结构,框架的全部结构件通过螺钉紧固互相连接成基本框架,再按需要加上门、挡板、隔板、抽屉、安装支架以及和机电组件等零件,组装成一台完整的开关柜,本柜有下列特点:

1. 框架采用异形钢材,利用三维角板定位,螺栓连接无焊接结构从而避免了焊接变形和应力,提高了安装精度。

2. 框架及零部件安装孔按模数E=20mm变化。

3. 内部结构件采用镀锌处理。 外部经酸洗和磷化处理后,采用静电环氧粉末喷涂。

4.在动力中心(PC)进线柜内,顶部为水平母线区域,水平母线区域下部为断路器室,断路器可配置国产的DW15C.ME等系列.也可根据使用者需要配置国外电气公司生产的各种断路器,如:ABB公司生产的F系列断路器,以及智慧化断路器等。

在一般情况下,PC单元带有翻排的主电路(包括母联),额定电流在630A-1600A时,占据一个外形尺寸为800x1000x2200mm(宽x深x高)的柜体,没有翻排的主电路占据一个外形尺寸为800x800x2000mm(宽x深x高)的柜体.额定电流在1600A-3150A时,占据一个外形尺寸为1000x1000x2200mm(宽x深x高)的柜体,没有翻排的主电路占据一个外形尺寸为1000x800x2200mm(宽x深x高)的柜体。

动力中心(PC)馈电柜结构与进线柜相似,馈电电流在630A-1600A时,一个1000x1000x2200mm (宽x深x高)的柜体可装二个回路,为上下布置安装。

5.电动机控制中心(MCC)开关柜有靠墙和不靠墙安装二种形式,其顶部都为水平母线区域,水平母线区域下面为抽屉功能单元区域,该区域宽度为600mm,安装抽屉功能单元区域的高为1840mm,一种形式柜的左部为功能单元区域.右部有一个200mm宽的二次电机出线区域,柜体外形尺寸为800x800(1000)x2200mm(宽x深x高)。另一种形式,柜宽度为600mm,电缆出线区在柜体的后部,柜体的外形尺寸为600x800x(1000)x2200mm(宽x深x高)。柜体深度有800mm和1000mm二种,我们建议用户选用1000mm深的柜体,以与PC柜深度统一,当抽屉抽出柜外时,柜内带电部分不外露,安全可靠。

MCC柜的抽屉有八种标准尺寸分别为:

The basic frame of this series is a combined assembly structure.All the structural components of the frame are connected to each other through a screw to form a basic frame.Additional parts such as doors, baffles, partitions, drawers, mounting brackets, and electromechanical components are required. Assembled into a complete switchgear, this cabinet has the following characteristics:

1. The frame adopts special-shaped steel, uses three-dimensional angle plate positioning, and bolts have no welding structure to avoid welding deformation and stress and improve installation accuracy.

2. The mounting holes of the frame and components change according to the modulus E=20mm.

3. The internal structural parts are galvanized. After the exterior is pickled and phosphated, it is sprayed with electrostatic epoxy powder.

4. In the power center (PC) incoming cabinet, the top is the horizontal bus area, and the lower part of the horizontal bus area is the circuit breaker room. The circuit breaker can be equipped with domestic series such as DW15C.ME. It can also be configured various circuit breakers produced by foreign electrical companies according to user needs. , such as: F series circuit breakers produced by ABB, and intelligent circuit breakers, etc.

In general, the PC unit has a reversed main circuit (including the busbar) .When the rated current is 630A-1600A, it occupies a cabinet with an external size of 800x1000x2200mm (width x depth x height). The circuit occupies a cabinet with an external dimension of 800x800x2000mm (width x depth x height). When the rated current is 1600A-3150A, it occupies a cabinet with an external dimension of 1000x1000x2200mm (width x depth x height). A cabinet with dimensions of 1000x800x2200mm (width x depth x height).

The structure of the power center (PC) feed cabinet is similar to that of the incoming cabinet.When the feed current is 630A-1600A, the cabinet 1000x1000x2200mm (width x depth x height) can be equipped with two circuits, which can be installed on top and bottom.

5. Motor control center (MCC) switchgear has two types of installation against the wall and not against the wall. The top is a horizontal bus area, and the horizontal bus area is below the drawer functional unit area. The width of this area is 600mm, and the height of the drawer functional unit is 1840mm. The left part of a form cabinet is the functional unit area. There is a 200mm wide secondary motor outlet area on the right side. The overall dimensions of the cabinet are 800x800 (1000) x 2200mm (width x depth x height). In another form, the cabinet width is 600mm,

and the cable outlet area is at the rear of the cabinet. The overall dimensions of the cabinet are 600x800x (1000) x2200mm (width×depth×height).There are two types of cabinet depths: 800mm and 1000mm. We recommend that users choose a cabinet with a depth of 1000mm to unify the depth of the PC cabinet. When the drawer is pulled out of the cabinet, the live parts inside the cabinet are not exposed, which is safe and reliable.

The drawers of the MCC cabinet come in eight standard sizes:

代号 Code No.	A	B	C	D	E	F	G	H
高度 Height (mm)	160	240	320	400	480	560	640	720

6.抽屉功能单元及闸由主开关的操作机构进行机械联锁,主开关在合闸位置时打不开,并且操作机构可采用外加挂锁锁定在合闸或分闸位置。 功能单元隔室之间用金属板分隔,抽屉具有良好的互换性,并具有工作位置,试验位置和分离位置。当抽屉推到某固定位置时 ,抽屉自动定位,此时可拉动抽屉左边的拉板抽屉可解除定位,进入下一个位置,抽屉抽出柜外时还具备防脱落功能。

7.在电容补偿计量等固定式方案的柜体与抽屉式柜体具有同样的外观造型 、同样的水平线位置,从而保证了抽屉式与固定式柜体能够并排使用。

8.母线系统:柜体的母线采用三相五线制,水平母线额定电流在1250A及以下时采用单母线.水平母线额定电流在1250A以上时采用双母线,柜与柜之间的水平母线采用连接块搭接,垂直母线采用镀锌板封闭,内部用隔板限制电弧扩散,中性母线设置在柜顶的前部,保护母线(PE)设置在柜底部,并与柜体的隔板,门相连,从而保证了接地连续性。

9.在不降低外壳防护等级的情况下,开关柜底部和顶部设有自然通风窗口。

10.柜体外壳防护等级为IP40。

6. The drawer functional unit and the door are mechanically interlocked by the operating mechanism of the main switch, the main switch cannot be opened when the closing position, and the operating mechanism can be locked in the closing or opening position with an additional padlock. The functional unit compartments are separated by metal plates. The drawers have good interchangeability and have working positions, test positions and separation positions. When the drawer is pushed to a fixed position, the drawer is automatically positioned. At this time, the drawer on the left side of the drawer can be pulled to release the positioning and enter the next position. The drawer also has an anti-falling function when it is pulled out of the cabinet.

7. The cabinets of fixed solutions such as capacitance compensation and metering have the same appearance and the same horizontal position as the drawer cabinets, thereby ensuring that the drawer and fixed cabinets can be used side by side.

8. Bus bar system: The bus of the cabinet is a three-phase five-wire system, and the single bus baris used when the rated current of the horizontal bus is above 1250A. The double bus bar is used when the rated current of the horizontal bus baris above 1250A, and the horizontal bus bar between the cabinet isoverlapped by the connection blocks .The vertical bus bar is closed with galvanized sheet.The internal partition is used to limit the arc diffusion. The neutral bus bar is set at the front of the cabinet top.The protective bus bar (PE) is set at the bottom of the cabinet and is connected with the partition wall of the cabinet. The gates are connected to ensure ground continuity.

9. Without reducing the enclosure protection level, natural ventilation windows are provided at the bottom and top of the switch cabinet.

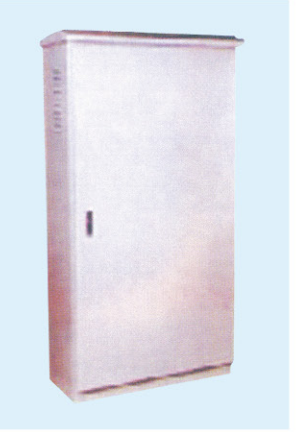
10. Cabinet enclosure protection grade is IP40.

GCK低压抽出式开关柜系列
GCK low-voltage withdrawable switchgear

额定工作频率 (Hz) Rated operating frequency (Hz)		50、60
额定工作电压 (V) Rated working voltage (V)		380、660
额定绝缘电压 (V) Rated insulation voltage (V)		660
额定工作电流(A) Rated working current (A)	水平母线 Horizontal bus bar	630~3150
	垂直母线 Vertical bus bar	600
额定短时耐受电流 Rated short-time withstand current	水平母线 Horizontal bus bar	80kA(有效值)/1秒 80kA (effective value) / 1 second
	垂直母线 Vertical bus bar	50kA(有效值)/1秒 50kA (effective value) / 1 second
额定峰值耐受电流 Rated peak withstand current	水平母线 Horizontal bus bar	176kA
	垂直母线 Vertical bus bar	110kA
主电路接插件(A) Main circuit connector (A)		200、400
辅助电路接插件(A) Auxiliary circuit connector (A)		16
工频耐压1分钟(V) Power frequency withstand voltage for 1 minute (V)		2500
控制电机最大容量 (kW) Control motor maximum capacity (kW)		155
防护等级 Protection rating		IP40
操作方式 Operation method		就地、远方、自动 Local、Far、Automatic

GXL电(动)力配电箱
GXL electric (dynamic) power distribution box

一、总 则 General



本产品采用了国际IEC标准和国家标准设计制造,箱内元件选用国外电器产品,或国内生产比较先进的电器元件。

配电箱适用于工矿企业,商业,服务业,以及民用建筑交流50Hz,电压600V以下的三相三线.三线四线配电系列中作动力或照明配电之用。

This product is designed and manufactured using international IEC standards and national standards. The components in the box are selected from foreign electrical products, or domestically produced relatively advanced electrical components.

Power distribution box is suitable for industrial and mining enterprises, commerce, service industry, and civil buildings under AC 50Hz, voltage up to 600V three phase three wire. three phase four wire power distribution series for power or lighting distribution.

二、结构用途 Uses and features

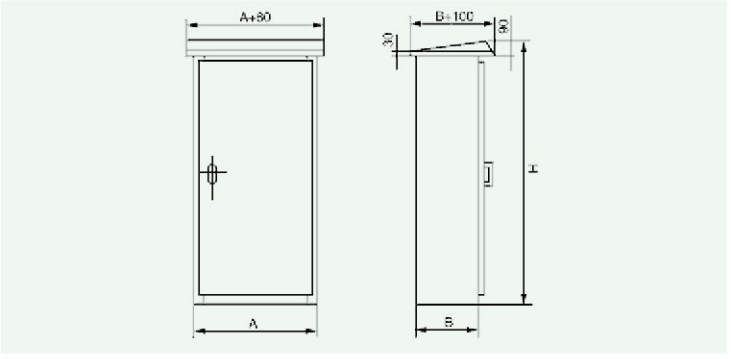
本箱为户外装置。箱顶有防水盖,顶盖与箱体之间留有空隙,便于散热和水分。箱体分内门,外门,外门周边加防水胶条和防水槽,内门可装仪表.灯.按钮和转换开关等.

箱体分落地和悬挂式两种.箱底部开电缆进出线孔。

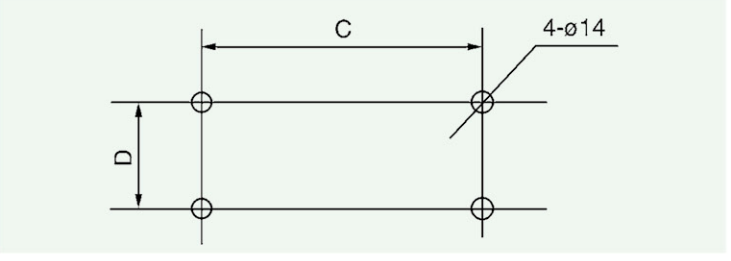
This box is an outdoor device. There is a waterproof cover on the top of the box, and a gap is left between the top cover and the box to facilitate heat dissipation and moisture. The box is divided into inner door, outer door, and the outer door is surrounded by waterproof rubber strips and grooves. The inner door can be equipped with meters, lights, buttons, and switches.

The box is divided into two types: floor-mounted and hanging. The bottom of the box has cable entry and exit holes.

三、外壳尺寸 (毫米)
Shell size (mm)



四、安装示例
Installation example



五、尺寸系列(毫米) Size series(mm)

H	A	B	C	D	备 注 Remark
1800	700	400	650	300	户外用前单门 Outdoor single door
	800		750		
	900		850		

JXF系列配电箱
JXF series distribution box

一、总 则 General



本产品采用了国际IEC标准和国家标准设计制造的新型动力配电箱.此产品选用国外电器元件.或国内生产比较先进的电器元件。

配电箱广泛用于电厂,变电站、工厂.学校.及其它建筑物,为照明设备.电机启动、电机保护,电机插座等配电之用。 并提供超载、短路漏电保护。

This product adopts a new type of power distribution box designed and manufactured by international IEC standards and national standards. This product uses foreign electrical components. or domestically produced relatively advanced electrical components.

Distribution boxes are widely used in power plants, substations, factories, schools, and other buildings for lighting equipment, motor startup, motor protection, motor sockets and other power distribution. And provide overload, short circuit leakage protection.

二、产品型号含义 Product model meaning

JXF —— M1 R □

A B C D

A 配电箱型号:JXF系列
A Distribution box model: JXF series
B 配电箱代号:B Distribution box code

照明箱代号 Lighting box code: M1 ACM ACP SDB
光控箱代号 Code of light control box:Gk
远控箱代号 Remote control box code:Yk
时控箱代号 Time Control Box Code: Sk
事故切换箱代号 Accident switch box code:QA QD
事故投入箱代号 Accident input box code:TA
插座箱代号 Socket Box Code:C
密闭开关盒代号 Closed switch box code: MK

事故投入箱代号 Accident input box code:TD
检修箱代号 Maintenance box code: J
变压器箱代号 Transformer box code: B
应急电源箱代号 Emergency power box code: JJ
逆变器箱代号 Inverter box code: N
开关盒代号 Switch box code: K
按钮盒代号 Button box code: A
密闭插座盒代号 Closed Socket Box Code:MC

C安装方式 installation method
R:暗装 Concealed installation
无R:明装,或者可户内外明装,暗装的通用壳体
No R: surface-mounted, or indoor and outdoor surface-mounted, concealed universal housing
D 配置代号(依据实际情况定) D configuration code (depending on the actual situation)

三、产品结构 Product structure



本动力配电箱(柜)系封闭式,外壳一般采用冷轧钢板焊接而成,也可用型材组装而成.箱内左右侧壁上可焊电器元件安装立柱,可也用整块安装板,采用标准化设计生产,相同产品可全部互换,表面喷塑,采用固定平整,也可全序号操作.以上可用电压、电流表指示灯测量及测和用按钮进行操作:开门即可检测设备,也可手用双底板,使人员不可直接接触导电体,确保安全。

This power distribution box (cabinet) is closed, and the shell is generally welded with cold-rolled steel plates, or it can be assembled with profiles. The left and right side walls of the box can be welded with electrical component installation columns, or the entire installation plate can be used. Adopting standardized design and production, the same products can be all interchangeable, the surface is sprayed with plastic, fixed and flat, and can also be operated with a full serial number. The above can be operated with the voltage, ammeter indicator light measurement and button operation: the device can be detected when the door is opened, or the double bottom plate for hands prevents personnel from directly contacting the electric conductor to ensure the safe.

ATS系列双电源配电箱
ATS series dual power distribution box

一、技术参数
Technical parameters

符合标准 Standards compliant	IEC439-1、VDE0660-500、GB7251.1
防护等级 Protection class	IP55
额定工作电压 Rated working voltage	690VAC
额定绝缘电压 Rated insulation voltage	690VAC、800VAC
额定频率 Rated frequency	50HZ
绝缘类别 Insulation class	C类 Class C
环境温度 Ambient temperature	最高温度 Maximum temperature：40℃ 最低温度 Minimum temperature：-5℃
工作场所 Workplace	Max.40℃、Min.-5℃
海拔高度 Altitude	户内安装 Indoor installation
相对湿度 Relative humidity	2000米 (m)
接地系统 Grounding system	20°C时为90% 90% at 20 ℃
爬电距离及空气间隙符合DIN VDE 0110 标准 Creepage distance and air clearance meet DIN VDE 0110 standards	

二、配电箱特性
Characteristics of the distribution box

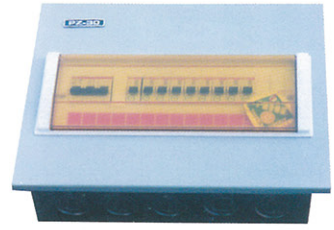
电气 Electric			
绝缘强度 Insulation strength	KV/mm	15	35
表面电阻 Surface resistance	Ω	1×10^{9}	1×10^{15}
热 Heat			
持续耐热 Continuous heat resistance	℃	-40/+120	
落锤耐热 Drop weight heat resistance	Ncm	>700	>4000
化学稳定性 Chemical stability			
酸 Acid	MCW*	<10%	>10%
碱 Alkali	MCW	<10%	>10%
石油 Oil	MCW	<10%	>10%
酒精 Alcohol	MCW	<10%	>10%
汽油 Gasoline	MCW	<10%	>10%
油脂 Grease	MCW	<10%	>10%
盐溶液 Salt solution	MCW	<10%	>10%
煤油 Kerosene	MCW	<10%	>10%
大气稳定性 Atmospheric stability			
盐雾测试 Salt spray test	DIN 50 021		
吸水 WaterAbsorption	mg	<150	<10
燃烧性 Combustibility			
热灯丝试验 Hot filament test	DIN VDE 0471		960°C
MCW:工作场所最大浓度 MCW: Maximum concentration in the workplace			

三、结构特点 Structural features

☆ 高强度镀锌钢板组装/焊接而成
Assembly / welding of high-strength galvanized steel sheet
☆ 面板为透明亚克力/镀锌钢板
Panel is transparent acrylic / galvanized steel
☆ 结构模数化、绝缘性能好、耐腐蚀、抗老化、防尘、防潮
Modular structure, good insulation performance, corrosion resistance, aging resistance, dust resistance, moisture resistance
☆ 具有自动泄压装置 With automatic pressure relief device
☆ 在箱体的上、下、两侧均配有敲落孔或法兰板
There are knockout holes or flange plates on the upper, lower and both sides of the box
☆ 可以进行拼装组合 It can be assembled and combined
☆ 即可作壁挂式又可作嵌墙式和落地式使用
Can be used for wall-mounted, recessed and floor-mounted
☆ 适用于各种环境恶劣的照明和动力配电场所
Suitable for lighting and power distribution in harsh environment

PZ30系列配电箱
PZ30 series distribution box

一、总 则 General



PZ30型终端电器箱是一种安装终端电器的装置,内部元件全部采用宽度为9mm模数的电器拼装在符合IEC715-87的顶帽形轨道上,壳体采用新材料、新工艺和新造型，结构新颖，电器性能可靠,具有分断能力高,限流特性好,适应国内外用户最新要求。

PZ30型终端电器箱设计依据的标准为GB7251-7-87,IEC439.1-8,BS5486.1-86和BS5486.13-86。

The PZ30 terminal electrical box is a device for installing terminal electrical appliances. All internal components are assembled on the top hat-shaped track in accordance with IEC715-87 using electrical appliances with a module width of 9mm. Shell with new materials, new technology and new shape, the structure is novel, electrical performance is reliable, with high breaking ability, good current limiting characteristics, to meet the latest requirements of domestic and foreign users.

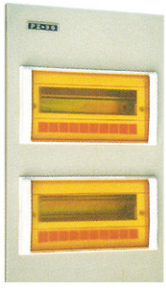
The design standards of PZ30 terminal electrical box are GB7251-7-87, IEC439.1-8, BS5486.1-86 and BS5486.13-86.

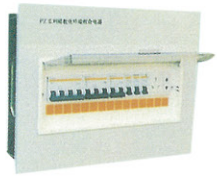
二、适用范围 Scope of application

PZ30型终端电器箱,适用于高层建筑，宾馆商场,车站港口,工矿企业及民用住宅等场所,作为线路控制和配电的一种成套装置。适用于额定电压为220V或380V,负载总电流不大于100A单相三线和三相五线的末端电路中,能对用电设备进行控制,对过载,短路,过电压和漏电起保护作用,尤其适用于非专业人员使用。

PZ30 terminal electrical box is suitable for high-rise buildings, hotels, shopping malls, stations and ports, industrial and mining enterprises and civilian residences, as a complete set of circuit control and power distribution devices. It is suitable for end circuits of single-phase three-wire and three-phase five-wire with a rated voltage of 220V or 380V, and the total load current is not greater than 100A.It can control electrical equipment and protect against overload, short circuit, overvoltage and leakage, especially Suitable forNon-professional use.

三、结构特点 Structural features





PZ30型终端电器箱,主要结构部件有透明罩,上盖、箱体、安装轨道，母线排、护线罩和电器开关元件等,内装电器开关元件安装于顶帽形轨道上，可根据需要任意组合,拆装方便，开关元件手柄外露,带电及其它部分遮盖于上盖内部,开启门即可方便操作,使用安全,箱体周围及背面均设有进出线敲落孔便于接线。

箱体分为金属型和全塑型二种 既可用于明装式亦可用于暗装式。

PZ30 terminal electrical box, the main structural components are transparent cover, cover, box, installation rail, busbar, wire cover and electrical switching elements, etc., the built-in electrical switching elements are installed on the top hat rail, which can be arbitrarily according to needs It is easy to assemble and disassemble, the switch element handle is exposed, the live and other parts are covered inside the upper cover, the door can be easily operated, and it is safe to use. There are knockout holes for the entry and exit lines around the box and the back for easy wiring.

The cabinet is divided into two types: metal type and full plastic type.It can be used for both open and dark loading.

四、主要技术参数 Main technical parameters

规格 Specification	宽 Width	高 High	深 Deep	规格 Specification	宽 Width	高 High	深 Deep
PZ30-2	95	150	90	PZ30-15	420	340	90
PZ30-4	130	150	90	PZ30-18	470	340	90
PZ30-6	260	340	90	PZ30-20	340	560	90
PZ30-8	300	340	90	PZ30-24	360	560	90
PZ30-10	340	340	90	PZ30-30	420	560	90
PZ30-12	360	340	90	PZ30-36	470	560	90

资质证书
Certifications







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