MNS2.0

ABB 授权产品

低压开关柜

Low-voltage Switchgear

产品概述

MNS2.0 组装式低压开关柜系统是 ABB 公司授权产品，这款产品在世界市场上经过多年使用，证实了它的价值。整个系统充分考虑了将来的发展空间，可避免因为技术发展而被淘汰的危险。MNS2.0 系统采用的柜架结构具有高度灵活性，结构一旦组装完毕就不再需要维修。柜体内可安装不同的标准元件，以满足各种使用的要求。由于整个系统包括电气结构均采用了组合式的设计，这种优化的结构设计满足了各种元件的要求，并适用不同工作环境，达到相应的防护等级。适用于所有发电、配电和电力使用的场所。

Product Summary

The system of low-voltage switchgear MNS2.0 has confirmed its value during several years' operating; This type of switchgear is authorized by ABB. The system has fully considered the grate scope for development, so as to avoid the risk of being eliminated as technology development. MNS2.0 system has taken the common structure design and flexibility in assembly. No need to maintain after assembled. Different types of standard components can be installed in a panel to meet all requirements. The whole system of advanced structure design can meet all kinds of components, including electric structures, as which has adopted combined design, and also application in different conditions, to reach the relevant protect degree. MNS2.0 is suitable in all sites of power plants, distribution panels.

环境条件

1. 运行条件：户内；
2. 海拔高度：≤ 2000m；
3. 地震烈度不大于 8 度；
4. 周围空气温度上限：+40℃；
5. 24 小时平均温度上限：+35℃；
6. 周围空气温度下限：-5℃；
7. 周围环境相对湿度在 +40℃时为 50%；
8. 没有火灾、爆炸危险、严重污秽及足以腐蚀金属和破坏绝缘的气体等恶劣场所；
9. 没有剧烈震动、颠簸的场所。

Environmental Conditions

1. Operating Condition: Indoor.
2. Altitude: No more than 2000m.
3. Earthquake Intensity: No more than 8 degrees.
4. Ambient Temperature: No more than +40℃ .
5. Average temperature within 24 hours: No more than +35℃ .
6. Ambient Temperature: No less than -5℃ .
7. Relative Humidity: 50% when the temperature is +40℃ .
8. No fire, explosion danger, serious dirt, chemical corrosion and violent vibration for product installed place.
9. No violent vibration, shake and bumpy site.

产品特点

1. 抽屉的操作及控制手柄合二为一个，在保留机械联锁功能的同时简化了操作，克服了传统 MNS 柜操作复杂，且易被误操作而损坏的缺点。
2. 多功能板及抽屉材料采用聚脂材料，具有阻燃和自熄灭特性，不含 CFC 和卤素，能使故障电弧在 40ms 内熄灭并保护相邻组件不受损坏，将电弧破坏程度降到最低。
3. MCC 单元组合多，结构紧凑，柜体能共用母线背靠背排列，每柜最多可装 36 个回路。
4. 柜体能背靠背或靠墙布置，节省安装空间。
5. 全部选用标准元件，方便工程设计人员设计。
6. 全系列标准化，结构通用性强、组装灵活。
7. 柜体可按工作和环境的不同要求设计出相应的防护等级，最高可达到 IP54。
8. 在一个柜体能容纳更多的单元，可自由组合成不同型式，如固定分隔式和抽屉式，相同规格抽屉单元可以方便互换。
9. 组合性能稳定，接地连续性好。
10. 设备通过运行连续性和可靠性高。
11. 产品通过了抗震、盐雾及 EMC 电磁兼容性试验，运行安全可靠。

Product Features

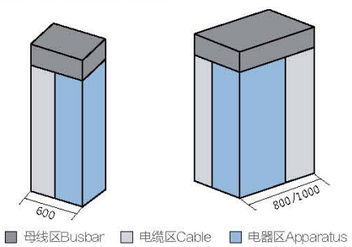
1. The operation of drawer is combined with the control handle. It has simplified the operation, and overcome the shortcomings that the operation of traditional MNS cabinet is complicated and it is easy to be damaged by misoperation while keeping the mechanical interlocking functions.
2. The multifunction board and drawer is made of polyester materials, which is flame retardant and self-quenching, without CFC and halogen. And it can make the fault arc extinguish within 40ms, protect adjacent components from being damaged, and minimize the degree of damage of arc.
3. The MCC unit has a lot of combinations, with compact structure. The cabinet body can share busbar and it is arranged back to back. 36 circuits can be installed for each cabinet at most.
4. The cabinet body can be arranged back to back or against the wall, which can save installation space.
5. All use standard components for the convenience of the design of the project designer.
6. Whole series standardize, with strong generality of structure and flexible assembly.
7. Corresponding protective grades can be designed for the cabinet body according to different requirements of the work and environment, up to IP54.
8. A cabinet can accommodate more units, and can be combined freely into different types, such as fixed separating type and drawer type. Drawer units of the same specification can be interchanged.
9. The composed behavior is stable and the ground continuity is good.
10. The device has a high continuity and reliability of operation.
11. The product has passed the seismic test, salt spray test and EMC electromagnetic compatibility test, thus with a safe and reliable operation.

技术参数 Technical Parameters

序号 Sr.	名称 Content		单位 Unit	数值 Value
1	额定工作电压 Rated Operating Voltage		V	380/690
2	额定绝缘电压 Rated Insulation Voltage		V	660/1000
3	额定频率 Rated Frequency		Hz	50/60
4	主母线 Main Bus-Bar	额定电流 Rated Current	A	≤6300
		额定短时耐受电流（1s）Rated Short-time Withstand Current(1s)	kA	≤100
		额定峰值耐受电流 Rated Peak Withstand Current	kA	≤220
5	配电母线 Distribution Bus	额定电流 Rated Current	A	≤2000
		额定短时耐受电流（1s）Rated Short-time Withstand Current(1s)	kA	≤80
		额定峰值耐受电流 Rated Peak Withstand Current	kA	≤176
6	Imin 辅助回路工频耐受电压 Aux. circuit Frequency Withstand Voltage in 1min		kV	2
7	额定脉冲耐受电压 Rated Impulse Withstand Voltage		kV	8
8	防护等级 Protect Degree		IP	至 IP54 To IP54
9	电气间隙 Electrical Clearance		mm	≥10
10	爬电距离 Creepage Distance		mm	≥12.5
11	过电压等级 Over-voltage Level		-	Ⅳ
12	污染等级 Class of Pollution		-	3

开关柜结构尺寸示意图 Structure Dimension and Sketch

推荐高度 Recommended Height	2200
推荐宽度 Recommended Width	
固定式结构 Fixed Structure	400/600/800/1000/1200
固定分隔式结构 Fixed Separated Structure	600/800/1000
抽屉式结构 Drawer Structure	600/800/1000
双面柜 Double Cabinet	1000
推荐深度 Recommended Depth	
固定式结构 Fixed Structure	600/800/1000/
固定分隔式结构 Fixed Separated Structure	600/800/1000
抽屉式结构 Drawer Structure	600/800/1000
双面柜 Double Cabinet	800/1000
标准安装模数 Standard Installation Module	E=25
标准单元模数 Standard Cell Module	
抽屉单元 Drawer Structure	8E/4 8E/2 8E 16E 24E
固定分隔单元 Fixed Separated Cell	8E/2 12E/2 8E 12E 16E 24E



背部母线系统 (Backside Busbar System)
仅限抽屉式 Withdraw able Type Only