

XGN2-12

固定式金属封闭开关柜 Fixed Type Metal-clad Switchgear



产品概述

XGN2-12 固定式交流金属封闭开关设备(以下简称为“开关柜”),用于额定电压为 3.6 ~ 12kV、三相交流 50/60Hz 系统在作为接受和分配电能之用的户内成套配电设备。具有对电路保护和检测等功能。其母线系统为单母线及单母线带旁路母线,并可派生出双母线结构。

本开关柜符合国家标准 GB3906 及 DL/T404 的要求,并具有一套完善的性能可靠、功能齐全、结构简单、操作方便的机械式防误闭锁装置,简便而有效的达到两部提出的“五防”闭锁功能的要求。

环境条件

1. 环境温度: 不高于 +40℃, 不低于 -15℃。且 24h 内平均温度不超过 +35℃。
2. 海拔高度: 海拔不超过 1000m。
3. 相对湿度: 日平均值不超过 95%, 月平均值不超过 90%。
4. 地震烈度: 不超过 8 度。
5. 水蒸气压力: 日平均值不超过 2.2kPa, 月平均值不超过 1.8kPa。
6. 无火灾、爆炸危险、严重污秽、化学腐蚀及剧烈震动的场所。

Product Summary

XGN2-12 fixed type metal-clad switchgear (Switchgear), it is applied 3.6~12kV three phase AC 50/60Hz system which work as indoor apparatus distribution device. It has some functions as circuit protection and testing. Its busbar system is single busbar with bypass busbar, also can use dual busbar structure.

This switchgear is according to standard of GB3906 and DL/T404, It has a completely mechanism prevent mis-operation lockout device which is reliable performance, complete functions, simply structure and convenient operating, it meets requirement of “5 prevents” interlock function.

Environmental Conditions

1. Ambient Temperature: No more than +40℃, No less than -15℃. Average temperature no more than +35℃ within 24 hours.
2. Altitude: No more than 1000m.
3. Relative Humidity: Average humidity no more than 95% within one day, Average humidity no more than 90% within one month.
4. Earthquake Intensity: No more than 8 degrees.
5. Vapor Pressure: Average pressure no more than 2.2kPa within one day, Average pressure no more than 1.8kPa within one month.
6. No fire, explosion danger, serious dirt, chemical corrosion and violent vibration for product installed place.

产品特点

1. XGN2-12 开关设备为金属封闭箱式结构, 柜体骨架由角钢和铜板焊接而成。
2. 柜内分为断路器室、母线室、电缆室、继电器室, 各室之间用钢板隔开。
3. 开关设备前后设门, 离墙安装, 双面维护。
4. 开关柜顶部设有泄压通道, 若发生内部电弧故障时, 可以从泄压通道释放压力和排泄气体, 确保操作人员安全。
5. 开关设备具有完善成熟的“机械五防”和简单明了的操作程序。
6. 开关柜的主断路器采用 ZN28A-12、ZN63A-12、VS1 等系列真空断路器, 也可根据需要配其他型号断路器, 断路器配用 CT19 弹簧操作机构。
7. 隔离开关采用 GN30-10 旋转式隔离开关和 GN22-10 大电流隔离开关。

Product Features

1. XGN2-12 switchgear uses closed metal box-type structure, and the framework of cabinet is welded by angle steel and steel sheet.
2. The cabinet is divided into circuit breaker compartment, busbar compartment, cable compartment and relay compartment, separated by steel plate between two compartments.
3. Doors are installed in front of and at the back of the switchgear. And it is installed away from the wall, and maintained both sides.
4. A pressure relief channel is provided at the top of the switch cabinet. If internal arcing fault occurs, it is able to release pressure and discharge gas from the pressure relief channel to ensure the safety of operating personnel.
5. The switchgear has a perfect “five prevention” and simple and clear operating procedures.
6. For the main circuit breaker of the switch cabinet, ZN28A-12, ZN63A-12, VS1, etc. series vacuum circuit breakers are used; and other types of circuit breakers can also be used according to the requirements. CT19 spring operation mechanism is used for circuit breakers.
7. The disconnecting switch is GN30-10 rotating disconnecting switch or GN22-10 heavy current disconnecting switch.

技术参数

序号 Sr	名称 Content	单位 Unit	数值 Value
1	额定电压 Rated Voltage	kV	12
2	额定电流 Rated Current	A	630/1250/1600/2000/2500/3150
3	额定频率 Rated Frequency	Hz	50/60
4	1min 工频耐受电压 Frequency Withstand Voltage in 1min	级间、对地 Phase, Earthed	kV 42
		隔离断口 Isolated Fracture	kV 48
5	雷电冲击耐受电压(峰值) Lightning Impulse Withstand Voltage(Peak)	级间、对地 Phase, Earthed	kV 75
		隔离断口 Isolated Fracture	kV 85
6	主母线额定电流 Main Busbar Rated Current	A	630/1250/1600/2000/2500/3150
7	分支母线额定电流 Branch Busbar Rated Current	A	630/1250/1600/2000/2500/3150
8	额定短路开断电流 Rated Short-circuit Breaking Current	kA	20/25/31.5/40
9	额定短时耐受电流(4s) Rated Short-time Withstand Current(4s)	kA	20/25/31.5/40
10	额定峰值耐受电流 Rated Peak Withstand Current	kA	50/63/80/100
11	额定短路关合电流 Rated Short-circuit Current	kA	50/63/80/100
12	1min 辅助回路工频耐受电压 Aux. circuit Frequency Withstand Voltage in 1min	V	2000
13	防护等级 Protect Degree	IP	IP2X
14	辅助控制回路额定电压 Rated Voltage of Aux. control Circuit	V	交流或直流 110/220 AC 110 / DC 220

Technical Parameters

开关柜结构尺寸示意图

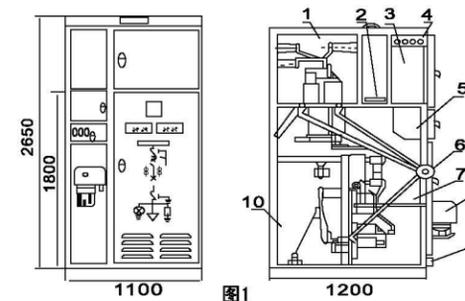


图1: XGN2-10/07D 电缆进出线外形图
Diagram1: XGN2-10/07D Cable Incomer & Outing Overall Drawing
1. 母线室 Busbar Chamber
2. 压力释放通道 Pressure Release Channel
3. 仪表室 Instrument Chamber
4. 二次小母线室 Secondary Small Busbar Chamber
5. 组合开关室 Combine Switch Chamber
6. 手动操作及连锁机构 Manual Operating & Interlock Mechanism
7. 主开关室 Main Switch Chamber
8. 电磁操作机构 Electromagnetism Operating Mechanism
9. 接地母线 Earthing Busbar
10. 电缆室 Cable Chamber

Structure Dimension and Sketch

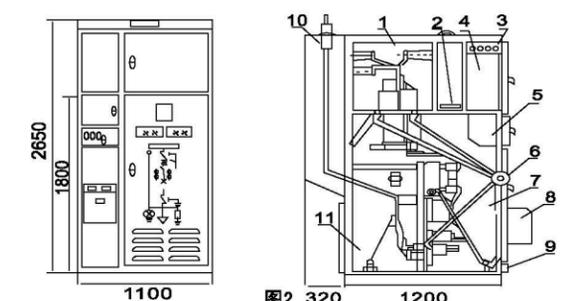


图2: XGN2-10/231 架空进出线外形图
Diagram1: XGN2-10/231 Overhead Incomer & Outing Overall Drawing
1. 母线室 Busbar Chamber
2. 压力释放通道 Pressure Release Channel
3. 仪表室 Instrument Chamber
4. 二次小母线室 Secondary Small Busbar Chamber
5. 组合开关室 Combine Switch Chamber
6. 手动操作及连锁机构 Manual Operating & Interlock Mechanism
7. 主开关室 Main Switch Chamber
8. 弹簧操作机构 Spring Operating Mechanism
9. 接地母线 Earthing Busbar
10. 架空母线室 Overhead Busbar Chamber
11. 电缆室 Cable Chamber