

# XGN45(SF6)

## 固定式金属封闭 SF6 开关柜(环网柜)

Fixed Type Metal-clad SF6 Switchgear (Ring Main Unit)



#### <sup>E</sup>品概述

环网柜一般分为空气绝缘和 SF6 绝缘两种型式, XGN45-12 户 内固定式金属封闭 SF6 开关柜是以六氟化硫开关作为主开关而整 柜采用空气绝缘,适合用于工厂企业、住宅小区、高层建筑及矿 山港口 10kV 配电系统中, 并可组合成环网系统作为三相交流环 网、双辐射供电单元或线路终端的供、配电之用,并起着接受、分配、 控制电能及保护电器设备安全运行的作用。

#### 不境条件

- 1. 运行条件:户内。
- 2. 海拔高度: ≤ 1000m。 3. 地震烈度: 不超过8度。
- 4. 污秽等级: 111级。
- 5. 环境温度: -15℃~ +40℃。
- 6. 相对湿度: 日最大平均≤95%, 月最大平均≤90%。
- 7. 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。
- 8. 没有剧烈震动、颠簸及垂直斜度不超过 8°的场所。

### **Product Summary**

The ring main unit is generally divided into air insulation and SF6 insulation types. XGN45-12 indoor fixed metal closed SF6 switch cabinet uses SF6 switch as its main switch, and air insulation is used for the entire cabinet. It is suitable for 10kV power distribution systems in factories, enterprises, residential districts, high-rise buildings, mines and ports. And it can be combined into ring network system used for power supply and distribution of threephase AC ring network, biradial power supply unit or line terminal, and receiving, distributing and controlling electric power, and protecting the safety operation of electrical equipment.

#### **Environmental Conditions**

- 1. Operating Condition: Indoor.
- 2. Altitude: No more than 1000m.
- 3. Earthquake Intensity: No more than 8 degrees.
- 4. Pollution Level: III.
- 5. Ambient Temperature: No more than +40℃, No less than -15℃
- 6. Relative Humidity: Average humidity no more than 95% within one day, Average humidity no more than 90% within one month.
- 7. No fire, explosion danger, serious dirt, chemical corrosion and violent vibration for product installed place.
- 8. No violent vibration, shake and vertical slope of less than 8 degrees.

#### 产品特点

- 1. 模块化设计,各单元模块可任意组合和扩展,便于方 案组合,适应范围广。
- 2. 柜体采用铠装结构,各隔室之间均采用金属隔板分隔。
- 3. 操动机构采用耐腐蚀金属, 转动部分轴承均为自润滑 设计,产品不受环境影响,免除定期保养。
- 4. SF6 负荷开关为可频繁操作型,其"合--分"额定 有功负载次数可达 100 次, 为一般负荷开关的 10 倍 以上。
- 5. 为适应电网自动化及提高配电可靠性, 可加装电动机 构、配电网控制终端单元等设备,具备三遥功能。
- 6. 柜体小型化设计,使用了三工位旋转式负荷开关,有 效地减少零部件数量,实现了机械五防联锁。
- 7. 一次线路模拟单线图和模拟显示器可以显示开关内部 状态, 使操作简捷、正确、安全。
- 8. 产品通过部内部燃弧耐受试验,运行安全可靠。

#### **Product Features**

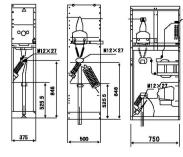
- 1. Modular design. Each unit module can combine and extend arbitrarily, which is easy to schemes combination, witch a wide applicable range.
- 2. The armored structure is used for the cabinet. And compartments are separated by metal plates
- 3. The corrosion resistant metal is used for the operating mechanism, and bearings of rotating parts are all self-lubricating bearings. The product is not affected by the environment, thus exempting from regular maintenance.
- 4. The SF6 load switch can be operated frequently. Its times of "close-open" rated active load can be 100 times, over 10 times that of the general load switch.
- 5.In order to adapt to the power grid automation and improve the reliability of power distribution, electrically operated mechanism, control terminal unit of power distribution network, etc. can be added. Thus it possesses telemetry, telecontrol and
- 6. For the miniaturization design of the cabinet, three-position rotary load switch is used, which effectively reduces the number of components and parts, and realizes the five prevention interlocking.
- 7. The simulated single line diagram of primary circuit and analog display can show the internal conditions of the switch, so that the operation can be simple, correct and safe.
- 8. The product has passed the internal arc resistance test, with safe and reliable

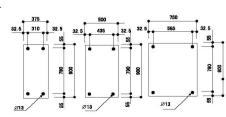
#### 技术参数

#### **Technical Parameters**

序号 Sr.	名称 Content		单位 Unit	数值 Value
1	额定电压 Rated Voltage		kV	12
2	额定频率 Rated Frequency		Hz	50
3	额定电流 Rated Current		A	630
4	熔断器最大额定电流 Max. rated Current of Fuse		А	125
5	额定短路开断电流 Rated Short-circuit Breaking Current		kA	31.5(熔断器组) 31.5 (Sets of Fuses)
6	额定峰值耐受电流 Rated Peak Withstand Current		kA	50
7	额定短时耐受电流 (4s) Rated Short-time Withstand Current(4s)		kA	20
8	额定短路关合电流 Rated Short-circuit Current		kA	50
-	接地回路 Earthed Circuit	额定短时耐受电流 (2s) Rated Short-time Withstand Current(2s)	kA	20
9		额定峰值耐受电流 Rated Peak Withstand Current	kA	50
10	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
11	雷电冲击耐受电压(峰值) Lightning Impulse Withstand Voltage(Peak)	级间、对地 Phase, Earthed	kV	75
1,1,		隔离断口 Isolated Fracture	kV	85
12	额定有功负载开断电流 Rated Power Load Switch-off Current		А	630
13	额定配电线路闭环开断电流 Rated Distribution-circuit Sealed Breaking Current		А	630
14	额定电缆充电开断电流 Rated Cable-charging Breaking Current		А	10
15	额定开断转移电流 Rated Breaking Transfer Current		А	1750
16	SF6 气体压力(20℃时相对压力)SF6 Vapor Pressure(Relative Pressure in 20℃)		MPa	0.045
17	内部燃弧试验(0.5s)Internal Arc Duration Test(0.5s)		kA	31.5
18	机械寿命 Mechanical Life	负荷开关 Load Switch	次/Times	5000
T0		接地开关 Earth Switch	次/Times	2000
19	防护等级 Protect Degree		IP	IP4X
20	操作方式 Method of Operating		19	手动 / 电动 Manual/Motor

#### Structure Dimension and Sketch





机体雷用4个M10的脉冲与地基固定 It is needed to fixed panel body with 地界通月于近有标准力能单元。

(考達) (下方 有徳川 /川田平八) his ground base is applied for all standard zed function units 「示真绕海尺寸为最大傳」可接照真绕尺寸作相 (zers can adap. he size of cable channel is the max value users can adap.

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