

# KYN28A-12(GZS1)

## 型铠装移开式交流金属封闭开关柜 Metal-clad Movable Switchgear



### 产品概述

KYN28A-12 型户内金属铠装式开关设备（以下简称开关柜设备）系 3~10kV 三相交流 50/60Hz 母线及单母线分段系统的成套配电装置。主要用于发电厂、中小型发电机送电、工矿企业业配电以及电业系统的二次变电所的受电、送电及大型高压电动机起动等，实行控制保护、监测之用。本开关设备满足 DL/T404、IEC298、GB3906 等标准要求具有防止带负荷推拉断路器手车，防止误入分合断路器、防止接地开关处在闭合位置时关合断路器、防止误入带电隔室、防止在带电时误合接地开关的联锁功能，可配用 BVE、VS1 真空断路器，又可配用 ABB 公司的 VD4 真空断路器和施耐德公司的 EV12S 真空断路器。实为一种性能优越的配电装置。

### Product Summary

This switchgear is a distribution assembly with (3-10KV) three phases AC voltage and power frequency (50/60HZ) single busbar and its sub-system. It mainly applied to generators, electric energy distribution of the industry and mine enterprises and public institutions, secondary transformer sub-stations' transmission and feeding electric power enterprises, and large high-voltage motors' starting, it functions as control protection and supervision. It is according with DL/T404, IEC.298, GB3906, and other relative standards. With a series of safety protections such as prevent circuit breaker operating trolley action under live condition, prevent mistakenly entering isolated live room, and with interlock protection function for misclosing earthed switch under live condition. It can work by combining either with BV1, VS1 vacuum circuit breaker which made in our company or ABB VD4 type VCB or Schneider EV12S type VCB. In essence it serves as a distribution assembly with excellent performance.

### 环境条件

1. 海拔高度：≤ 1000m。
2. 地震烈度不大于 8 度。
3. 周围空气温度上限：+40℃。
4. 周围空气温度下限：-15℃。
5. 最大日平均相对湿度：95%。
6. 最大月平均相对湿度：90%。
7. 最大日平均水蒸气压力：2.2KPa。
8. 最大月平均水蒸气压力：1.8KPa。
9. 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。
10. 没有剧烈震动、颠簸及垂直斜度不超过 8° 的场所。

### Environmental Conditions

1. Altitude: No more than 1000m.
2. Earthquake Intensity: No more than 8 degrees.
3. Ambient Temperature: No more than +40℃.
4. Ambient Temperature: No less than -15℃.
5. Average humidity no more than 95% within one day.
6. Average humidity no more than 90% within one month.
7. Average vapor pressure no more than 2.2kPa within one day.
8. Average vapor pressure no more than 1.8kPa within one month.
9. No fire, explosion danger, serious dirt, chemical corrosion and violent vibration for product installed place.
10. No violent vibration, shake and vertical slope of less than 8 degrees.

### 产品特点

1. 柜体及隔板采用敷铝锌钢板，柜架采用多重折弯技术，整体强度高，接地连续性好。
2. 充分考虑我国电网系统中性点不接地或经消弧线圈接地的运行特点，加大绝缘净距，增强绝缘水平，确保开关柜满足我国对绝缘强度的高要求。
3. 完全的金属铠装及彻底的隔室分离。
4. 柜体防护等级达到 IP4X，有效防止设备受杂物及虫害侵入。
5. 简单有效的五防闭锁，防止误操作。
6. 可移开手车采用蜗轮蜗杆推进机构，同类型手车可百分之百互换，操作维护方便。
7. 可选择离墙布置，双面维护方便；亦可选择靠墙布置，柜前检修，减少占地面积。
8. 最小柜宽 650mm，增加配电房利用空间。
9. 产品通过严酷的凝露、污秽及内部燃弧耐受试验，运行安全可靠。通过海拔 5000m 型式试验，适用于高海拔地区。

### Product Features

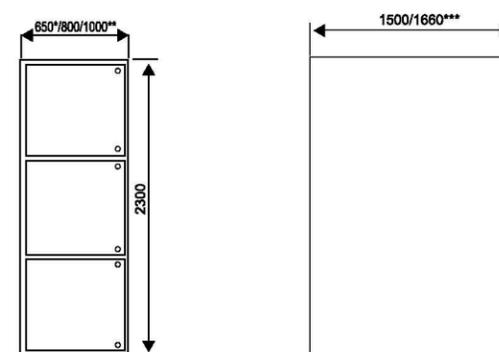
1. Cabinet and plate are made of galvanized aluminum board, cabinet use multiple bending technology, with high overall strength and well earthed continuity.
2. Full considerate of the neutral point unearthed in grid system of our country, or operating method of extinction coil earthed, increase isolated net distance, isolated level, so as to ensure the requirement of switchgear isolated strength in our country.
3. Completely metal clad and absolutely cabinet division.
4. The protect degree of the panel can be IP4X, can prevent device from invasion of plant pest.
5. Simple and effective "five-prevent" mechanical block, can prevent from maloperating.
6. Movable trolley use screw propulsion mechanism, can be complete interchangeable in similar type and convenient maintenance.
7. Can choose length to wall installation, convenient duplex maintaining, and also can choose wall mounted, front maintaining and reduce the room.
8. Min. width of panel is 650mm, can increase the availability of distribution room.
9. This product has passed brutal condensation, contamination and internal arc duration test, operating safety and reliable. Has passed the altitude testing of 5000m, is suitable for high altitude areas.

### 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 ~ 4000	
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 ~ 4000	
7	分支母线额定电流 Branch Busbar Rated Current	A	630 ~ 4000	
8	额定短路开断电流 Rated Short-circuit Breaking Current	kA	20/25/31.5/40/50	
9	额定短路关合电流 Rated Short-circuit Current	kA	50/63/80/100/125	
10	额定短时耐受电流（4s） Rated Short-time Withstand Current(4s)	kA	20/25/31.5/40/50	
11	额定峰值耐受电流 Rated Peak Withstand Current	kA	50/63/80/100/125	
12	1min 辅助回路工频耐受电压 Aux. circuit Frequency Withstand Voltage in 1min	V	2000	
13	内部燃弧试验（0.5s） Internal Arc Duration Test(0.5s)	kA	31.5 ~ 40	
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	
15	防护等级 Protect Degree	IP	IP4X(断路器门或隔室间打开为 IP2X) IP4X (IP2X when breaker door or chamber is opened)	

### Technical Parameters

### 开关柜结构尺寸示意图



### Structure Dimension and Sketch

- \* 额定电流 ≤ 1250A，分断能力 ≤ 31.5kA，最小柜宽：650mm。
- \*\* 额定电流 > 1600A 时，柜宽为 1000mm，其余为 800mm。
- \*\*\* 电缆下进出线为 1500mm，架空进出线为 1660mm。
- \* Rated Current ≤ 1250A; Breaking capacity ≤ 31.5kA; Min. width: 650mm.
- \*\* Rated Current > 1600A; Width: 1000mm; else will be 800mm.
- \*\*\* Cable bottom incoming/outgoing will be 1500mm; Cable trolley incoming/outgoing will be 1660mm.