

1.1 KYN28-12(GZSI-12Z)型铠装中置式金属封闭开关设备 KYN28-12 (GZSI-12Z) Armoured Middle-Mounted Metal Enclosed Switchgear



一、产品概述 General

KYN28-12铠装中置式金属封闭开关设备（以下简称开关柜）是我公司在吸收国内外先进制造技术的基础上自行设计开发的新型产品，可取代各种老型的金属封闭式开关设备，KYN1-10、JYN2-10、GBC-10等系列产品。

产品的外壳完全是由覆铝锌钢板经CNC机床加工多重折弯成型后用螺栓组装而成，具有很高的机械强度，有效的保证了产品的整齐和美观，柜门采用喷塑涂覆，具有较强的抗冲击和耐腐蚀能力。产品外壳具有IP4X级的防护功能。

本产品的主开关可配置ABB公司生产VD4型真空断路器、施耐德HVX、C3系列固定式负荷开关，同时也可配置多种国产系列真空断路器（如VS1、VH1、VK、ZN28），以取代国内同类产品。

无论是选用何种断路器，其裸导体空气绝缘距离均能保证大于125mm，复合绝缘大于60mm。其断路器均有长寿命、高参数、少维护、体积小独特优点。

KYN28-12 armoured middle-mounted metal enclosed switchgear (hereinafter referred to as switchgear) is our new designed and developed product on the basis of absorbing advanced technology abroad, which can replace the old metal enclosed switchgears, such as KYN1-10, JYN2-10, GBC-10 series, etc.

The shell whose mechanical strength is high is assembled when coated Al-Zn steel plates are processed, bended and molded by CNC machine tool so that tidy and beautiful product is ensured. The door is plastic sprayed coating therefore, it has the high impact resistance and corrosion resistance ability. The protection grade of shell is IP4X.

The main switch can be configured with VD4-type vacuum circuit breaker produced by ABB, Schneider HVX, C3 series fixed load switch, meanwhile, it also can be assembled with several domestic vacuum circuit breakers (such as VS1, VH1, VK, ZN28) to replace the similar domestic products.

No matter which kind of circuit breaker is chosen, the air insulation distance of bare conductor should be more than 125mm, the compound insulation distance should be more than 60mm. The circuit breaker has the special advantages : long service life, high parameter, less maintenance and small size.

二、型号含义 Model Definition



三、使用环境 Operational Environment

- a. 周围空气温度：上限+40℃、下限-10℃
 - b. 相对湿度：日平均不大于95%，月平均值不大于90%
 - c. 海拔高度：不超过1000m
 - d. 地震烈度不超过8级
 - e. 无火灾、爆炸危险、严重污秽、化学腐蚀及剧烈振动的场合。
- 当使用条件超出上述使用范围时，应由我公司和用户协商确定允许范围及技术措施。

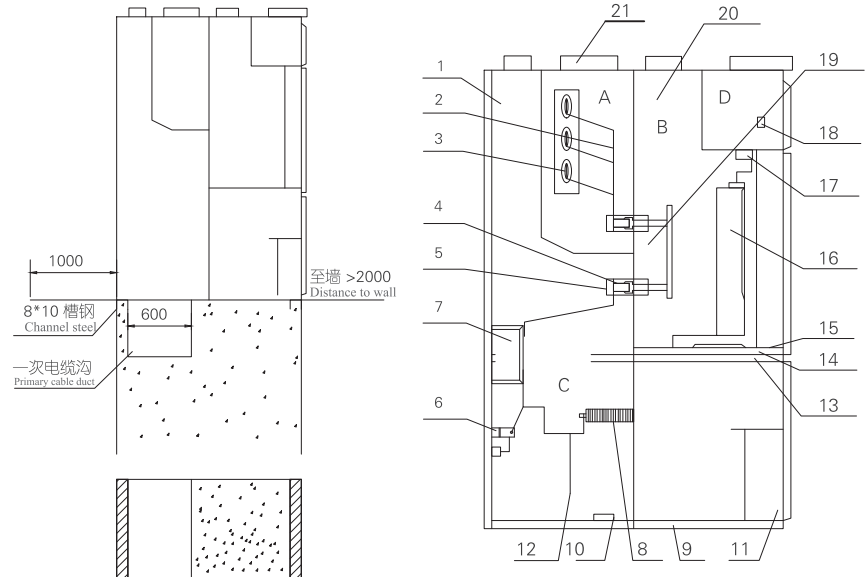
- a. Ambient Temperature: -10℃~+40℃
- b. Relative Humidity: Daily average is not higher than 95%, monthly average is not more than 90%
- c. Elevation: Not higher than 1000m
- d. The seismic intensity should be less than 8-magnitude.
- e. It should be operated in the place without danger of fire, explosion, serious dirtiness, chemical corrosion and acute shaking.

If it is planned to operate in the condition out of the above limits, the customers should negotiate with us to decide the allowable operational conditions and technical measures.

四、技术参数 Technical Parameters

项目 Items	单位 Units	数据 Parameters
额定电压 Rated Voltage	kV	3, 6, 7.2, 12
额定频率 Rated Frequency	Hz	50
断路器额定电流 Rated Current of Circuit Breaker	A	630, 1250, 1600, 2000, 2500, 3150
开关柜额定电流 Rated Current of Switchgear	A	630, 1250, 1600, 2000, 2500, 3150
短时耐受电流 (4s) The short-time withstand current(4s)	kA	20, 25, 31.5, 40, 50
额定动稳定电流 (峰值) Rated Dynamic Stability Current (Peak)	kA	50, 63, 80, 100, 125
额定短路开断电流 Rated Short-circuit Breaking Current	kA	20, 25, 31.5, 40, 50
额定短路关合电流 (峰值) Rated Short-circuit Closed Current (Peak)	kA	50, 63, 80, 100, 125
额定绝缘水平 Rated Insulation Level	1min工频耐受电压 1min Power Frequency Withstand Voltage	kV 24 3 42
	雷电冲击耐受电压 Lightning Impulse Withstand Voltage	kV 40 60 75
防护等级 Protection Grade	外壳为IP4X、隔离间、断路器室门打开为IP2X Shell IP4X, IP2X when the isolation room door and circuit breaker room door opened	

五、开关柜示意图 Switchgear Schematic Diagram



A 母线室
B 断路器手车室
C 电缆室
D 继电器仪表室

A Busbar chamber
B CB Handcart chamber
C Cable chamber
D Relay instrument chamber

1 -外壳
2 -分支母线
3 -母线
4 -隔离触头装置
5 -一次触头盒
6 -接地开关
7 -电流互感器
8 -氧化锌避雷器
9 -底板
10-主接地母线
11-控制线槽
12-电缆密封终端
13-接地开关操作机构
14-装卸式水平隔板
15-线杠机构
16-真空断路器
17-二次插头
18-端子板
19-活门
20-装卸式隔板
21-压力释放

1 -Cabinet
2 -Branch bar
3 -Busbar
4 -Isolated contacts
5 -Contact box
6 -Earthing switch
7 -Current transformer
8 -Zinc oxide arrester
9 -Baseplate
10-Main grounding busbar
11-The control line slot
12-Cable seal terminal
13-Grounding switch operating mechanism
14-Detachable horizontal clapboard
15-Wire rod mechanism
16-VCB
17-Secondary plug
18-Terminal board
19-Shutter
20-Detachable clapboard
21-Pressure release

六、安装尺寸 Installation Dimensions

开关柜用途 Switchgear	柜宽(w) width	下进下出 柜深(D) wire in and out at bottom(D)	上进上出 柜深(D) wire in and out at top(D)
Zn63	800	1500(1550)	1660
断路器 CB	1000		
3AH、ZN12	800	1500(1550)	1660
断路器 CB	1000		
VD4、VS1	800	1500(1550)	1660
断路器 CB	1000		

开关柜用途 Switchgear	柜宽(w) width	下进下出 柜深(D) wire in and out at bottom(D)	上进上出 柜深(D) wire in and out at top(D)
W-VAC	700	1660	1660
断路器 CB	800		
VCP-W	800	1660	1660
断路器 CB	1000		

七、订货须知 Ordering Instructions

开关柜订货时应提供下列技术资料：

- 主接线图方案编号、用途和单线系统图、额定电压、额定电流、额定短路开断电流、配电室平面布置及开关柜的排列布置图等；
- 开关柜控制、测量及保护功能的要求以及其它闭锁和自动装置的要求及原理图；
- 开关柜内主要电气原件的型号，规格及数量；
- 其他特殊要求。

Orderers should offer the following technical information:

- Main wiring diagram plan No., usage and single line diagram, the diagrams of rated voltage, rated current, rated short-circuit breaking current, distribution room layout and switchgears arrangement diagrams, etc.
- The switchgear control, measurement and protection functional requirements; other blocking and automatic device requirements and schematic diagrams.
- The type, specification and quantity of main electrical elements installed in the switchgear.
- Other special requirements.