

KYN61-40.5

铠装移开式交流金属封闭开关设备

Steel-Clad Removable-Type AC Metal-Enclosed Switchgear



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概述 General

KYN61-40.5 开关设备配置性能优良的 ZN85A，VD4 真空断路器，柜体采用组装结构，提高了外观质量和制造精度；母线采用热缩绝缘材料或环氧涂覆的绝缘手段，优化电极形状，柜体结构紧凑，并具备完善的“五防”功能。

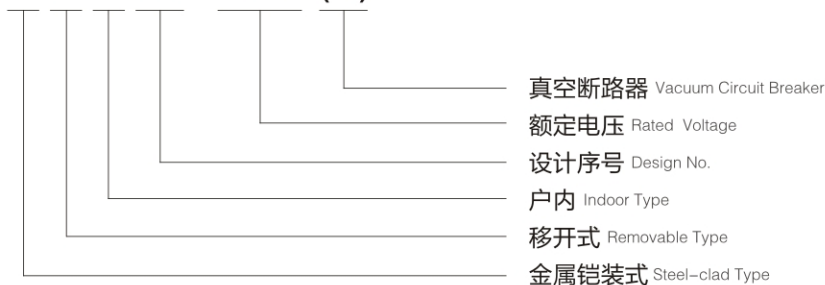
KYN61-40.5 开关设备使用在 40.5kV 三相交流 50Hz 电力系统中，作为发电厂、变电所及工矿企业的配电室接受与分配电能之用；对电路具有控制、保护和监测等功能。除广泛用于一般电力系统外，还可以使用于频繁操作的场所。使用环境条件按 GB3906《3.6-40.5kV 交流金属封闭开关设备》所规定的正常使用条件。

KYN61-40.5 switchgear is equipped with advanced ZN85A vacuum circuit breaker. VD4 vacuum circuit breaker cabinet uses the assembly structure to increase the quality of appearance and manufacturing precision; Bus bar uses heat insulation materials or the insulation of the epoxy coating methods to optimize the electrode shape, compact the structure of the cabinet, and possess perfect function of “five prevention”.

KYN28A-12 Switchgear is applicable in the power system of 40.5kV three-phase AC 50Hz, which is used to receive and distribute power as well as control, protect and monitor the circuit of power plant, substation and industrial and mining enterprises and high-rise buildings. In addition to the widely used for general power system, it can also be used in place of frequent operation. Using environment conditions are according to GB3906 “3.6-40.5kV AC Metal-enclosed Switchgear”.

型号含义 Type Designation

K Y N 61- 40.5 (Z)



正常使用条件 Working Conditions

- ◆ 周围空气温度：最高温度 +40℃，最低温度 -15℃。
Ambient temperature: -15~+40℃
- ◆ 相对湿度：日平均相对湿度：≤ 95%
Humidity: daily average ≤ 95%
日平均水蒸气压力不超过 2.2kPa;
daily vapor pressure ≤ 2.2kPa
月平均相对湿度：≤ 90%
monthly average ≤ 90%
月平均水蒸气压力不超过 1.8kPa;
monthly vapor pressure ≤ 1.8kPa
- ◆ 海拔高度：1000m 以下。
Altitude: ≤ 1000m
- ◆ 地震烈度：不超过 8 级。
Earthquake intensity: ≤ magnitude 8
- ◆ 周围空气应不受腐蚀性或可燃气体、水蒸气等明显污染。
It is applicable in the place without corrosive or flammable gas, vapor and so forth pollution.
- ◆ 无剧烈振动场所。
It can not be used in violent vibration places.
- ◆ 超出 GB3906 规定的正常条件下使用时，由用户和制造厂协商
Customer and manufacturer need to discuss when the environment conditions are not according to GB3906.

结构特点 Structure Features

- ◆ 全金属模块化组装式结构
All metal modular assembly type structure
- ◆ 柜体采用防腐蚀能力强的进口敷铝锌板制造
Cabinet manufactured by imported anti-corrosion aluminium zinc plate
- ◆ 无需表面处理
Without surface treatment
- ◆ 经 CNC 高精度设备加工
CNC precision processing equipment
- ◆ 采用先进的多重折边工艺
Advanced multiple folding process
- ◆ 连接用拉铆螺母、高强度螺栓连接
Connection with riveting nut and high strength bolt
- ◆ 精度高、重量轻
High precision, light weight

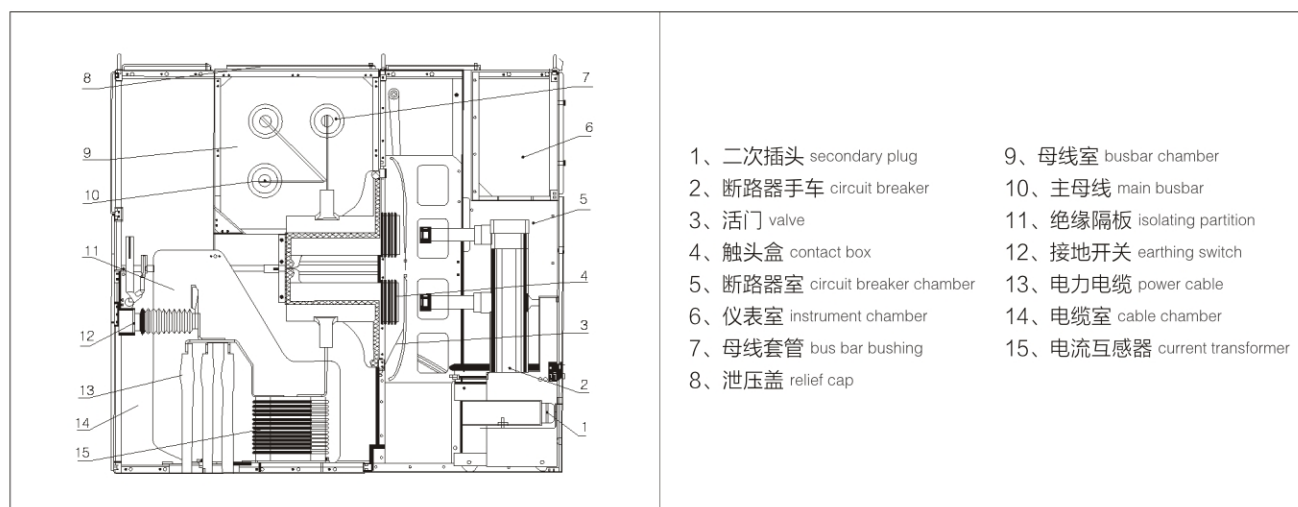
主要技术参数 Specifications

项目 Item	单位 Unit	数据 Data		
额定电压 Rated Voltage	kV	40.5		
额定频率 Rated Frequency	Hz	50		
断路器额定电流 Rated Current of Circuit Breaker	A	1250、1600、2000、2500		
开关设备额定电流 Rated Current of Switchgear	A	1250、1600、2000、2500		
额定短时耐受电流 (4s) Rated Short-time Withstand Current (4s)	kA	20、25、31.5		
额定峰值耐受电流 (峰值) Rated Peak Withstand Current (Peak Value)	kA	50、63、80		
额定短路开断电流 Rated Short-circuit Breaking Current	kA	20、25、31.5		
额定短路关合电流 (峰值) Rated Short-circuit Closing Current (Peak Value)	kA	50、63、80		
额定绝缘水平 Rated Insulation Level	1min 工频耐受电压 1min Power Frequency Withstands Voltage	极间、极对地间 Between Phases, Between Phase and Earth	kV	95
		断口间 Between Fractures	kV	110
雷电冲击耐受电压 (峰值) Lightning Impact Withstands Voltage (Full Wave)		极间、极对地间 Between Phases, Between Phase and Earth	kV	185
		断口间 Between Fractures	kV	215
防护等级 外壳为 2P4X, 隔室间、断路器室门打开时为 IP2X。 Protection grade of the shell is 2P4X. When the door of compartment and circuit breaker room open, the protection grade of the shell is IP2X				

外形尺寸 Dimension

高度 Height		2600
宽度 Width	额定电流 1600A 及以下 Rated Current $\leq$ 1600A	1400
深度 Depth	电缆进出线 Outlet and inlet line of cable	2870
	架空进出线 Overhead Outlet and inlet line	3000

设备机构图 Structure Chart

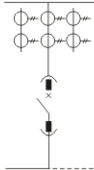
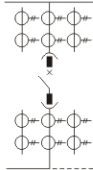
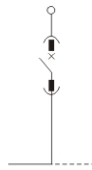
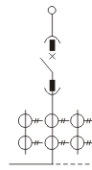
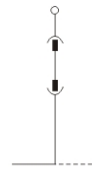


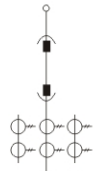
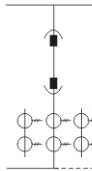
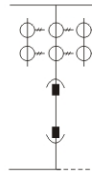
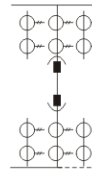
主电路方案图 Primary Wiring Scheme

方案号 Scheme Number	01	02	03	04	05
主电路方案图 Primary Wiring Scheme					
主要 电器 元件 Main Electric Component	真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5	1	1	1	1
	电流互感器 LDJ5-35 Current Transformer LDJ5-35		3	3	6
	电压互感器 JDJ9-35 Voltage Transformer JDJ9-35				
	避雷器 HY5WZ Lightning Arrester HY5WZ	0 或 3 选用 Choose 0 or 3	0 或 3 选用 Choose 0 or 3	0 或 3 选用 Choose 0 or 3	0 或 3 选用 Choose 0 or 3
	接地开关 JN22-40.5 Grounding Switch JN22-40.5	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1
	带电显示 Charged Display	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1
	熔断器 XRNP-35 Fuse XRNP-35				
变压器 SC9 Transformer SC9					
用途 Application	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	电缆进 (出) 线 Inlet (outlet) Line of Cable

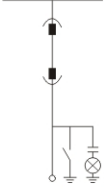
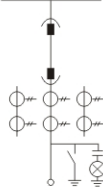
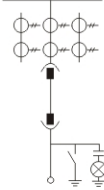
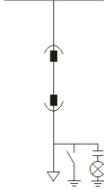
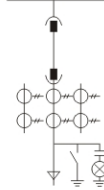
方案号 Scheme Number	06	07	08	09	10
主电路方案图 Primary Wiring Scheme					
主要 电器 元件 Main Electric Component	真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5	1	1	1	1
	电流互感器 LDJ5-35 Current Transformer LDJ5-35	2-3	2-3	2-6	2-3
	电压互感器 JDJ9-35 Voltage Transformer JDJ9-35				
	避雷器 HY5WZ2 Lightning Arrester HY5WZ2	0 或 3 选用 Choose 0 or 3	0 或 3 选用 Choose 0 or 3	0 或 3 选用 Choose 0 or 3	
	接地开关 JN22-40.5 Grounding Switch JN22-40.5	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	
	带电显示 Charged Display	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	
	熔断器 XRNP-35 Fuse XRNP-35				
用途 Application	电缆进 (出) 线 Inlet (outlet)	电缆进 (出) 线 Inlet (outlet)	电缆进 (出) 线 Inlet (outlet)	左 (右) 联络 Left (right) Connection	左 (右) 联络 Left (right) Connection

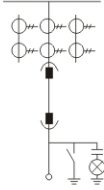
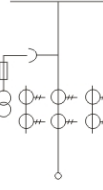
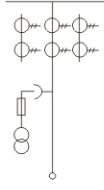
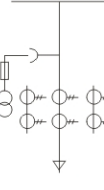
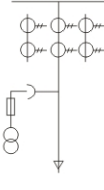
主电路方案图 Primary Wiring Scheme

方案号 Scheme Number	11	12	13	14	15
主电路方案图 Primary Wiring Scheme					
主要电器元件 Main Electric Component	真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5	1	1	1	1
	电流互感器 LDJ5-35 Current Transformer LDJ5-35	2-3	4-6	0	2-3
	电压互感器 JDJ9-35 Voltage Transformer JDJ9-35				
	避雷器 HY5WZ Lightning Arrester HY5WZ				
	接地开关 JN22-40.5 Grounding Switch JN22-40.5				
	带电显示 Charged Display				
	熔断器 XRNP-35 Fuse XRNP-35				
用途 Application	左 (右) 联络 Left (right) Connection	左 (右) 联络 Left (right) Connection	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	电缆进 (出) 线 Overhead Inlet (outlet) Line

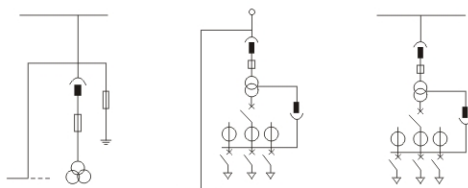
方案号 Scheme Number	16	17	18	19	20
主电路方案图 Primary Wiring Scheme					
主要电器元件 Main Electric Component	真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5				
	电流互感器 LDJ5-35 Current Transformer LDJ5-35	2-3	2-3	2-3	4-6
	电压互感器 JDJ9-35 Voltage Transformer JDJ9-35				
	避雷器 HY5WZ2 Lightning Arrester HY5WZ2				
	接地开关 JN22-40.5 Grounding Switch JN22-40.5				
	带电显示 Charged Display				
	熔断器 XRNP-35 Fuse XRNP-35				
用途 Application	电缆进 (出) 线 Overhead Inlet (outlet) Line	左 (右) 联络 Left (right) Connection	左 (右) 联络 Left (right) Connection	左 (右) 联络 Left (right) Connection	左 (右) 联络 Left (right) Connection

主电路方案图 Primary Wiring Scheme

方案号 Scheme Number	21	22	23	24	25
主电路方案图 Primary Wiring Scheme					
真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5					
电流互感器 LDJ5-35 Current Transformer LDJ5-35		2-3	2-3		2-3
电压互感器 JDJ9-35 Voltage Transformer JDJ9-35					
避雷器 HY5WZ Lightning Arrester HY5WZ					
接地开关 JN22-40.5 Grounding Switch JN22-40.5	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1
带电显示 Charged Display	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1	0 或 1 选用 Choose 0 or 1
熔断器 XRNP-35 Fuse XRNP-35					
用途 Application	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	架空进 (出) 线 Overhead Inlet (outlet) Line	电缆进 (出) 线 Overhead Inlet (outlet) Line	电缆进 (出) 线 Overhead Inlet (outlet) Line

方案号 Scheme Number	26	27	28	29	30
主电路方案图 Primary Wiring Scheme					
真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5					
电流互感器 LDJ5-35 Current Transformer LDJ5-35	2-3	2-3	2-3	2-3	4-6
电压互感器 JDJ9-35 Voltage Transformer JDJ9-35		2	2	2	2
避雷器 HY5WZ2 Lightning Arrester HY5WZ2					
接地开关 JN22-40.5 Grounding Switch JN22-40.5	0 或 1 选用 Choose 0 or 1				
带电显示 Charged Display	0 或 1 选用 Choose 0 or 1				
熔断器 XRNP-35 Fuse XRNP-35		3	3	3	3
用途 Application	电缆进 (出) 线 Inlet (outlet) Line of Cable	计量兼架空进线 Measuring and Overhead Inlet Line	计量兼架空进线 Measuring and Overhead Inlet Line	计量兼进线 Measuring and Overhead Inlet Line	计量兼进线 Measuring and Overhead Inlet Line

主电路方案图 Primary Wiring Scheme

方案号 Scheme Number		31	32	33	
主电路方案图 Primary Wiring Scheme					
主要 电 器 元 件 Main Electric Component	真空断路器 ZN85-40.5 Vacuum Circuit Breaker ZN85-40.5				
	电流互感器 LDJ5-35 Current Transformer LDJ5-35				
	电压互感器 JDJ9-35 Voltage Transformer JDJ9-35	2-3			
	避雷器 HY5WZ2 Lightning Arrester HY5WZ2	3			
	接地开关 JN22-40.5 Grounding Switch JN22-40.5				
	带电显示 Charged Display				
	熔断器 XRNP-35 Fuse XRNP-35	3			
变压器 SC9 Transformer SC9			1	1	
用途 Application		电缆进（出）线 Inlet (outlet) Line of Cable	所变兼进线 Change and Inlet	所变 Change	

订货须知 Ordering Information

- ◆ 主电路方案编号、用途和主电路方案、配电室平面布置图及排列配置图等。
The serial number and application of the main wiring scheme and the drawings of the main wiring scheme, the layout chart and arrangement diagram of the electric distribution room;
- ◆ 开关设备控制、测量及保护功能的要求以及其他封闭和自动装置的要求。
The requirement of controlling, measuring and protecting of switch cabinet, as well as the requirement of close-lock and automatic system;
- ◆ 开关设备电器元件的型号、规格、数量。
The type, specification and quantity of the main electric elements of the switch cabinet;
- ◆ 如开关设备之间或进线柜需要母线桥连接，应提供母线桥的额定载流量，母线桥的跨度，距地高度等具体要求数据。
If the busbar-bridge connection between the switch cabinet or in-cable cabinet is needed, the detailed data such as rated current capacity of the busbar-bridge, the span and the height etc should be attached.
- ◆ 开关设备使用在特殊环境条件时，应在订货时详细说明。
If the switch cabinet is used in special environment conditions, it must be declared when ordering.
- ◆ 其它特殊要求同本公司协商。
Other special requirements need to be discussed when ordering.