

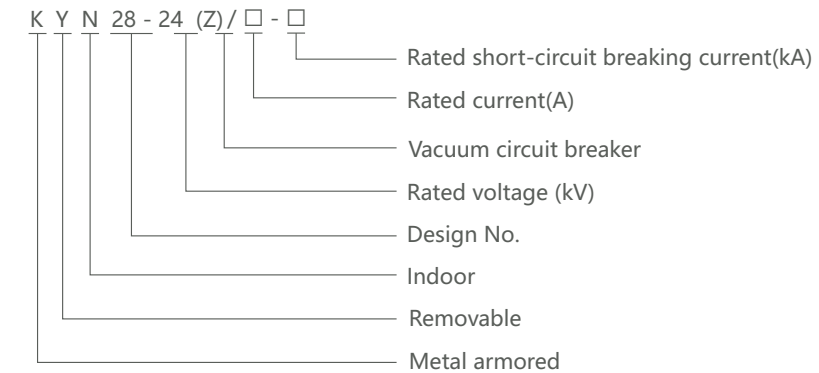
## Medium Voltage Switchgear **KYN28-24** Metalclad AC Enclosed Switchgear, Withdrawable Type

- KYN28A-24 Metalclad AC Enclosed Switchgear, Withdrawable Type (hereinafter referred to as switchgear), suitable for indoor three-phase 50/60Hz, rated voltage 24kV power system, mainly used in power plants, substations, industrial and mining enterprises and high-rise buildings. It is used to receive and distribute electric energy and to control, protect and monitor circuits.
- Standard: IEC62271-200

### General

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### Selection



### Operating conditions

1. +15°C~+40°C. And the average value measured within 24 hours shall not exceed 35°C
2. The average monthly relative humidity shall not exceed 90%  
The average monthly water vapor pressure shall not exceed 1.8kPa;
3. Altitude: ≤1000m.
4. There is no obvious dust or smoke in the surrounding air: pollution caused by corrosive or combustible gases, vapors, or salt mist;
5. Vibration or ground motion from outside the switchgear and control equipment can be ignored;
6. The amplitude of electromagnetic interference induced in the secondary system shall not exceed 1.6kV

### Features

1. The cabinet is made of aluminum-zinc coated sheet processed by CNC equipment and assembled with bolts or rivets, with a fully modular structure.
2. This switchgear has various functions to prevent misoperations, including preventing loaded trolleys from moving, preventing live coupling and earthing switches, and preventing inadvertent entry into live compartments.  
The switchgear is equipped with high-quality VS1 series center-mounted AC high-voltage vacuum circuit breaker and fixed-sealed vacuum circuit breaker.  
The busbar adopts heat-shrinkable insulation material as the insulation means, optimized electrode shape, and compact cabinet structure.  
This switchgear is an advanced, stable performance, reasonable structure, easy-to-use, safe and reliable power distribution equipment.



## Medium Voltage Switchgear KYN28-24 Metalclad AC Enclosed Switchgear, Withdrawable Type

### Technical data

Item		Unit	Data			
Rated voltage		kV	24			
Rated frequency of circuit breaker		Hz	50/60			
Rated insulation level	Lightning impulse withstand voltage (peak)	kV	Phase-to-phase, phase-to-ground	60	Isolating fracture	79
	1min power frequency withstandvoltage (effective value)	kV	Phase-to-phase, phase-to-ground	125	Isolating fracture	145
	Auxiliary control circuit power frequency withstand voltage	V	2000			
Rated current of circuit breaker		A	630, 1250, 1600 2000, 2500, 3150			
Rated short-circuit breaking current		kA	20	31.5		
Rated short-circuit closing current (peak)		kA	50	80		
Rated short-time withstand current		kA	20	31.5		
Rated peak withstand current		kA	50	80		
Auxiliary control circuit rated voltage		V	AC or DC 110/220			
Protection degree		/	IP4X(IP2X when the front door is opened)			
Overall and mounting dimensions(mm) s(width*depth*height)		mm	800×1810×2380		1000×1810×2380	
Weight		kg	840~1140			

Note:The depth of the overhead incoming and outgoing cabinet is 2360mm

### VS1-24 Technical data

Item		Unit	Data	
Rated voltage		kV	24	
Rated insulation level	Lightning impulse withstand voltage (peak)	kV	60	
	1min power frequency withstandvoltage (effective value)	kV	125	
Rated frequency of circuit breaker		Hz	50/60	
Rated current of circuit breaker		A	630, 1250, 1600, 2000	630, 1250, 1600, 2000, 2500, 3150
Rated short-circuit breaking current		kA	20	31.5
Rated short-circuit closing current (peak)		kA	50	80
Rated short-time withstand current		kA	20	31.5
Rated peak withstand current		kA	50	80
Rated single capacitor bank breaking current		A	630	
Rated back to back capacitor bank breaking current		A	400	
Rated short-circuit breaking current breaking times		Times	50	
Mechanical life		Times	20000	
Rated operating sequence			O-0.3s-CO-180s-CO	

## Medium Voltage Switchgear KYN28-24 Metalclad AC Enclosed Switchgear, Withdrawable Type

### VS1-24 Technical data

Item		Unit	Data
Rated voltage	closing and tripping coil	V	AC220, AC110, DC220, DC110
	opening and tripping coil		
Working current	closing and tripping coil	A	AC220 or DC220 : 1.1A
	opening and tripping coil		AC110 or DC110 : 3.1A
Energy storage motor power		W	80, 100
Energy storage motor rated voltage		V	AC220, AC110, DC220, DC110
Energy storage time		S	≤10

### Structure and working principle

The KYN28A-24 switchgear consists of two main parts: a cabinet body and a removable component (commonly known as a handcart). The cabinet is divided into multiple functional compartments using metal partitions, such as busbar compartment, circuit breaker compartment, cable compartment, and relay instrument compartment.

The movable components of the switchgear can be equipped with vacuum circuit breaker handcart, voltage transformer handcart, lightning arrester handcart, isolation handcart, and fuse handcart.

A. busbar room    B. Circuit breaker handcart room    C. Cable room    D. Relay instrument room

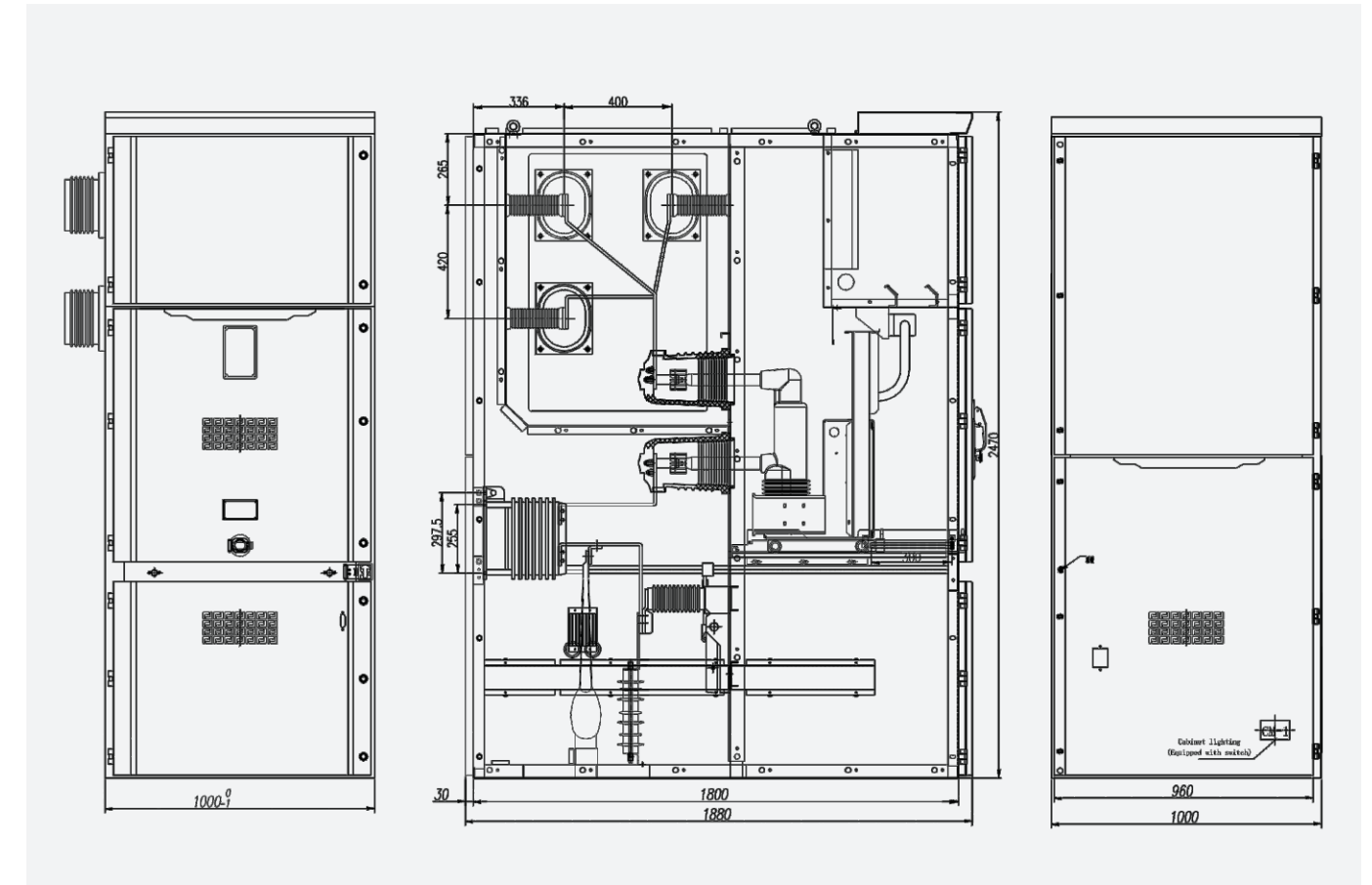


Figure 1 Schematic diagram of KYN28A-24 Switchgear