

KYN28-3.6,...7.2,...12,...24kV Unigear

Equipped with a special CT for convenient operation

Compact design and low maintenance requirements

Superior breaking performance and arc-free interruption



Comply with IEC / CEI /GB/JB/DL standards

Provided customized manufacture

Whole solutions for design, assembly, test...

Accountable solution for safety and reliability

Wide range offering, easy business and convenient installation



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Rockwill Group is one of the leading high technical enterprises professional deals in medium high voltage switchgear and components develop, manufacture and sales.

Located in Wengyang Industrial Zone, Wenzhou, used to known as Yueqing Real Electric Works (Registered in 1986), we have more than 20 years experiences in Medium & high voltage field. We strategically cooperate with worldwide high reputation medium& high voltage switchgear manufacturer and research institute, successfully developed series of medium voltage mutually; filled the blank in China.

We also teamed up with province grade intelligence high voltage switch laboratory, together developed new generation intelligence simultaneous technical vacuum switch, electronic current transformer, digital integrated substation etc. through the cooperation we obtain plenty achievements and build up experience technical team. Plentiful talent backup, advanced production equipment, perfect quality control system and reverse inspection procedure are powerful guarantee of our reliable product quality and high reputation.

We have always insisted the faith on grow together with customers, and to provide a safe, simply, green and efficient medium & high voltage switchgear and components.

ROCKWILL[®], China. Provide with best support.

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ROCKWILL[®] Electric strives to bring our customers the latest technology and competitive pricing and best service for distribution automatic.

The KYN28 indoor metal-clad withdrawable switchgear(hereinafter short as switchgear) is a complete power distribution device for 3.6-24kV,3-phase AC 50Hz,single-bus and single-bus sectionalized system. It is mainly used for power transmission of middle/small generators in power plants; power receiving, transmission for substations in power distribution and power system of factories, mines and enterprises, and starting of large high-voltage motor, etc,so as to control, protect and monitor the system. The switchgear meets IEC298,GB3906-91.In addition to be used with domestic VS1 vacuum circuit breaker, it can also be used with VD4 from ABB,3AH3 from Siemens domestic ZN65A,and VB2 from GE, etc,it truly is a power distribution device with good performance.

In order to meet the requirement for wall mounting and front-end maintenance, the switchgear is equipped with a special current transformer, so that the operator can maintain and inspect it in front of the cubicle.

Service environment

Monthly average humidity: 95%

Daily average humidity: 90%

Air temperature: Maximum temperature: +40°C;
Minimum temperature:-15°C

Maximum installation altitude: 1000m

No frequent violent shake

Ambient air not apparently polluted by corrosive and flammable gas, vapor etc.



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Technical feature

Centralized (Draw-out) Layout

The circuit breaker (e.g., VD4 vacuum breaker) is mounted on a withdrawable truck at the center of the cabinet. During maintenance, the truck can be safely withdrawn while the busbar compartment remains energized, achieving "partial de-energization without full shutdown" to minimize power outage impact.

Armored Compartmentalization

The enclosure is constructed with laser-welded steel plates, divided into four fully segregated compartments (busbar compartment, circuit breaker compartment, cable compartment, and instrumentation compartment), each isolated from the others via grounded metal barriers.

Standardized Modular Design

Standardized modules allow flexible combination of functional units (e.g., incoming line, metering, PT cabinets) with uniform 800mm/1000mm widths, simplifying expansion and system integration.

Excellent performance

High - quality insulating materials and conductive components are selected, with good electrical insulation performance and current - carrying capacity, enabling stable operation under complex working conditions.

Flexible Maintenance

The centralized (draw-out) design allows critical components such as circuit breakers to be withdrawn effortlessly, enabling partial de-energization during servicing. This minimizes power interruption and streamlines inspection/maintenance workflows.

Circuit On - Off Control

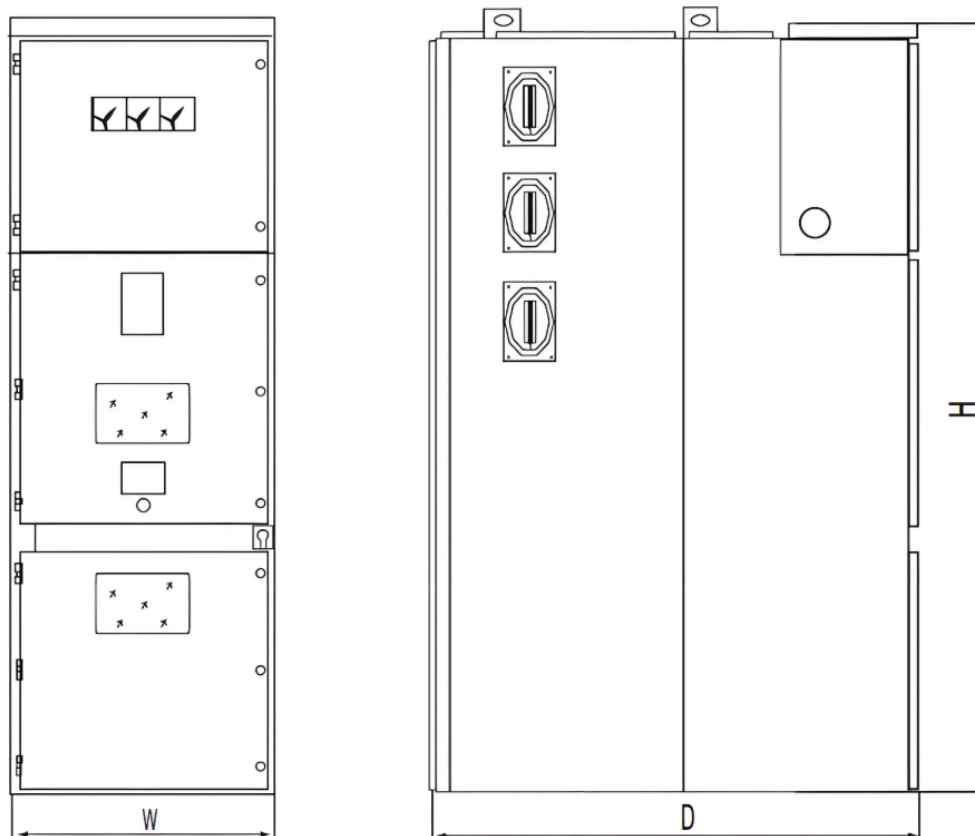
The circuit's connection and disconnection are mainly achieved through the circuit breaker. When power needs to be supplied to the circuit, the circuit breaker closes, allowing current to pass through the busbars, contacts, and other conductive components inside the switchgear and be transmitted to the corresponding loads or lower - level circuits. When the circuit needs to be cut off or a fault occurs in the circuit, the circuit breaker opens, interrupting the current path.

Protection Function

It is equipped with various protection devices, such as relay protection devices. When faults like overload, short - circuit, or grounding occur in the circuit, the protection device will detect abnormal current, voltage, and other signals. After analysis and judgment, it will quickly issue a tripping command, causing the circuit breaker to act and cut off the faulty circuit, preventing the fault from expanding and safeguarding the safety of equipment and lines.

Isolation and Insulation

It adopts a metal - clad structure to isolate each functional compartment (such as the circuit breaker compartment, busbar compartment, cable compartment, etc.) from one another. Meanwhile, high - quality insulating materials, such as insulating bushings and insulators, are used to ensure the insulation between conductive components of different potentials and between the conductive components and the cabinet body, preventing electrical breakdown and leakage and ensuring the safety of operators and equipment.



Overall size and weight

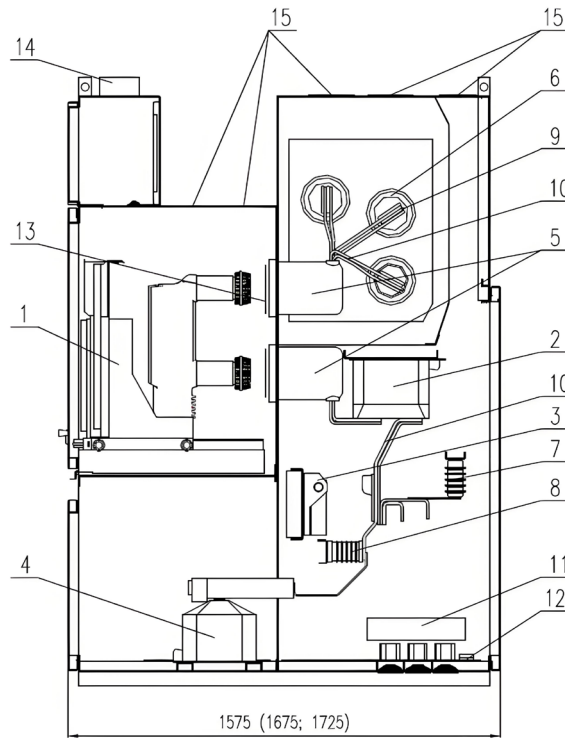
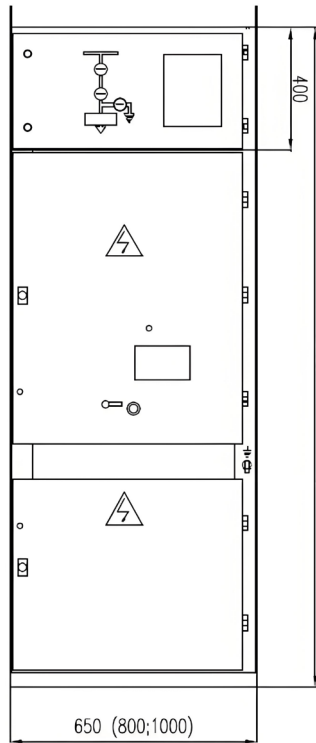
Item	With VS1,VD4 inside	With VS1,VD4 inside	With VS1,VD4 inside
W×D×H(mm)	650×1400×2200	800(1000)×1500×2200	800(1000)×1700×2200
Weight (kg)	700	800	900

Notice:

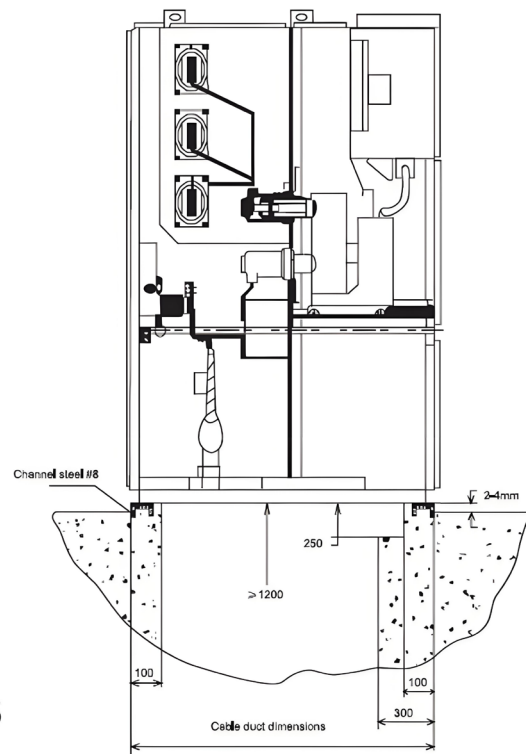
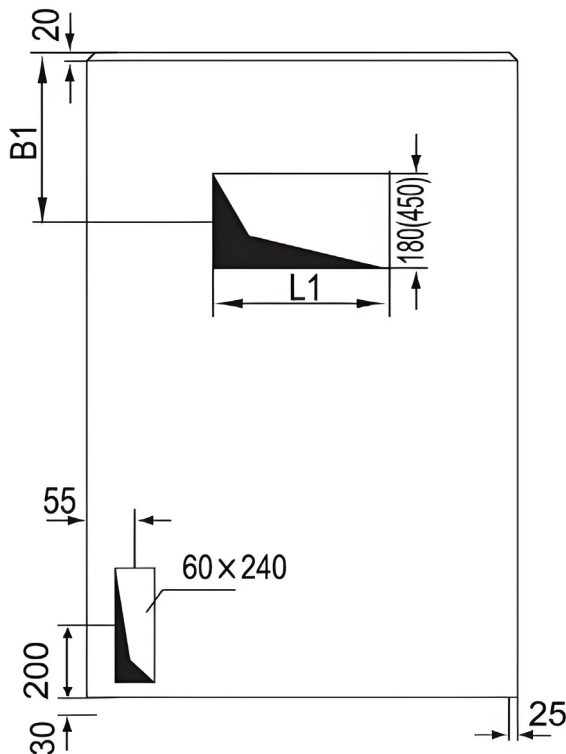
when the rated current is more than 1600A, cubicle width shall be 1000 mm, and cubicle height will be 1660mm and for schema of rear overhead line in.

- 1)Width of cabinet:650mm(compound insulation)or 800mm(air insulation) at current<1250A;
- 2)Width of cabinet:1000mm at current>1250A;
- 3)Depth of cabinet:1400mm,at cabinet width of 650mm(compound insulation)when employing the configuration of incoming and outgoing cables;
- 4)Depth of cabinet:1500mm,at cabinet width of 800mm(air insulation)when employing the configuration of incoming and outgoing cables;
- 5)Depth of cabinet:1600mm,when employing the configuration of rear overhead incoming and outgoing cables.

A	B	L1	B1	Reference weight Kg
650	1400	380	315	700
800	1500	530	315	800
	1600 overhead			900
1000	1500	730	490	1100
	1600 overhead			1200
900	1700(with 3AH5)	600	415	1000



- 1 - main device: circuit breaker, contactor 2 - current transformers 3 - earthing switch
 4 - voltage transformers 5 - support - bushing insulators 6 - bushing insulators 7 - surge arresters
 8 - support insulators (reactance) 9 - main busbars 10 - connecting (distribution) busbars
 11 - earth - fault current transformer 12 - earthing conductor 13 - metal movable partitions
 14 - cable ducts (optionally) 15 - vent flaps



Note:

Dimension in brackets means dimension of heavy-current cubicle



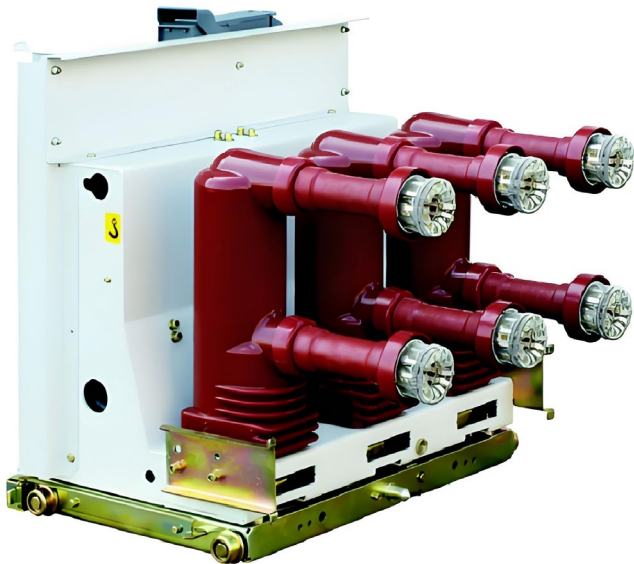
VS1-12 indoor drawable vacuum circuit breaker.

Rated voltage 3.6kV up to 24kV

Rated current 630A up to 4000A

Rated short circuit breaking current 20kA up to 40kA

Mechanical life 10,000 times



VD4 embeded pole indoor vacuum circuit breaker.

Rated voltage 3.6kV up to 24kV

Rated current 630A up to 4000A

Rated short circuit breaking current 20kA up to 40kA

Mechanical life 10,000 times



VSM magnetic actuator indoor VCB

Rated voltage 3.6kV up to 24kV

Rated current 630A up to 4000A

Rated short circuit breaking current 20kA up to 40kA

Mechanical life 100,000 times

No	Item		Unit	Parameter	
1	Rated voltage		kV	3.6/7.2/12 /24	
2	Rated frequency		Hz	50/60	
3	Rated current		A	630,1250,1600,2000,2500,3150,4000	
4	Branch busbar Rated current		A	630,1250,1600,2000,2500,3150,4000	
5	Main busbar Rated current		A	630,1250,1600,2000,2500,3150,4000	
6	1min Power frequency withstand voltage	wet	kV	28	50/60
		dry	kV	34	60/65
7	Lightning impulse withstand voltage		kV	75	95/125
8	Rated short circuit breaking current (peak)		kA	40/50/63/80/100	
9	Short time withstand current(4s)		kA	20/25/31.5/40	
10	Protection type			IP4X for housing	

Note *The short circuit capacity should be considered alone.

Photos of frontal view





Field service operation and warranty issues:

ROCKWILL® can provide competent, well trained field service representatives to provide technical guidance and advisory assistance for the installation, overhaul, repair and maintenance of ROCKWILL® equipment, processes and systems.

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