



Product Portfolio

Intelligent manufacturing

The company independently develops the lean manufacturing information management system, continues to conduct Improvement on lean production, improves manufacturing capabilities and levels, implements a •machine substitution• strategy, and builds intelligent manufacturing factories.

The company has international edge-cutting laser, CNC Sheet metal processing equipment, automation equipment (Injection molding machines, central feeding systems, robots, pressure gel hydraulic molding machines, automated assembly lines, automatic feeding and stamping equipments, robot welding equipments, etc.) as well as domestically first-rate independently-developed sheet metal processing lines and circuit breaker assembly lines.

MGC 24/36

Ring Main Unit (SF6)

Gas Insulated Ring



Technical Parameters

MGC-24kV/630A

Sr.No.	Description	Unit	Load Breake Switch (C-module)	Switch-Fuse Combinations (F-module)	Vacuum Circuit Breake (V-module)
1	Rated voltage (Ur)	kV	24	24	24
2	Rated frequency (fr)	Hz	60	60	60
3	Rated current (Ir)	A	630	See Note 1	630
4	Rated insulation level (Ud, Up)	kV	Between phase and phase to earth	65	65
			Across isolating distance	79	79
			Auxiliary/control circuits	2	2
			Between phase and phase to earth	125	125
			Across isolating distance	145	145
5	Rated short-time withstand current(Ik/Ik)	kA/s	20/4,25/4	—	20/4,25/4
6	Rated peak withstand current (Ip)	kA	50,63	—	50,63
7	Rated short-circuit making current	kA	50,63	see 2	50,63
8	Rated Short-circuit making current	kA	50,63	See Note 2	50,63
9	Rated transfer current	A	—	1400	—
10	Rated Active load breaking current	A	630	—	—
11	Rated Closed-loop breaking current	A	630	—	—
12	Rated Operating sequence	—			0–0.3s–CO–180s–CO
13	Mechanical endurance	LBS/CB Circuit Breakers	Ops	5000	10000
		Disconnectors Earthing switches	Ops	3000	3000
14	Circuit resistance	uΩ	≤150	≤400	≤150
15	SF6 gas pressure @20°C	MPa	0.04	0.04	0.04
16	Annual leakage rate	%	≤0.01	≤0.01	≤0.01
17	Insulating gas / Protection	—	SF6; IP2XC/IP67/IP41 IK10	SF6; IP2XC/IP67/IP41 IK10	SF6; IP2XC/IP67/IP41 IK10
18	Degree of protection	Compartment	—	IP41/IK10	IP41/IK10
		Gas tank	—	IP67	IP67
		Enclosure	—	IP41/IK10	IP41/IK10
19	IAC classification	—	AFLR 25 kA/1 s	AFLR 25 kA/1 s	AFLR 25 kA/1 s

"Determined by the current rating of the fuse-link
"Limited by high voltage fuse-links

Technical Parameters

MGC-36kV

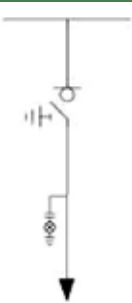
Sr.No.		Description		Unit	Load Breake Switch (C-module)	Switch-Fuse Combinations (F-module)	Vacuum Circuit Breake (V-module)
1	Rated voltage (Ur)			kV	36	36	36
2	Rated frequency (fr)			Hz	60	60	60
3	Rated current (Ir)			A	630	See 1	630
4	Rated insulation level	Power frequency withstand voltage (Umin)	Common value	kV	95	95	95
			Across isolating distance	kV	118	118	118
			Control and auxiliary ircui	kV	2	2	2
		Lightning impulse withstand voltage	Common value	kV	185	185	185
			Across isolating distance	kV	215	215	215
5	Rated short-time withstand current(Ik/Ik)			kA/s	25/3	—	25/3
6	Rated peak withstand curren! (Ip)			kA	63	—	63
7	Rated short-circuit making current			kA	—	See 1	25(E2)
8	Rated Short-circuit making current			kA	63	See 1	63
9	Rated transfer current			A	—	1000	—
10	Mainly active load current			A	630 (E2)	—	—
11	Closed-loop distribution circuit current			A	630	—	—
12	Rated Operating sequence			/	—	—	0—0.3s—CO—180s—CO
13	Mechanical endurance	LBS/CB Circuit Breakers		Ops	5000	5000	10000
		Disconnectors Earthing switches		Ops	3000	3000	3000
14	Circuit resistance			uΩ	≤150	≤400	≤150
15	Rated pressure of Sf6 gas (relative pressure at 20°C)			MPa	0.04	0.04	0.04
16	Annual leakage rate			%	≤0.01	≤0.01	≤0.01
17	Insulating gas			—	SF6	SF6	SF6
18	Degree of protection	Compartment (IP code)		—	IP2X	IP2X	IP2X
		Tank (IP code)		—	IP67	IP67	IP67
		Switchgear (IP code)		—	IP4X	IP4X	IP4X
		Switchgear(IK code)		—	IK10	IK10	IK10

"Determined by the current rating of the fuse-link

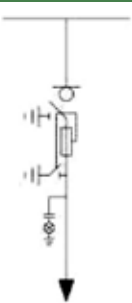
Basic Modular

Configuration

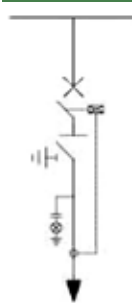
C module



F module



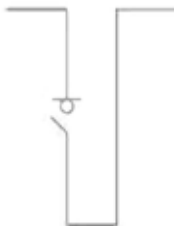
V module



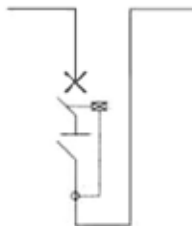
V module



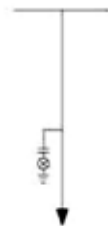
SI module



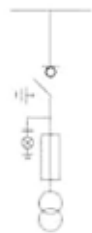
Sv module



D module



Cpt module



Remarks: The combination of basic units can be combined to form a common tank on demand, which can achieve up to 6 units and common tank to meet the personalized customization needs of customers.

Installation dimension drawing

The switchgear depth for the 12kV is 750mm, the switchgear height is 1450 mm (without LV compartment), and the option height of the LV compartment is 200mm, 360mm, and 470mm.

Common tank module No.	1	2	3	4	5	6
Gastank Netwidth	325	65	975	1300	1625	1950

Note: The total width of the switchgear is determined by the panel according to the user plan.

Applicable Standards
IEC 62271-100 :2012 High-voltage switchgear and controlgear-Part 100:
Alternating-current circuit-breakers
IEC 62271-105 High-voltage switchgear and controlgear-Part 105:
Alternating current switch-fuse combinations
IEC 62271-102 High-voltage switchgear and controlgear-Part 102:
Alternating current disconnectors and earthing switches
IEC 62271-103 High-voltage switchgear and controlgear-Part 103:
Switches for rated voltages above 1 kV and up to and including 52 kV
IEC 62271-200: 2011 High-voltage switchgear and controlgear-Part 200:
AC metal-enclosed switchgear and controlgear for rated voltage above 1 kV and up to and including 52 kV
IEC 62271-1: 2007 High-voltage switchgear and controlgear-Part 1:
Common specifications

MGX-36

SF6 Cubicle type Gas

Insulated Switchgear



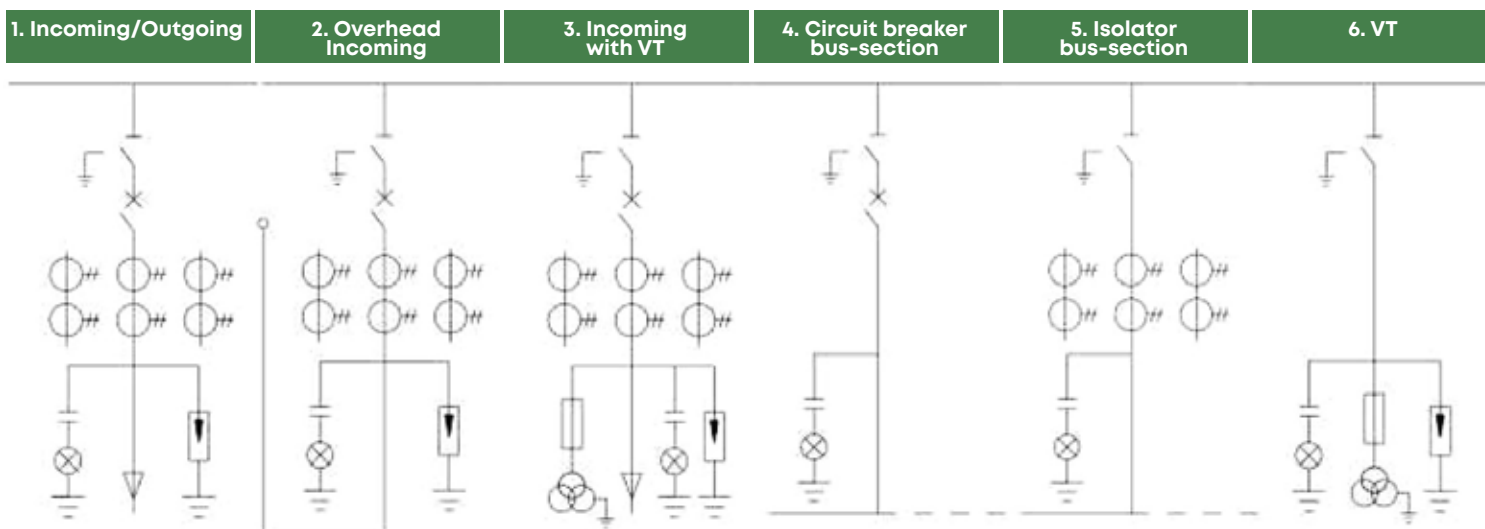
Technical Parameters

MGX-36 Series Cubicle Type Gas Insulated Switchgear (C-GIS)

Sr.No.	Description		Unit	Value
1	Rated voltage (Ur)		kV	40.5
2	Rated frequency (fr)		Hz	60
3	Rated current (Ir)		A	1250/2500/3150
4	Rated insulation level	Power frequency withstand voltage(Ud) (Imin)	kV	95
		Between phase and phase to earth		118
		Across isolating distance		2
		Auxiliary and control circuits(Ua)		
		Lightning impulse withstand voltage (Up)		185
		Between phase and phase to earth		215
		Across isolating distance		
5	Rated short-time withstand current(Ik/Ik)		kA/s	25. 31.5/4
6	Rated peak withstand current (Ip)		kA	63. 80
7	Rated short-circuit making current (Isc)		kA	25, 31.5
8	Rated Short-circuit making current		kA	63. 80
9	Circuit breaker electrical endurance		Ops	30
10	Rated operating sequence		/	O-0.3s-CO-1 80s-CO
11	Mechanical endurance	Load switch/Circuit breaker	Ops	20000 (10000 for 31 S0A)
		Disconnectors Earthing switches	Ops	5000
12	Resistance of the circuit	1250A	uΩ	≤120
		2500A	uΩ	≤80
		3150A	uΩ	≤50
13	Rated gas filled pressure (at 20)		MPa	0.02
14	Annual leakage rate		%	≤0.01%
15	Insulating gas		/	SF6
16	Degree of protection	Compartment	—	IP2XC
		Gas tank	—	IP67
		Enclosure	—	IP41
		Enclosure	—	IKIO
17	IAC classification		—	A FLR 31.5 kA/1s

Basic Modular

Configuration



Dimension

Rated current (A)	1250	2500	3150
Width (mm)	600	65	1000

Technical requirements

L switchgear width (mm)	600	800	1000
L 1 anchor hole (mm)	430	630	830

1. The switchgear can be bolted or welded to the foundation channel.
2. Ensure That the laying of foundation channel steel is smooth, and he irregularity shall not be greater than 1 mm per meter.
3. The foundation shall be able to withstand the maximum static load of the switchgear of 2000kg and the maximum impact load of 3000kg.

Applicable Standards

IEC 62271-1: High-voltage switchgear and controlgear-Part 1:
Common specifications

IEC 62271-100 High-voltage switchgear and controlgear-Part 100:
Alternating current circuit-breakers

IEC 62271-102 High-voltage switchgear and controlgear-Part 102:
Alternating current disconnectors and earthing switches

IEC 62271-103 High-voltage switchgear and controlgear-Part 103:
Switches for rated voltages above 1 kV and up to and including 52 kV

IEC 62271-105: High-voltage switchgear and controlgear-Part 105:
Alternating current switch-fuse combinations

IEC 62271-200: 2011 High-voltage switchgear and controlgear-Part 200:
AC metal-enclosed switchgear and controlgear for rated voltage above 1 kV and up to and including 52 kV

IEC 60044-2: Instrument transformers-Part 2: Inductive voltage transformers

IEC 60044-1: Instrument transformers-Part 1: Current transformers

MXGN-24/36

Air-insulated Ring Main Unit

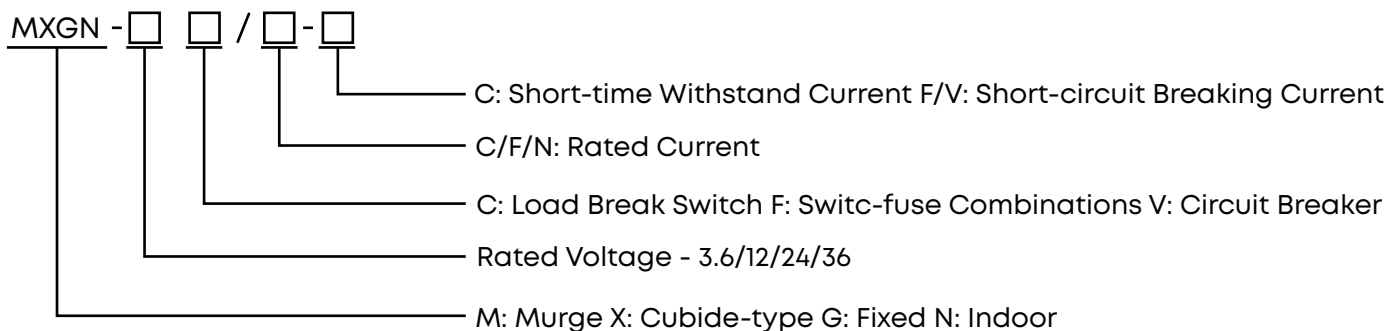


Technical Parameters

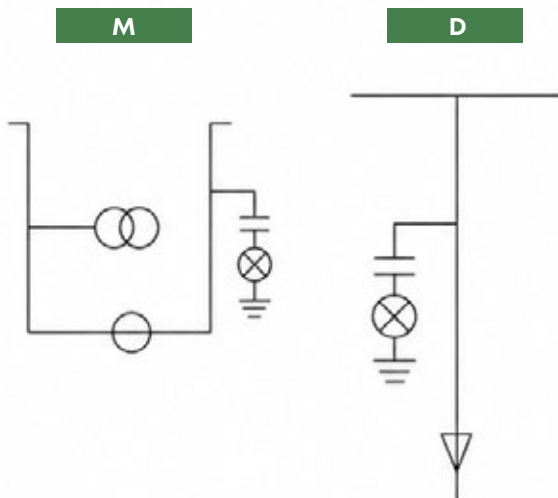
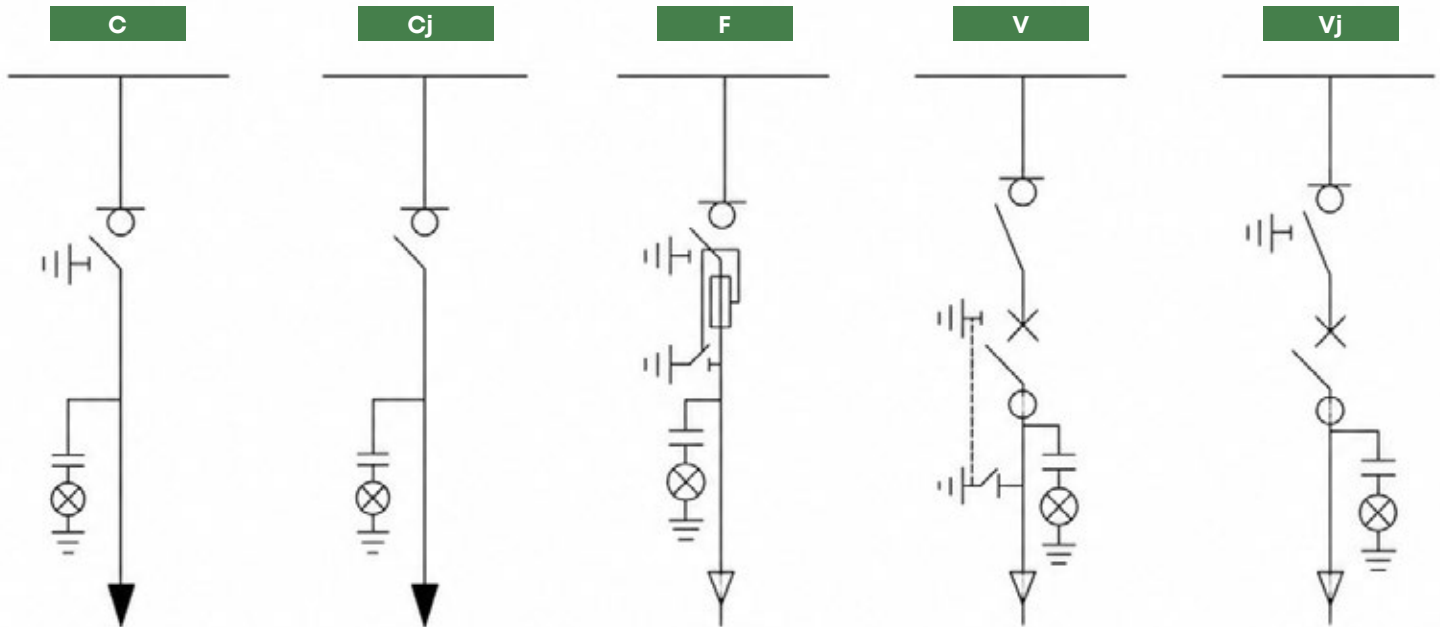
MXGN-24/36 Series Air-insulated Ring Main Unit

Sr.No.	Description	Unit	Parameters	
1	Rated voltage (Ur)	kV	24	36
2	Rated frequency (fr)	Hz	630	630
3	Rated current (Ir)	A	60	60
4	Rated short-time power-frequency withstand voltage/1 min (phase-to-phase & to-earth/across the isolating distance)	kV	50/60	70/80
	Rated lightning impulse withstand voltage (phase-to-phase & to-earth/across the isolating distance)	kV	125/145	170/195
5	Rated short-time withstand current(Ik/Ik)	kA/s	20/3	16/1
6	Rated peak withstand current (Ip)	kA	50	40
7	Rated short-circuit making current	kA	50	40
8	Rated transfer breaking current	A	1400	630
9	Rated closed-loop breaking current	A	630	630
10	Maximum rated current of the fuse	A	200	63
11	Main switch	Ops	M2(5000)	M1 (1000)
	Earthing switch	Ops	M1 (2000)	M1 (1000)
12	Electrical endurance	/	Class E3	Class E3
13	IAC class	/	A-FL 16kA/1s 20kA/1s	A-FLR 16kA/1s
14	Degree of protection	/	IP4X	IP 3X (ASTA)

Product Model



Basic Modular Configuration



Applicable Standards

- IEC 62271-200 High-voltage Switchgear and Controlgear – Part 200: AC Metal-enclosed Switchgear and Controlgear for Rated Voltages Above 1 kV and Up to and Including 52 kV;
- IEC 62271-105 High-voltage Switchgear and Controlgear – Part 105: High-voltage Alternating Current Switch-Fuse Combinations;
- IEC 62271-102 High-voltage Switchgear and Controlgear – Part 102: Alternating Current Disconnectors and Earthing Switches;
- IEC 62271-103 High-voltage Switchgear and Controlgear – Part 103: High-voltage Alternating Current Load Break Switch;
- IEC 62271-1 Common Specifications for High-voltage Switchgear and Controlgear.

Functions

Descriptions

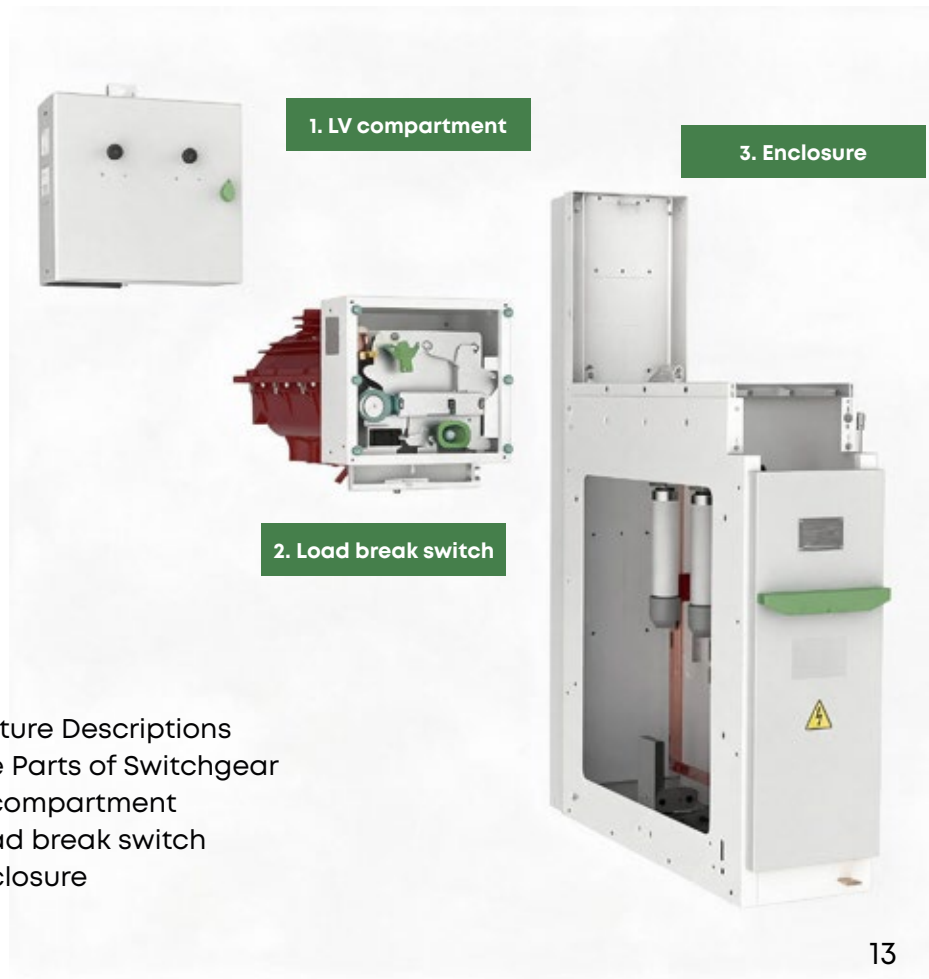
Appearance



MXGN-24

MXGN-36

MXGN



Structure Descriptions
Three Parts of Switchgear
1. LV compartment
2. Load break switch
3. Enclosure

MGA-12

Ring Main Unit (N2)

Eco-Friendly Gas Insulated



Product

Overview

MGA series eco-friendly gas insulated AC metal-enclosed switchgear and control equipment (here in after referred to as MGA series switchgear) is an environment-friendly gas-insulated medium-voltage switchgear developed independently by Murge. It features green and environmentally friendly, reliable performance, guaranteed safety, compact design, small footprint, maintenance-free operation, long lifespan, and strong adaptability to various environmental conditions.

The MGA series switchgear is a fully sealed system, with all primary components and switches enclosed within a stainless steel shell, which is not affected by the environment. The product adopts a modular design, allowing for flexible arrangement according to different design schemes, enabling combinations of compact and expandable units to meet the requirements of various secondary distribution substations for compact switchgear.

The MGA series switchgear has passed the type tests conducted by the national-level high-voltage electrical apparatus testing center, making it.

Applicable Standards

IEC 62271-100 :2012 High-voltage switchgear and controlgear-Part 100:

Alternating-current circuit-breakers

IEC 62271-105 High-voltage switchgear and controlgear-Part 105:

Alternating current switch-fuse combinations

IEC 62271-102 High-voltage switchgear and controlgear-Part 102:

Alternating current disconnectors and earthing switches

IEC 62271-103 High-voltage switchgear and controlgear-Part 103:

Switches for rated voltages above 1 kV and up to and including 52 kV

IEC 62271-200: 2011 High-voltage switchgear and controlgear-Part 200:

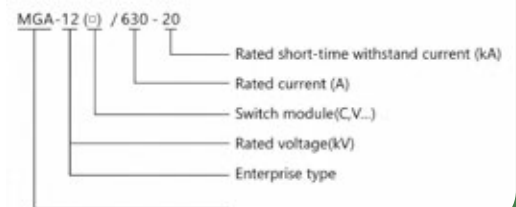
AC metal-enclosed switchgear and controlgear for rated voltage above 1 kV and up to and including 52 kV

IEC 62271-1: 2007 High-voltage switchgear and controlgear-Part 1:

Common specifications



Model Description



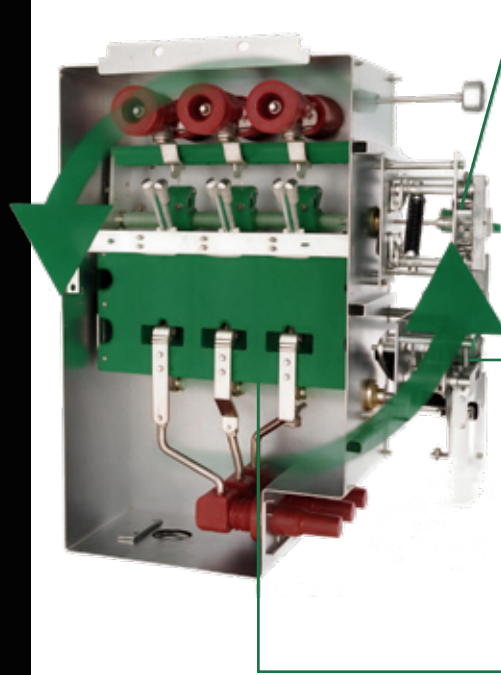
Product Details

Main components

- ① Main switch mechanism
- ② Operation panel
- ③ Isolator mechanism
- ④ Cable compartment
- ⑤ LV compartment
- ⑥ Bus connection bushing
- ⑦ Isolator
- ⑧ Arc extinguishing device
- ⑨ Gas tank
- ⑩ Pressure relief device
- ⑪ Protection relay



Diagram of the core components of the VCB unit (upper isolation switch)



Isolation switch mechanism

The isolation switch mechanism is with single spring and double operation hole structure. On the basis of the load switch mechanism, an interlock module with the circuit breaker mechanism is added, rigid interlocking method is adopted, ensuring safety and reliability, and minimizing the risk of misoperation.



The operation control unit is integrated and modularized and placed in front for easy maintenance.

Vacuum circuit breaker mechanism

The vacuum circuit breaker mechanism is with fast redusing function.



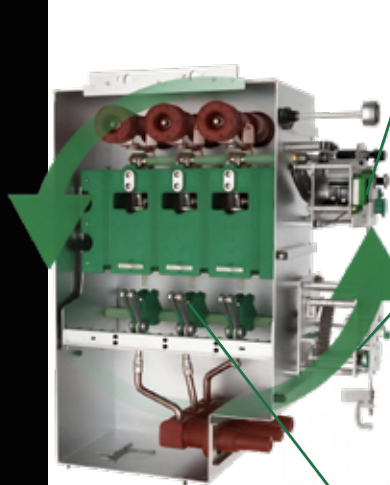
With comprehensive interlocking device and rigid interlocking method, ensuring safety and reliability, and minimizing the risk of misoperation.

Vacuum circuit breaker components

The vacuum circuit breaker adopts a cam-driven transmission model and the arc extinguishing chamber is fixed using end-face connections, ensuring stable overtravel and contact gaps. It employs an upper isolation structure, meeting the requirements of standardized customization for power grids. High quality insulation materials are used to ensure that the partial discharge quantity at 1.1 times the rated voltage is less than 20pC.

Voltage equalization measures are implemented to ensure electric field balance, no additional insulating partitions are required between phases.

Diagram of the core components of the VCB unit (upper isolation switch)



Vacuum circuit breaker mechanism

The vacuum circuit breaker mechanism is with fast reducing function. With comprehensive interlocking device and rigid interlocking method, ensuring safety and reliability, and minimizing the risk of misoperation.

The operation control unit is integrated and modularized and placed in front for easy maintenance.



Isolations with mechanism

The isolation switch mechanism is with single spring and double operation hole structure.

On the basis of the load switch mechanism, an interlock module with the circuit breaker mechanism is added.

Rigid interlocking method is adopted, ensuring safety and reliability and minimizing the risk of misoperation.

The operation control unit is integrated and modularized and placed in front for easy maintenance.



Vacuum circuit breaker components

The vacuum circuit breaker adopts a cam-driven transmission mode, and the arc extinguishing chamber is fixed using end-face connections, ensuring stable overtravel and contact gaps.

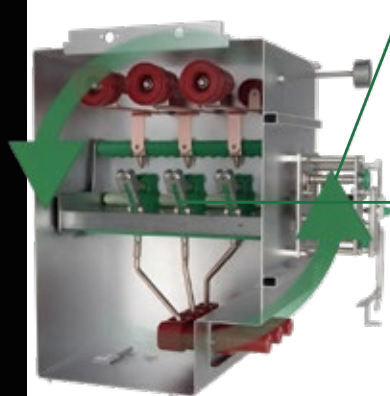
It employs an upper isolation structure, meeting the requirements of standardized customization for power grids.

High-quality insulation materials are used to ensure that the partial discharged quantity at 1.1 times the rated voltage is less than 20pC.

Voltage equalization measures are implemented to ensure electric field balance, no additional insulating partitions are required between phases.



Diagram of the core components of isolating switch



Isolation switch operating mechanism

The MJG series isolating switch, operating mechanism, designed specifically for MGA series switchgear is available as a compatible accessory. This mechanism is mainly designed for the VMA series isolating switch, enabling the opening, closing, and grounding functions of the three-position isolating switch.

Isolation switch operating components

The isolating switch adopts a three-position design of closing, opening and grounding, which is stable in operation, safe and reliable.

The optimized design of the conductor contact surface of the isolating switch improves the conductivity and operational stability.

High-quality insulation materials are used to ensure that the partial discharge quantity at 1.1 times the rated voltage is less than 20pC.

Voltage equalization measures are implemented to ensure electric field balance, no additional insulating partitions are required between phases.



Technical Parameters

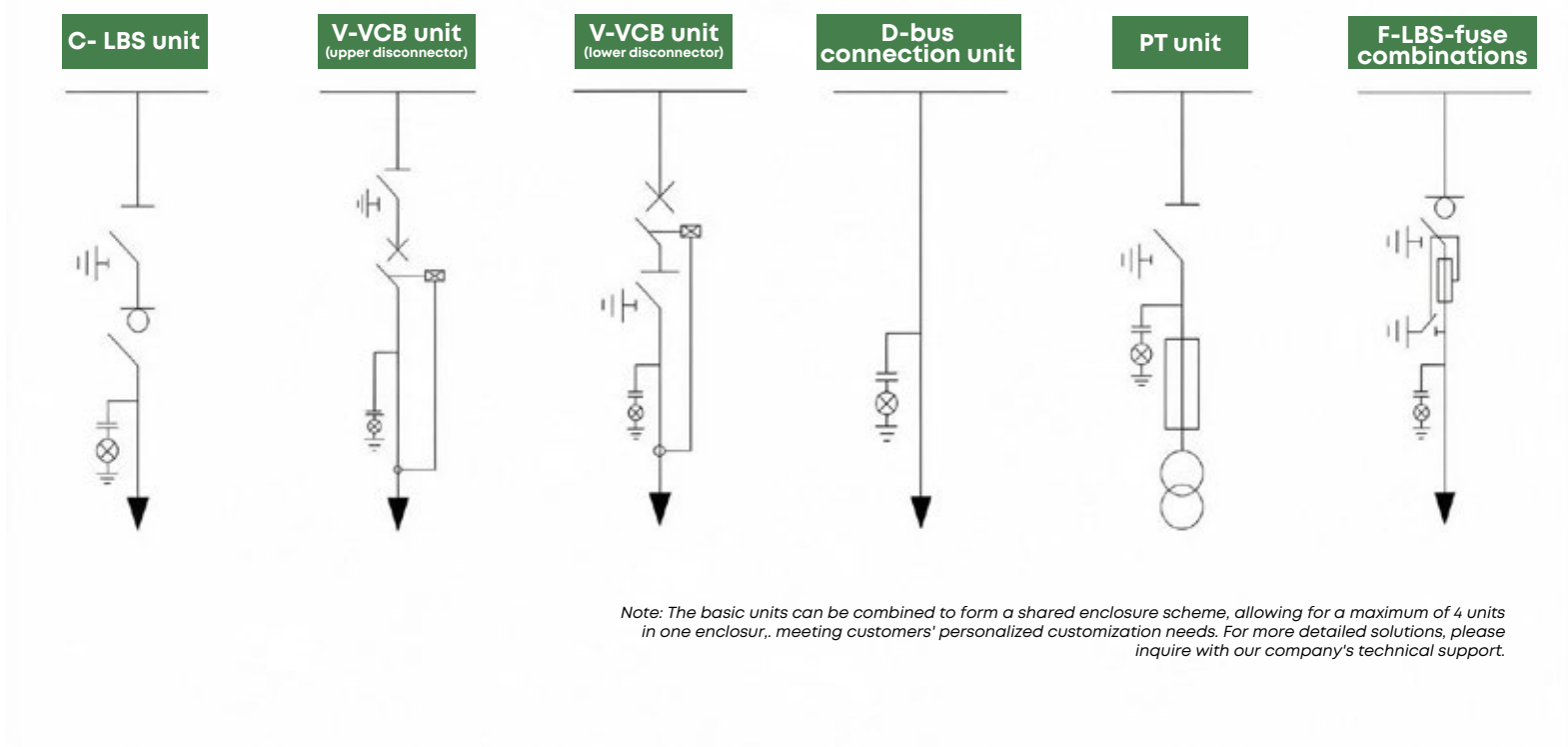
MGA-12 Series Ring Main Unit (N2)

Sr.No.	Description	Unit	Load Breaker Switch (C-module)	Switch-Fuse Combinations (F-module)	Vacuum Circuit Breaker (V-module)
1	Rated voltage (Ur)	kV	12	12	12
2	Rated frequency (fr)	Hz	60	60	60
3	Rated current (Ir)	A	630	125 See ¹	630/1250
4	Rated insulation level (Ud, Up)	kV	Between phase and phase to earth	42	42
			Across isolating distance	48	48
			Control/Auxiliary circuit	2	2
			Phase-to-phase, phase-to-earth	75	75
			Across isolating distance	85	85
5	Rated short-time withstand current	kA/s	20/4	—	20, 31.5/4
6	Rated peak withstand current	kA	50	—	50, 80
7	Rated short-circuit breaking current	kA	—	see ²	20, 31.5
8	Rated Short-circuit making current	kA	50,63	see ²	50, 80
9	Rated On load breaking current	A	630	—	—
10	Rated Closed circuit breaking current	A	630	—	—
11	Rated Operating sequence	—	—	—	0–0.3s–CO–180s–CO
12	Mechanical endurance	LBS/ Circuit Breakers	Ops	10000	10000
		Isolating/earthing Switch	Ops	3000	3000
13	Circuit resistance	μΩ	≤150	≤400	≤150
14	Rated pressure of gas (relative pressure at 20°C)	MPa	0.02	0.02	0.02
15	Annual leakage rate	Year	≤0.01	≤0.01	≤0.01
16	Insulating gas / Protection	—	N ₂	N ₂	N ₂
17	Degree of protection	Compartment (IP code)	—	IP2XC	IP2XC
		Gas tank (IP code)	—	IP67	IP67
		Enclosure (IP code)	—	IP41	IP41
		Enclosure (IK code)	—	Ik10	Ik10
18	IAC classification	—	AFLR 25 kA/1 s	AFLR 25 kA/1 s	AFLR 25 kA/1 s

¹Determined by the current rating of the fuse-link
²Limited by high voltage fuse-links

Basic Modular

Configuration



Outline Dimension

	Type	Width (w)	Height (H)	Depth (D)
C	top extension	420 mm	1950 mm	850 mm
	side extension	420 mm	2000 mm	
V	top extension	420 mm	1950 mm	850 mm
	side extension	420 mm	2000 mm	
PT	top extension	600 mm	1950 mm	850 mm
	side extension	600 mm	2000 mm	
D	top extension	420 mm	1950 mm	850 mm
	side extension	420 mm	2000 mm	

MAX-12

Series N2 Cubicle

Type Gas Insulated Switchgear



Product

Overview

MAX-12 Series N2 Cubic type Gas Insulated Switchgear (N2 Cubicle Type CGIS) is a new generation of switch products with independent intellectual property rights. Independently developed by Nexgrid, it uses slightly positive pressure N2 gas as the insulating medium inside, with vacuum circuit breaker and three-position switch as the main primary components, which are sealed inside the inflatable compartment.

The gas chamber is welded and formed by 3mm thick high-quality stainless steel plate, which is not affected by the environment; it is environmentally friendly, reliable in operation, safe, and compact in structure design, small footprint, free maintenance, long service life, strong environmental adaptability, etc.

MAX series switchgear is a complete set of power distribution equipment for 12kV three-phase AC 50Hz single busbar and single-busbar section system. It is mainly used in power generation companies, small and medium-sized generators for power transmission, power distribution for industrial and mining enterprises, and power system substations for power receiving, power transmission, and starting of large high-voltage motors, etc., to implement control, protection and monitor.

Applicable Standards

IEC 62271-100:2012 High-voltage switchgear and controlgear-Part 100:

Alternating-current circuit-breakers

IEC 62271-105 High-voltage switchgear and controlgear-Part 105:

Alternating current switch-fuse combinations

IEC 62271-102 High-voltage switchgear and controlgear-Part 102:

Alternating current disconnectors and earthing switches

IEC 62271-103 High-voltage switchgear and controlgear-Part 103:

Switches for rated voltages above 1 kV and up to and including 52 kV

IEC 62271-200: 2011 High-voltage switchgear and controlgear-Part 200:

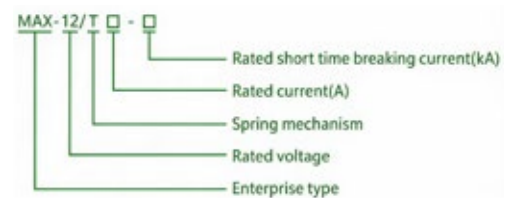
AC metal-enclosed switchgear and controlgear for rated voltage above 1 kV and up to and including 52 kV

IEC 62271-1 : 2007 High-voltage switchgear and controlgear-Part 1:

Common specifications



Model Description

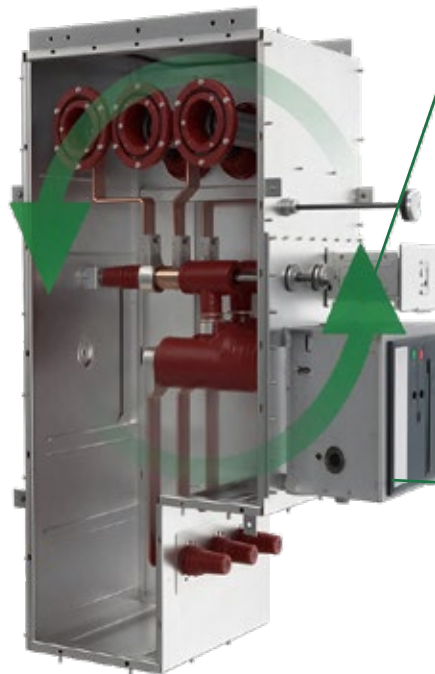


Structure of main components in the cabinet

- ① Main switch mechanism
- ② Isolator mechanism
- ③ Cable compartment
- ④ LV compartment
- ⑤ Buss connection bushing
- ⑥ Isolator
- ⑦ Arc device
- ⑧ Gas tank
- ⑨ Pressure relief device
- ⑩ Protection relay



Diagram of core components



SAX-12/T direct acting three-position switch component
Adopt direct-acting three-position switch, the electric field is evenly distributed, and the dynamic and thermal stability is high.

The three-position switch operating mechanism adopts double-hole operation, with reliable mechanical and electrical interlocking.

The use of modular integrated electric control equipment reduces secondary components and improves control reliability.



VAX-12/T circuit breaker switch assembly
Independent intellectual property rights.

Modular design concept.

Reliable interlock design.

The transmission structure is optimized to further improve the transmission efficiency and reliability.



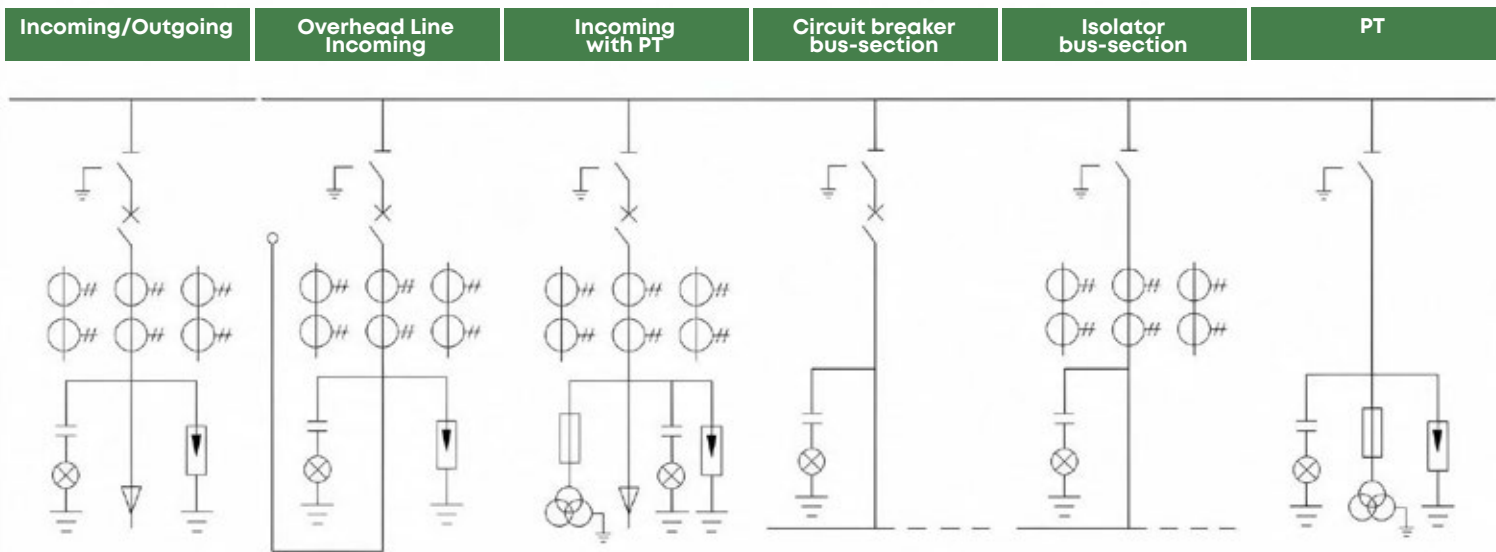
Technical Parameters

MAX-12 Series N2 Cubicle Type Gas Insulated Switchgear

Sr.No.	Description		Unit	Parameter
1	Rated voltage		kV	12
2	Rated frequency		Hz	60
3	Rated continuous current		A	1250/2500/3150
4	Rated insulation level	Power frequency withstand voltage (1min)	kV	42
		Between phase and phase to earth		48
		Across isolating distance		2
		Auxiliary and control circuit		75
		Lightning impulse withstand voltage (Up)		85
		Between phase and phase to earth		
		Across the isolating distance		
5	Rated short-time withstand current		kA/s	25, 31.5, 40/4
6	Rated peak withstand current		kA	63, 80, 100
7	Rated short-circuit breaking current		kA	25, 31.5, 40/4
8	Rated short-circuit making current		kA	63, 80, 100
9	Circuit breaker electrical endurance		Ops	30
10	Rated operating sequence		/	O-0.3s-CO-1 80s-CO
11	Mechanical endurance	Circuit breaker	Ops	20000
		Disconnectors/Earthing switch	Ops	5000
12	Resistance of the circuit	1250A	μΩ	≤120
		2500A	μΩ	≤80
		3150A	μΩ	≤80
13	Rated gas filled pressure (at 20°C)		MPa	0.02
14	Annual leakage rate (relative pressure)		%	≤0.01%
15	Insulating gas		/	N ₂
16	Degree of protection	Compartment (IP code)	/	IP2X
		Gas tank (IP code)	/	IP67
		Enclosure (IP code)	/	IP41
		Enclosure (IK code)	/	IK10
17	IAC classification		/	A FLR 31.5 kA/1s, 40 kA/0.5s

Basic Modular

Configuration



Dimension

Rated current (A)	1250	2500	3150
Width (mm)	600	800	1000

Technical requirements

L switchgear width {mm}	600	800	1000
L 1 anchor hole (mm)	430	630	830

1. The switchgear can be bolted or welded to the foundation channel.
2. Ensure That the laying of foundation channel steel is smooth, and he irregularity shall not be greater than 1 mm per meter.
3. The foundation shall be able to withstand the maximum static load of the switchgear of 2000kg and the maximum impact load of 3000kg.

ROBUST I

Series Air-insulated Switchgear

Metal Enclosed
Withdrawable Switchgear

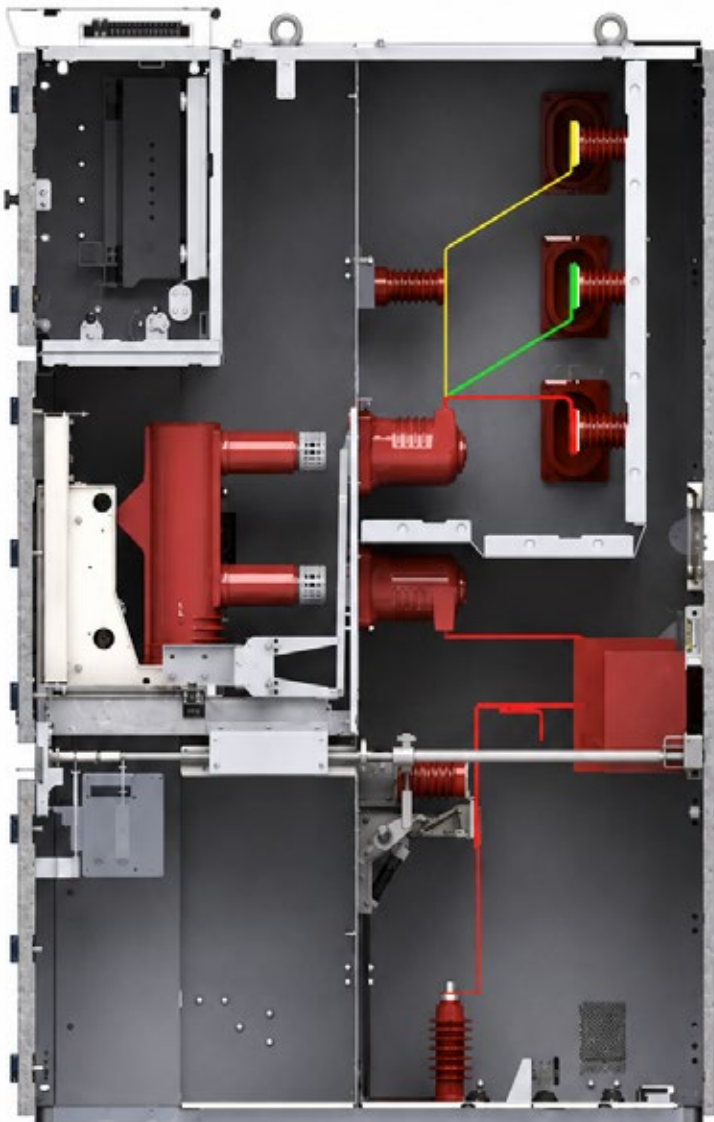


Product

Overview

Robust I is used in power grid of 3.6 - 24kV three-phase alternating current 50 or 60 Hz, accepting and distributing electrical power, along with function of controlling, metering and detecting electric circuit. It is also available for use in single bus section system.

The withdrawable unit can be fitted with the widest range of apparatus available on the market today like vacuum circuit breaker and vacuum contactor.



Product Details

- The side plate employs inward double-bending technology.
- The framework is connected with dimpled rivets.
- The side has no protruded screws and relief holes.
- Separate replacement is realizable in case of failures.
- The time for power restoration can be shortened.



- The rear upper and lower doors are interlocked with an interlock, which ensures that the rear upper door cannot be opened when the rear lower door is closed; on the contrary the rear lower door cannot be closed when the rear upper door is opened.

- The ground interlock, simpler in structure and more flexible and reliable in operation, can deliver free switch of interlocking functions whether equipped with a manual or motorized earthing switch, without requiring changing any part.



- Enclosure-top relief cover plate
- One side is equipped hinges
- One side is fixed with nylon screws
- Reduce resistance in pressure relief
- Realize quick relief to ensure safety
- Relief cover has a corrugated grille inside to prevent arcs burning particles to spatter.

- The secondary line is laid in the full-metal-protected secondary line trunking, which can effectively prevent arc burning the secondary line in case of failure in the enclosure.
- Signals can be correctly transmitted through the secondary line to the comprehensive protection controls system to realize fast fault-clearing, mitigating the damage inflicted by failure on electric equipment and improving the stability of electric systems.



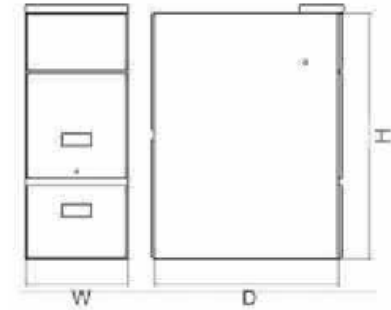
Technical Parameters

ROBUST I

Enclosure Dimensions

Cabinet type	Width W (mm)	Depth D (mm)	Height H (mm)
KYN28A-12(II)	400, 500, 600 ¹ / 650, 800, 1000	1450, 1610, 1750	2240
KYN28A-17.5(II)	800 ² / 1000 ²	1650, 2000	2240
KYN28A-24(II)	800 ² / 1000	1800, 2200	2400

Note: 1) Busbar riser cabinet; 2) The rated current is less than 1250A.



Service Conditions

S/N	Name	Unit	Value
1	Ambient air temperature — Maximum temperature	°C	+40
	Ambient air temperature — Minimum temperature	°C	-15
	Maximum daily temperature difference	K	25
2	Altitude	m	≤1000
3	Pollution level	—	III (equivalent to C)
4	Humidity — Average daily relative humidity	%	≤95
	Humidity — Average monthly relative humidity	%	≤90
5	Seismic capacity (horizontal acceleration)	g	0.2

Note: These conditions given in the table are normal service conditions. The conditions going beyond these values are special service conditions. These service conditions can be modified according to the actual conditions of a project.

Technical Parameters

S/N	Name	Unit	Value
1	Rated voltage	kV	12 17.5 24
2	Rated frequency	Hz	50/60 50/60 50/60
3	Rated current	A	≤4000 ≤3150 ≤3150
4	Temperature rise test	—	I _r I _r I _r
5	Rated power-frequency withstand voltage (1 min)	kV	28 38 50
6	Rated lightning impulse withstand voltage (peak)	kV	75 95 125
7	Rated short-circuit breaking current	kA	40 31.5 31.5
8	Rated short-circuit making current	kA	100 80 80
9	Withstand current and duration	kA/s	40/3 31.5/3 31.5/3
10	Rated peak withstand current	kA	100 80 80
11	Short-duration power-frequency withstand voltage of auxiliary and control circuits	kV	2 2 2
12	Degree of protection — Enclosure	—	IP4X IP4X IP4X
	Degree of protection — Compartment	—	IP2X IP2X IP2X
13	Loss of service continuity category	—	LSC2B LSC2B LSC2B
14	Cooling mode	—	Self-cooling* Self-cooling* Self-cooling*
15	Allowable internal arc duration	s	1 1 1

Note: If the rated current ≥3150A, air cooling should be adopted..

ROBUST II

Series Air-insulated Switchgear

Metal Enclosed
Withdrawable Switchgear

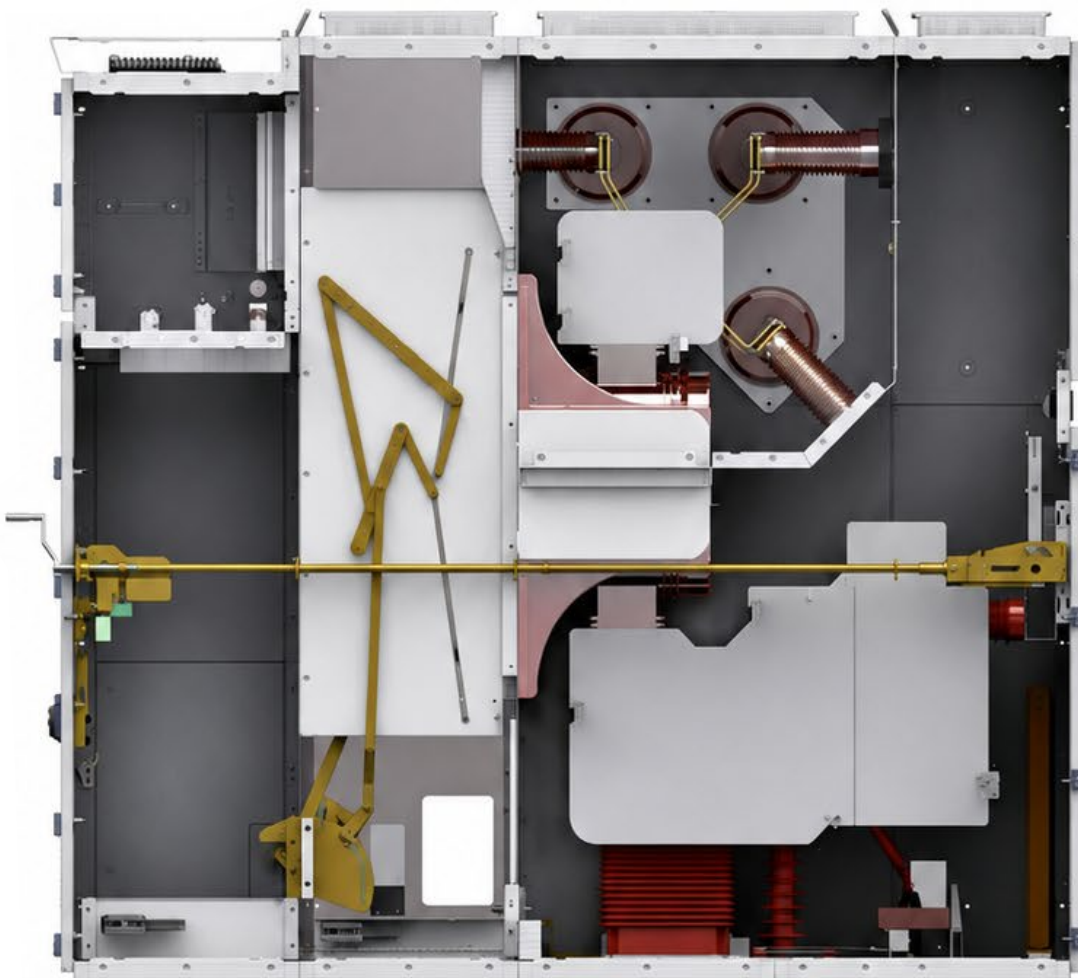


Product

Overview

Robust II is used in power grid of 40.5 kV and below three-phase alternating current 50 or 60 Hz, accepting and distributing electrical power, along with function of controlling, metering and detecting electric circuit. It is also available for use in single bus section system.

The withdrawable unit can be fitted with the widest range of apparatus available on the market today like vacuum circuit breaker.



Product Details



- A new ground interlock featuring small operating force, long life, great stability, and convenient and efficient assembly, commissioning and maintenance.

- An adaptive limit switch device, which adapts to the fit clearances in the front, rear, left and right directions, with an application range of $\pm 5\text{mm}$.



- A new secondary interlock, which is adapted to a 510-610mm hardcart travel, and whose 58-pin and 46-pin aviation plugs can be basically universal to all mechanisms.

- While remaining the same its original size, it has its internal layout reasonably adjusted, allowing its copper bus bar in the busbar chamber to have a clearance $\geq 300\text{mm}$ other than the phase-to-phase clearance.

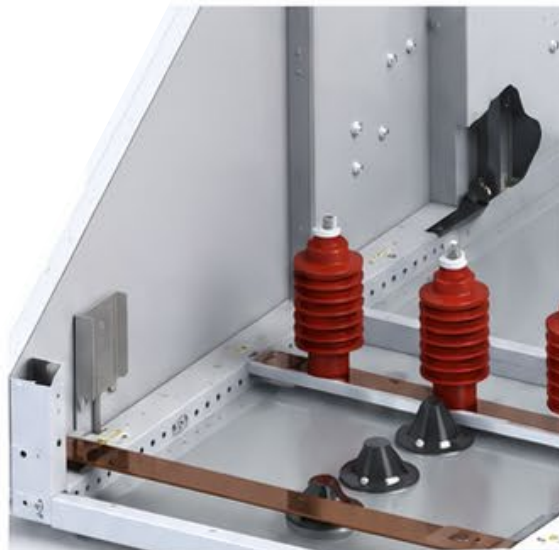


Product Details



- While remaining the same its original size , it has its internal layout reasonably adjusted, allowing its tie-Busbars to have an air clearance $\geq 300\text{mm}$ other than the phase-to-phase clearance.

- The handcart base employs a track structure and makes use of special welding fixture, delivering reinforcement and steadiness .



- The secondary line is laid in the full-metal-protected secondary line trunking, which can effectively prevent arcs burning the secondary line in case of failure in the enclosure. Signals can be correctly transmitted through the secondary line to the comprehensive protection controls system to realize fast fault-clearing, mitigating the damage inflicted by failure on electric equipment and improving the stability of electric systems.

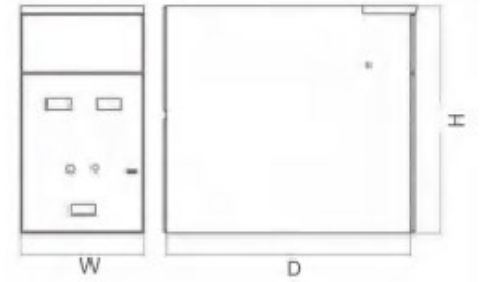
Technical Parameters

Robust II

Enclosure Dimensions

Cabinet type	Width W (mm)	Depth D (mm)	Height H (mm)
KYN61-40.5(II)	1200* / 1400	2800, 3000	2000
KYN61C-40.5(II)	1200	2800, 2600	2400

Note: *Rated current ≤1250A



Service Conditions

S/N	Name	Unit	Value
1	Ambient air temperature — Maximum temperature	°C	+40
	Ambient air temperature — Minimum temperature	°C	-15
	Maximum daily temperature difference	K	25
2	Altitude	m	≤1000
3	Pollution level	—	III (equivalent to C)
4	Relative Humidity — Average daily relative humidity	%	≤95
	Relative Humidity — Average monthly relative humidity	%	≤90
5	Seismic capacity (horizontal acceleration)	g	0.2

Note: These conditions given in the table are normal service conditions. The conditions going beyond these values are special service conditions. These service conditions can be modified according to the actual conditions of a project.

Technical Parameters

S/N	Name	Unit	Value
1	Rated voltage	kV	40.5
2	Rated frequency	Hz	50/60
3	Rated current	A	≤3150
4	Temperature rise test	—	I _r
5	Rated power-frequency withstand voltage (1 min)	kV	95
6	Rated lightning impulse withstand voltage (peak)	kV	185
7	Rated short-circuit breaking current	kA	31.5
8	Rated short-circuit making current	kA	80
9	Withstand current and duration	kA/s	31.5/3
10	Rated peak withstand current	kA	80
11	Short-duration power-frequency withstand voltage of auxiliary and control circuits	kV	2
12	Degree of protection — Enclosure	—	IP4X
	Degree of protection — Compartment	—	IP2X
13	Loss of service continuity category	—	LSC2B
14	Cooling mode	—	Self-cooling*
15	Allowable internal arc duration	s	1

Note: If the rated current ≥3150A, air cooling should be adopted.

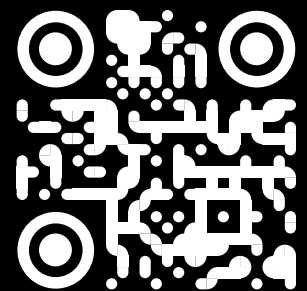


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