XGN15-12/24/36

Air Insulated RMU (Fixed Type)



Overview

XGN15-12/24/36 Air Insulated RMU (Fixed Type), used in rated voltage 12/24/36kV, rated current 630A and below the ring power supply or radiation power supply system, especially suitable for pre-installed substation as a power system control and protection. This product is equipped with FLN36-12D type sulfur hexafluoride load switch or FLRN36-12D type load switch and disintegrator combination electrical appliances, with small size, light weight, easy operation, light operation force, reliable interlock, maintenance-free and other characteristics, is a new generation of high voltage switchgear required for urban power grid transformation and construction.

This product complies with: GB3906 "3~35kV AC metal enclosed Switchgear", GB/T11022 "High voltage switchgear and control equipment standard common technical requirements", IEC298 "rated voltage above 1kV 50kV and below AC metal enclosed switchgear and control equipment", DI/T404 "Indoor AC high voltage switch cabinet ordering technical specifications" standard.

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Model meaning

X	G	N	15	-	12/24/36	(F·R)
↓	↓	↓	↓		↓	↓
Box type	Stationary	Indoor	Design sequence number		Rated voltage	Load switch-breaker combination appliance

Normal service condition

1 Ambient air temperature: -15℃ ~+40℃ ;

2 Altitude: 1000m and below;

3 Humidity conditions:

The daily average value is not more than 95%, and the daily average water vapor pressure is not more than 2.2kPa;

The monthly average value is not more than 90, and the monthly average water vapor pressure is not more than 1.8kPA.

4 Earthquake intensity: not more than 8 degrees;

5 There is no obvious pollution such as turbid or combustible gas.

Note: When the above normal conditions of use are exceeded, the user can negotiate with the company.

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Sr.No.	Description	Unit	Value		
01	Rated voltage(Ur)	kV	12	24	36
02	Rated current(Ir)	A	630	630	630
03	Rated frequency(fr)	Hz	50	50	50
04	Rated short-time power-frequency withstand voltage/1min (phase-to-phase &to-earth/across the isolating distance)	kV	28/32	50/60	70/80
05	Rated lightning impulse withstand voltage (phase-to-phase &to-earth/across the isolating distance)	kV	75/85	125/145	170/195
06	Rated short-time withstand current	kA/s	25/3	20/3	16/1
07	Rated peak withstand current	kA	62.5	50	40
08	Rated short-circuit making current	kA	62.5	50	40
09	Rated transfer breaking current	A	1700	1400	630
10	Rated closed-loop breaking current	A	630	630	630
11	Maximum rated current of the fuse	A	200	200	63
12	Main switch Mechanical endurance	ops	M2(5000)	M2(5000)	M1(1000)
13	Earthing switch	ops	M1(2000)	M1(2000)	M0(1000)
14	Electrical endurance	/	Class E3	Class E3	Class E3
15	IAC class	/	A-FLR 20kA/1s 25kA/1s	A-FLR 16kA/1s 20kA/1s	A-FLR 16kA/1s
16	Degree of protection	/	IP4X	P4X	IP4X

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Structural characteristics

Switchgear is composed of cabinet, main switch (SF6 load switch or combined appliance), ground switch, instrument room, bus and other electrical components and auxiliary components.

The cabinet body is composed of aluminum-zinc steel plate by modular forming. A pressure relief channel is provided at the back of the cabinet to protect the operator in case of internal failure.

The bus bar of the bus bar room is covered with insulation and directly connected to the terminal of the load switch: the three-phase bus bar is arranged longitudinally, so that the switchgear can be arbitrarily extended from left to right and it is easy to change its layout.

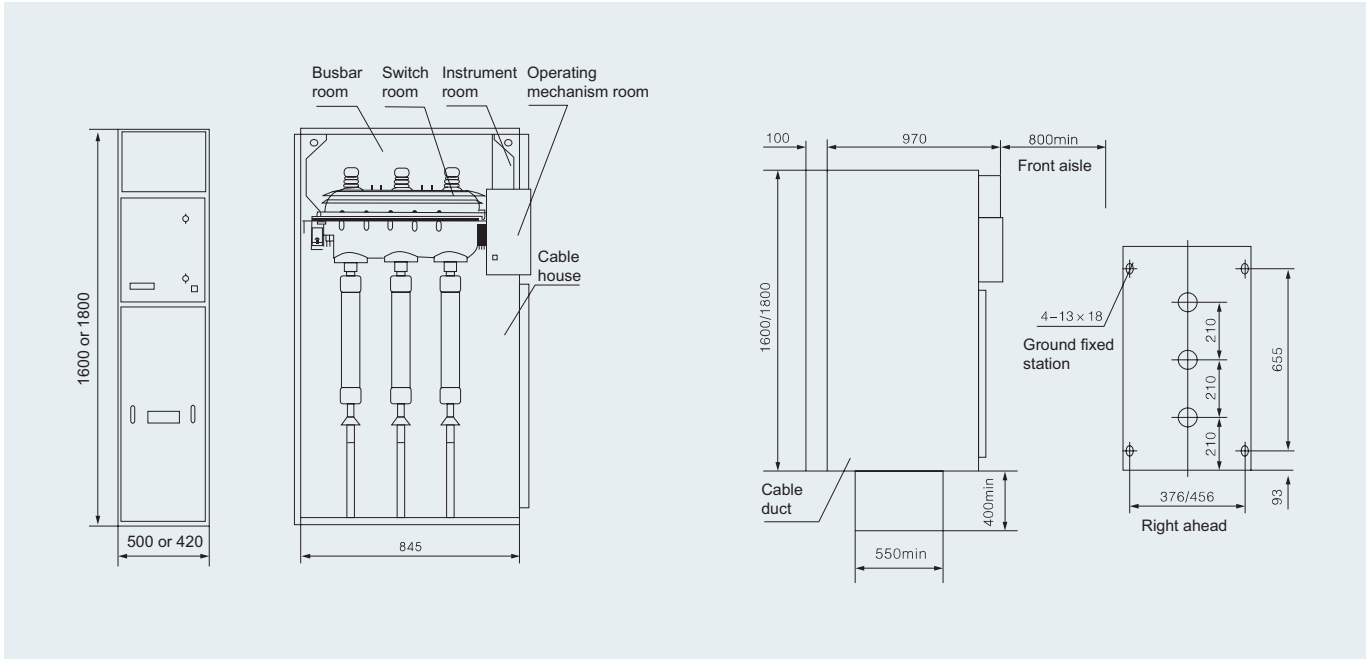
The instrument room is located in the upper part of the switchgear, which can be equipped with ammeter, voltmeter, indicator light and electric operating mechanism.

Controls

For a switchgear equipped with a load switch, use a special operating handle to operate on the front side of the switchgear. The front side of the operating mechanism is provided with upper and lower operating holes, the upper part is the ground switch operating hole, and the lower part is the load switch operating hole. When operating, the handle rotates clockwise to the closing direction of the switch, and rotates counterclockwise to the opening direction of the switch. It can also be equipped with electric parting and closing devices for remote control operation. (Note: sometimes the load switch does not have a ground switch, and the ground switch operating hole is used as a cabinet door unlock).

For switchgear equipped with combined electrical appliances, the operation sequence is the same as above, except that the load switch is operated with a manual switch. The lower ground switch of the combined electrical cabinet is separately arranged and connected with the upper ground switch through a connecting rod. The residual small current on the lower fuse holder is released when the switch is closed to improve the safety of the fuse replacement.

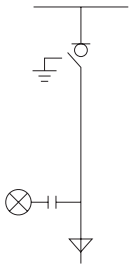
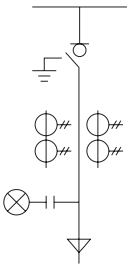
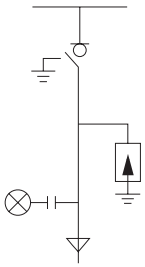
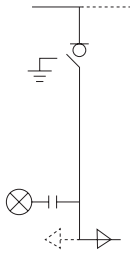
Dimensions and mounting dimensions (mm)

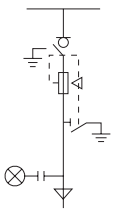
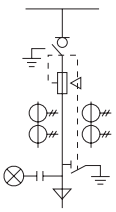
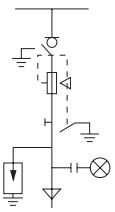


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Main primary line scheme

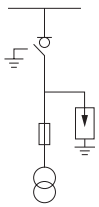
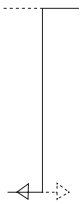
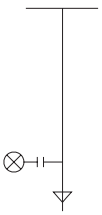
Scheme number		01	01-1	01-2	01-3
Main circuit scheme diagram					
Use		Input-outlet line	Input-outlet line	Input-outlet line	Incoming and outgoing lines (left or right)
Major electrical component	Load switch FLN36-12D	1			
	fuse				
	Current transformer LZZJ2-12		1-3		
	High voltage live display device DXN6-T	1	1	1	1
	Lightning arrester HY5WZ or HY5WS			3	
Width × Depth × Height (mm)		420/500×845×1600/1800	500×845×1600/1800	500×845×1600/1800	420×845×1600/1800

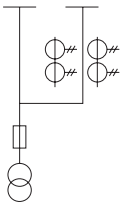
Scheme number		02	02-1	02-2	
Main circuit scheme diagram					
Use		Protective transformer	Protective transformer	Protective transformer	
Major electrical component	Combined electric FLRN36-12D	1	1	1	
	Fuse	S □ LAJ	S □ LAJ	S □ LAJ	
	Current transformer LZZJ2-12		1~3		
	High voltage live display device DXN6-T	1	1	1	
	Lightning arrester			HY5WZ	
	Ground switch	1	1	1	
Width × Depth × Height (mm)		500×845×1600/1800	500×845×1600/1800	500×845×1600/1800	

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KYN28-12 Armored Withdrawable Type AC Metal-Enclosed Switchgear

Scheme number		03	04	05	06
Main circuit scheme diagram					
Use		PT+ lightning arrester	Busbar connection	Cable entry	Contact
Major electrical component	Load switch FLN36-12D	1			1(without ground switch)
	Fuse	3(Protective voltage transformer) RN2-10/0.5			
	Current transformer LZZJ2-12	2-3			
	High voltage live display device DXN6-T				
	Lightning arrester	HY5WZ			
Width × Depth × Height (mm)		500×845×1600/1800	420×845×1600/1800	420×845×1600/1800	420×845×1600/1800

Scheme number		07			
Main circuit scheme diagram					
Use		Measure			
Major electrical component	Fuse RN2-10/0.5	3			
	Current transformer LZZJ2-12	2			
	Voltage transformer JDZ-10	2			
Width × Depth × Height (mm)		500×845×1600/1800			