



NG7-12(24)

Medium Voltage GIS for Secondary Distribution

OVERVIEW



NG7-12(24) series SF6 gas-insulated switchgear is a new generation of miniaturized products designed and manufactured by CHINT according to **IEC 62271-200**.

It has a variety of combinations and can be flexibly extended, which not only meets the requirements of power distribution, but also meets the needs of various secondary distribution application for flexible compact switchgear. It is widely used in public power

grids, utilities, rail transit, new energy E-house, solar farm, wind farm, data center and other new energy fields.

The NG7 series switchgear employs a full-seal structure scheme and modular design. All live parts are placed in the sealed shell, which makes them free from the impact of external environment and ensures the requirements of high reliability and security. Additionally, automation solutions can be configured to realize intelligent control.

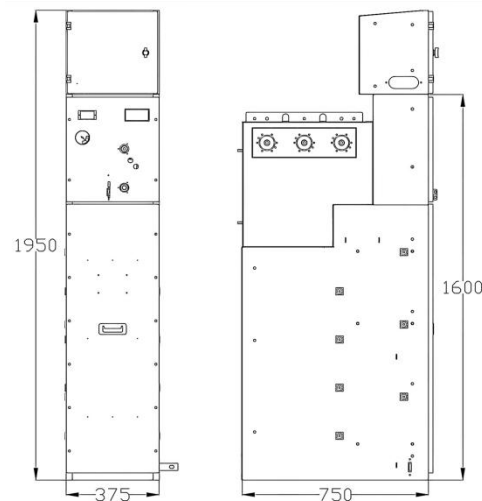
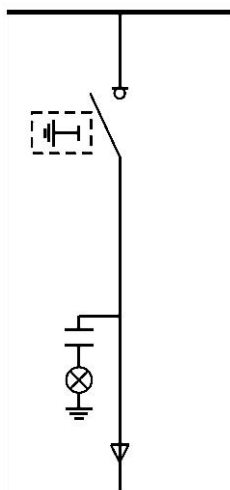
Operation Condition

- Ambient temperature: maximum temperature of +40°C, and minimum temperature of -25°C. The average value within 24 hours does not exceed 35°C.
- Altitude: 5,000m (it should be specially noted when the equipment operating altitude exceeds 1,000m)
- Environmental humidity: relative humidity does not exceed 95% within 24 hours and monthly average humidity does not exceed 90%.
- Electromagnetic interference: the amplitude of electromagnetic interference induced in the secondary system is less than or equal to 1.6kV.
- Seismic intensity: magnitude 8.
- Installation environment: no serious pollution or explosion hazard.

Please negotiate with CHINT for customization when it's not within the above operating environment condition.

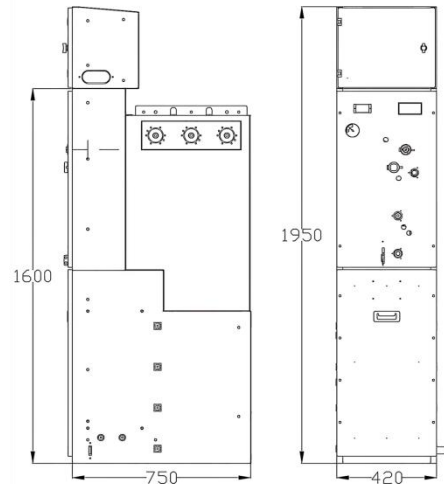
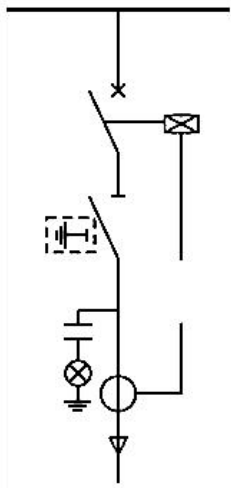
PARAMETERS

Item	Unit	Load break switch unit (C)		
		NG7-12	NG7-24	
Rated voltage	kV	12	24	
Rated frequency	Hz	50 / 60		
Rated current	A	630		
Rated short-duration power frequency voltage (1min)	kV	To earth & between phases	42	65
		Across the isolating distance	48	79
Rated lightning impulse voltage	kV	To earth & between phases	75	125
		Across the isolating distance	85	145
Rated power frequency voltage of control and auxiliary circuits (1min)	kV	2		
Rated short-time withstand current & duration	kA/s	25/4	20/4	
Rated peak withstand current	kA	63	50	
Mechanical endurance	Load break switch	10000		
	Earthing switch	3000		
Rated functional pressure (relative at 20°C)	MPa	0.04		
Minimum functional pressure (relative at 20°C)	MPa	0.02		
Annual leakage rate	-	≤ 0.01%		
Degree of protection	Gas tank	IP67		
	Enclosure	IP41, IK10		
Internal arc classification	kA/s	AFLR - 25/1	AFLR - 20/1	
Dimension (Width x Depth x Height)	mm	375 x 750 x 1950		



PARAMETERS

Item	Unit	Circuit breaker unit (V)		
		NG7-12	NG7-24	
Rated voltage	kV	12	24	
Rated frequency	Hz	50 / 60		
Rated current	A	630		
Rated short-duration power frequency voltage (1min)	To earth & between phases	kV	42	65
	Across the isolating distance	kV	48	79
Rated lightning impulse voltage	To earth & between phases	kV	75	125
	Across the isolating distance	kV	85	145
Rated power frequency voltage of control and auxiliary circuits (1min)	kV	2		
Rated short-time withstand current & duration	kA/s	25/4	20/4	
Rated peak withstand current	kA	63	50	
Rated short-circuit breaking current	kA	25	20	
Rated short-circuit making current	kA	63	50	
Mechanical endurance	Circuit breaker	-	10000	
	Disconnecter	-	5000	
	Earthing switch	-	3000	
Rated functional pressure (relative at 20°C)	MPa	0.04		
Minimum functional pressure (relative at 20°C)	MPa	0.02		
Annual leakage rate	-	≤ 0.01%		
Degree of protection	Gas tank	-	IP67	
	Enclosure	-	IP41, IK10	
Internal arc classification	kA/s	AFLR - 25/1	AFLR - 20/1	
Dimension (Width x Depth x Height)	mm	420 x 750 x 1950		



PARAMETERS

Item	Unit	Switch-Fuse combination unit (F)	
		NG7-12	NG7-24
Rated voltage	kV	12	24
Rated frequency	Hz	50 / 60	
Rated current	A	160	125
Rated short-duration power frequency voltage (1min)	To earth & between phases	42	65
	Across the isolating distance	48	79
Rated lightning impulse voltage	To earth & between phases	75	125
	Across the isolating distance	85	145
Rated power frequency voltage of control and auxiliary circuits (1min)	kV	2	
Making and breaking tests TD_{ISC}	kA	31.5	
Rated transfer current $TD_{Itransfer}$	A	1750	1400
Rated take-over current TD_{Ito}	A	1500	1200
Mechanical endurance	Load break switch	10000	
	Earthing switch	3000	
Rated functional pressure (relative at 20°C)	MPa	0.04	
Minimum functional pressure (relative at 20°C)	MPa	0.02	
Annual leakage rate	-	≤ 0.01%	
Degree of protection	Gas tank	IP67	
	Enclosure	IP41, IK10	
Dimension (Width x Depth x Height)	mm	420 x 750 x 1950	

