

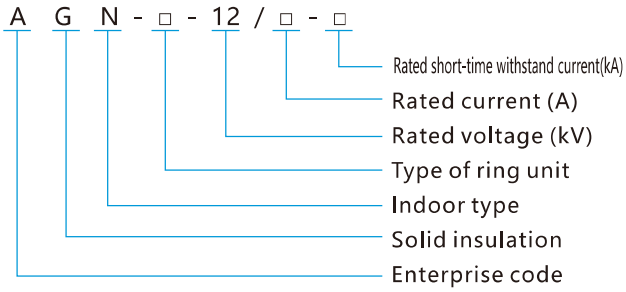
Product Overview and Features

AGN-12 series

Solid insulated ring network switchgear is a new generation of environmentally friendly composite insulated ring network cabinet developed by our company. It is mainly composed of three parts, namely unit v (circuit breaker unit), unit c (load switch unit), unit F (combined electrical unit), each unit can be used separately or can be expanded freely, and its structure is divided into intelligent control instrument room, operating mechanism and primary part, the instrument room can be equipped with microcomputer protection (controller), and the primary part adopts the APG auto-gelding process, which seals the disconnecting switches and interrupting chambers into epoxy resin and has special connectors to connect with the busbar. The primary part adopts APG automatic gelation process to completely seal the disconnecting switch and the interrupter in epoxy resin, and has a special connector to connect with the busbar. The interrupters are made of special copper-chromium contact material, R-type longitudinal magnetic field contacts and a complete primary sealing process. The interrupters' short-circuit current breaking capacity, stability, electric life, temperature rise and insulation level are significantly higher than those of the previous interrupters (copper-aluminum contact material, cup-shaped longitudinal magnetic field contact structure, and incomplete primary sealing process). The actuating mechanism adopts the pop-up actuating mechanism integrated with the switch, i.e. the pop-up actuating mechanism of the disconnecting switch and the main switch is a whole, which can realize interlocking conveniently, and there are fewer parts in the mechanism, which reduces the unnecessary transmission links, and the reliability is high, and the electric operation can be realized according to the user's needs.

Solid Insulated Totally Closed Switchgear: is the use of group insulating materials as the main insulating medium will be the vacuum interrupter and conductive connections, isolation switches, grounding switches, main busbar, branch busbar and other dominant electrical circuits, single or combination of group insulating medium wrapped and encapsulated into one or a few with a certain function, can be combined again or expand the stink of the full-insulation, fully enclosed performance of the module, the module surface can be touched by the person is coated with a Conductive or semi-conductive shielding layer and direct reliable grounding of the ring network cabinet.

Model Meaning



Areas of application and environments of use

The Ring Unit is suitable for 12kV, 50Hz three-phase AC power distribution system, used for ring power supply or terminal power supply. It can be installed in the power distribution system of industrial and mining enterprises, residential districts, schools, parks, etc. It can also be installed in compact box-type substations for the control and protection of distribution transformers. Therefore, both indoor and outdoor ring units can realize power distribution automation.

Altitude ≤ 4000 meters (please specify when the altitude of equipment operation is higher than 1000m).
Adapt to the ambient temperature -40 ℃ ~ +50 ℃, 24h average temperature does not exceed 35 ℃.
Air relative humidity 95% (+25℃).
Ground inclination ≤ 5 °.
Seismic intensity: no more than 8 degrees.

Main technical parameters

Name		Unit	Load switch	Combined electrics	Circuit breaker
Rated voltage		kV	12	12	12
Rated frequency		Hz	50	50	50
Rated current		A	630	Depends on fuse current rating	630
Rated insulation level	Frequency withstand voltage (phase-to-phase and phase-to-ground)	kV	42	42	42
	Frequency Withstand Voltage (isolation)	kV	48	48	48
	Industrial frequency withstand voltage (control and auxiliary circuits)	kV	2	2	2
	Lightning impulse withstand voltage (phase-to-phase and phase-to-ground)	kV	75	75	75
	Lightning Impulse Withstand Voltage (isolated circuit)	kV	85	85	85
Rated short-time withstand current		kA	25	-	25
Rated peak withstand current		kA	63	-	63
Rated short-circuit closing current		kA	63	Limited by high voltage fuses	63
Rated short-circuit breaking current		kA	-	Limited by high voltage fuses	25
Rated transfer current		A	-	3150	-
Rated active load breaking current		A	630	-	-
Rated closed loop breaking current		A	630	-	630
Mechanical life	Load switches/circuit breakers	time	5000	5000	10000
	Disconnect/Earth Switch	time	3000	3000	3000
Main circuit resistance		μQ	≤150	≤300	≤150