

Product Overview and Features

AQGN□-12

The AQGN-12 type inflatable SF6 metal-enclosed fully insulated ring network switchgear, which is independently developed and produced by our company, is widely used in 10KV power distribution system, and is the first choice of switchgear products for all kinds of urban and rural users' power distribution system.

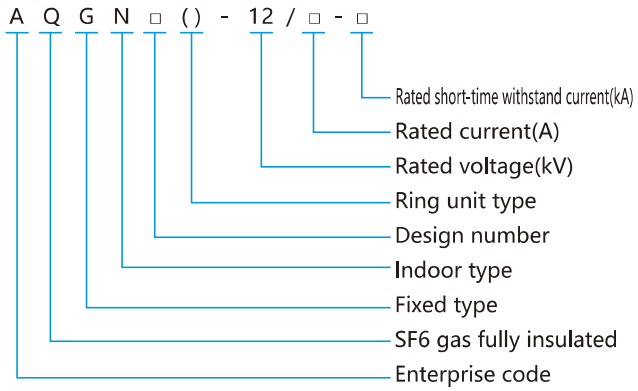
The switchgear is in the mode of touch block unit, which can be combined according to different purposes; it consists of two categories, namely, fixed unit combination and expandable unit, which can satisfy the needs of various substations for the flexible use of compact switchgear.

AQGN-12 type inflatable switchgear is a completely sealed system, with all electrically charged parts and switches enclosed in a stainless steel shell. The entire switchgear is unaffected by external environmental conditions, thus ensuring operational reliability and personal safety, and is maintenance-free. With the option of an extendable busbar, any combination can be realized to achieve full modularity.

The extension busbars are safely insulated and shielded, ensuring high reliability and safety. The switchgear can also be supplied with factory automation solutions, forming the concept of intelligent switchgear and minimizing the workload of on-site installation and commissioning.

AQGN-12 type inflatable switchgear is divided into non-expandable standard configuration and expandable standard configuration. Due to the combination of full and half modules and its own expandability, it is extremely flexible.

Model Meaning



Areas of application and environments of use

AQGN mouth-12 type series inflatable cabinet SF. gas as arc extinguishing and insulation medium.

The switchgear cabinet is a fully sealed and insulated structure; the busbar, switch and electrically charged parts are completely enclosed in a stainless steel shell, and the cavity is filled with 1.4bar SF. gas, and the protection level reaches IP67.

The whole switchgear is completely independent of external environmental conditions, even in extreme cases such as short-term water immersion can ensure the normal operation of the switch, and the product is maintenance-free for life.

The switchgear is equipped with a perfect "five-proof" interlocking device, which completely eliminates personnel and equipment operation failures that may be caused by human misoperation.

All switchgear cabinets are equipped with reliable pressure relief channels to ensure the personal safety of operators even under extreme conditions.

Switchgear is divided into two categories: fixed unit combinations and expandable unit combinations.

Switchgear cabinets are usually wired from the front, and can also be wired from the side or extended from the side according to different installation positions.

The cabinet size is easy to install and can be suitable for places with small space and poor environmental conditions.

The switchgear can be equipped with electric, remote control and monitoring devices according to different needs of users.

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	125	630
1min frequency withstand voltage	Interphase, Relatively	kV	42	42	42
	Isolated breaks	kV	48	48	48
Lightning impact withstand voltage	Interphase, Relatively	kV	75	75	75
	Isolated breaks	kV	85	85	85
Frequency withstand voltage for auxiliary and control circuits		kV	2	2	2
Rated short-time withstand current		kA	25	-	25
Rated short circuit duration		s	4		4
Rated peak withstand current		kA	63	-	63
Rated short-circuit breaking current		kA	-	31.5	25
Rated short-circuit closing current		kA	63	80	63
Rated transfer current		A	-	1600	-
Rated active load breaking current		A	630	-	630
Rated closed loop breaking current		A	630	-	630
Rated cable charging and breaking current		A	10	-	15
Mechanical life	Load switches/Circuit breakers	次	5000	5000	10000
	Disconnectors/Earth switches	次	3000	3000	3000
Circuit resistance		v Ω	≤150	≤400	≤150
Rated inflation pressure		bar	1.35		
Annual SF6 gas leakage rate		%/年	≤0.01		
Protection class		Gas tank IP67, Cabinet IP4X			