

DC Air Circuit Breaker

GYW3



Product Features

- high breaking capacity
It has a number of invention patents for the design of circuit breaker arc-extinguishing chamber and contact system. Using the principles of narrow slit, air blowing, and magnetic blowing arc extinguishing, optimizing the shape of the arc extinguishing grid and the layout of the arc extinguishing grid, increasing the driving force for the arc, reducing the resistance of entering the arc extinguishing chamber, and improving the breaking capacity of the product,and realize reliable arc extinguishing lower than DC1500V. The time for the controller to collect signals and issue commands is optimized, and when a large fault current occurs, the total breaking time can be greatly shortened.
- Long lifespan
Made of high-strength DMC material, which has extremely high impact strength and insulation properties. The design of the arc contact structure improves the electrical life of the product; the contact system and operating mechanism are greatly optimized, the strength of the metal structure is higher, and the compensation of the contact pressure is realized, which improves the reliability of the product and short-term tolerance.
- Small size
The phase spacing is the smallest among the same frame, and the shunt is built-in, which is conducive to reducing the size of the complete cabinet and making the product more beautiful.
- critical current
The first non-polar frame circuit breaker at home and abroad that meets the critical DC load, realizes reliable arc extinguishing in the full current range, and can meet the photovoltaic PV2 level isolation requirements.
- Various safety protection devices
It has protective devices such as drawer-type circuit breaker door interlock, drawer-type three-position locking and unlocking device, key lock at off position, terminal shield, closing ready device, etc.

		GYW3-2500			GYW3-4000	
Number of poles in series (P)		2/3/4			3/4	
Rated current In(A)		800/1000/1250/1600/2000/2500			1600/2000/2500/3200/3600/4000	
Rated working voltage Ue(V)		DC500V/750V(2P/3P)			DC500V/750V(3P)	
		DC1000V/1500V(4P)			DC1000V/1500V(4P)	
Breaking type		/			S	H
Rated ultimate short-circuit breaking capacity Icu(kA)		DC500V	2P	50	/	/
			3P	65	80	120
		750V DC	2P	40	/	/
			3P	55	65	80
		DC1000V	4P	50	55	75
		DC1500V	4P	40	50	60
Rated operating short-circuit breaking capacity Ics(kA)		100%Icu			100%Icu	
Rated short-circuit making capacity Icm(kA)		100%Icu			100%Icu	
Rated short-time withstand current Icw(kA)/1s		100%Icu			100%Icu	
controller	NWK20Z controller	●			●	
	NWK22Z controller	●			●	
installation method	fixed	●			●	
	Drawer type	●			●	

Application scope

GYW3-2500/4000 DC-type universal circuit breaker (hereinafter referred to as circuit breaker) is suitable for DC, rated current 800A~4000A, rated insulation voltage DC1500V, rated working voltage DC500V/750V, DC1000V/1500V power distribution network, used to distribute power and protect circuit and power equipment from overload, undervoltage, short circuit and other faults: it also has a reliable isolation function. The circuit breaker has a variety of protection functions. While achieving high-precision selective protection, it can also avoid unnecessary power outages and improve the reliability and safety of the power supply system.

Product Certification

- GB/T 14048.1-2012 Low-voltage switchgear and controlgear Part 1: General principles (IEC60947-1:2001, MOD)
- GB/T14048.2-2020 Low-voltage switchgear and controlgear Part 2: Circuit breakers (IEC60947-2:2019, IDT)
- GB/T 14048.7-2016 Low-voltage switch and control settings Part 7-1: Terminal blocks for copper conductors of auxiliary devices
- GB/T 34581-2017 General Technical Requirements for DC Circuit Breakers for Photovoltaic Systems
- GB/T 2423.1-2008 Environmental testing for electrical and electronic products - Part 2: Test methods Test A: Low temperature
- GB/T2423.2-2008 Environmental testing for electrical and electronic products - Part 2: Test methods Test B: High temperature test methods
- GB/T 2423.4-2008 Environmental testing for electric and electronic products - Part 2: Test method Test Db alternating damp heat (12h + 12h cycle)