



# 12kV

## SF6 Gas / Dry Air Insulated Ring Main Unit



### Product description

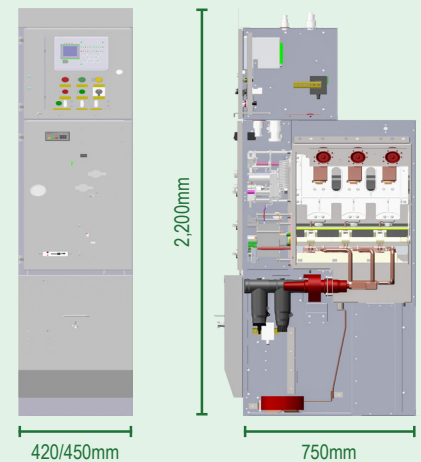
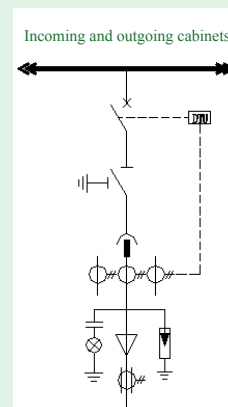
The ZCSF-12/ZCKQG-12 RMU is suitable for power system in the three-phase 50 Hz with the rated voltage of 3.6 to 12 kV. It is mainly used in industrial and civil cable ring networks and power supply terminals. The product is compatible with vacuum circuit breakers, SF<sub>6</sub> load break switches, and load switch/fuse combination units. It is adaptable to indoor environments with altitude up to 4,000m.

### Working environment

- Environmental temperature: -40°C (min) to 65°C (max)
- Altitude: no more than 4,500 meter
- Ambient humidity: daily average ≤ 95%, monthly average ≤ 90%
- Atmospheric environment: no fire, explosion hazard, serious pollution, chemical corrosion
- Seismic intensity: ≤ 8

### Technical specification

- GB/T 3906: Alternating-current metal-enclosed switchgear and controlgear for rated voltages above 3.6kV and up to and including 40.5 kV
- IEC 62271-200: High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV



### Electrical features

- Temperature-rise tests on 1.1 times of rated current, 10K below IEC limits
- Cable and switching compartments pass 25kA/1s internal Arc tests
- Adaptable to altitude of up to 4,000m
- Durable: circuit breaker with electrical endurance of 30 operations, E2 class earthing switch (5 times)
- Mechanical endurance: circuit breaker and earthing switch mechanically type tested for 10,000 and 5,000 operations respectively
- Automation and remote control available for both disconnector and load switch
- Industrial cameras can be installed to monitor gas boxes operation, video footages can be stored and shared

## Technical features

Parameter	Unit	Data
Rated voltage	kV	12
Rated frequency	Hz	50
Rated current of main busbar	A	630
Branch busbar rated current	A	630
Rated insulation level	Rated power frequency withstand voltage(1min)	42(fracture 48)
	Rated lightning impulse withstand voltage	75(fracture 85)
Rated short-time withstand currents	kA	20(25)
Rated duration of short circuit	s	4
Rated peak withstand current	kA	50(63)
Rated short circuit breaking current	kA	20(25)
Rated short circuit making current (peak)	kA	50(63)
Internal Arc	kA/s	ALFR25/1
Rated gas pressure	MPa	0.03 (only applies to circuit breaker)/0.04
Rated sequence	/	O-(0.3s)-CO-(180s)-CO
Degree of protection	enclosure/compartment	IP 67 / IP 4X
Size	Width × Depth × Height	420-450×750×2,200

## Optional intelligent modules



① Digital terminal



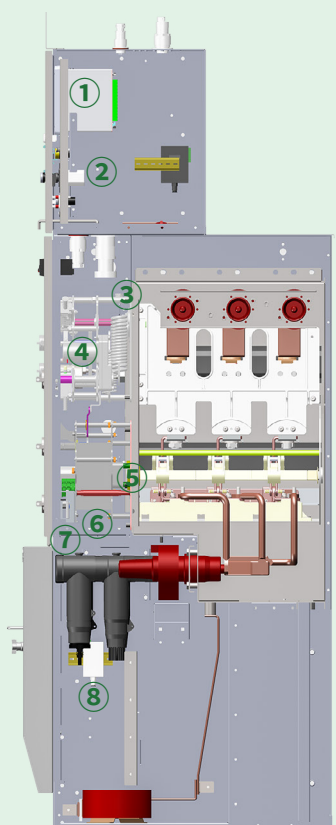
② Coil current monitoring module



③ Gas density sensor



④ Circuit breaker remote control module



⑤ Gas box three position video monitoring



⑥ Partial discharge sensor



⑦ Partial discharge data collector



⑧ Temperature data collector

## Existing projects

More than 40,000 units of gas insulated ring main units have been sold and operating mainly in the 10kV power distribution projects in Guangdong, Guangxi, Hainan, Guizhou and Yunnan provinces in China.

A total of 407 units of air insulated ring main units have been sold and operating mainly in the 10kV power distribution projects in Guizhou and Yunnan provinces in China.