

ZW □ - 40.5

Outdoor Vacuum Circuit Breaker



Overview

ZW □ -40.5 series outdoor high voltage intelligent vacuum circuit breaker (hereinafter referred to as "circuit breaker") is used in the three-phase power system with AC 50Hz and rated voltage 35KV, as the division and combination of load current, overload current and short circuit current. The circuit breaker can be configured with the coincidence controller to recognize the current characteristics and realize multiple automatic reclosing, and the PT is used as the power supply to become an intelligent circuit breaker with voltage and current signal output and control. The power supply provided by electronic PT can complete the three-stage compound protection of overcurrent delay, inrush current delay and short circuit quick break.

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Model meaning

Z	W	□	-	40.5	/	1250	-	25
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Vacuum Circuit Breaker	Outdoors	Design sequence number		Rated voltage (KV)		Rated current (A)		Rated short circuit breaking current (KA)

Environmental conditions of use

- ♦ Ambient temperature: not higher than +40°C , not lower than -40°C ;
- ♦ Air relative humidity: the daily average is not more than 95%, the monthly average is not more than 90%;
- ♦ The altitude does not exceed 2000 meters;
- ♦ Wind pressure does not exceed 700Pa(equivalent to 34m/s wind speed);
- ♦ Seismic intensity does not exceed 8;
- ♦ No fire, explosion, serious pollution, chemical corrosion and violent vibration places.

Functional characteristics

- ♦ ZW □ - 40.5 vacuum circuit breaker can be equipped with a spring operating mechanism, with the opening and closing of load current, overload current and short circuit current and other basic functions, circuit breaker can be equipped with lightning arrester, lightning arrester can be installed according to user requirements on any side of the inlet and outlet line; The circuit breaker can be equipped with inrush current controller, so that it has the function of avoiding inrush current and overflow rate. The circuit breaker can be equipped with 2 to 3 measuring or measuring transformers, and can be equipped with a recloser controller to form a recloser intelligent circuit breaker.
- ♦ The basic type and the coincidence controller are suitable for the occasion of easy access to power, the PT type and the coincidence controller are suitable for the occasion of no power supply, the intelligent circuit breaker is suitable for the radiation type power supply and the ring network power supply system, to help the system eliminate instantaneous faults, automatically restore power supply, and also isolate permanent faults to realize the automation of the distribution network. The circuit breaker has the function of reclosing 1 to 3 times, and the parameters of the reclosing device can be adjusted.
- ♦ The intelligent circuit breaker has the functions of inrush current control, overcurrent protection and short-circuit quick break protection, and the parameters can be adjusted continuously. The intelligent circuit breaker has the function of small current grounding protection, and the parameters can be continuously adjusted; The intelligent circuit breaker can realize both wired remote control and wireless remote control under the pole.
- ♦ It can be equipped with a voltage transformer, which can take power from the high voltage side of the line and provide 220V, 110V, 100V voltage to itself or other control equipment as required; The circuit breaker (small hydropower type) can be used for line voltage monitoring, when the overvoltage or undervoltage, the controller automatically disconnect the circuit breaker, can be widely used in small hydropower branch and the main grid grid branch, to achieve network monitoring and automatic fault isolation; The circuit breaker (metering type) can output voltage and current signals with 0.2 level accuracy, which is an ideal choice for rural power substation, off-site scatter switch and simple metering switch.
- ♦ It can be equipped with electronic PT, take electricity from CT to charge the battery, and can carry out multiple energy storage and on-off operation in the state of no-voltage, and can provide the working voltage of external equipment; With the closing inrush current control, overcurrent protection and short-circuit quick break three-stage composite protection function, the protection parameters can be continuously adjusted by the user; It can realize wired remote control and wireless remote control under the pole.

The main technical parameters of circuit breaker

Item	Units	Argument
Rated voltage	KV	40.5
Rated current	A	630/1250/1 600
Rated frequency	Hz	50/60
Power frequency withstand voltage 1min (wet) (dry)	KV	80/95
Lightning impulse withstand current (peak)	KV	185
Rated short-circuit breaking current	KA	25
Rated short circuit closing current (peak)	KA	80
Rated peak withstand current	KA	80
48 Short-time withstand current	KA	31.5
Rated operating cycle		Opening - 01s - Closing opening -3s - closing Switching - 6s-switching - switching -60s recovery
The number of times the rated short circuit current is broken	time	30
Mechanical life	time	20000
Intelligent mechanism controls the voltage	V	DC220
Secondary circuit 1min power frequency voltage	KV	2

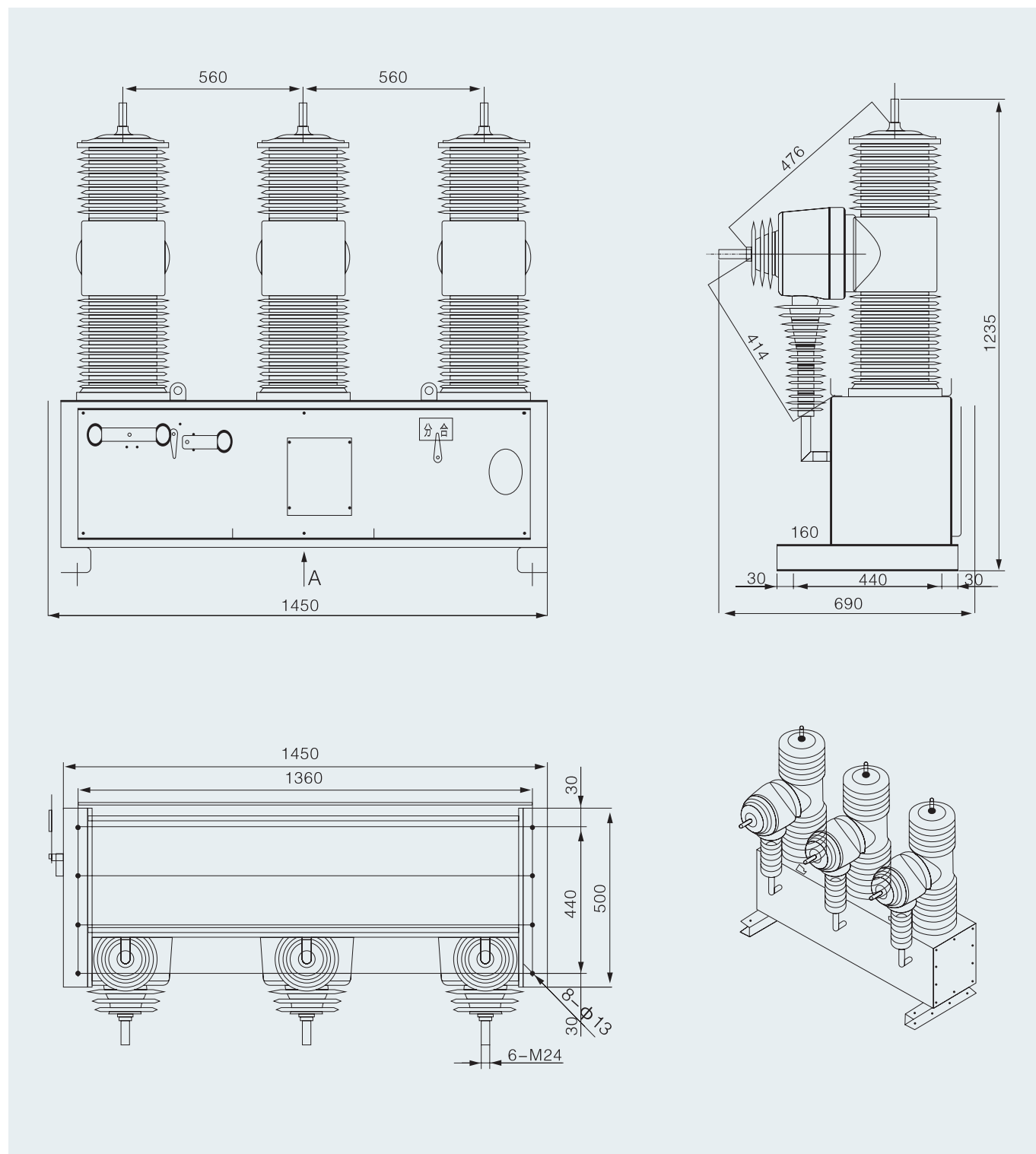
The main mechanical parameters of circuit breaker

Item	Units	Argument
Contact opening distance	mm	16±1
Contact overtravel	mm	4±0.5
Opening speed	m/s	14~18
Closing speed	m/s	04~08
Contact closing bounce time	ms	≤ 5
Interphase center distance	mm	460±2
Three phase switching is different	ms	2
Resistance of each phase conducting loop	μ Ω	<120
Closing time	ms	25~45
Opening time	ms	20~45
represent	kg	295
Secondary circuit 1min power frequency voltage	KV	2

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Dimensions and mounting dimensions (mm)



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