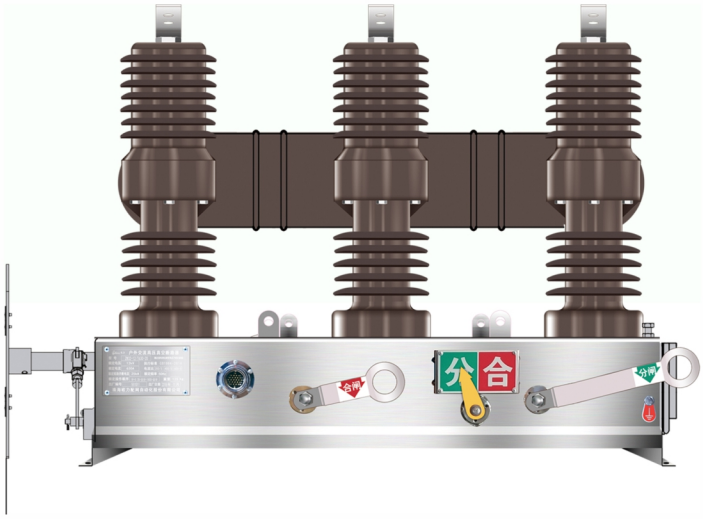
CIRCUIT BREAKER

ZW32-12kV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

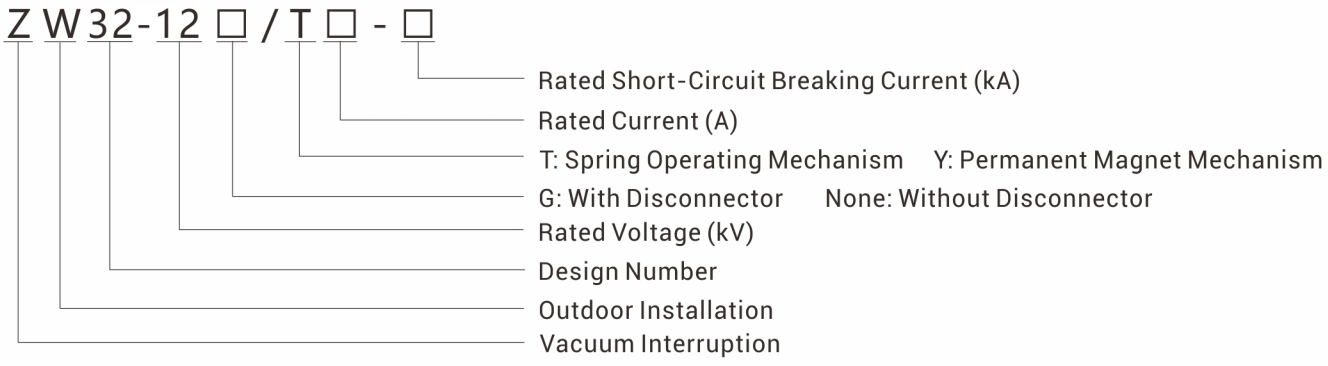


INSULATING MATERIALS | STABLE OPERATION | USER-FRIENDLY OPERATION | EXCELLENT INSULATION | EXTERNALLY-MOUNTED CTS/VTS | STAINLESS STEEL ENCLOSURE | TIN-PLATED CONTACTS | REINFORCED ISOLATION BLADE

REFERENCE STANDARD:

GB 311.1	Insulation Coordination for High-Voltage Transmission and Transformation Equipment
GB 1984	High-Voltage Alternating-Current Circuit-Breakers
GB/T 11022	Common Technical Requirements for High-Voltage Switchgear and Controlgear Standards
GB 50150	Acceptance Test Specifications for Electrical Equipment Installation in Domestic Projects
DL/T 403	Technical Ordering Conditions for 12kV-40.5kV High-Voltage Vacuum Circuit-Breakers
DL/T 615	Guidelines for Parameter Selection of AC High-Voltage Circuit-Breakers
DL/T 593	Common Technical Requirements for High-Voltage Switchgear and Controlgear Standards
DL/T 884	General Technical Conditions for 12kV Low-Maintenance Outdoor Distribution Switchgear
Q/GDWXXX	Technical Specifications for High-Altitude External Insulation Configuration
IEC62271-100	High-Voltage Switchgear and Controlgear – Part 100: Alternating-Current Circuit-Breakers

MODEL AND NOMENCLATURE



USE CONDITIONS:

Ambient Air Temper	-25°C~+70°C daily temperature variation≤25°C
Altitude	≤ 2000m (>2000m, correction factors for high altitude conditions apply. Specified when ordering)
IP Rating	IP55
Wind Pressure	≤ 700Pa (Equivalent to wind speed of 35m/s)
Sunlight Intensity	0.1W/c (At wind speed of 0.5m/s)
Pollution Degree	≤ Class IV
Seismic Intensity	≤ 8degrees
Ice Thickness	≤ 10mm
Earthing Method	Neutral point grounding system: Ungrounded, grounded via arc suppression coil, or low-resistance grounded
Installation Site	Free from flammable/explosive hazards, chemical corrosion, and severe vibration

REFERENCE CONFIGURATION FOR CUSTOMER SELECTIONS:

ZW32-12kV Series	Manual Standard	Compact Motorized	User Boundary (Sectionalizer)	Smart Reclosing	Rapid Permanent Magnet	Primary Secondary Integration	Primary & Secondary Integration with Capacitive Power Extraction
Stainless Steel Enclosure	●	●	●	●	●	●	●
Manual Spring Operating Mechanism	●						
Motorized Spring Operating Mechanism		●	●	●		●	●
Motorized Permanent Magnet Mechanism					●		
AC Two-Phase Protective CT 50~600/5	●	●	●	●	●		
ABC Three-Phase Protective CT 50~600/5		●	●	●	●	●	●

REFERENCE CONFIGURATION FOR CUSTOMER SELECTIONS:

ZW32-12kV Series	Manual Standard	Compact Motorized	User Boundary (Sectionalizer)	Smart Reclosing	Rapid Permanent Magnet	Primary Secondary Integration	Primary & Secondary Integration with Capacitive Power Extraction
Built-in Drawer-Type Inrush Current Protection Controller	●						
Zero-Sequence CT 20/1		●	●	●	●	●	●
Zero-Sequence Voltage Sensor						●	●
Reserved Aviation Plug Interface for FTU Automation		●					
Voltage Transformer (10kV/0.22kV)			●	●	●	●	
Stainless Steel Cabinet-Type Reclosing Controller				●			
Stainless Steel Cabinet-Type Permanent Magnet Controller					●		
Stainless Steel Cabinet-Type Primary&Secondary Integration Controller						●	●
Sectionalizer Controller			●				
Mounting Bracket (Single-Pole Configuration)	●	●	●				
Mounting Bracket with Circuit Breaker and Controller (Single-Pole Configuration)				●	●	●	●
Yellow-Green-Red Incoming Outgoing Line Protective Sleeve	●	●	●	●	●	●	●

MAIN CONFIGURATION



Vacuum Interrupter



Current Transformer



Incoming/Outgoing Line Bushing



Manual Spring Operating Mechanism



Inrush Current Controller

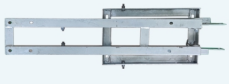


Stainless Steel Enclosure

AUXILIARY CONFIGURATION



Disconnector



Mounting Bracket

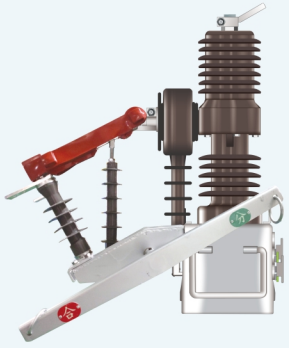
TECHNICAL DATE SHEET

Item	Unit	Without Disconnector	With Disconnector
Rated Voltage	kV	12	
Rated Current	A	630	630
Rated Frequancy	Hz	50	
Rated Insulation Level	kV	42/48	42/48
Rated Short-Circuit Breaking Current	kA	20	25
Rated Short-Circuit Making Current (Peak)	kA	50	63
Rated Short-Circuit Withstand Current	kA	20	25
Rated Short-circuit Operations at Short-Circuit Current	Time	30	30
Rated Short-Circuit Duration	s	4	
Rated Operating Voltage & Auxiliary Circuit Rated Voltage	V	Dc220 AC220 AC/DC220	
Rated Operating Sequence		Open -0.3s- Close/open -180s- Close/open	
Rated Overcurrent of Release Current	A	5	
Mechanical Life	Time	10000	
Permissible Cumulative Wear Thickness of Contacts	mm	3	
Overcurrent Release Setting	A	5	
Current Transformer Ratio		200/5 400/5 600/5	
Contact Gap	mm	9±1	
Contact Overtravel	mm	3±1	
Average Opening Speed	m/s	1.2±0.3	
Average Closing Speed	m/s	0.6±0.2	
Opening Time	ms	20~40	
Closing Time	ms	30~60	
Contact Bounce Time (Closing)	ms	≤2	
Closing/Opening Asynchronism (Three Poles)	ms	≤2	
DC Resistance per Pole	μ Ω	≤80	≤150

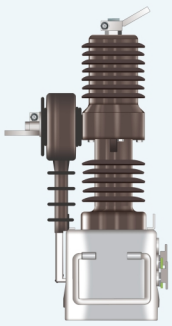
ZW32-12KV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

MANUAL STANDARD TYPE

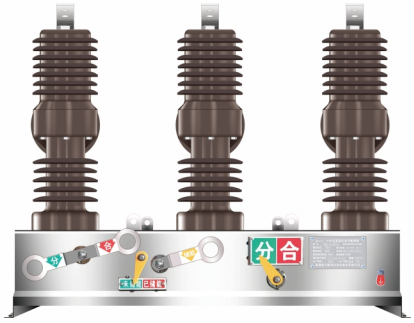
This device is primarily used in 12kV, three-phase AC 50Hz power transmission and distribution systems. It features a simple configuration and can only be energized by pulling the energy storage handle. Manual closing and opening operations are possible only after complete energy storage. An optional disconnecting knife switch can be added based on user requirements. The built-in inrush current protection controller enables overcurrent protection and instantaneous break protection, but does not include communication or networking functions.



WITH DISCONNECTOR



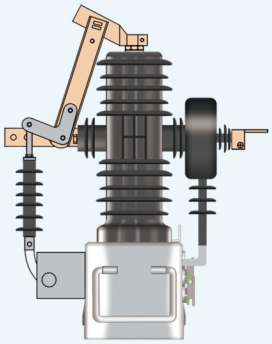
WITHOUT DISCONNECTOR



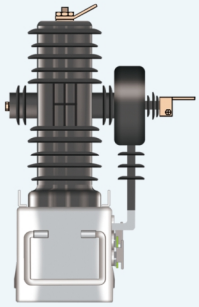
ZW32-12KV SERIES OUTDOOR HIGH-VOLTAGE VACUUM CIRCUIT BREAKER

COMPACT MOTORIZED TYPE

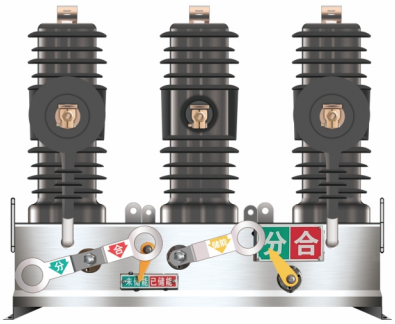
This product is primarily designed for 12kV, three-phase AC 50Hz power transmission and distribution systems. It features a motorized spring operating mechanism, with a lightweight and compact switch body that enables easy installation. Pre-equipped with aviation connectors for automation interfaces, it allows future integration of voltage transformers and FTUs (Feeder Terminal Units) to support distribution automation requirements and implement automated protection functions.



WITH DISCONNECTOR



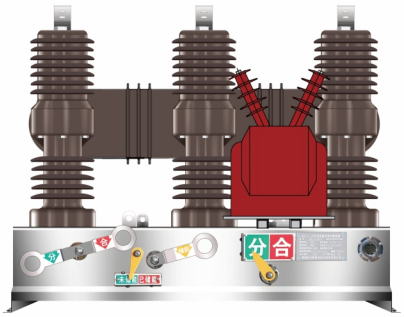
WITHOUT DISCONNECTOR



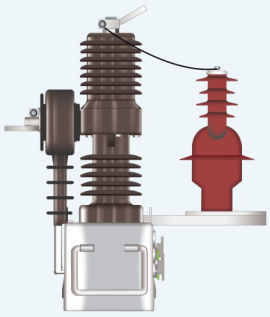
ZW32-12KV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

SMART BOUNDARY TYPE

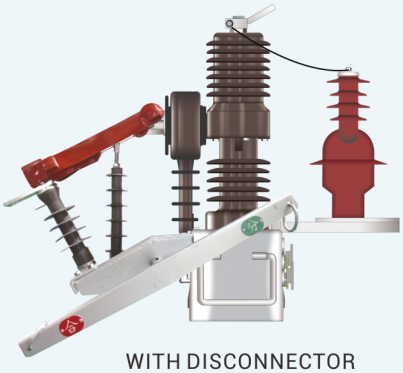
Designed for 12kV, three-phase AC 50Hz power transmission and distribution systems. The sectionalizing switch (commonly known as "Sectionalizer") is deployed at the user branch line demarcation point to automatically clear single-phase grounding faults and isolate phase-to-phase short-circuit faults. It enables rapid fault location and user load monitoring. Remote real-time monitoring and open/close operations of the sectionalizing switch can be performed via SMS or backend systems.







WITHOUT DISCONNECTOR

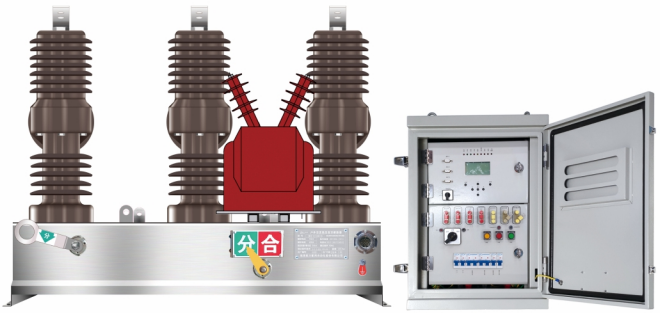


WITH DISCONNECTOR

ZW32-12KV SERIES OUTDOOR HIGH-VOLTAGE VACUUM CIRCUIT BREAKER

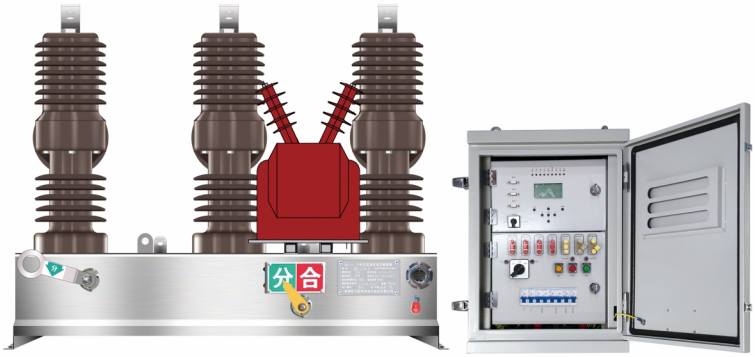
SMART RECLOSING TYPE

Designed for 12kV, three-phase AC 50Hz power transmission and distribution systems. Equipped with a stainless steel cabinet-type reclosing controller and backup battery, it maintains switch operability for up to 48 hours during power outages for emergency maintenance. Suitable for electrical control and protection in industrial plants, power plants, substations, agricultural networks, and urban areas, even in frequently operated scenarios, with fault interruption and rapid reclosing capabilities. Compatible with GSM/GPRS communication, backend monitoring systems, and administrator mobile monitoring platforms, enabling automated, integrated, and smart distribution networks.

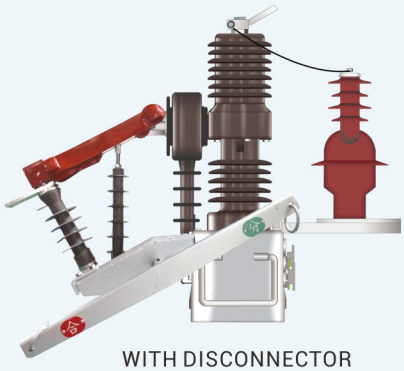


ZW32-12KV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

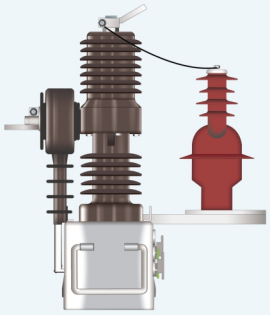
RAPID PERMANENT MAGNET TYPE



Designed for 12kV, three-phase AC 50Hz power transmission and distribution systems. Equipped with a stainless steel cabinet-type reclosing controller and backup battery, it maintains switch operability for up to 48 hours during power outages for emergency maintenance. Suitable for electrical control and protection in industrial plants, power plants, substations, agricultural networks, and urban areas, even in frequently operated scenarios, with fault interruption and rapid reclosing capabilities. Compatible with GSM/GPRS communication, backend monitoring systems, and administrator mobile monitoring platforms, enabling automated, integrated, and intelligent distribution networks.



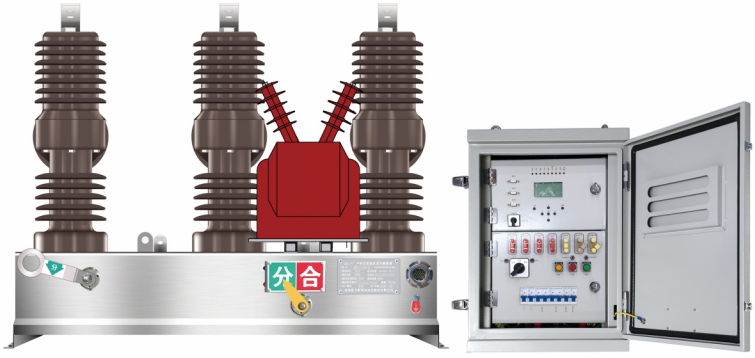
WITH DISCONNECTOR



WITHOUT DISCONNECTOR

ZW32-12KV SERIES OUTDOOR HIGH-VOLTAGE VACUUM CIRCUIT BREAKER

PRIMARY & SECONDARY INTEGRATION TYPE

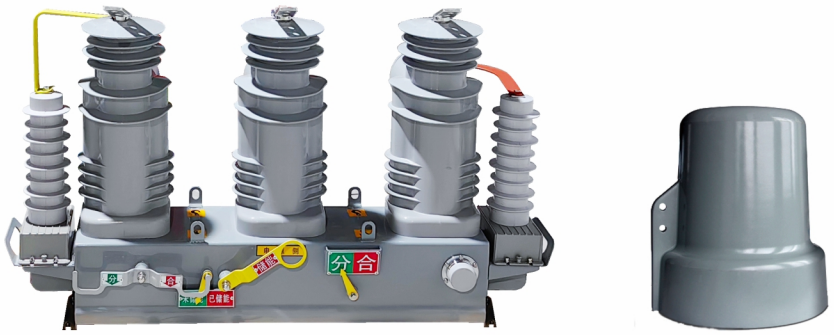


Designed for 12kV, three-phase AC 50Hz power transmission and distribution systems. Equipped with a stainless steel cabinet-type reclosing controller and backup battery, it maintains switch operability for up to 48 hours during power outages for emergency maintenance. Suitable for electrical control and protection in industrial plants, power plants, substations, agricultural networks, and urban areas, even in frequently operated scenarios, with fault interruption and rapid reclosing capabilities. Compatible with GSM/GPRS communication, backend monitoring systems, and administrator mobile monitoring platforms, enabling automated, integrated, and intelligent distribution networks.

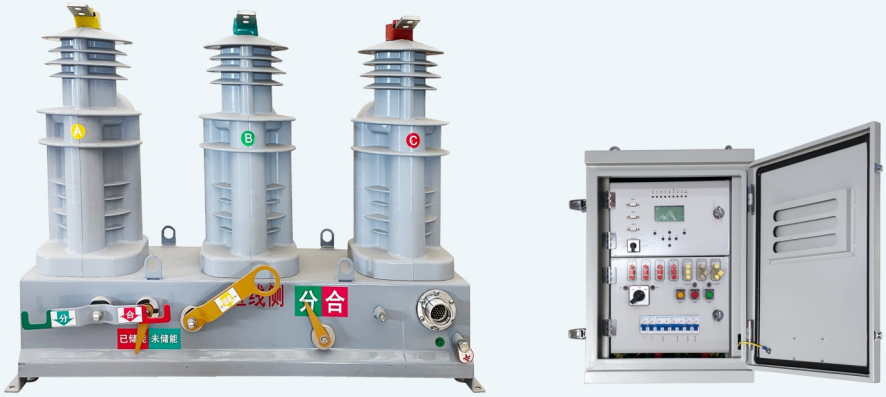
ZW32-12KV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

PRIMARY & SECONDARY INTEGRATION CAPACITIVE POWER EXTRACTION TYPE

As a core component of the "Primary & Secondary Integration" initiative, this breaker is engineered for 12kV overhead distribution networks. It replaces conventional electromagnetic PTs/CTs with high-voltage capacitive power extraction technology, enabling passive power supply and high-precision measurement in a single integrated system. This innovation resolves challenges associated with outdoor equipment power sourcing and high maintenance costs, while robustly supporting distribution automation (FA) and rapid fault isolation.



EXTERNALLY-MOUNTED CAPACTIVE POWER EXTRACTION

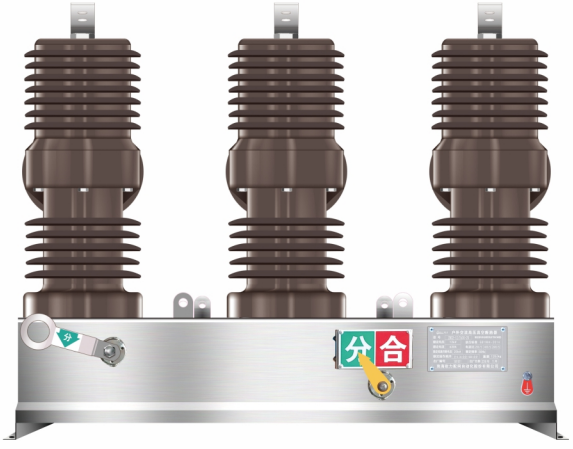


INTERNALLY-MOUNTED CAPACTIVE POWER EXTRACTION



CIRCUIT BREAKER

ZW32-24kV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER



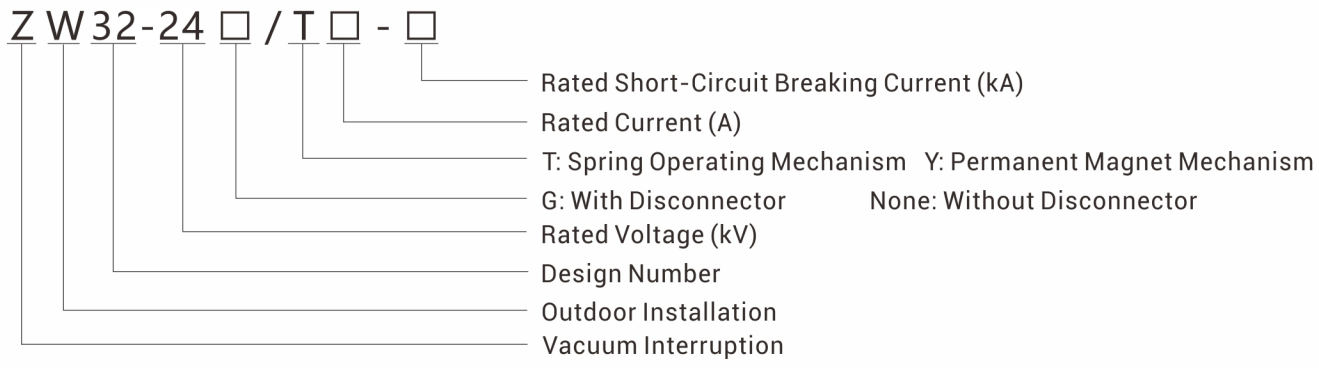
CABLE TYPE

INSULATING MATERIALS | STABLE OPERATION | USER-FRIENDLY OPERATION | EXCELLENT INSULATION | EXTERNALLY-MOUNTED CTS/VTS | STAINLESS STEEL ENCLOSURE | TIN-PLATED CONTACTS | REINFORCED ISOLATION BLADE

REFERENCE STANDARD:

GB 311.1	Insulation Coordination for High-Voltage Transmission and Transformation Equipment
GB 1984	High-Voltage Alternating-Current Circuit-Breakers
GB/T 11022	Common Technical Requirements for High-Voltage Switchgear and Controlgear Standards
GB 50150	Acceptance Test Specifications for Electrical Equipment Installation in Domestic Projects
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DL/T 615	Guidelines for Parameter Selection of AC High-Voltage Circuit-Breakers
DL/T 593	Common Technical Requirements for High-Voltage Switchgear and Controlgear Standards
DL/T 884	General Technical Conditions for 12kV Low-Maintenance Outdoor Distribution Switchgear
Q/GDWXXX	Technical Specifications for High-Altitude External Insulation Configuration
IEC62271-100	High-Voltage Switchgear and Controlgear – Part 100: Alternating-Current Circuit-Breakers

MODEL AND NOMENCLATURE



USE CONDITIONS:

Ambient Air Temper.	-25°C~+70°C daily temperature variation≤25°C.
Altitude	≤2000m (> 2000m, correction factors for high altitude conditions apply. Specified when ordering)
IP Rating	IP55
Wind Pressure	≤ 700Pa (Equivalent to wind speed of 35m/s)
Sunlight Intensity	0.1W/c (At wind speed of 0.5m/s)
Pollution Degree	≤ Class IV
Seismic Intensity	≤ Level 8
Ice Thickness	≤ 10mm
Earthing Method	Neutral point grounding system: Ungrounded, grounded via arc suppression coil, or low-resistance grounded
Installation Site	Free from flammable/explosive hazards, chemical corrosion, and severe vibration

REFERENCE CONFIGURATION FOR CUSTOMER SELECTIONS:

ZW32-24kV Series	User Boundary (Sectionalizer)	Smart Reclosing
Stainless Steel Enclosure	●	●
Motorized Spring Operating Mechanism	●	●
ABC Three-Phase Protective CT 50~600/5	●	●
Zero-Sequence CT 20/1	●	●
Voltage Transformer (20kV/0.22kV)	●	●
Stainless Steel Cabinet-Type Reclosing Controller		●
Sectionalizer Controller	●	
Mounting Bracket with Circuit Breaker & Controller (Single-Pole)	●	●
Yellow-Green-Red Entrance/Exit Line Protective Sleeves	●	●

TECHNICAL DATE SHEET

Item	Unit	Without Disconnector	With Disconnector
Rated Voltage	kV	12	
Rated Current	A	630	630
Rated Frequancy	Hz	50	
Rated Insulation Level	kV	65/79	65/79
Rated Short-Circuit Breaking Current	kA	20	25
Rated Short-Circuit Making Current (Peak)	kA	50	63
Rated Short-Circuit Withstand Current	kA	20	25
Rated Short-circuit Operations at Short-Circuit Current	Time	30	
Rated Short-Circuit Duration	s	4	
Rated Operating Voltage & Auxiliary Circuit Rated Voltage	V	Dc220 Ac220 AC / DC220	
Rated Operating Sequence		Open -0.3s- Close/open -180s- Close/open	
Rated Overcurrent of Release Current	A	5	
Mechanical Life	Time	10000	
Permissible Cumulative Wear Thickness of Contacts	mm	3	
Overcurrent Release Setting	A	5	
Current Transformer Ratio		200/5 400/5 600/5	
Contact Gap	mm	12±1	
Contact Overtravel	mm	3±1	
Average Opening Speed	m/s	1.2±0.3	
Average Closing Speed	m/s	0.6±0.2	
Opening Time	ms	20~40	
Closing Time	ms	30~60	
Contact Bounce Time (Closing)	ms	≤2	
Closing/Opening Asynchronism (Three Poles)	ms	≤2	
DC Resistance per Pole	μ Ω	≤80	≤150

MAIN CONFIGURATION



Vacuum Interrupter



Current Transformer



Entry/Exit Line Bushing



Manual Spring Operating Mechanism



Stainless Steel Enclosure

AUXILIARY CONFIGURATION



Disconnector

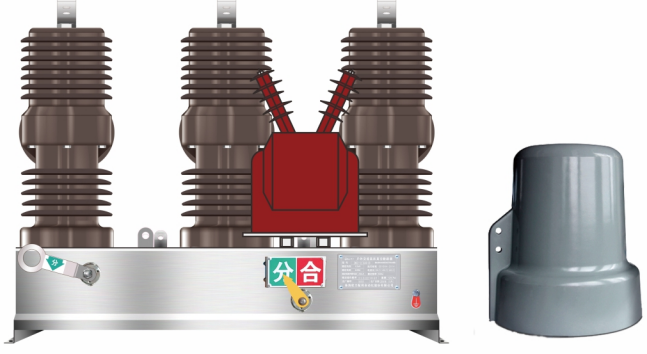


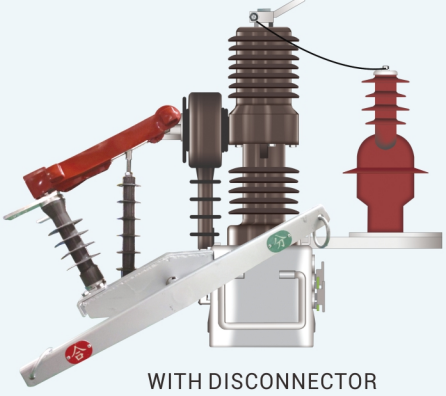
Mounting Bracket

ZW32-24KV SERIES OUTDOOR HIGH-VOLTAGE VACUUM CIRCUIT BREAKER

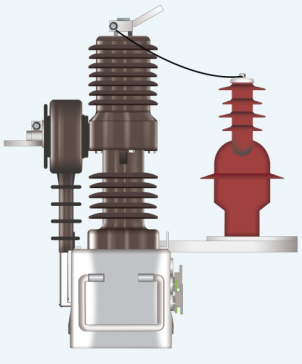
USER BOUNDARY TYPE

Designed for 24kV three-phase AC 50Hz power transmission and distribution systems, this device switches rated and short-circuit currents, making it suitable for urban/rural distribution networks and 20kV substations. When integrated with a sectionalizer controller, it operates as a boundary switch at user branch demarcation points to automatically clear single-phase ground faults, isolate phase-to-phase short-circuit faults, monitor user load, and enable real-time monitoring and switching operations via SMS or backend systems.





WITH DISCONNECTOR



WITHOUT DISCONNECTOR

ZW32-24KV SERIES OUTDOOR HV VACUUM CIRCUIT BREAKER

SMART RECLOSING TYPE

Designed for 24kV three-phase AC 50Hz power transmission and distribution systems, this device switches rated and short-circuit currents, making it suitable for urban/rural distribution networks and 20kV substations. Equipped with a stainless steel cabinet-type reclosing controller and backup battery, it maintains switch operability for up to 48 hours during line outage maintenance. The system is applicable for control and protection in industrial plants, power plants, substations, agricultural networks, and urban electrical facilities, even in frequently operated scenarios, with fault interruption and rapid reclosing capabilities. Compatible with GSM/GPRS communication, backend monitoring systems, and administrator mobile monitoring platforms, it enables automated, integrated, and intelligent distribution networks.

