

MV combination switch

VYC-12 Center Solid Seal Vacuum Contact Switch-Fuse Combination

- VYC Type Center-mounted Vacuum Contactor-Fuse Combination Electrical Appliance is suitable for indoor switchgear equipment with a rated voltage of 3.6-12 kV and a three-phase AC frequency of 50 Hz.
- This product is designed for places that require frequent circuit breaking and closing operations. It can meet the user's requirements for frequent operations and has advantages such as long lifespan, stable operation, and reasonable functionality.
- It is suitable for center-mounted switchgear cabinets with widths of 650mm and 800mm. It is applied in various industrial and mining enterprises such as metallurgy, petrochemicals, and mining. It is used to control and protect high-voltage motors, variable frequency drives, induction furnaces, and other load switching equipment.
- Standard: IEC60470:1999.

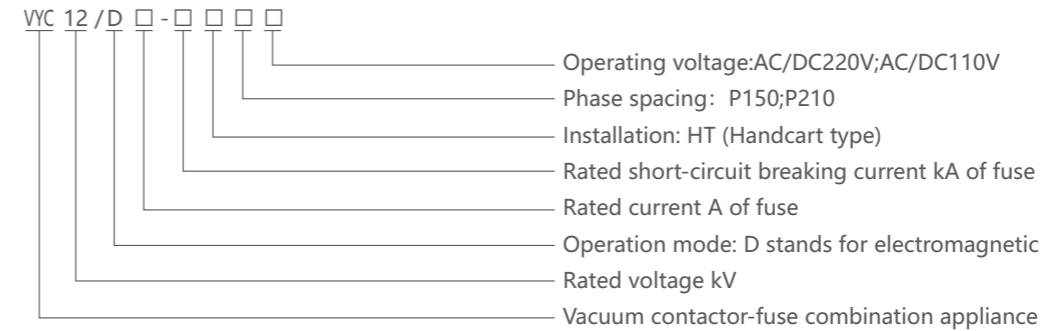
General



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Selection



Operating conditions

- The ambient temperature is higher than +40°C and not lower than -10°C (storage and transportation are allowed at -30°C).
- The altitude does not exceed 1500m.
- Relative humidity: the daily average is not greater than 95%, the monthly average is not greater than 90%, the daily average saturated vapor pressure is not greater than 2.2×10^{-3} Mpa, and the monthly average is not greater than 1.8×10^{-3} Mpa.
- The earthquake intensity does not exceed 8 degrees.
- Places without risk of fire, explosion, serious pollution, chemical corrosion and severe vibration.

Technical data

Main specifications

Number	Item	Unit	Value			
1	Rated voltage	KV	3.6	7.2	12	
2	Rated insulation level	Rated lightning impulse withstand voltage peak	KV	46	60	75
		1min	KV	20	32	42
3	Rated current	A	400	315	160	
4	Short-time withstand current	KA	4			
5	Short-term withstand current duration	s	4			
6	Rated peak withstand current	KA	10			
7	Rated short-circuit breaking current (fuse)	KA	50			
8	Rated transfer current	A	3200			
9	Rated switching current	A	3200			
10	Rated duty system		Continuous duty			
11	Use category		AC3、AC4			
12	Operating frequency	Times/h	300			
13	Electrical life	Times	250000			
14	Mechanical life	Times	300000			

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Mechanical characteristic parameters after assembly adjustment of combined electrical appliances

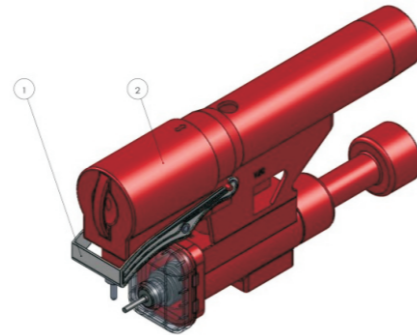
Number	Item	Unit	Value
1	Contact spacing	mm	6±1
2	Contact stroke	mm	2.5±0.5
3	Opening time (rated voltage)	ms	≤100
4	Closing time (rated voltage)	ms	≤100
5	Contact bounce time on closing	ms	≤3
6	Different phases of three-phase closing	ms	≤2
7	Allowable cumulative thickness of wear for moving and static contacts.	mm	2.5
8	Main circuit resistance	μΩ	≤300

Opening and closing coil parameters

Number	Item	Unit	Value
1	Control circuit rated operating voltage	V	DAC/DC110 AC/DC220
2	Closing current	A	20 10
3	Holding current (electrical holding)	A	0.2 0.1

Structural features

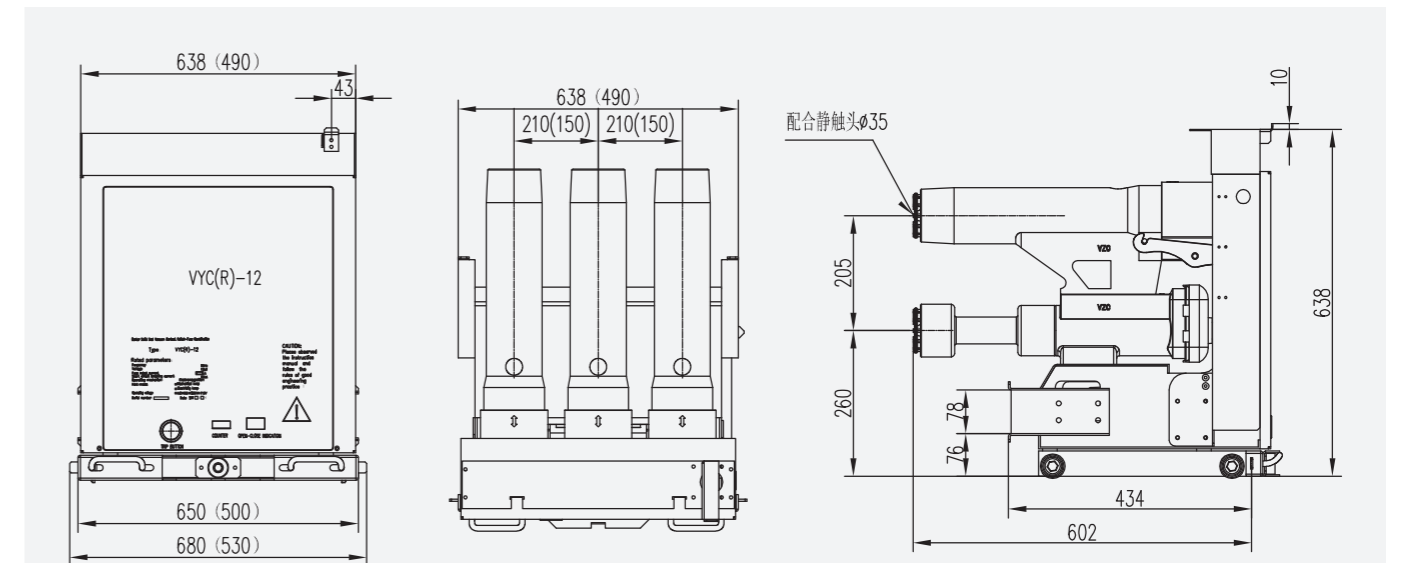
1. Simplified transmission links, reduced energy consumption, and improved mechanical reliability.
2. The pole is formed through APG (Automatic Pressure Gelation) process, providing waterproof, dustproof, and dirt-resistant properties, enhancing operational reliability.
3. Electromagnetic operating mechanism with reliable closing operation and low power consumption during long-term operation.
4. Convenient assembly and maintenance.



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Overall and mounting dimensions(mm)



Note: The data in parentheses is applicable to the 650mm cabinet body

The grounding method is bottom friction grounding.
The copper bus position is offset 100mm to the left of the center. It is compatible with static contact dimensions of $\varnothing 35 \times 72$.

Overall and mounting dimensions fuse

The fuse should be selected to protect the motor, and the model to be used is XRNM1. Please refer to Figure for the external dimensions of the fuse.

