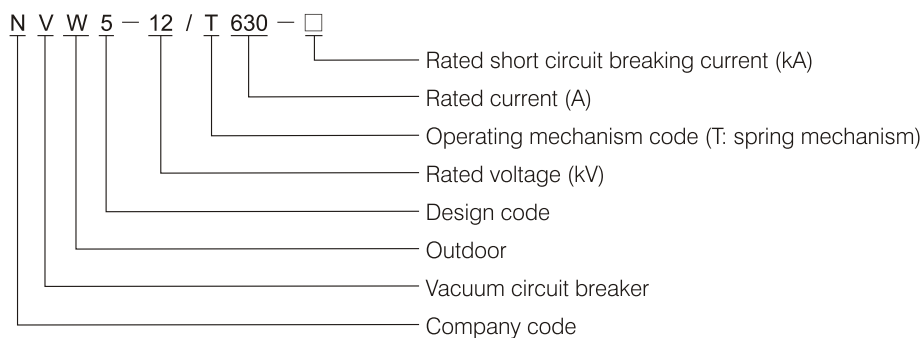


NVW5-12 Series Outdoor AC Vacuum Circuit Breaker

1. General

- 1.1 Ratings: voltage 12kV, current up to 630A, AC50HZ
 1.2 Application: for the control and protection of substation and equipments. Making and breaking load current, overload current and short-circuit current under various operating status of electric network.
 1.3 Standard: IEC62271-100

2. Type and Interpretation



3. Working Condition

- 3.1 Ambient air temperature: -40 ~ +40°C
 3.2 Altitude: ≤3000m
 3.3 Pollution level: IV
 3.4 Wind speed: ≤34m/s (Equal to 700Pa over cylindrical surface)
 3.5 The external shocking and earthquake could be neglected.
 ※ Note: Customized products for other special working conditions are available on your requirements.

4. Main Technical Parameter

Item	Unit	Parameter	
Rated voltage	kV	12	
Rated current	A	630	
Rated frequency	Hz	50	
Rated insulation level	1 min power frequency withstand voltage	Dry Wet	
		kV	42 (phase to earth, between poles, vacuum open contacts)
	Lightening impulse withstand voltage	kV	75 (phase to earth, between poles, vacuum open contacts)
Rated short-circuit breaking current	kA	20	
Rated short-circuit making current (peak)	kA	50	
Rated withstand current (peak)	kA	50	
Rated short-time withstand current	kA	20	
Rated duration of short-circuit	s	4	
DC component of rated short-circuit breaking current		53.7%	
Rated operating sequence		O-0.3s-CO-180s-CO	
Mechanical life		M2	
Out-phase earthing fault breaking current	kA	17.3	
Electrical life		E2	
Rated cable charging breaking current	A	25	
Rated operating voltage and rated auxiliary circuit voltage	V	AC/DC220	
1min power frequency withstand of secondary loop	kV	2	
Weight	kg	180	

4.2 Current Transformer configuration

Two standard current transformers are provided for customers to choose to use according to their needs, the current transformer ratio is selected as 50/5~630/5. To improve the mechanical strength, the current transformer body is casted with epoxy resin as one whole body.

Non standard current transformers can be also used on your requirements.

Inrush current controller can be used to improve the circuit breaker protection performance when the circuit breaker is with current transformer.

4.3 Voltage transformer configuration

Circuit breaker can be equipped with two external voltage transformer, variable ratio 10000/100/220V, capacity of 500VA, partial discharge is less than 20pC. Permanent magnetic actuator and control device operating power and low voltage component power supply components are provided by the secondary voltage transformer.

5. Overall and Installation Dimension

Fig. 1 Outline diagram

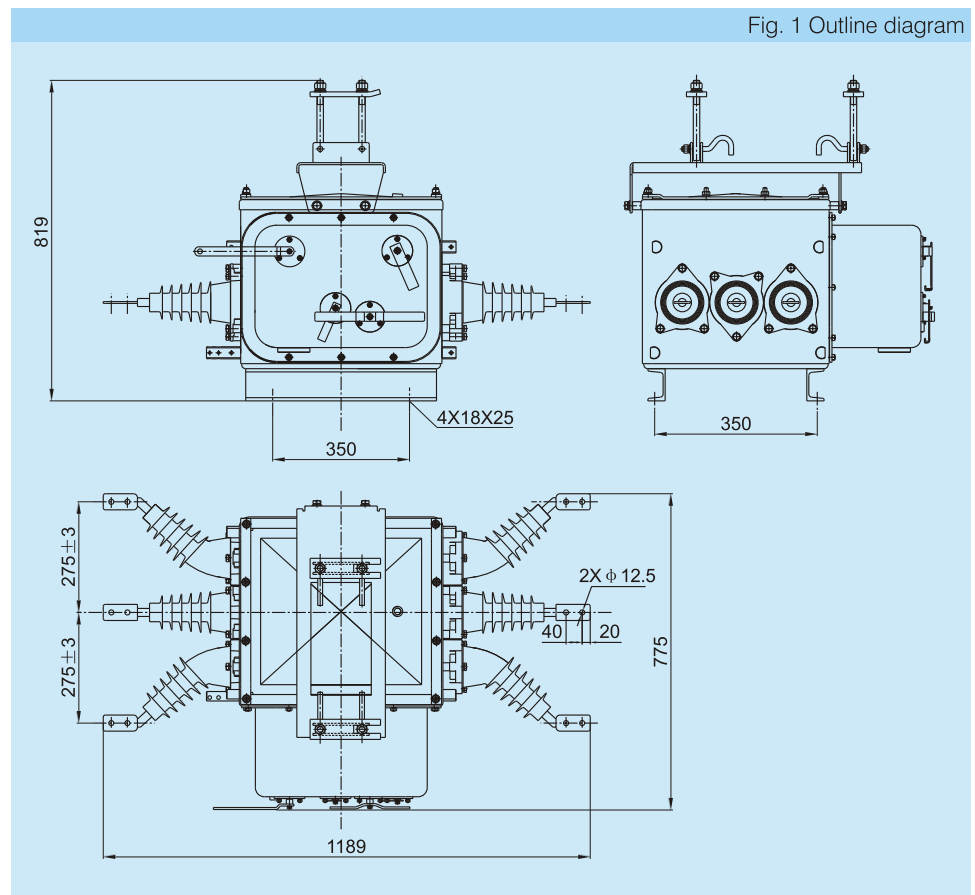


Fig. 2 Double pole lifting installation diagram

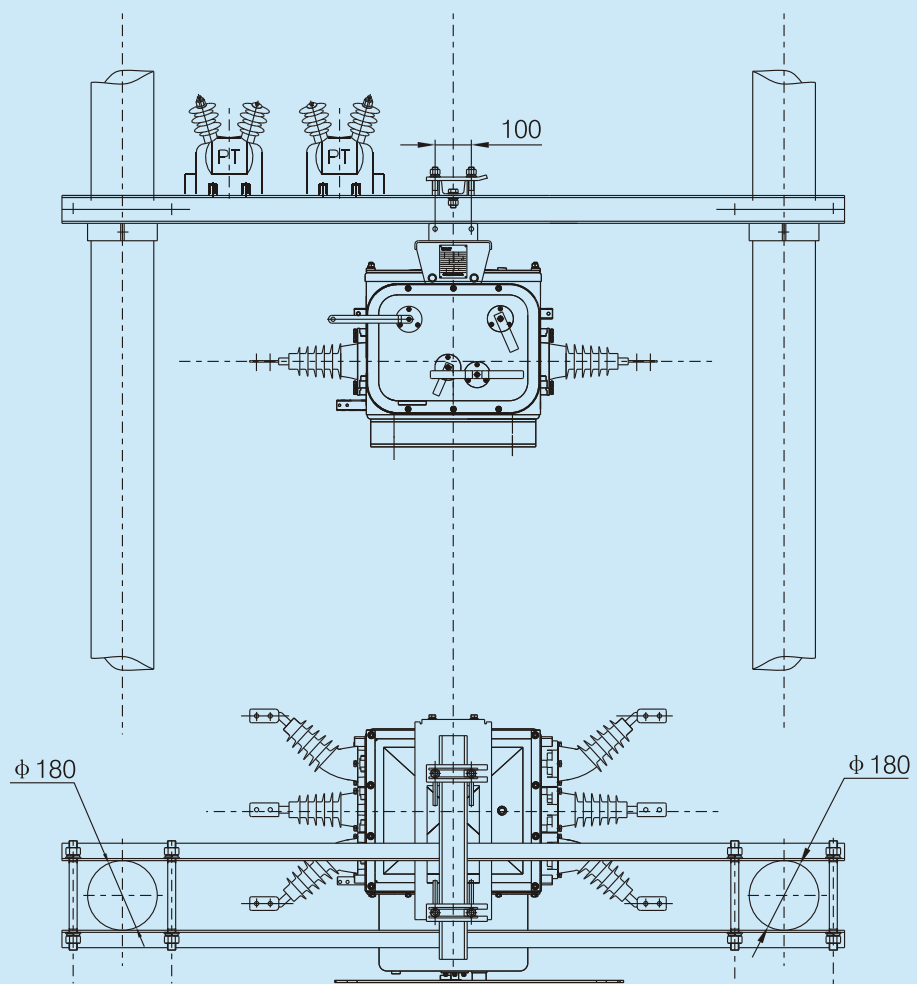
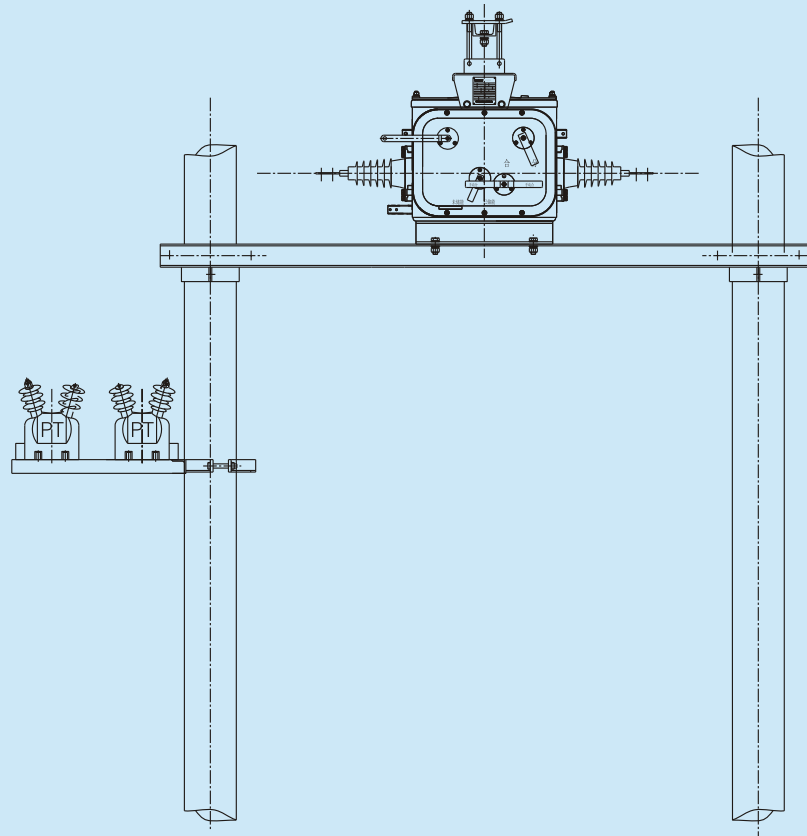


Fig. 3 Double pole blocking installation diagram



Top view (without VCB)

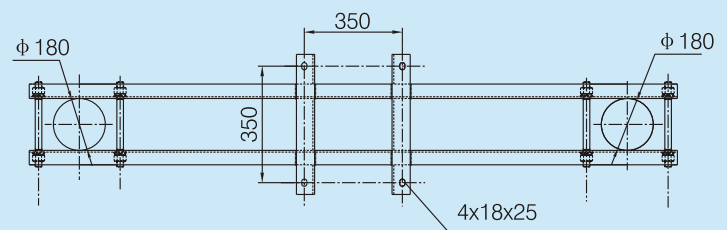


Fig. 4 Single pole lifting installation diagram

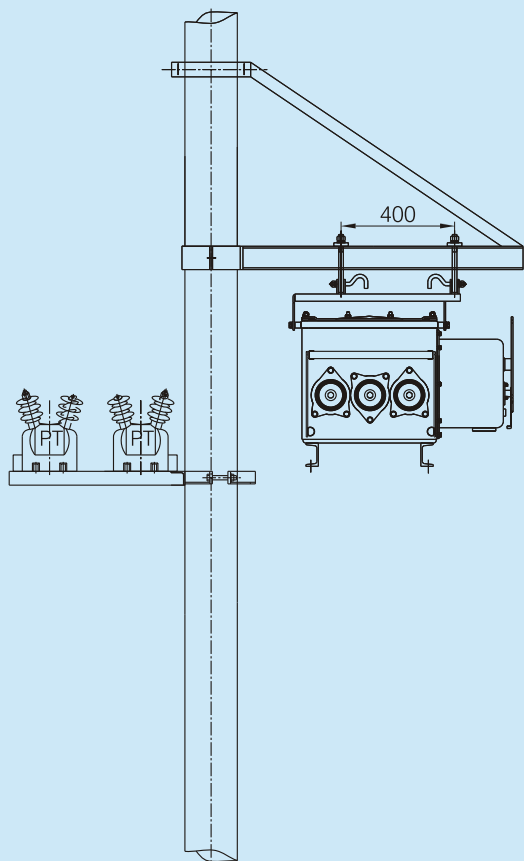
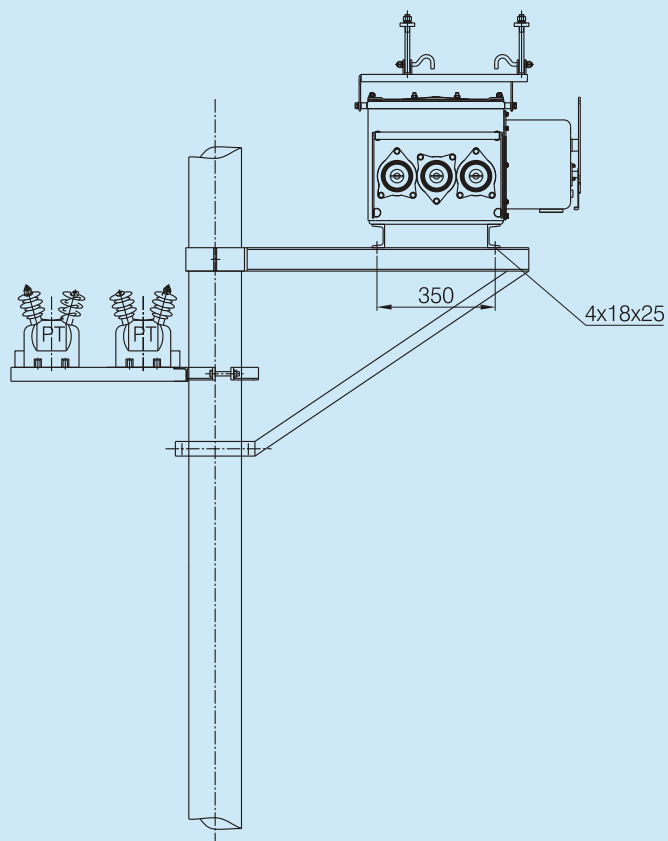


Fig. 5 Single pole blocking installation diagram



6. Ordering Information

Please indicate the following items when order:

- 6.1 Type, name and quantity.
- 6.2 Rated operating voltage of the operating mechanism.
- 6.3 Variable ratio, accuracy and quantity of the internal current transformer.
- 6.4 Variable ratio and quantity of the external voltage transformer.
- ※ Customized products are available per your requirements.