

# Overhead Line Switch

*This equipment is applicable to 24 kV overhead distribution lines, primarily as three automatically connected load switches. The line switch complies with IEC62271-1 and IEC62271-103 standards. It can be operated either remotely or manually to switch the load current and can provide voltage and current data through transducers such as a current transformer or a voltage transducer in the switch box.*

## Characteristics

- **Arc extinction:**

Arc extinction is achieved when the movable contact is driven away from the single-pressure arc suppression chamber (PUFFER) while driving a piston to compress SF6 gas in the chamber to blast out SF6 gas.

- **Low-pressure lockout:**

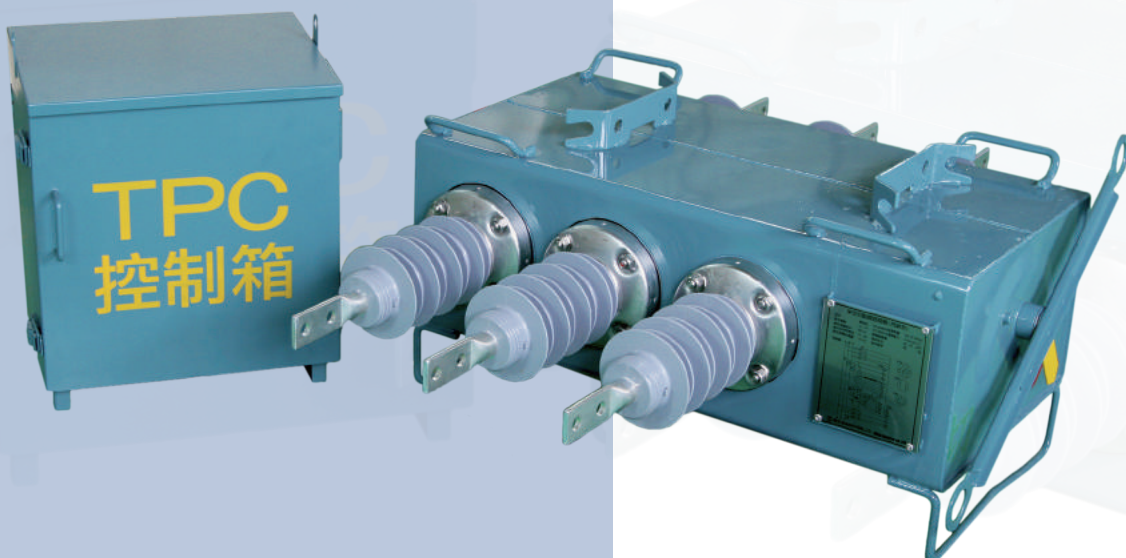
When the sensor detects an abnormal decrease in the switchgear pressure of 0.3–0.4 kg/cm<sup>2</sup>, it initializes the switchgear locking mechanism to prevent switchgear operation and displays the low-pressure alarm signal to avoid incorrect operation.

- **Pressure relief device:**

When the switch box short circuits because of an abnormally elevated pressure, the pressure relief device instantly opens the box before rupture, releasing the pressure outside the pressure relief device (explosion-proof) in order to avoid harming people.

- **Voltage and current sensor (optional):**

SCADA control system information regarding voltage and current data can be acquired from the sensor installed in the switch box.



# Specifications

Items		Specifications	
Rate voltage		15 kV	25.8 kV
Phase		Three phase	
Rate current		600 A	
Short time current		12 kA @ 1 sec	
Peak current		31.5 kA	
Making current		31.5 kA ( peak )	
Rated short-duration power-frequency withstand voltage	Common value	>28 kV	>50 kV
	Across the isolating distance	>32 kV	>60 kV
(BIL)	P-G	>110 kV	>125 kV
	P-P	>110 kV	>125 kV
	Poles	>125 kV	>145 kV
Resistance for contactors		100uΩ±25% @ 20°C	
Operations / operate torque		More than 1000 times / 10-30 kgf	
Rate of leakage		<5×10 <sup>-6</sup> bar×cm <sup>3</sup> /s	
Rate of leakage per year		<0.5%	
Switch body	dimension	1.48(m)×0.83(m)×0.44(m)	1.48(m)×1.05(m)×0.54(m)
	weight	75 kg±10%	88kg±10%
	material	SUS 304 2.0t	
	IP protection	IPX7	

## Current Transformer

Items	Specifications	
Rate primary current	600 A	
Rate secondary current	1 A	
Short time current	12 kA @ 1 sec	
Rated burden	3.75 VA	
Secondary rated frequency rated voltage	3 kV (rms) @ 1min	
Tolerance / phase angle difference (degrees)	30 A	3.0% / 5.4
	120 A	1.5% / 2.7
	600 A	1.0% / 1.8
	720 A	1.0% / 1.8
	1200 A	5.0% / -
	2400 A	10.0% / -

## Voltage Transducer

Items	Specifications	
Rated voltage	15 kV	25.8 kV
Rate secondary voltage	5 V	
<b>Tolerance:</b> Acceptable tolerance ( $\epsilon$ ) ≤ 1%, phase angle differences ( $\psi$ ) ≤ 1.5 degree. (Inclusive of waterproof metallic connector with 7 meters of conducting wire, rated burden 1MΩ±2% and below).		