

Live Tank Circuit Breaker Type EDF SK 1-1

Product information

The EDF SK is a live tank SF₆ Auto-puffer™ circuit breaker designed for 36 kV - 72.5 kV range and with a rated breaking current up to 31.5 kA. The circuit breaker is operated with one operating mechanism.

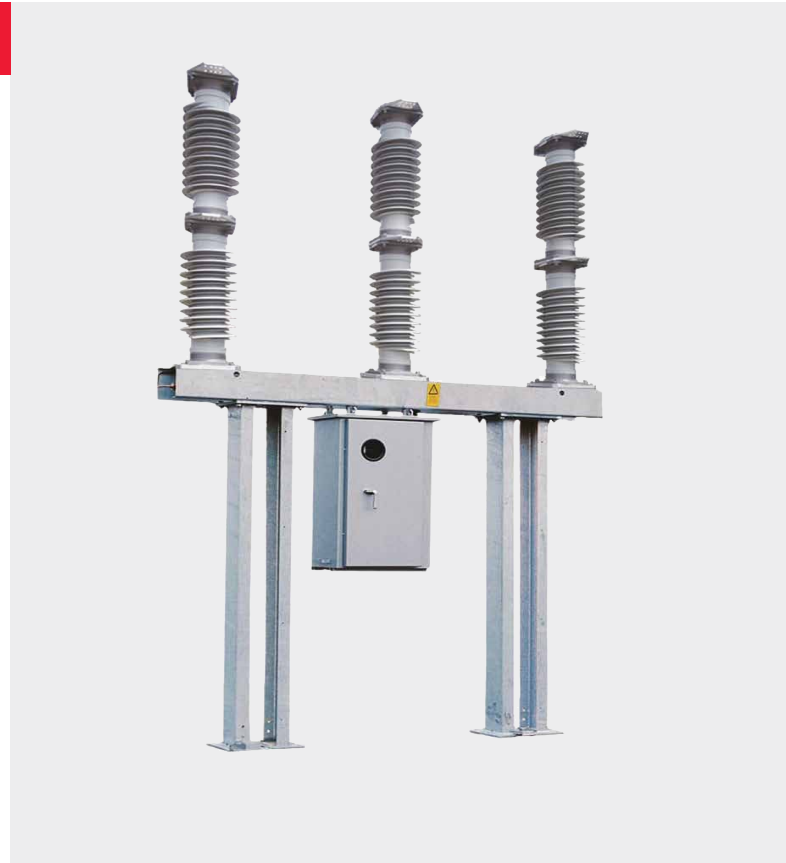
Design

The circuit breaker pole includes the breaking unit, the support insulator and the pole linkage housing. The three-poles of the breaker are mounted on a common support frame with the operating mechanism arranged below the same frame. The three breaker poles have a common gas system.

The operating reliability and service life of an SF₆ circuit breaker depends on the maintenance of SF₆ gas pressure and neutralization of the effects of moisture and decomposed products in the gas.

The above is achieved by:

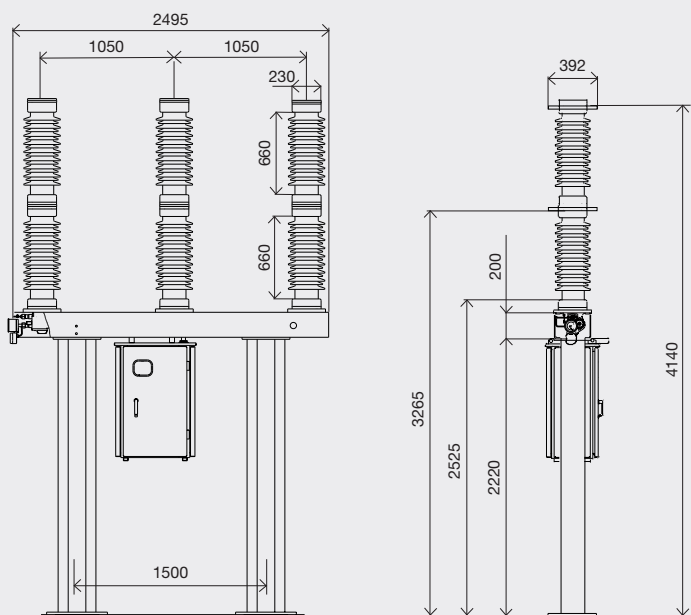
- Double O-rings of Nitrile rubber used for sealing purposes with excellent results
- Each breaking unit is provided with an absorber that absorbs moisture and gaseous decomposed products
- Interruption capability is a function of SF₆ gas density. A density monitor consisting of a temperature-independent pressure switch is provided in the circuit breaker
- An alarm signal is triggered when pressure drops due to loss of gas



Features and advantages

The EDF SK circuit breaker is based on the latest developments in arc research and offers the following advantages:

- Interruption of capacitive currents with very low probability of re-strike due to optimized contact design and movement
- Low over-voltages when switching inductive currents due to optimum quenching at current zero
- High dielectric strength even when SF₆ gas is at atmospheric pressure due to wide contact gap
- Low operating energy - reduced mechanical stress on breaker and low reaction forces on the foundation
- High seismic capability due to optimized pole and structure design



Reliable spring operating mechanism, type FSA

The circuit breaker is operated by a motor charged spring operating mechanism, which is tested for IP 55 class.

- High reliability and low maintenance
- Reliable and optimized latch system

Options

- Brown/gray porcelain insulators
- Polymer (composite) insulators

Quality and sustainability

To ensure consistent and high product quality all components are subjected to stringent quality tests prior to manufacturing. For sustainable and trouble-free functioning, comprehensive electrical and mechanical routine tests are carried out on the poles and operating mechanism after the product is fully assembled.

Performance data

EDF SK 1-1

Rated voltage	kV	72.5
Rated continuous current	A	2500
Rated frequency	Hz	50/60
Rated short-circuit breaking current	kA	31.5
Rated short-time withstand current (3s)	kA	31.5
Type of operation	Three-pole	
Design	Self-blast interrupter	
Insulation	SF ₆	
Applications	Line, transformers and capacitor switching	
Controlled switching applications	Yes	
Insulators	Porcelain or Polymeric	
Operating mechanism	Spring-spring operated FSA1	
Creepage distance	mm/kV	25 or 31
Installation	Outdoor	
Standards	IEC 62271-100	
Service conditions:		
• Ambient temperature	°C	-30 to +40*
• Design altitude	m	1000*

*Standard values as per IEC. Additional data on request.

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