

UniTec-FP

Medium voltage, Metal enclosed, Air-insulated switchgear

SF6 insulated circuit breaker in withdrawable version

Fully type tested in CESI laboratory, 24KV, 1250A, 25KA/1Sec.

Description and characteristics

- Metal-clad air-insulated switchboard.
- Compartments segregated by means of metallic partitions.
- Limited use of insulating materials.
- Complete with mechanical safety interlocks.
- Structure made of pre-galvanized sheet.
- Putting into service, maintenance and service operations can be carried out from the front.
- Equipped with conventional instrument transformers.
- Wide range of functional units for any all installation solutions.
- Easy-to-assemble modular structure.
- **UniTec-FP** is medium voltage metal-clad switchgear suitable for indoor installations.
- The unit compartments are metallically segregated from each other and the live parts are air insulated.



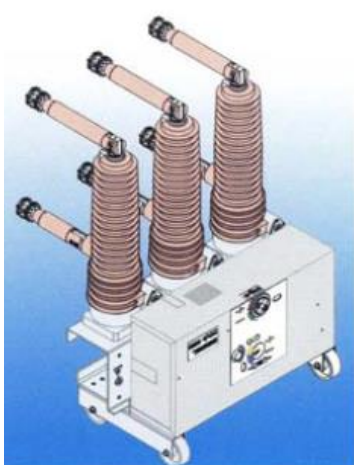
Circuit-breakers

FP Gas type circuit breaker which uses puffer system for extinguishing the arc is a dual axial blast circuit breaker, so it cools the arc more quickly and effectively.

This feature in addition to remarkable thermal properties of SF6 gas causes an instant reduction in the arc volume increases the life time of the arc contacts and also the circuit breakers life time.

FP circuit breaker are manufactured under French ALSTOM Company's license with the highest quality according to IEC 62271-100, BS 5311, VDE670, UTEC 64100 standards and can be delivered:

- With rated voltage from 7.2KV to 36KV, rated current from 630 to 2000A and breaking capacity from 16 to 31.5KA. (According to the table in the last pages)
- With front or side command arrangement.
- With primary over current relay.
- With pressure switch for supervision of gas pressure of the poles.
- With withdrawable connections.



SWITCHGEAR GENERAL TECHNICAL DATA

Electrical characteristics of the switchgear

Rated voltage	kV	24
Rated insulation voltage	kV	24
Test voltage at power frequency	kV 1min	50
Impulse withstand voltage	kV	125
Rated frequency	Hz	50
Rated short-time withstand current	kA 1s	25
Peak current	kA	63

Rated characteristics of the tested UniTec-FP

Partition class	PM
Internal fault: Short circuit current	25KA
Internal fault: Short circuit duration	0.5s
Internal fault: Classification IAC (initials for internal Arc classified)	AF
Loss of service continuity category	LSC2B

Electrical characteristics of the SF6 C.B in withdrawable version

Designation / Type	FP2425D
Voltage	24KV
Test voltage at power frequency	50KV(1min)
Impulse withstand voltage	125KV
Rated frequency	50
Rated short-time withstand current	25KA/1s
Peak current	63KA

Electrical characteristics of the Earthing switch

Designation / Type	ES-24-63-RL
Rated short-circuit making current	63KA
Rated short-time withstand current	25KA/1s

Functional unit: Bus bar compartment

Number of phase	3
Number and section of the bus bars	2//40x10 mm ²
Voltage	24KV
Normal current	1250A
Short- time withstand current	25KA
Short-circuit duration	1s

Functional unit: Cable compartment

Voltage	24KV
Normal current	1250A
Short- time withstand current	25KA
Short-circuit duration	1s

Degrees of protection

On the external housing	IP43
Inside the compartments	IP2X

Description of IEC type tests

- Arcing due to internal fault (IEC 62271-200 Annex A)
- Short time and peak withstand current and earthing circuit (IEC 62271-200 Ed.1.0)
- Power frequency voltage test (IEC 60694 clause 6.2.6)
- Lighting impulse voltage test (IEC 60694 clause 6.2.6)
- Mechanical operation test (IEC 62271-200 clause 6.102)
- Protection against solid foreign test (IEC 60529)
- Protection against water test (IEC 60529)
- Measurement of the resistance test (IEC 62271-200 clause 6.4)
- Temperature rise test (IEC 62271-200 clause 6.5)