Medium Voltage Products

CEF-OT High Voltage Fuse-Links

CEF-OT short-circuit current limiting fuse-links are designed and tested according to IEC 60282-1:2005. Dimensions of fuse-links are in accordance with IEC 60282-1:2005, Type II. Features of CEF-OT High Voltage Fuse-links are as follows:

- **Low minimum breaking current,**
- **Low power losses,**
- **Low electric arc voltage,**
- **High breaking capacity,**
- **High short-circuit current limiting capacity,**
- **Adopted for using in combination with switch disconnector (equipped with a striker),**
- **Can work inside a transformer tank, immersed in transformer oil,**
- **Welded current path.**

Application

CEF-OT fuse-links protect transformers, capacitors banks, cable feeders and overhead lines against short-circuit consequences. Fuse-links were designed specially to be used in combination with TPC bushing and TPC II switch-disconnector, which are used in ABB's TPC distribution transformers. The design of fuse-links provides resistance to high temperatures and vacuum during transformers manufacturing process.

Ambient operating environment

CEF-OT fuse-links can be operated under the following conditions:

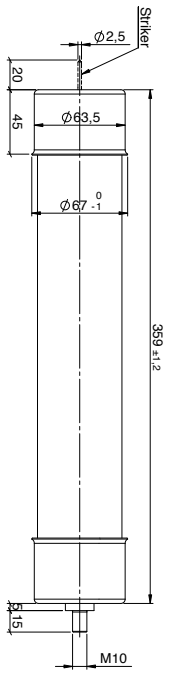
- Immersed in transformer oil, at temperatures from -40˚C to +80˚C,
- In outdoor and indoor installations, at temperatures from -40˚C to +40˚C,
- Inside a TPC bushing.

Technical data and ordering numbers of CEF-OT fuse-links

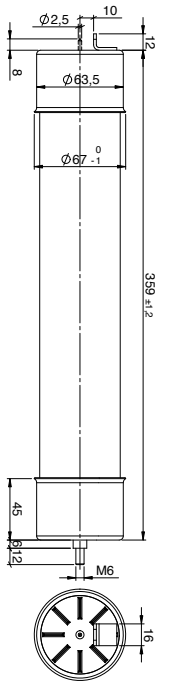
Fuse-link type	Catalogue number	Rated voltage [kV]	Rated current [A]	Minimum breaking current I_3 [A]	Maximum tested short-circuit current I_1 [kA]	Rated fuse-link resistance at 20˚C [mΩ]	Rated power losses in air [W]	Striker force at a distance of 4 mm from end cap [N]
CEF-OT TPC1	1YMB531041M0004	12/24	20	80	31.5 (at 12 kV) 16 (at 24 kV)	115.5	70	130
CEF-OT TPC1	1YMB531041M0006	12/24	31.5	80	31.5 (at 12 kV) 16 (at 24 kV)	69.2	105	130
CEF-OT TPC2	1YMB531041M0014	12/24	20	80	31.5 (at 12 kV) 16 (at 24 kV)	115.5	70	130
CEF-OT TPC2	1YMB531041M0016	12/24	31.5	80	31.5 (at 12 kV) 16 (at 24 kV)	69.2	105	130

Dimensional drawings of CEF-OT fuse-links

CEF-OT TPC1 fuse-link

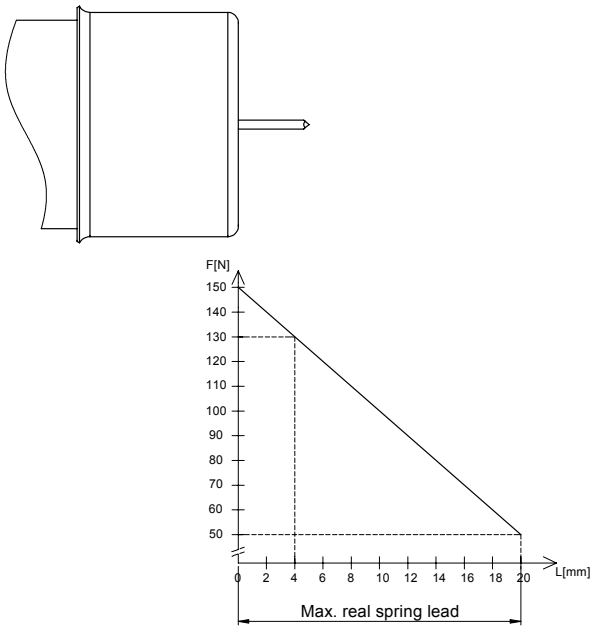


CEF-OT TPC2 fuse-link



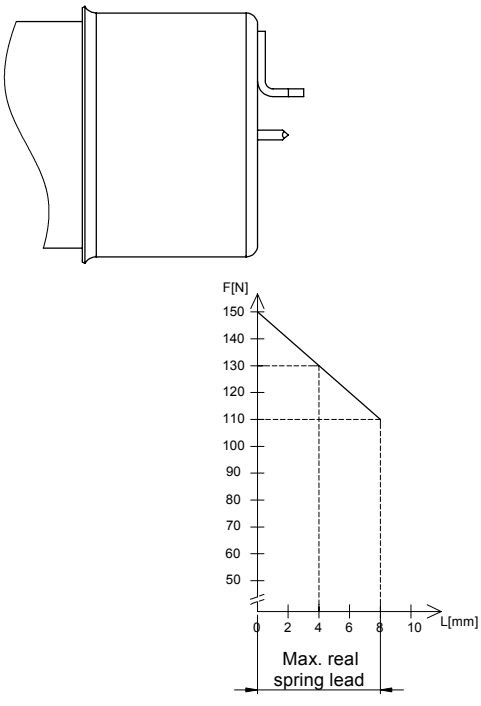
Operating characteristics of CEF-OT fuse-link striker

CEF-OT TPC1 fuse-link



Remarks:
1. L[mm] - length from end face of fuse end-cap.
2. F[N] - striker force.
3. Striker energy - 2J (from 0 mm to 20 mm of travel).

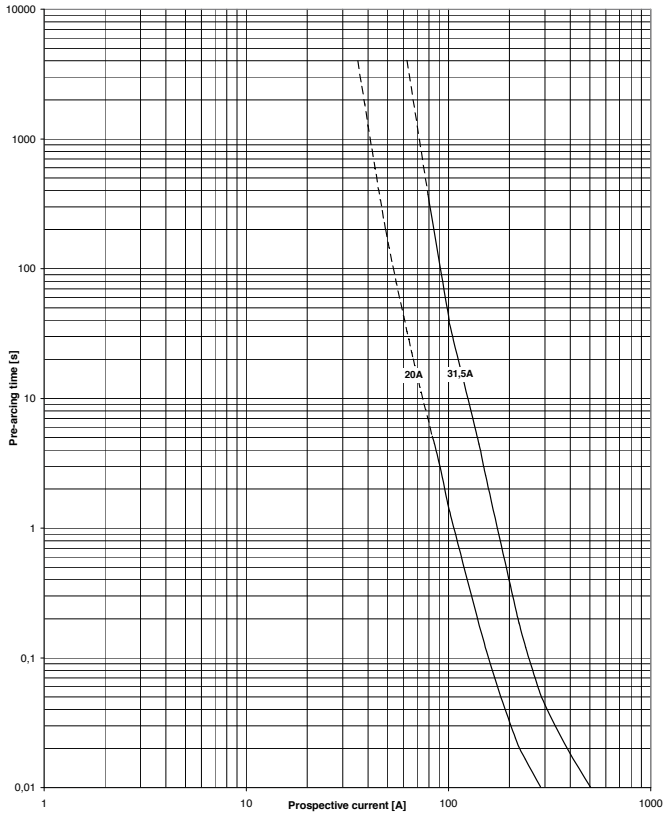
CEF-OT TPC2 fuse-link



Remarks:
1. L[mm] - length from the end face of fuse end-cap.
2. F[N] - striker force.
3. Striker energy - 1J (from 0 mm to 8 mm of travel).

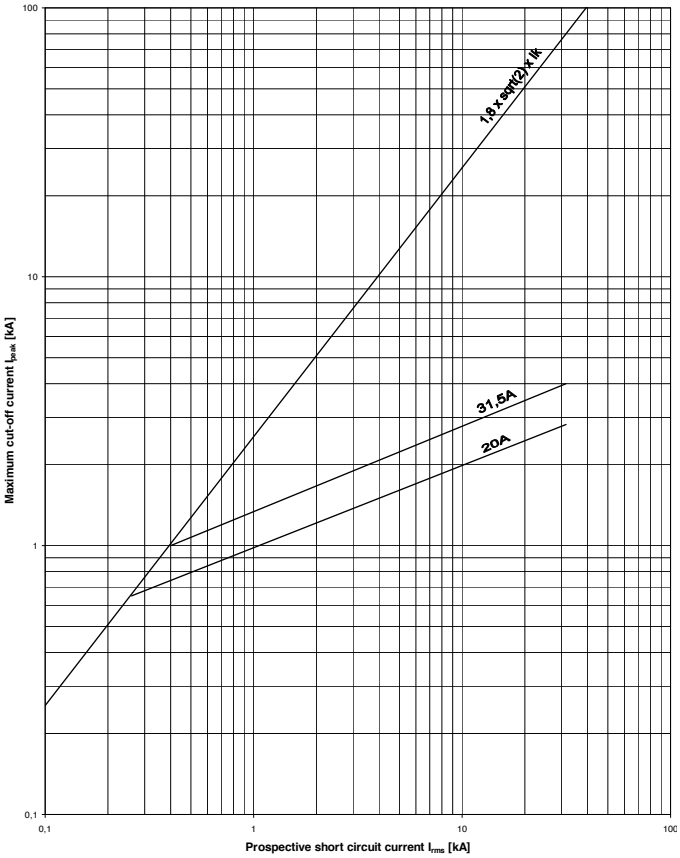
Time-current characteristics of CEF-OT fuse-links

The characteristics are valid for CEF-OT TPC1 and CEF-OT TPC2 fuse-links, they are the same for all voltages and are determined for test from cold condition of a fuse-link. In the uncertain area of breaking currents, curves are marked by dashed lines. Curve tolerance is ±10% with reference to the prospective current.



Cut-off current characteristics of CEF-OT fuse-links

Characteristics are valid for CEF-OT TPC1 and CEF-OT TPC2 fuse-links, they are the same for all voltages and are valid for frequency 50 Hz.



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