

Medium Voltage Fuses

French Standard

For Air & Gas Insulated Switchgears
Indoor Application



EDF approved

Introduction

High-Voltage fuse-links of size 55 x 520 mm are suitable for the protection of power transformers used in energy distribution. Usually they are for indoor application, but outdoor use is possible. In case of a short circuit the fuse-link will interrupt fault currents between five times the fuse rated current and the rated breaking current.

Standards: IEC 60282-1
NFC 64210

Design and construction

The fuse tubes are made of high grade ceramic and are brown glazed inside and outside. The contact caps are of electrolytic copper and silver plated. For the fuse elements pure silver is used. The melting elements are wound on a star shaped ceramic support.

For arc quenching the fuse-links are filled with quartz sand of a certain grain size.

The fuse-links are available without an indicator or with a temperature limiting striker.

Selection of fuse

High Voltage fuse-links of size 55 x 520 mm are back-up fuses. Values for fuse rated current / minimum breaking current, as well as rated breaking current, are given in the technical schedule. For back-up fuses the minimum breaking current has to be observed, this is the smallest current, the fuse normally can interrupt.

For selection of the correct fuse rated current for a certain transformer size, please refer to the recommendation list, on page HHF 6.



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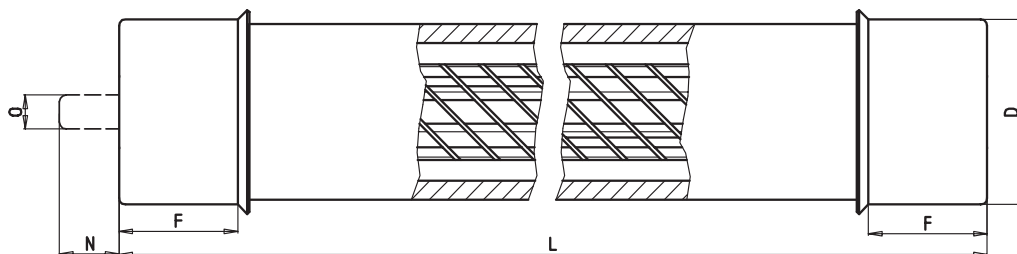
Rated Voltage
AC 24 kV

Class
Back-up

Standard
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Rated Current [A]	Part No.	Part No. with Striker	Rated Breaking Current [kA]	Weight [kg/1]	Pack	Technical Data [Page]
6.3	30 258 11.6.3	30 258 13.6.3	63	6	3	HHF 3
10	30 258 11.10	30 258 13.10	63	6	3	HHF 3
16	30 258 11.16	30 258 13.16	63	6	3	HHF 3
32	30 258 11.32	30 258 13.32	63	6	3	HHF 3
43	30 258 11.43	30 258 13.43	63	6	3	HHF 3
63	30 258 11.63	30 258 13.63	63	6	3	HHF 3

D	2.17"	(55 mm)
F	1.57"	(40 mm)
L	20.47"	(520 mm)
N	1.38"	(35 mm)
O	0.40"	(10 mm)



Rated Voltage
AC 24 kV

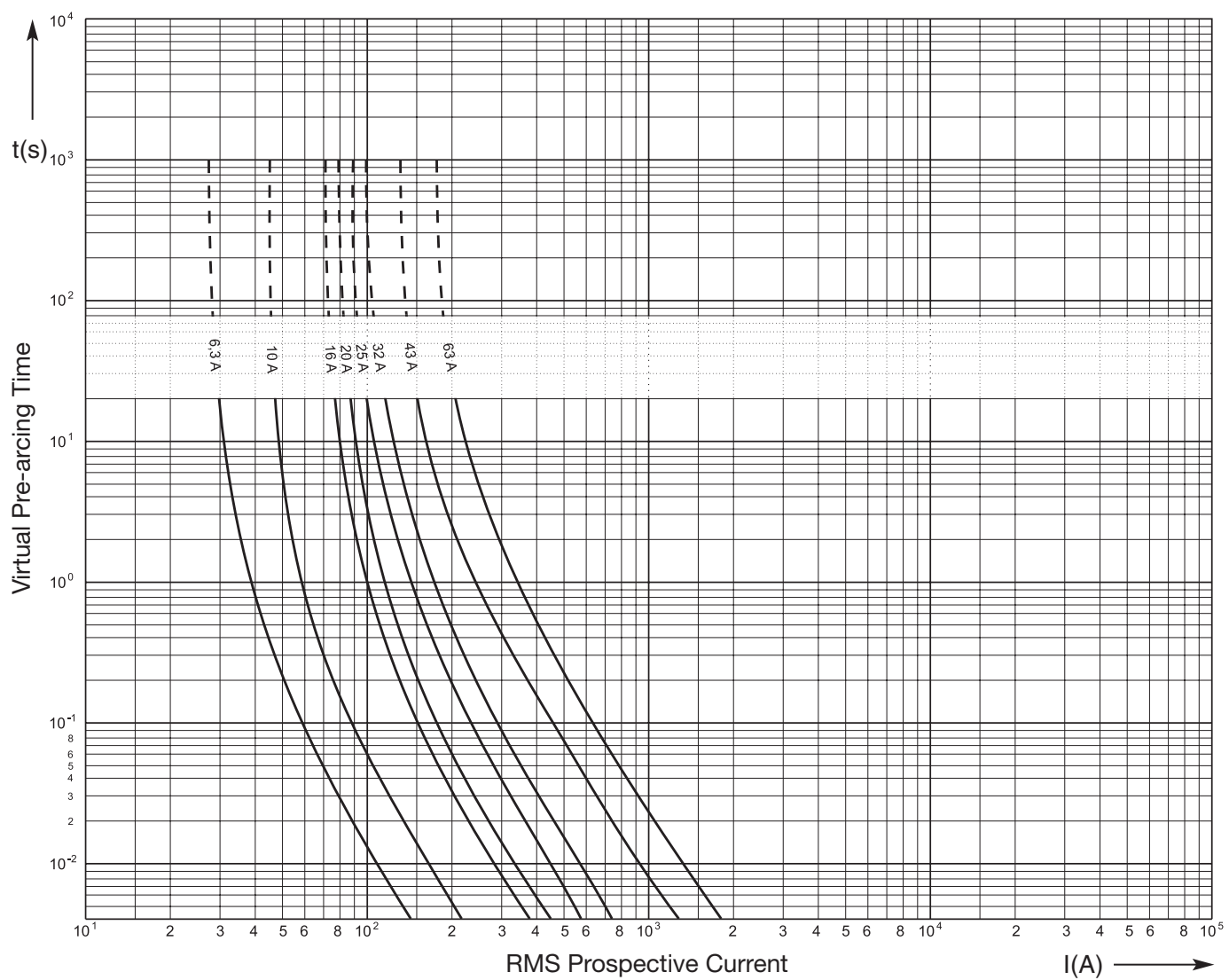
 Class
Back-up

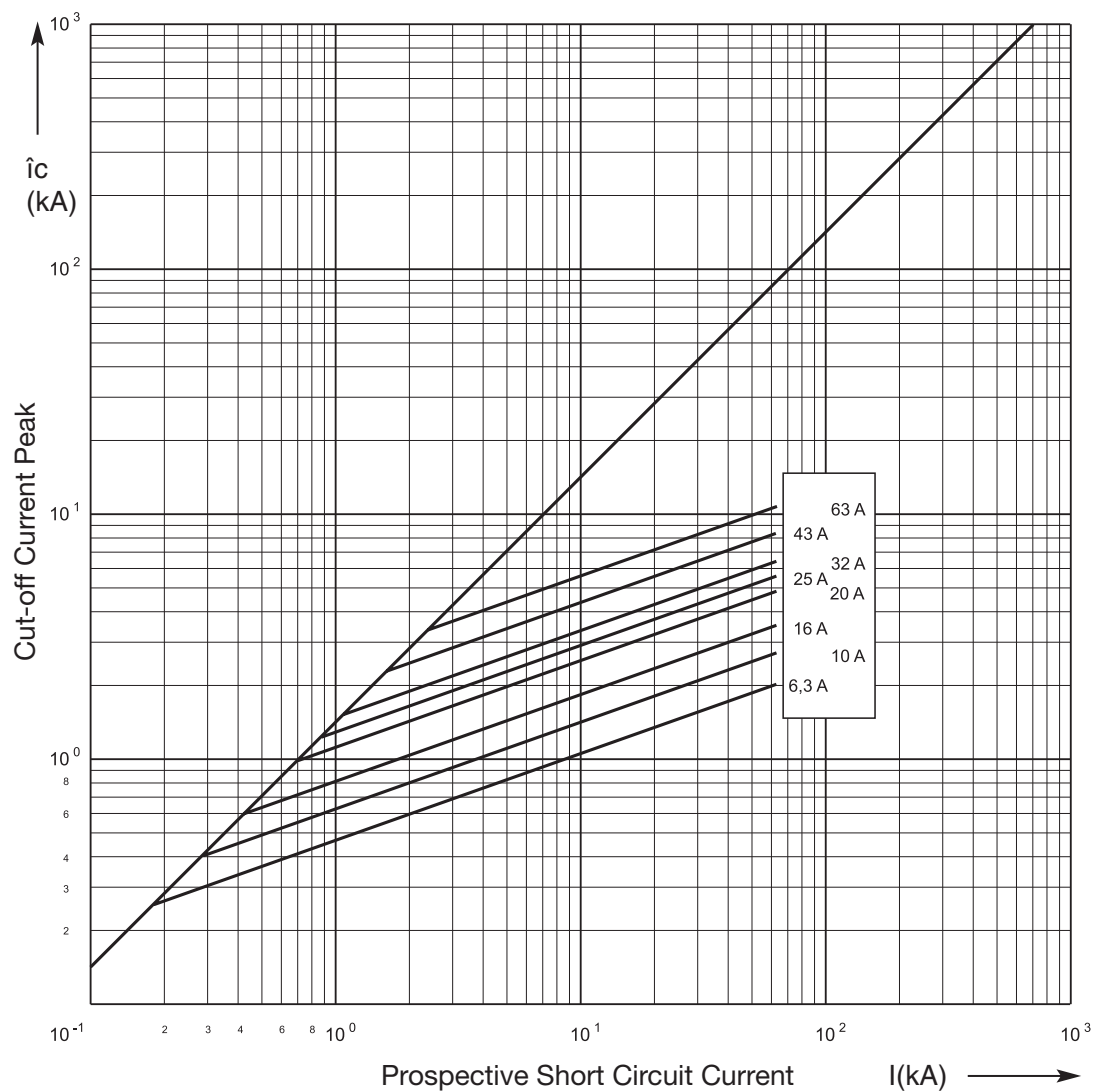
 Standard
NFC 64210 · IEC 60282-1

Rated Current [A]	Part No.	Part No. with Striker	Rated Breaking Current [kA]	Pre-arcing I ² t-value [A ² s]	Total I ² t-value @ 24 kV [A ² s]	
6.3	30 258 11.6.3	30 258 13.6.3	63	61	390	
10	30 258 11.10	30 258 13.10	63	154	1 100	
16	30 258 11.16	30 258 13.16	63	350	2 500	
32	30 258 11.32	30 258 13.32	63	2 200	16 000	
43	30 258 11.43	30 258 13.43	63	4 900	35 000	
63	30 258 11.63	30 258 13.63	63	10 600	74 000	

**Time-current characteristics and cut-off current diagram
please refer to pages HHF 4 and HHF 5**

Time-Current Characteristics



Cut-Off Current Diagram

Application Recommendation for Protection of Main Transformer

Rated Voltage [kV]	Transformer Rated Capacity [kVA]						
	50	100	160	250	400	630	1000
10	6.3	16	32	32	63	63	-
15	6.3	16	16	16	43	43	63
20	6.3	6.3	16	16	43	43	43