

**DISTRIBUTION SOLUTIONS** 

# **Fuse-links type CMF**

Rated voltages: 3.6 kV – 12 kV Rated currents: 63 A – 315 A





Special design of fuse-links resistant to cyclical load typical for motor applications



Robust design suitable for harsh conditions, proven by tests according to the latest IEC standards, secures continuous protection and reliable operation



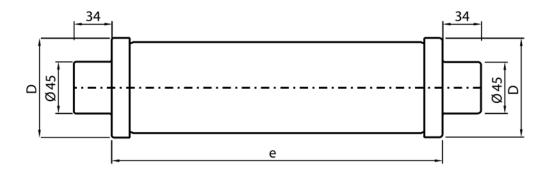
Compatibility with other ABB products provides fast and accurate product selection

Fuse-links type CMF are designed to protect motor circuits against thermal and dynamic effects of short-circuit currents.

#### **Key features:**

- Designed and type tested acc. to IEC 60282-1
- Special design allowing to withstand motor inrush starting currents
- Low power losses
- Top level fault current limitation and interruption performance up to 63kA RMS

- Outdoor sealing included in standard version, designed and tested for harsh conditions
- Welded current path
- · Contacts made from silver coated cooper
- Striker 80N (medium type)
- Equipped with Temperature Control Unit enabling the additional protection against thermal stresses in small enclosures



#### Ordering table fuse-links type CMF:

Catalog number	Fuse name	Rated voltage Un [kV]	Rated current In [A]	Length e [mm]	Diameter D [mm]	EAN 13 Code
1YMB760333M2611	CMF	3.6	100	292	65	5908270807884
1YMB760338M2611	CMF	3.6	160	292	65	5908270807891
1YMB760339M2811	CMF	3.6	200	292	87	5908270807907
1YMB760341M2811	CMF	3.6	250	292	87	5908270807914
1YMB760342M2811	CMF	3.6	315	292	87	5908270807921
1YMB760729M4611	CMF	7.2	63	442	65	5908270807938
1YMB760733M4611	CMF	7.2	100	442	65	5908270807945
1YMB760738M4611	CMF	7.2	160	442	65	5908270807952
1YMB760739M4811	CMF	7.2	200	442	87	5908270807969
1YMB760741M4811	CMF	7.2	250	442	87	5908270807976
1YMB760742M4811	CMF	7.2	315	442	87	5908270807983
1YMB761229M4611	CMF	12	63	442	65	5908270807990
1YMB761233M4811	CMF	12	100	442	87	5908270808003
1YMB761238M4811	CMF	12	160	442	87	5908270808010
1YMB761239M4811	CMF	12	200	442	87	5908270808027

### Choice of fuse-links for motor protection:

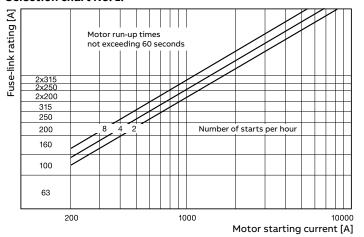
The minimum permissible current rating of the fuse links for motor protection may be determined from the selection charts. These three charts are for run-up times of 6, 15 and 60 seconds respectively. Each chart contains different characteristics, depending on the number of starts per hour. With reference to the number of starts per hour, the first two are in immediate succession while the rest are evenly spaced at intervals of one hour. The number of starts per hour indicates the time interval between separated starts. For example, four starts in 15 minutes are represented by 16 starts per hour. The horizontal axis of the selection chart indicates the motor starting current, while the current rating of the fuse link is found along the vertical axis.

# Selection procedure:

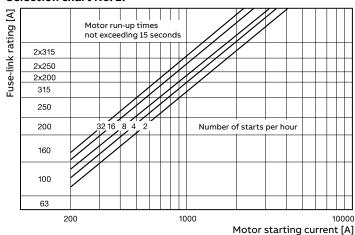
- Select the chart which is appropriate for the run-up time of the motor
- Select the starting current along the horizontal axis
- Depending on the number of starts per hour, select the correct characteristic (2, 4, 8, 16, 32)
- Read the correct fuse-link rating on the vertical axis.

Example	Α	<b>B</b> 250 A	
Starting current of the motor	850 A		
Run-up time	6 seconds	15 seconds	
Number of starts per hour	2	16	
Chart number	3	2	
Rated current of fuse link	250 A	160 A	

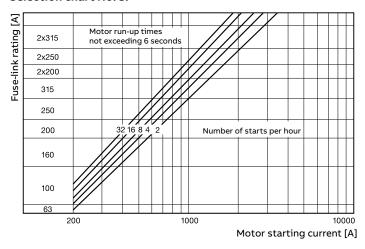
#### Selection chart No. 1:



#### Selection chart No. 2:



#### Selection chart No. 3:

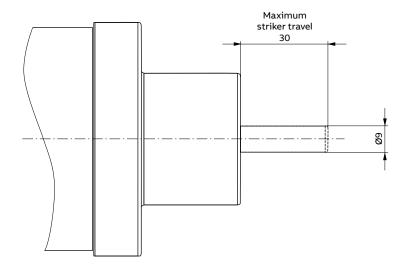


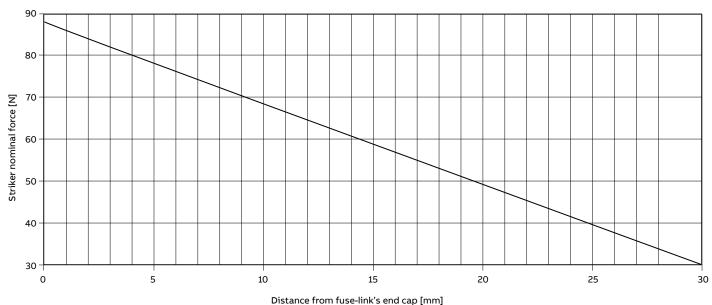
# Technical data fuse-links type CMF:

Fuses are meeting requirements of the standards: IEC 60282-1, PN-EN 60282-1 and IEC 60644. All ratings are back-up type, equipped with 80N striker (medium type) and sealed for indoor/outdoor application.

Fuse name	Rated voltage Un [kV]	Rated current In [A]	Fuse breaking capacity I1 [kA]	Fuse minimal breaking current I3 [A]	K factor	Rated power Pw [W]	Fuse-link cold resistance [mΩ]
CMF	3.6	100	63	275	0.75	41	3.2
CMF	3.6	160	63	400	0.7	70	1.9
CMF	3.6	200	63	500	0.7	78	1.4
CMF	3.6	250	63	760	0.6	90	1.0
CMF	3.6	315	63	900	0.6	121	0.8
CMF	7.2	63	63	195	0.75	43	8.5
CMF	7.2	100	63	275	0.75	64	4.9
CMF	7.2	160	63	400	0.7	109	2.9
CMF	7.2	200	63	500	0.7	122	2.1
CMF	7.2	250	63	800	0.6	133	1.5
CMF	7.2	315	63	950	0.6	186	1.2
CMF	12	63	63	210	0.75	71	13.5
CMF	12	100	63	275	0.75	88	6.6
CMF	12	160	63	480	0.7	139	3.9
CMF	12	200	63	700	0.7	166	2.7

#### Fuse-link striker force and dimensions:





# ABB Contact Center

tel.: +48 22 22 37 777 e-mail: kontakt@pl.abb.com

ABB Sp. z o.o. – branch Office in Przasnysz ul. Leszno 59, 06-300 Przasnysz

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