**Medium Voltage Products** 

# Current Limiting Fuses, CEF/CEF-S/CEF-VT

Rated voltage: 3 – 40,5 kV

Rated current: 2 - 200 A

The upgraded portfolio of CEF/ CEF-S/CEF-VT current limiting fuses offers wide application range in medium voltage systems, especially for protection of distribution transformers. All CEF brand fuses have integrated thermal released striker pin in combination with overload spots that is unique ABB design. That brings new standard for safety in fuse interruption processes. Moreover, the new design of CEF/CEF-S/CEF-VT fuses comes with useful features like unified voltage ratings, outdoor sealing, graved fuse data and welded current path that improve fuse performance and extends flexibility in application range.



### Main features

- unified voltage ratings for more application flexibility,
- integrated striker pin with temperature control unit (TCU) to prevent overheating in installation place,
- overload spots control internal arc initiation and determine outstanding temperature performance,
- single fuse version for both indoor and outdoor operating conditions,
- narrow tolerance of resistance for better fuse synchronizing in three phase networks,
- graved fuse data for long term fuse recognition,
- welded current path secures stable electrical contacts with active breaking elements.

- low minimum breaking current,
- high breaking capacity in combination with fuse trippedload break switch offers competitive solution for short circuit currents interruption,
- low power losses make fuses suitable for compact switchgear and ring main units,
- high current limitation significantly reduce prospective value of short circuit currents and therefore extends insulation live time,
- type tested acc. to IEC 60282-1.

#### Available fuses ratings and dimensions

Туре	U <sub>n</sub> [kV]	I, [A]	e [mm]	D [mm]	l, [kA]	Striker TCU 80N	Overload spots
CEF	3/7.2	6-200	192/292/367	65/87	50	yes	yes
	6/12	6-200	292/442/537	53/65/87	50/63	yes	yes
	10/17.5	6-125	292/367/442/537	65/87	20/25	yes	yes
	10/24	6-125	442/537	53/65/87	63	yes	yes
	20/36	6-40	537	65/87	20	yes	yes
CEF-S	6/12	10-50	292	65	50	yes	yes
	10/24	10-40	442	65	25	yes	yes
	30/40.5	6-63	537	65/87	20	yes	yes
CEF-VT	6/12	2-6.3	192/292	53	63	yes/no	yes
	10/17.5	6.3	192	53	63	yes/no	yes
	15/24	2-6.3	292/442	53	31.5	yes/no	yes

Legend: U<sub>n</sub> - rated voltage, I<sub>n</sub> - rated current, e - fuse length, D - fuse diameter, I<sub>1</sub> - maximum tested breaking current,

The above table shows main ratings of fuses offered in new design. All these fuses have new style numbers for differentiation with types offered so far.

The ABB current limiting fuses are back-up type. They limit the value of prospective short-circuit currents during the interruption process, thereby extending the life time of nearby installed electrical equipment. The back-up fuses , with an interruption time for the minimum breaking current in the range of a few seconds down to a few tense of milliseconds, are the most commonly used. The CEF series fuses in combination with load break switches equipped with fuse tripping system (like ABB NALF, SFG, GSec etc.) ensures control over the full range of overload and short-circuit currents.

More detailed technical information are available in specific product catalogues.

## **Dimensional drawing**



#### **Accessories**

- fuse clips,
- fuse extension adaptor,
- indoor and outdoor fuse base with optional fuse presence/ blown indication,
- test fuse link for striker system adjustment,
- operating tong for fuse replacement.

# ABB Sp. z o.o.

Branch in Przasnysz 59 Leszno St. 06-300 Przasnysz, Poland Phone: +48 22 22 38 900

Fax: +48 22 22 38 953

e-mail: marketingmv.plabb@pl.abb.com

www.abb.pl

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