

1500 V DC CBMG aR Size 5 fuse links



Product description

Eaton's Bussmann series CBMG Size 5 square body fuse links, are specifically designed for the protection of inverters, converters and battery racks.

Applications

- DC to AC Inverters
- DC to DC Converters
- Battery storage applications
- Electric Vehicle charging stations
- Power conversion systems
- Regenerate drives
- DC common bus protection

Features and benefits

- The surge in energy storage systems has driven the adoption of 1500 VDC systems, as higher voltages reduce power losses and enable longer string lengths. Our 1500 V DC Fuses are therefore indispensable in protecting battery racks, inverters and combiners..
- Low power dissipation, to prevent abnormal temperature rise, increases energy efficiency and lowers running cost
- Designed and tested to IEC 60269-4 and UL 248-13
- Handles extreme fault currents: In large-scale energy storage facilities, or industrial DC networks, fault currents can quickly escalate to catastrophic levels. Our CBMG fuses with a 300 kA breaking capacity ensure that, even in worst-case scenarios, the system is protected from the full spectrum of short-circuit events.
- Minimizes arc energy: The ability to interrupt high currents rapidly minimizes the duration and energy of electrical arcs. This is especially important in DC circuits, where arcs tend to persist longer than in AC circuits because there is no zero-crossing.
- aR operating class

Catalog symbol

- CBMG-Amp rating, e.g. CBMG-1250

Technical data

- Rated voltage: 1500 V DC
- Rated current: 1250 A to 4000 A
- Fuse body size: 5
- Operating class: aR
- Breaking capacity: 300 kA at 10 ms L/R

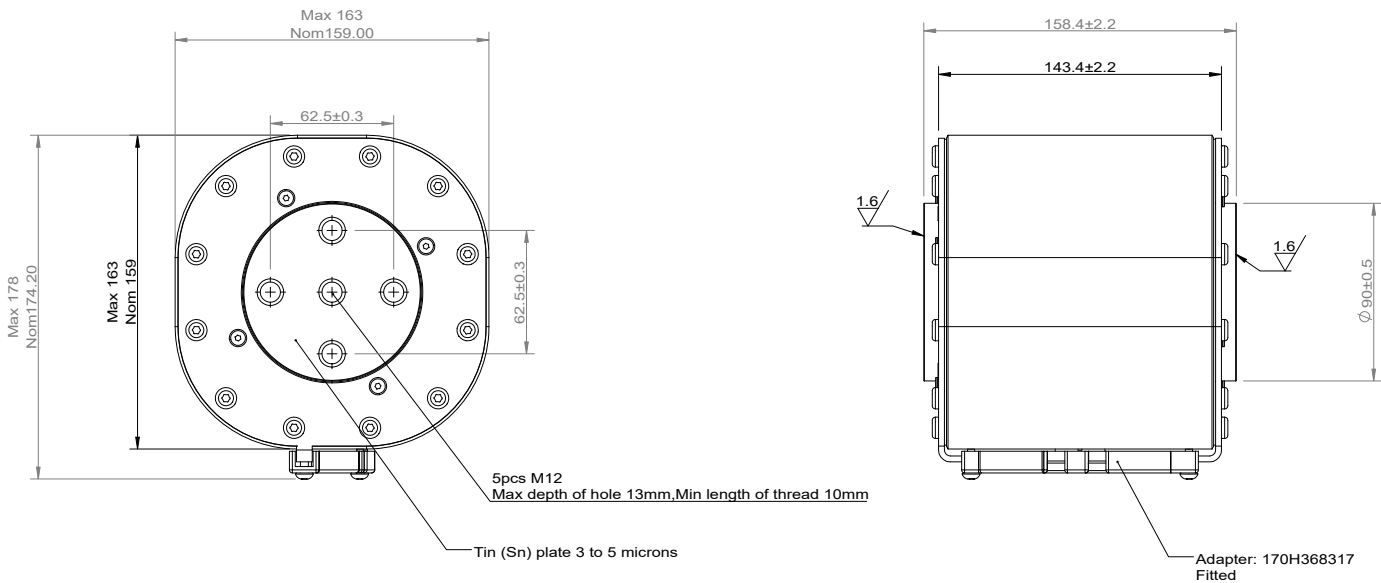
Standards/Approvals

- Designed and tested to IEC 60269 part 4
- UL 248-13 Recognised
- RoHS Compliant

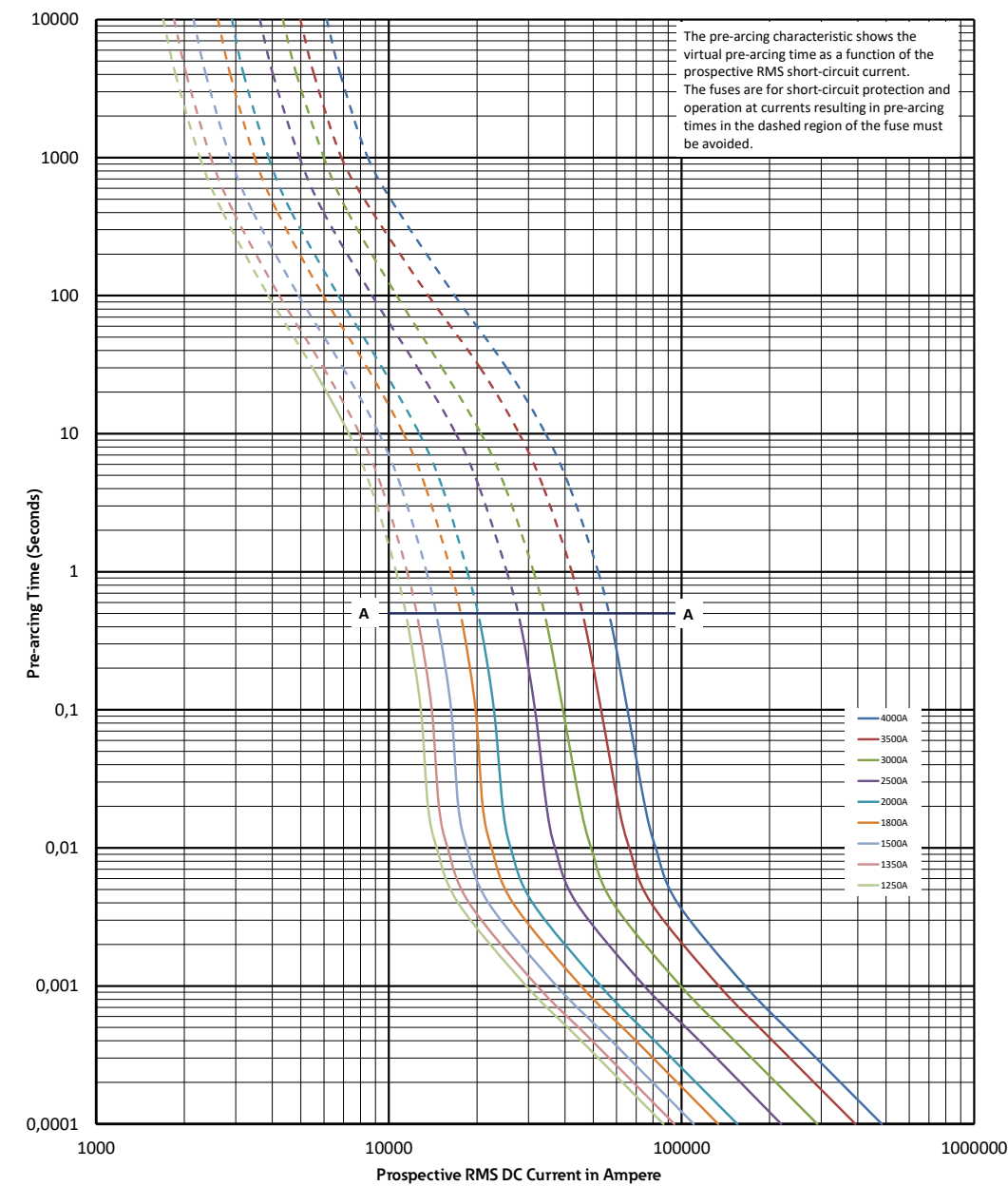
Technical data

Fuse body size	Rated voltage	Rated current (Amps)	Breaking capacity (kA at 10ms)	Minimum breaking current (Amps)	Pre-arcing I ² t (A² Sec)	Power loss at I _n (W)	Catalog number
5	1500 V d.c. (IEC/UL)	1250	300	11,000	695,000	340	CBMG-1250
		1350	300	12,000	825,000	365	CBMG-1350
		1500	300	14,000	1,100,000	390	CBMG-1500
		1800	300	17,000	1,650,000	460	CBMG-1800
		2000	300	20,000	2,300,000	480	CBMG-2000
		2500	300	28,000	4,650,000	530	CBMG-2500
		3000	300	37,000	8,100,000	585	CBMG-3000
		3500	300	47,100	13,200,000	640	CBMG-3500
		4000	300	58,000	20,000,000	690	CBMG-4000

Dimensions (mm)

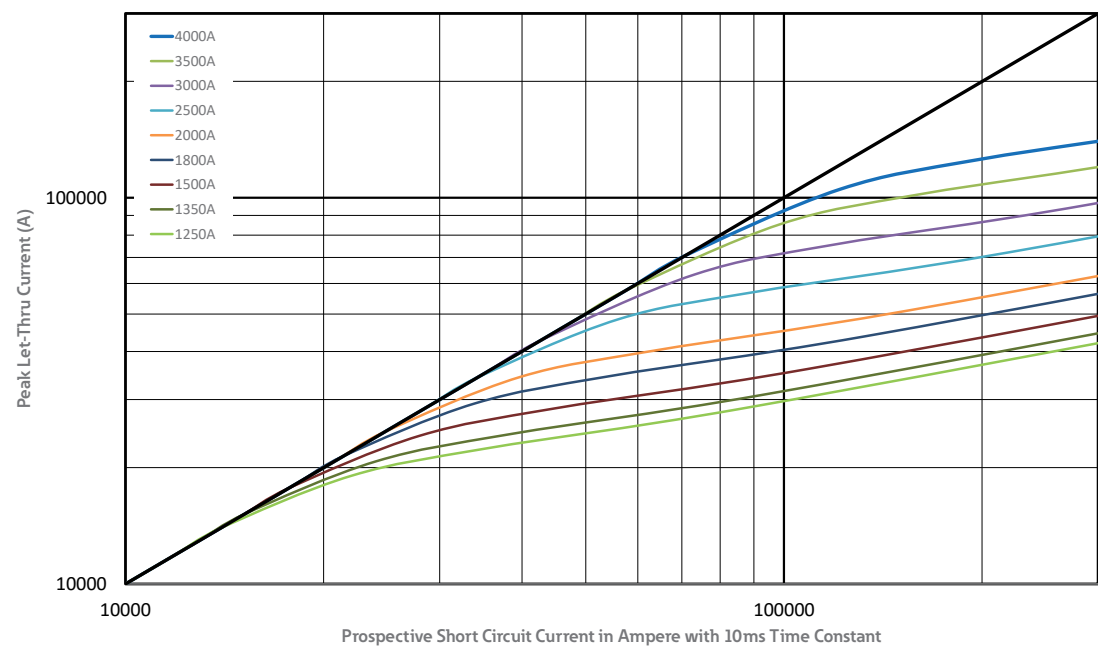


Time-current curve



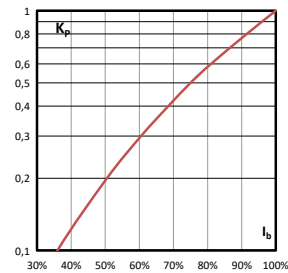
$K_b = 1 \quad N = 1,8$

Peak-let through curve



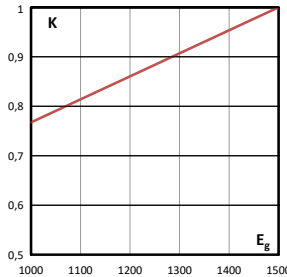
Watts losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, K_p , is given as a function of the RMS load current, I_b , in percent of the rated current.



Total clearing I²t

The total clearing I^2t at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing I^2t is found by multiplying by correction factor, K , given as a function of applied working voltages, E_g .



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