

180D gR Size 10 x 85 mm fuse links



Product description

Eaton's Bussmann series 180D gR DC fuse links size 10 x 85 mm are specifically designed for the protection of low overcurrent occurrences.

Features and benefits

- Excellent low overload and cable protection preventing damaged caused by overheated cables
- Low power dissipation, to prevent abnormal temperature rise, increases energy efficiency and lowers running cost
- Microswitches options available for indication of fuse operation
- Demonstrated performance in extreme temperature cycling conditions ensure your installation will be protected by the best possible and most suitable electrical circuit protection solutions.
- Eaton's Bussmann® series High-speed fuse links have leading DC performance making them the ideal choice for the protection of high-power DC applications
- Low minimum breaking current which offers easy coordination within DC applications and reduces dimensioning requirements of DC contactors to optimize space and decrease overall cost of System

Applications

- DC drives
- DC to DC Converters
- Power conversion systems
- DC to AC Inverters
- Electric Vehicle charging stations
- DC common bus protection
- DC cable protection

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Catalogue symbol

- 180D16xx, e.g 180D1602

Technical data

- Rated voltage:
 - 1000 V d.c. (IEC)
 - 1125 V d.c. (UL)
- Rated current: 12 A to 30 A
- Fuse body size: 10 x 85 mm
- Operating class: gR
- Breaking capacity: 100 kA
- Time constant: 10 ms

Standards/Approvals

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

Fuse holders

- CHPV15H85

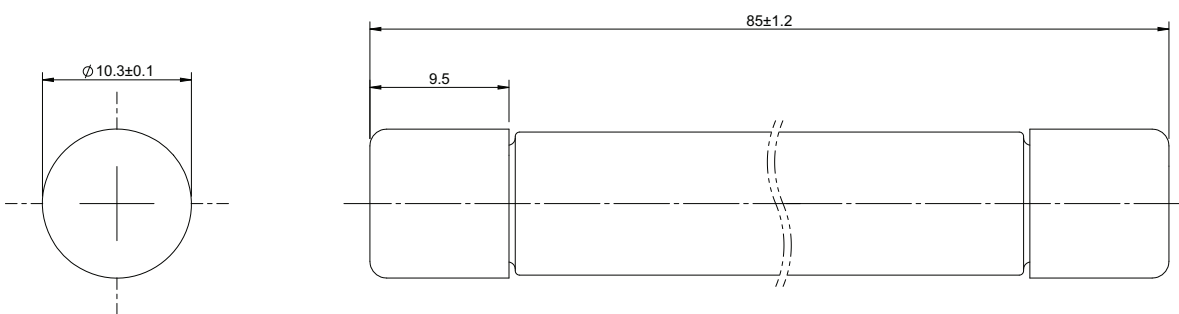
Packaging

- 10

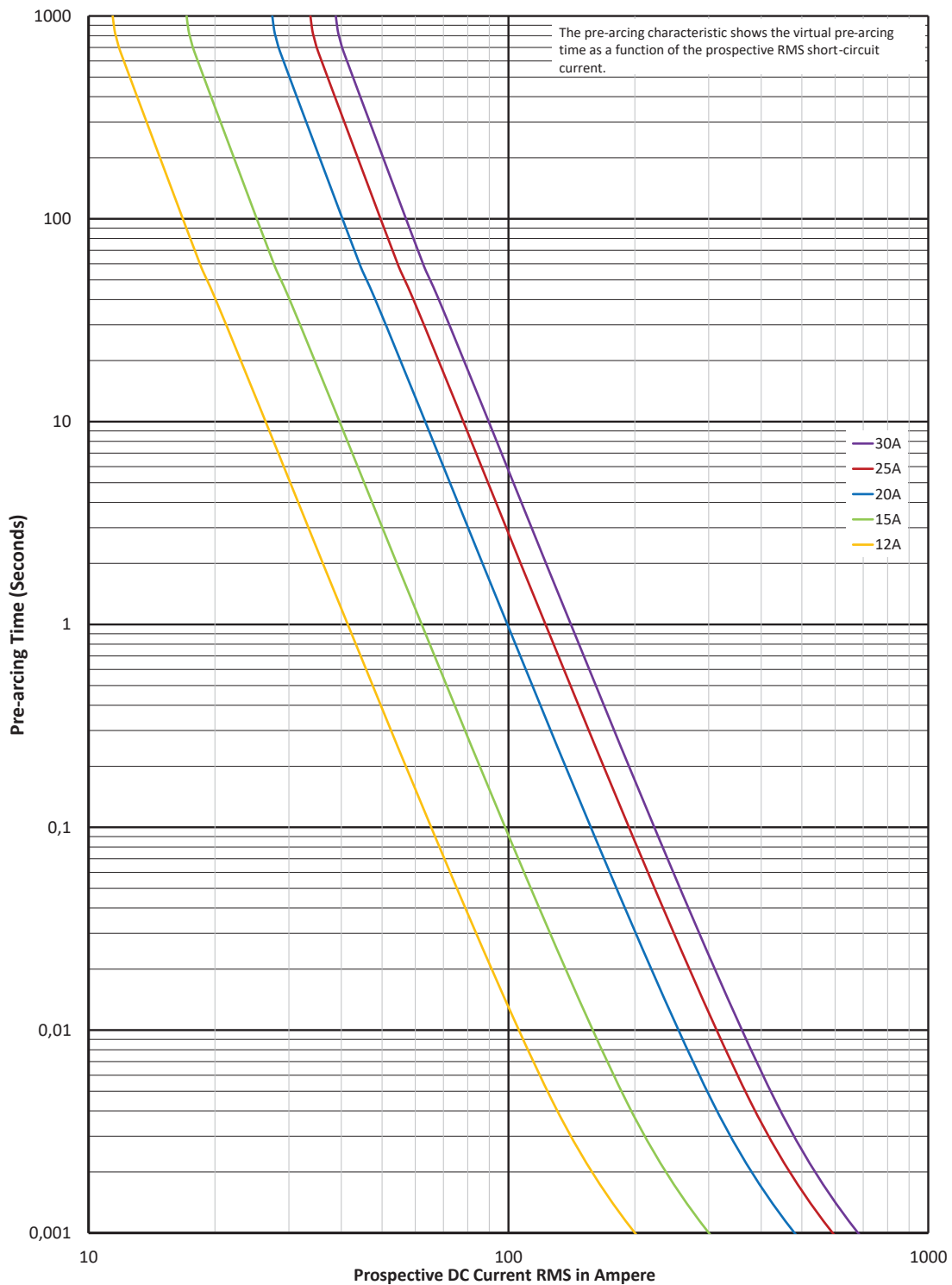
Technical data

Catalogue number	Fuse body size	Rated current (Amps)	Rated voltage (V d.c.) IEC	Rated voltage (V d.c.) UL	Breaking capacity (kA at 10ms)	Minimum Breaking Current (A) @1000 V d.c.	Minimum Pre-arcing integral (from cold) A ² S	Maximum Clearing Integral A ² s @ 1000 V d.c. 10ms L/R	Power loss at I _n (W)
180D1602	10 x 85 mm	12	1000	1125	100	24	19	65	3,5
180D1603	10 x 85 mm	15	1000	1125	100	30	42	145	3,6
180D1604	10 x 85 mm	20	1000	1125	100	40	108	370	4,5
180D1605	10 x 85 mm	25	1000	1125	100	50	190	650	5,6
180D1606	10 x 85 mm	30	1000	1125	100	60	485	1660	7

Dimensions mm

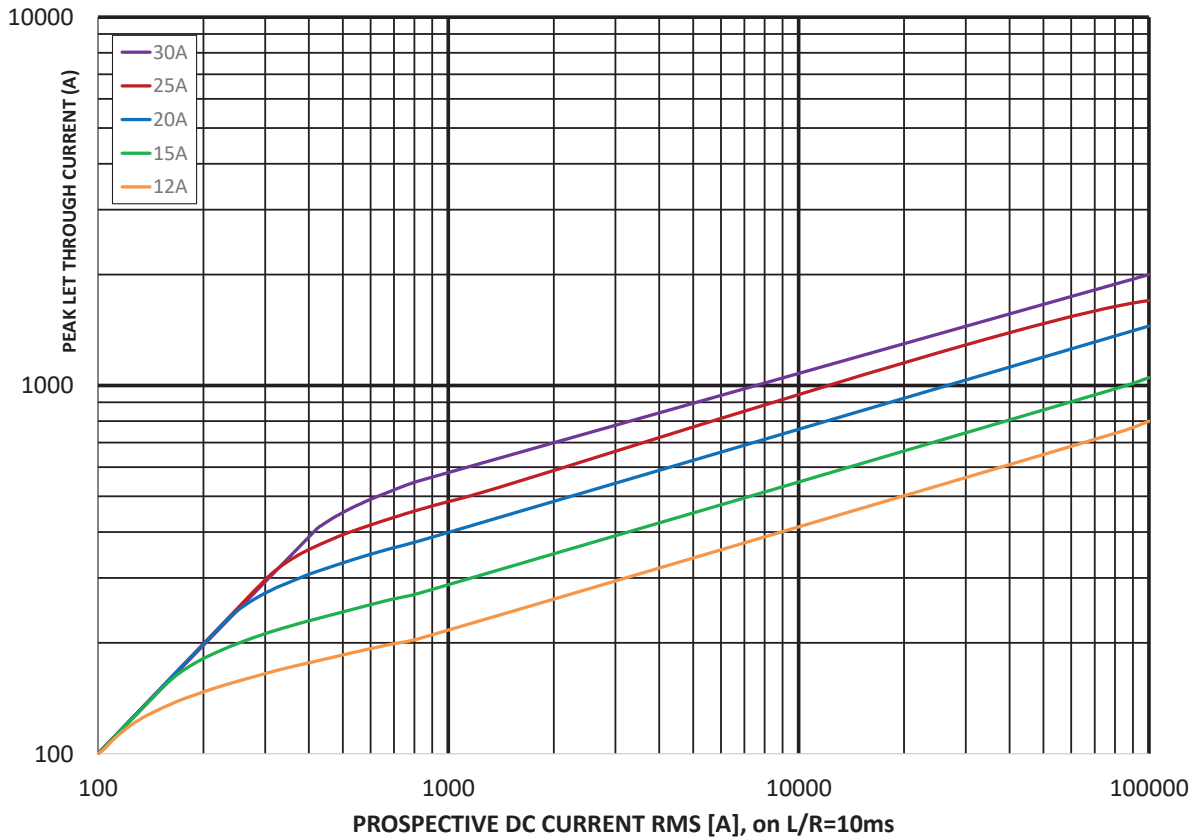


Time-current curve



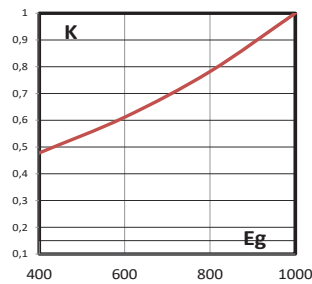
$K_b = 1 \quad N = 1,6$

Peak let-through curve



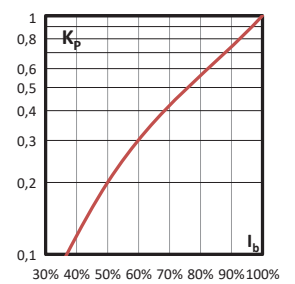
Total clearing I^2t

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.



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.



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