

# 180D gR Size DIN1HT fuse links



## Product description

Eaton's Bussmann series 180D gR DC fuse links, size DIN1HT, 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

**EATON**

Powering Business Worldwide

**Catalogue symbol**

- 180D15xx, e.g 180D1506

**Technical data**

- Rated voltage: 800 V d.c. (IEC/UL)
- Rated current: 32 A to 50 A
- Fuse body size: DIN1HT
- 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

**Microswitches**

- 170H0236

**Fuse holders**

- SD1-D-PV

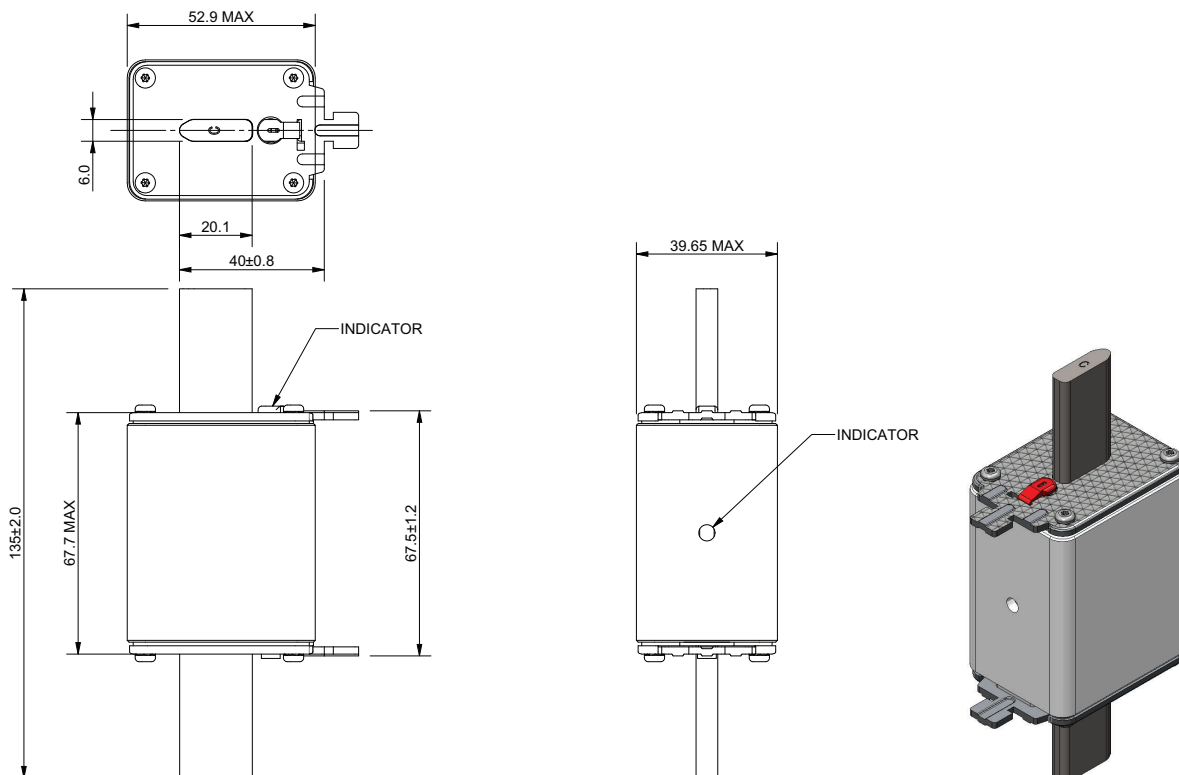
**Packaging**

- 3

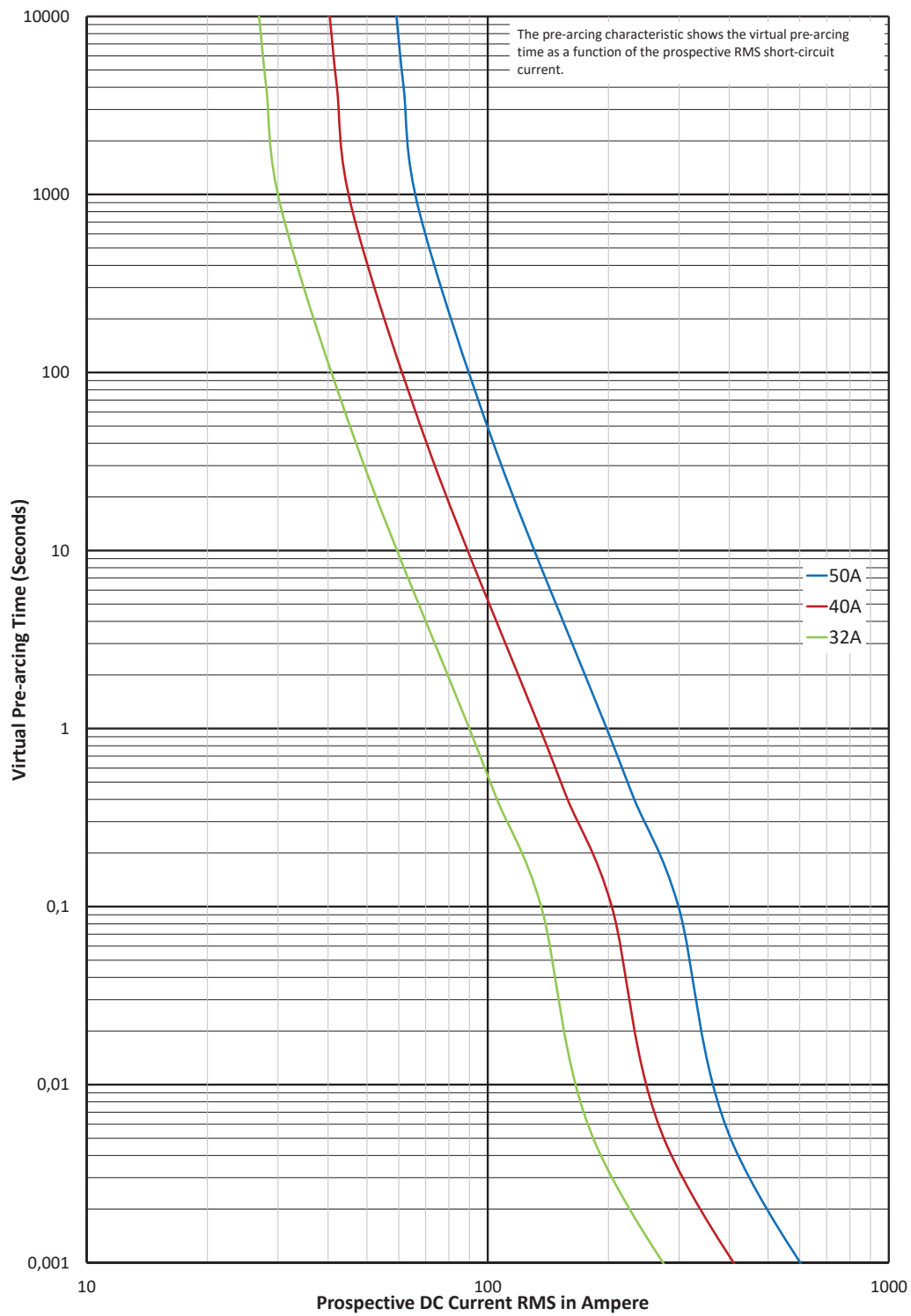
**Technical data**

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 pre-arcing integral (from cold) A <sup>2</sup> S	Maximum clearing integral A <sup>2</sup> S @ 800 V d.c. 10 ms L/R	Minimum breaking current (A) @ 800 V d.c.	Power loss at I <sub>n</sub> (W)
180D1506	DIN1HT	32	800	800	100	80	690	64	8.5
180D1507	DIN1HT	40	800	800	100	185	1600	80	9
180D1508	DIN1HT	50	800	800	100	400	3450	100	11

**Dimensions mm**

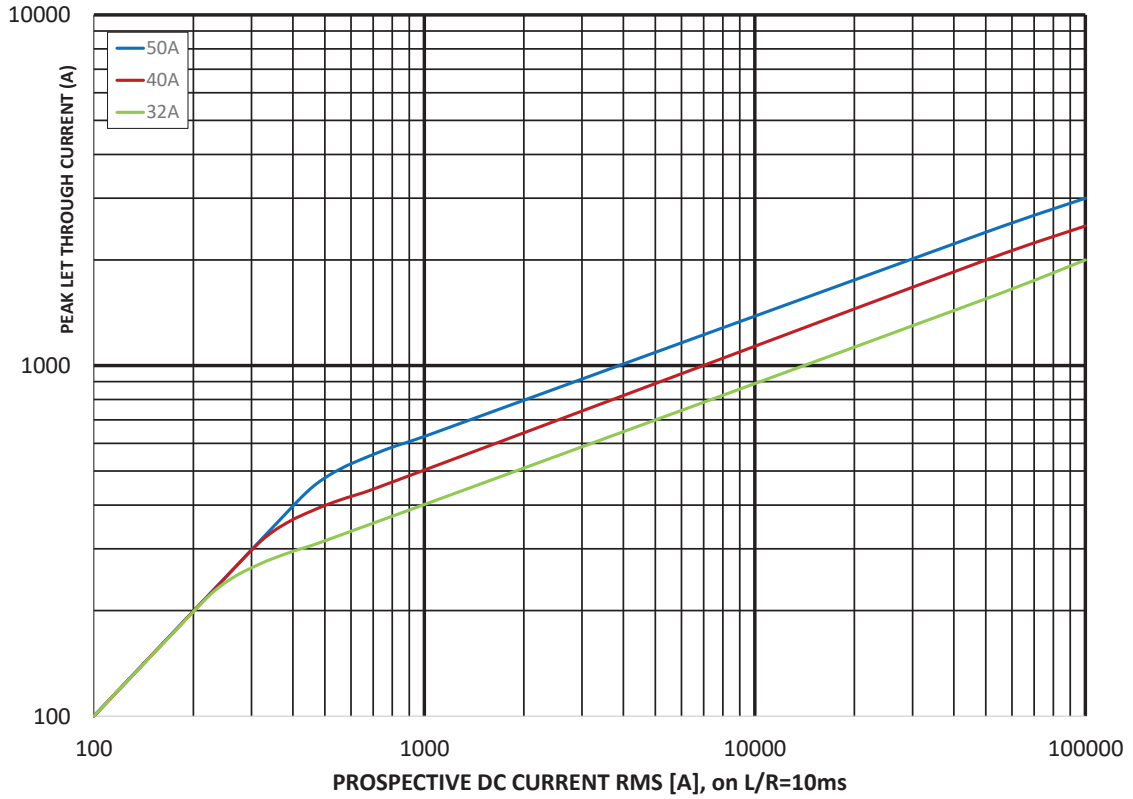


Time-current curve



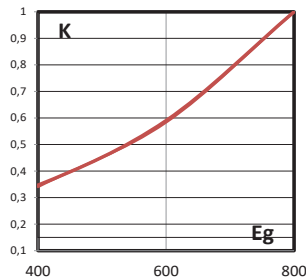
$K_b = 1$   $N = 1,6$

Peak let-through curve



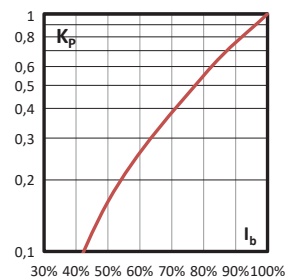
**Total clearing  $I^2t$**

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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**Eaton**  
EMEA Headquarters  
Route de la Longeraie 7  
1110 Morges, Switzerland

Electrical Sector  
Eaton Electrical Products Limited  
Unit 1, Hawker Business Park,  
Melton Road, Burton-on-the-Wolds  
LE12 5TH, UK  
Eaton.com

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