

# Protistor® size 72 aR

1200VDC (IEC)

## SEMICONDUCTOR PROTECTION FUSES

## SQUARE BODY HIGH-SPEED FUSE-LINKS DC PROTECTION



Mersen DC offers provide a very high performant protection for railway power and auxiliary circuits. Mersen DC Semiconductor fuse-links were developed to provide improved performance required by today's new DC equipment. These fuse-links are typically operated at more elevated temperature than other fuse type, have lower  $I^2t$  to minimize damage to protected components on short circuits, lower watt loss and longer life.

### TECHNICAL DATA OVERVIEW

Voltage DC	1200 VDC
Ampere Range (A)	160 ... 420 A
Speed/Characteristic	aR
Product Size	72
Package	1
Weight	1.15 kg

### FEATURES & BENEFITS

- Extremely fast acting
- Excellent cycling capability
- Very low  $I^2t$
- Worldwide acceptability
- Current Limiting
- Superior Cycling Ability

### APPLICATIONS

- Protection of inverters
- Protection of motor drives
- Protection of UPS systems
- Railway power and auxiliary circuits
- ESS Battery Rack protection up to 1500VDC

### STANDARDS

- IEC 60269-1 and IEC 60269-4 Compliance
- DC UL recognized component  
UL file E76491
  - 160A-420A, @1200VDC, L/R  
10ms, 100KA
  - 160A-420A, @1500VDC, L/R  
1-3ms, 100KA
- GB/T 13539.4-2016



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### PRODUCT RANGE

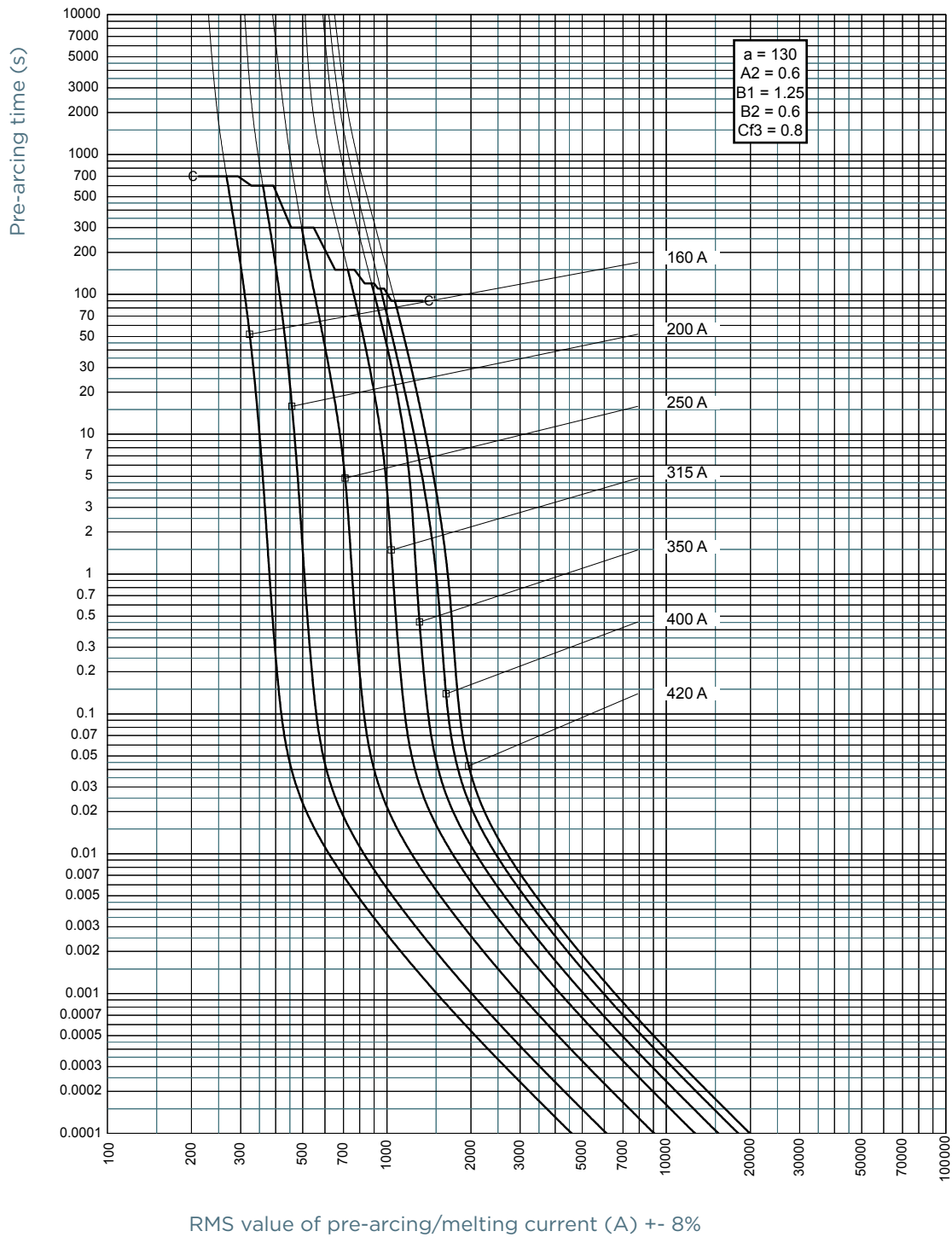


D72SG120V315QF

#### Size 72 aR 1200VDC(IEC), with striker

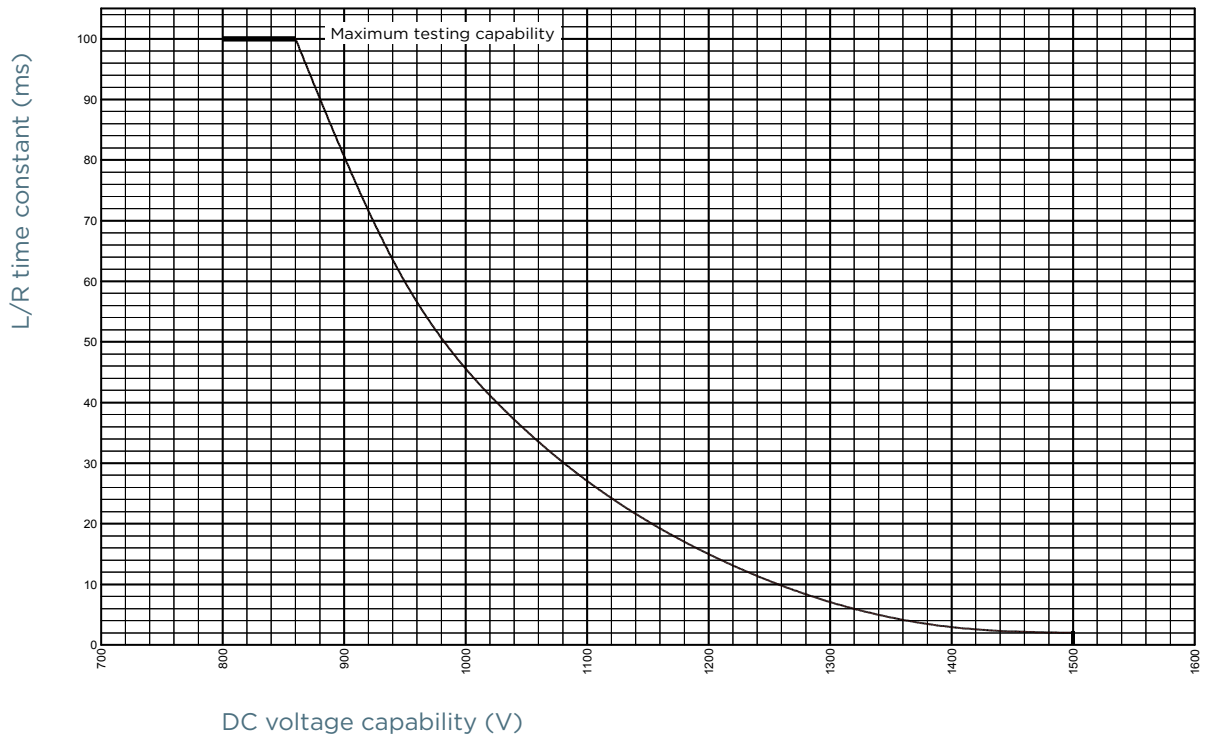
Catalog number	Item number	Rated voltage DC (IEC)	Rated current $I_n$	Rated breaking capacity DC	Max. total $I^2t$ @1000V for L/R=15ms	Max. total $I^2t$ @1000V for L/R=45ms	Power dissipation at $I_n$	Power dissipation at 0.8 $I_n$
D72SG120V160QF	K079428	1200 V	160 A	100 kA	12 kA <sup>2</sup> s	20 kA <sup>2</sup> s	77.5 W	41 W
D72SG120V200QF	L079429	1200 V	200 A	100 kA	21 kA <sup>2</sup> s	36 kA <sup>2</sup> s	88 W	48 W
D72SG120V250QF	M079430	1200 V	250 A	100 kA	45.5 kA <sup>2</sup> s	78.5 kA <sup>2</sup> s	96 W	57 W
D72SG120V315QF	N079431	1200 V	315 A	100 kA	90 kA <sup>2</sup> s	154 kA <sup>2</sup> s	110 W	60 W
D72SG120V350QF	Q085574	1200 V	350 A	100 kA	131 kA <sup>2</sup> s	227 kA <sup>2</sup> s	118 W	63 W
D72SG120V400QF	P079432	1200 V	400 A	100 kA	182 kA <sup>2</sup> s	314 kA <sup>2</sup> s	129 W	66 W
D72SG120V420QF	Q079433	1200 V	420 A	100 kA	220 kA <sup>2</sup> s	380 kA <sup>2</sup> s	131 W	67 W

TIME CURRENT CHARACTERISTIC CURVES

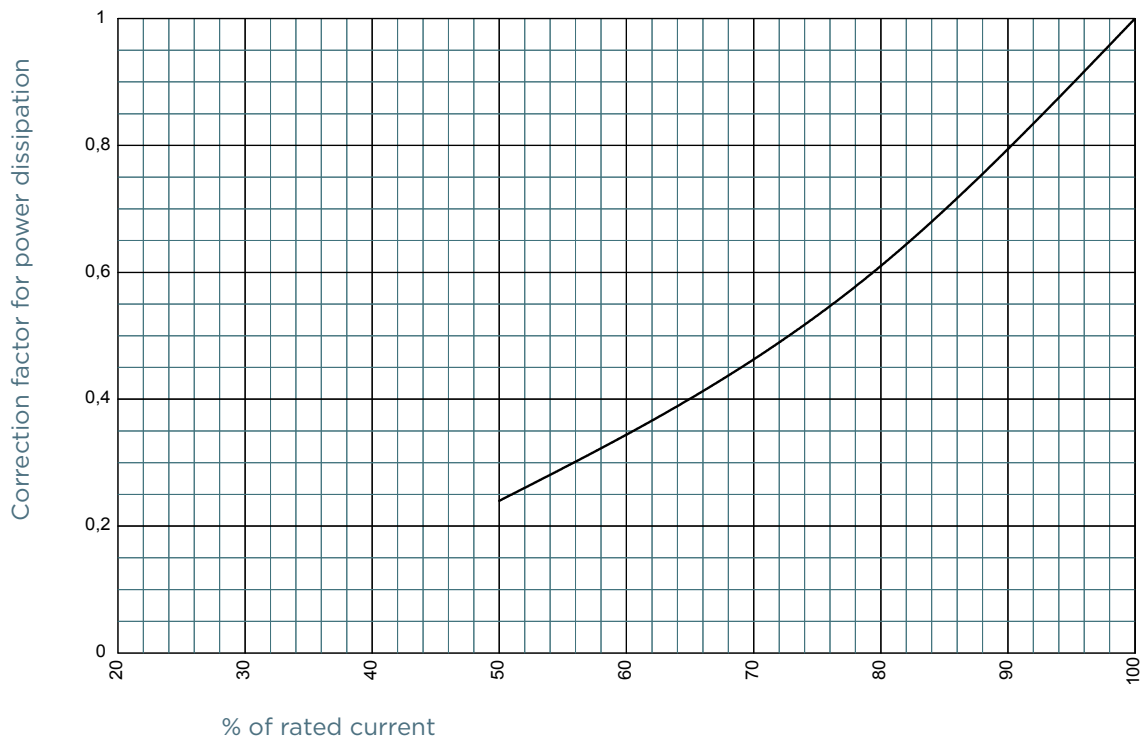


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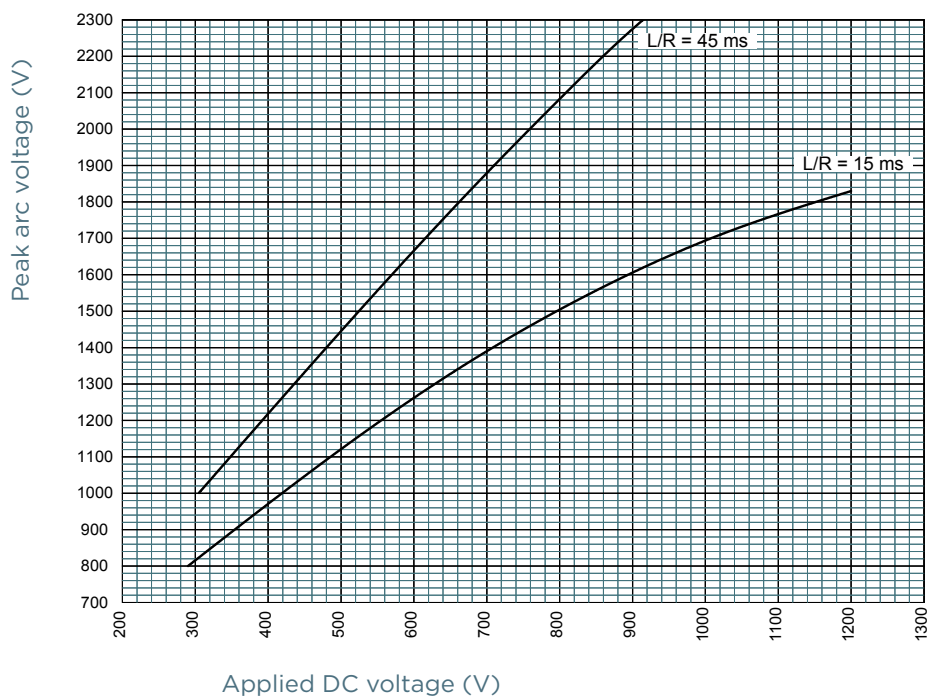
## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY



## POWER DISSIPATION



## PEAK ARC VOLTAGE

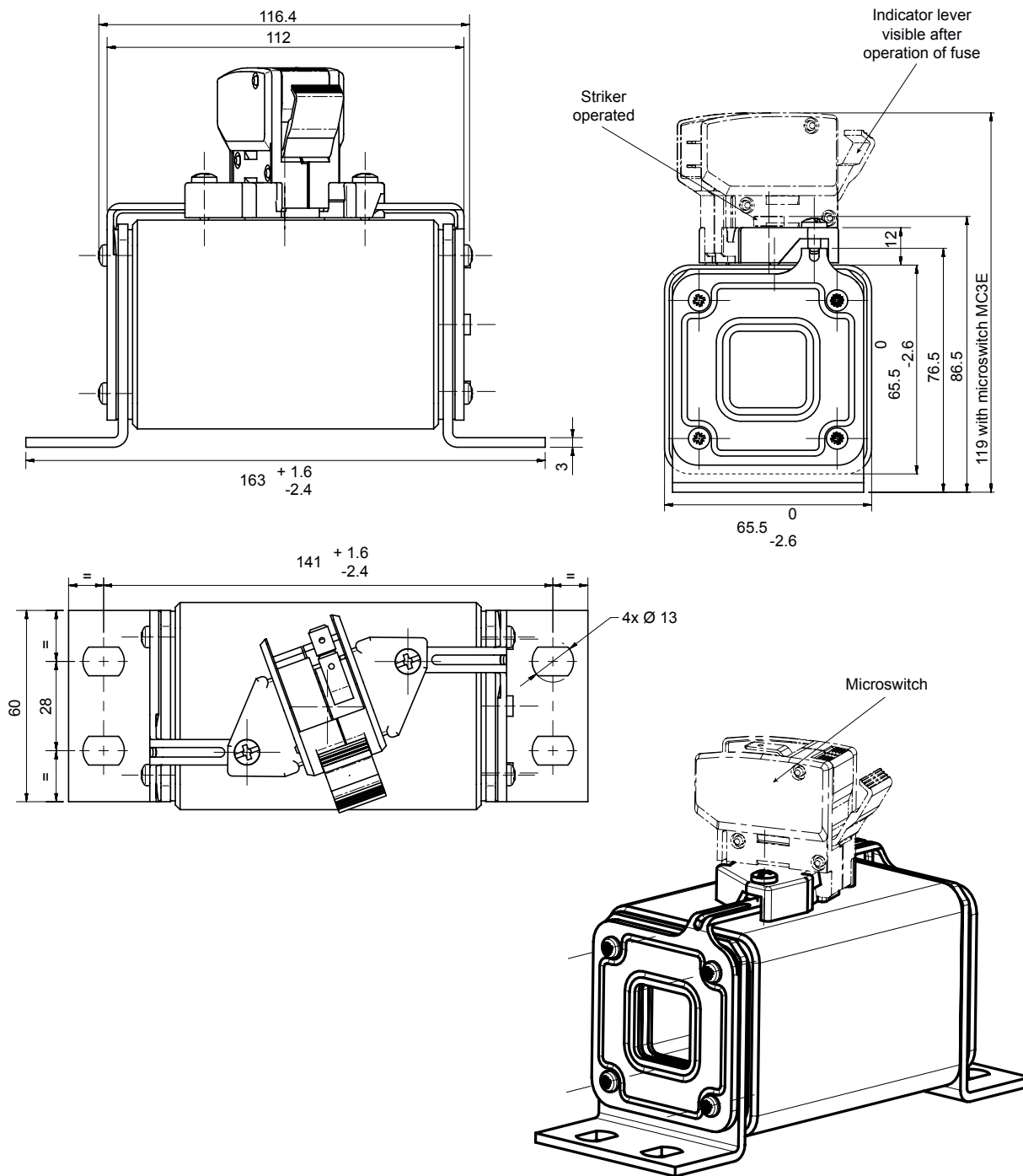


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## DIMENSIONS

### Size 72 aR 1200VDC(IEC), with striker



Dimensions in mm