

# Protistor<sup>®</sup> size 122 aR

2000VDC

## SEMICONDUCTOR PROTECTION FUSES

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



Mersen DC offers provide a very high performing protection for railway power 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 in extreme environment more than other fuse type, have lower I<sup>2</sup>t to minimize damage to protected components on short circuits, lower watts loss and longer life time.

#### TECHNICAL DATA OVERVIEW

Voltage DC	2000 VDC
Ampere Range (A)	160 ... 400 A
Speed/Characteristic	aR
Product Size	122
Weight	1.81 kg

#### FEATURES & BENEFITS

- Extremely fast acting
- Extremely current limiting
- Very low I<sup>2</sup>t
- Worldwide acceptability
- Superior cycling ability

#### APPLICATIONS

- Protection of inverters
- Protection of motor drives
- Protection of UPS systems
- Protection of similar 2000V or less equipments
- Railway power and auxiliary circuits

#### STANDARDS

- IEC 60269-4 compliance

# Protistor® size 122 aR 2000VDC

## PRODUCT RANGE



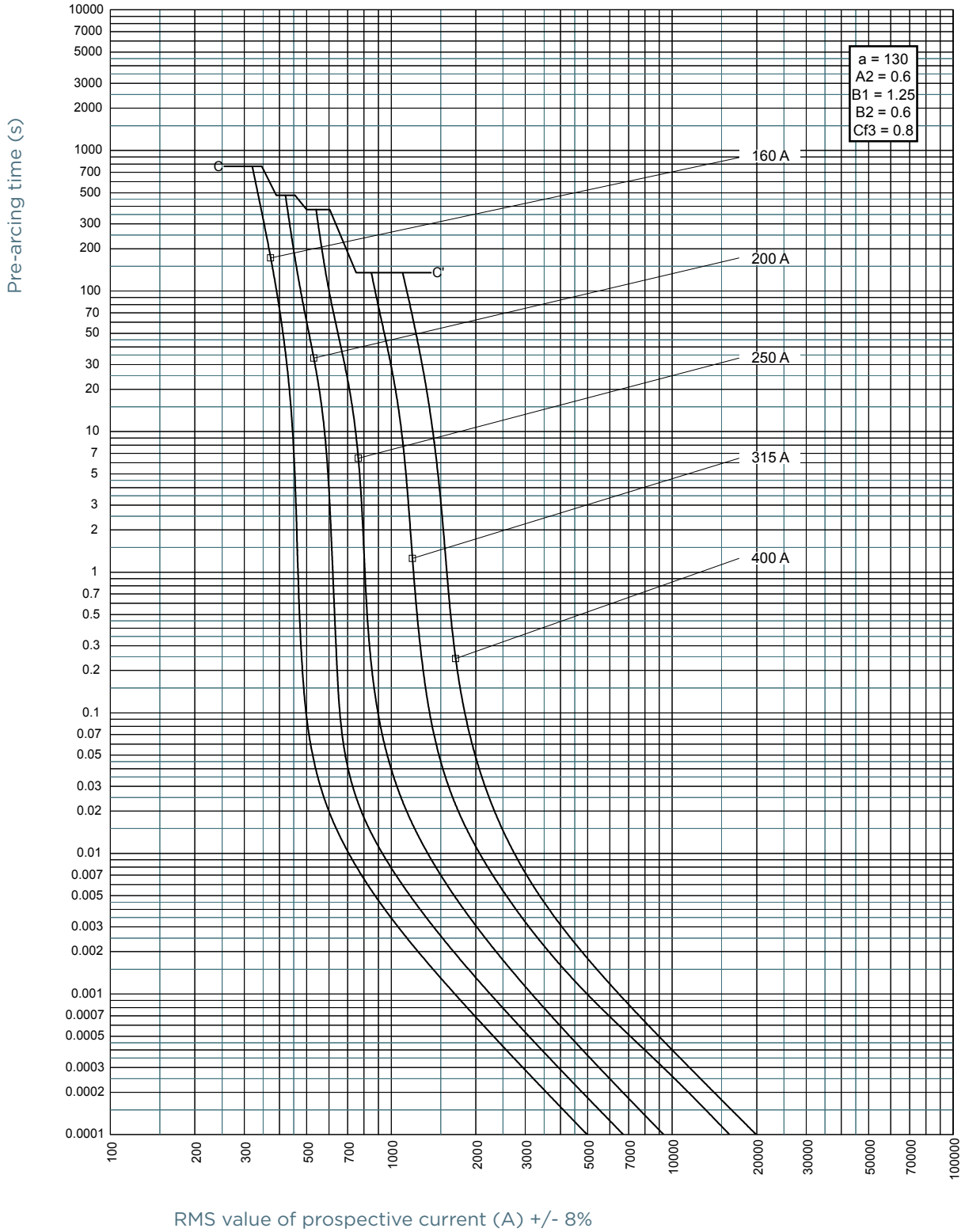
D122SD20C400QF

### Size 122 aR 2000VDC

Catalog number	Item number	Rated current $I_n$	Rated breaking capacity DC	Power dissipation at $0.8 I_n$	Power dissipation at $I_n$	Max. total $I^2t$ @1600V for L/R=15ms	Max. total $I^2t$ @1600V for L/R=45ms	Package	Weight
D122SD20C160QF	D076639	160 A	100 kA	52.5 W	100 W	15000 A <sup>2</sup> s	25000 A <sup>2</sup> s	1	1.81 kg
D122SD20C200QF	X079462	200 A	100 kA	61.5 W	118 W	26000 A <sup>2</sup> s	44000 A <sup>2</sup> s	1	1.81 kg
D122SD20C250QF	Y079463	250 A	100 kA	69 W	131 W	50000 A <sup>2</sup> s	87000 A <sup>2</sup> s	1	1.81 kg
D122SD20C315QF	Z079464	315 A	100 kA	74 W	150 W	117000 A <sup>2</sup> s	200000 A <sup>2</sup> s	1	1.81 kg
D122SD20C400QF	A079465	400 A	100 kA	87 W	175 W	219000 A <sup>2</sup> s	380000 A <sup>2</sup> s	1	1.81 kg

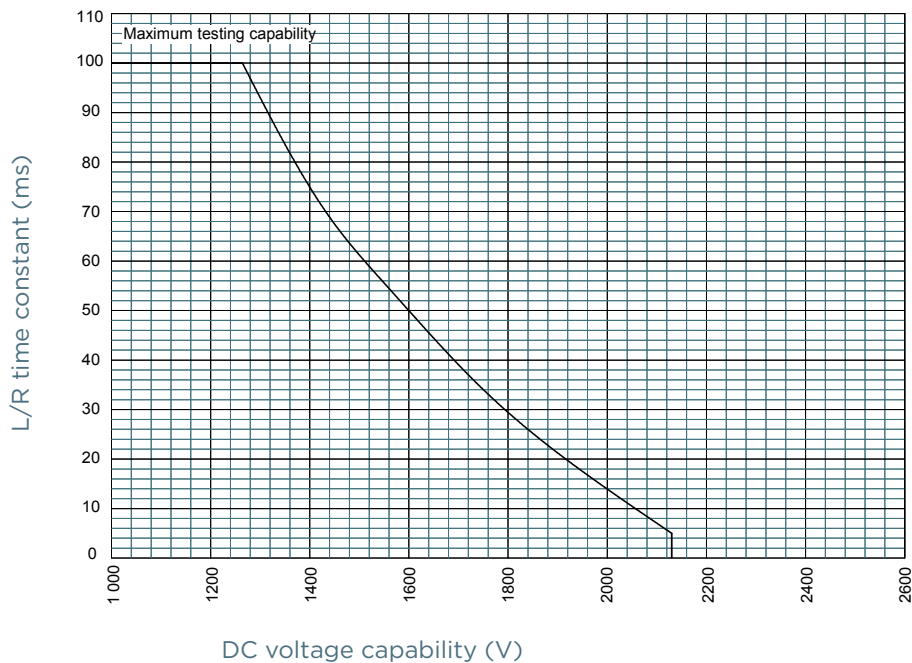
TIME CURRENT CHARACTERISTIC CURVES

Size 122 aR 2000VDC



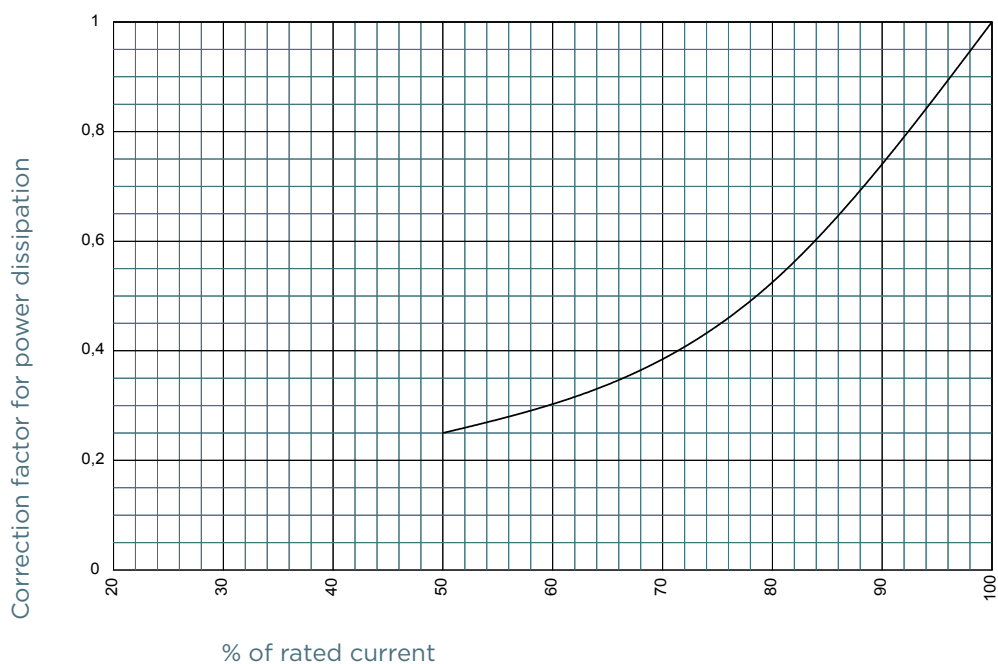
## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

### Size 122 aR 2000VDC



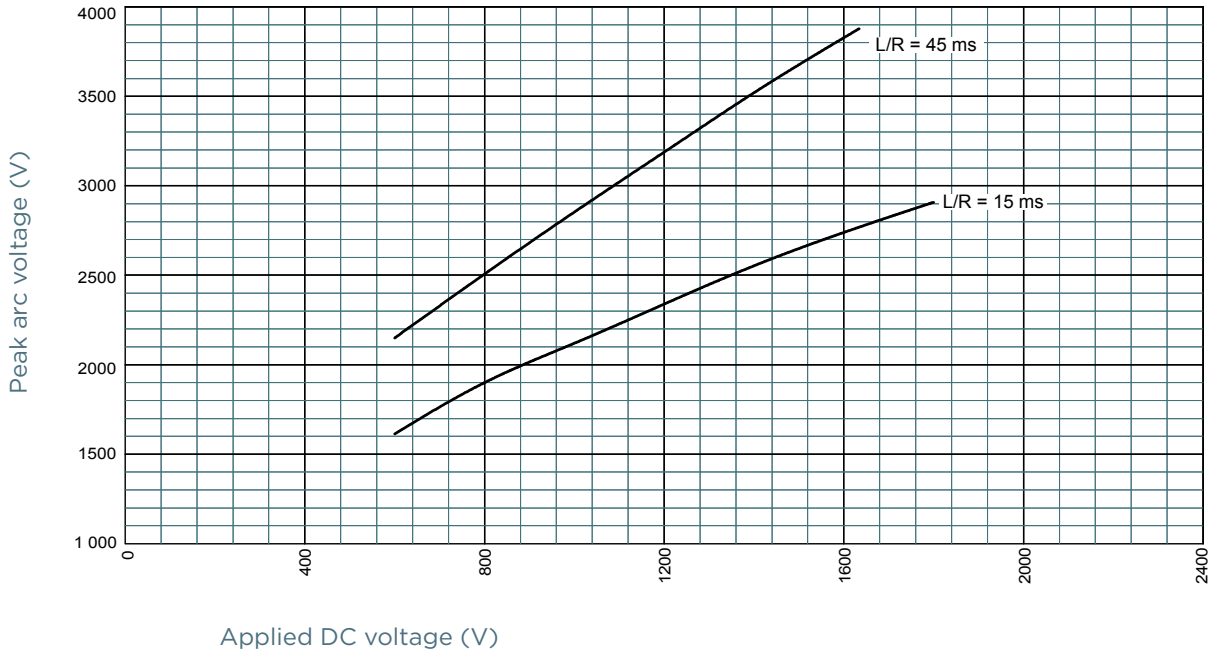
## POWER DISSIPATION

### Size 122 aR 2000VDC



## PEAK ARC VOLTAGE

### Size 122 aR 2000VDC



## DIMENSIONS

### Size 122aR 2000VDC

Dimensions in mm

## ACCESSORIES

### Microswitches

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage DC (IEC)	Rated current I <sub>n</sub>	AC voltage withstand test <sup>1</sup>	Impulse withstand voltage U <sub>imp</sub> 1.2/50µs <sup>2</sup>	Rated impulse withstand voltage U <sub>imp</sub>	Indication System	Breaking capacity, Non inductive circuit, 30V / 110V / 250V	Breaking capacity, Inductive circuit: L/R=25ms, 30V / 110V / 250V	Pack-age	Weight
<b>Insulation Voltage 2200VAC/VDC</b>												
MCR3E1-5N	G310023	2200 V	2200 V	5 A	20 kV	30 kV	30 kV	Standard	5A / 0,5A / -	- / 1,6A / 0,3A	1	60 g
MCR3E1-5N	G310023	2200 V	2200 V	5 A	20 kV	30 kV	30 kV	Standard	5A / 0,5A / -	- / 1,6A / 0,3A	1	60 g

<sup>1</sup> Between power circuit and microswitch terminals as per IEC 60 and 694 and NFC 64010 (50/60 Hz 1 min duration in dry air)

<sup>2</sup> Between power circuit and microswitch terminals U<sub>imp</sub>: impulse voltage as per IEC 60947-1

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