

# Protistor<sup>®</sup> size 120 aR

2000VDC

## 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 watts loss and longer life.

To complete these fuse-links Mersen recommende to use the standard microswitch (ref. G310023, MCR3E1-5N).

## TECHNICAL DATA OVERVIEW

Voltage DC	2000 VDC
Ampere Range (A)	20 ... 215 A
Speed/Characteristic	aR
Product Size	120
Package	1 unit

## FEATURES & BENEFITS

- Extremely fast acting
- Extremely current limiting
- Very low  $I^2t$
- 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
- EES Battery Rack protection

## STANDARDS

- IEC 60269-4 compliance



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### PRODUCT RANGE



D120SC20C200QF

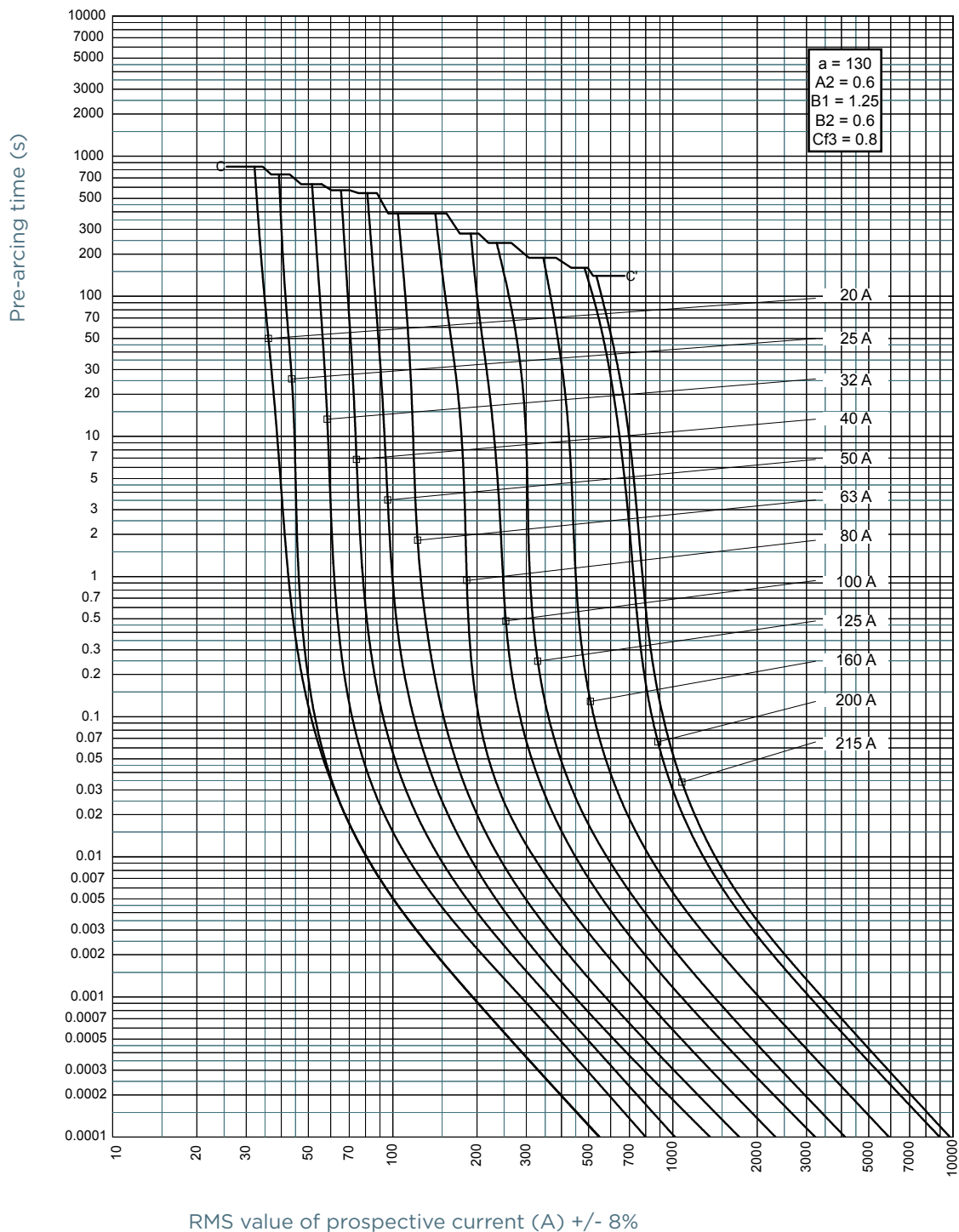
#### Size 120 SR 2000VDC

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 $0.8 I_n$	Weight
D120SC20C20QF	J079450	2000 V	20 A	100 kA	180 A <sup>2</sup> s	310 A <sup>2</sup> s	16 W	8 W	0.9 kg
D120SC20C25QF	K079451	2000 V	25 A	100 kA	180 A <sup>2</sup> s	310 A <sup>2</sup> s	25 W	12.5 W	0.9 kg
D120SC20C32QF	L079452	2000 V	32 A	100 kA	350 A <sup>2</sup> s	610 A <sup>2</sup> s	29.5 W	14.5 W	0.9 kg
D120SC20C40QF	M079453	2000 V	40 A	100 kA	580 A <sup>2</sup> s	1000 A <sup>2</sup> s	36 W	17.5 W	0.9 kg
D120SC20C50QF	N079454	2000 V	50 A	100 kA	1030 A <sup>2</sup> s	1800 A <sup>2</sup> s	42 W	20.5 W	0.9 kg
D120SC20C63QF	P079455	2000 V	63 A	100 kA	1600 A <sup>2</sup> s	2800 A <sup>2</sup> s	53.5 W	26 W	0.9 kg
D120SC20C80QF	Q079456	2000 V	80 A	100 kA	3100 A <sup>2</sup> s	5400 A <sup>2</sup> s	61.5 W	30 W	0.9 kg
D120SC20C100QF	R079457	2000 V	100 A	100 kA	5800 A <sup>2</sup> s	10000 A <sup>2</sup> s	70.5 W	35 W	0.9 kg
D120SC20C125QF	S079458	2000 V	125 A	100 kA	9200 A <sup>2</sup> s	16000 A <sup>2</sup> s	87.5 W	43 W	0.9 kg
D120SC20C160QF	T079459	2000 V	160 A	100 kA	19200 A <sup>2</sup> s	33200 A <sup>2</sup> s	99 W	49 W	0.9 kg
D120SC20C200QF	V079460	2000 V	200 A	100 kA	45000 A <sup>2</sup> s	78500 A <sup>2</sup> s	101 W	49.5 W	0.9 kg
D120SC20C215QF	W079461	2000 V	215 A	100 kA	55000 A <sup>2</sup> s	95000 A <sup>2</sup> s	106 W	52 W	0.9 kg

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

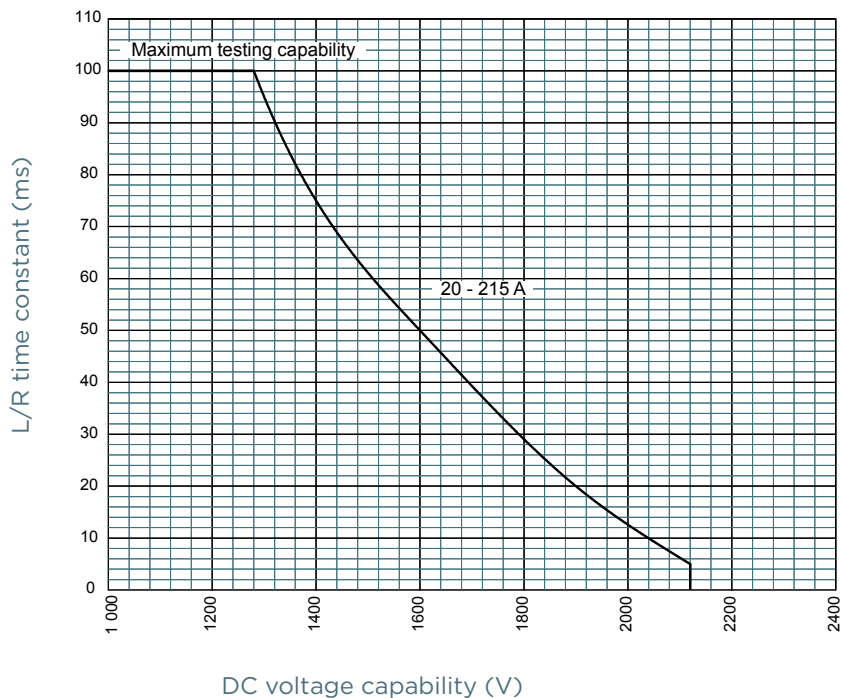
## TIME CURRENT CHARACTERISTIC CURVES

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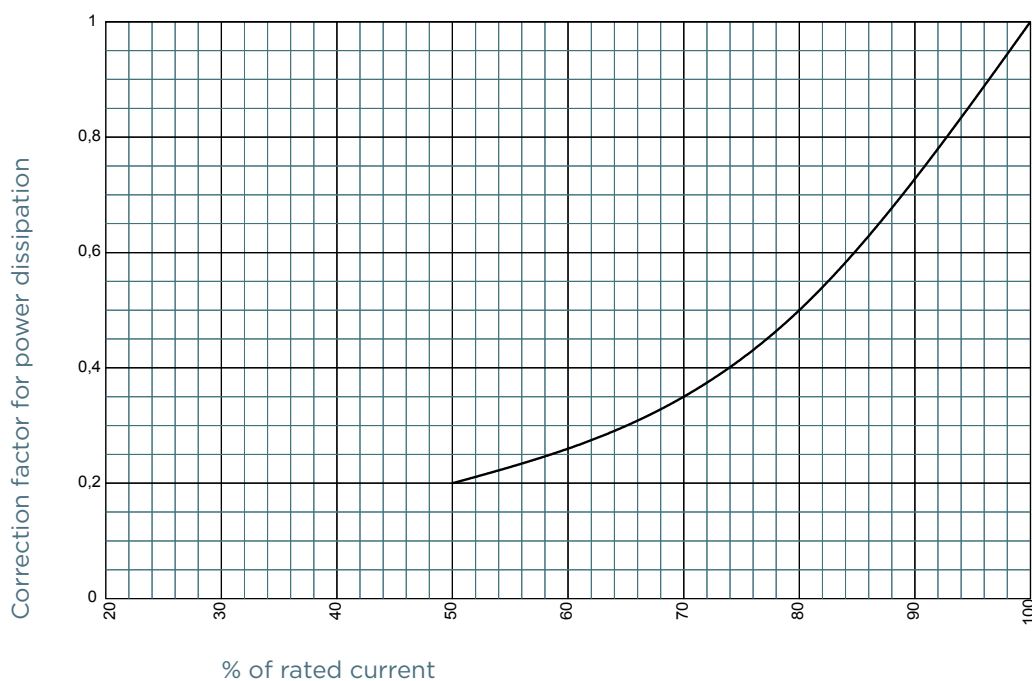
## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

### Size 120 aR 2000VDC



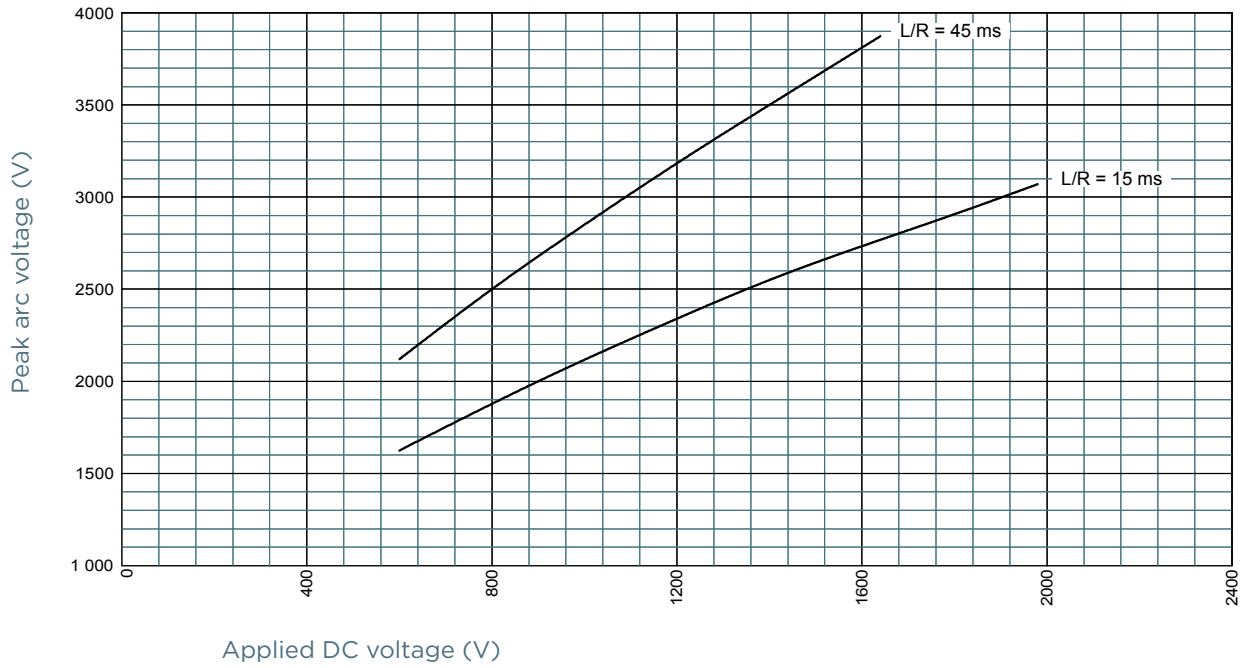
## POWER DISSIPATION

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## PEAK ARC VOLTAGE

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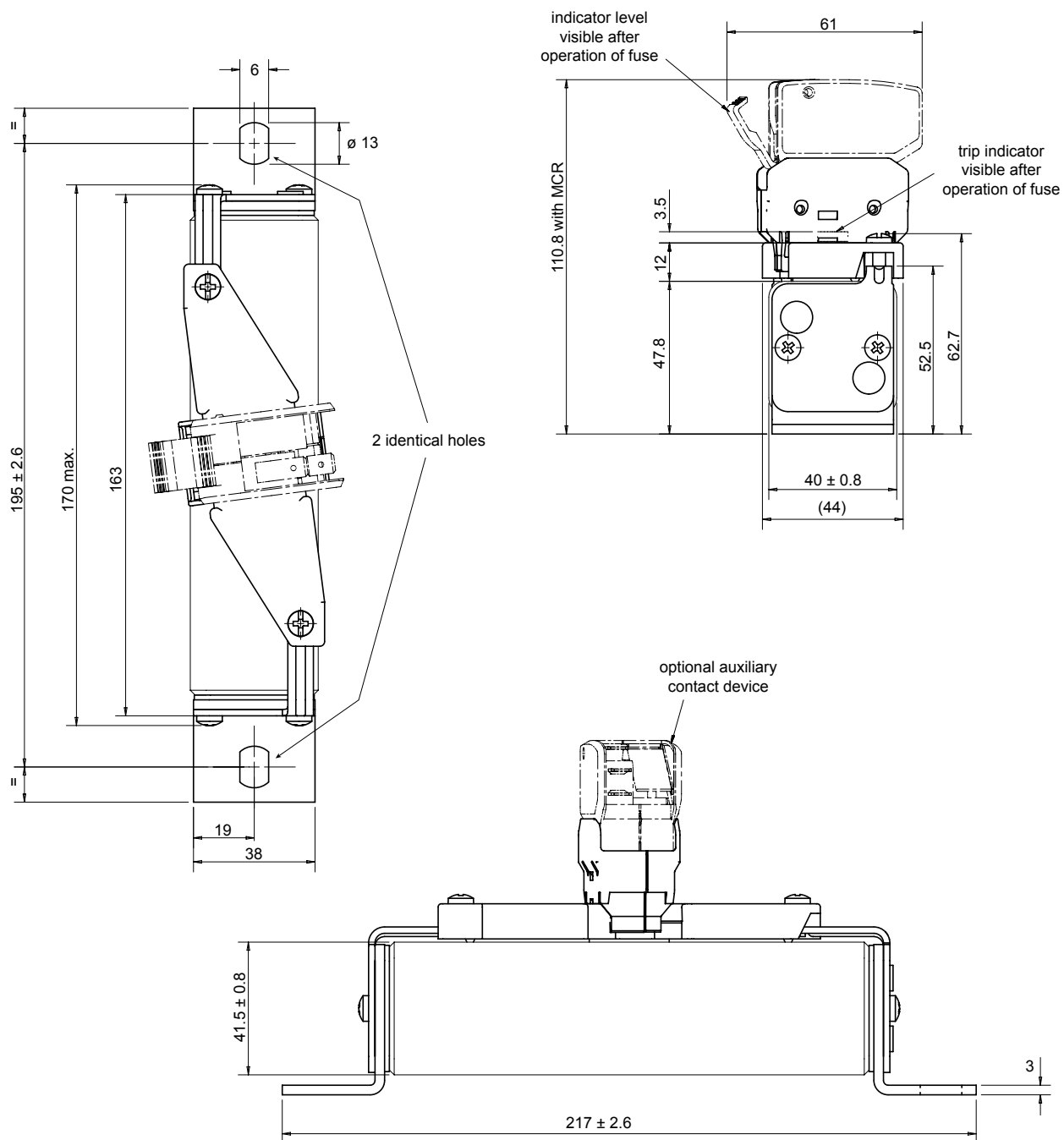


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## DIMENSIONS

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Dimensions in mm