Protistor® 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)	10 ... 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

PRODUCT RANGE

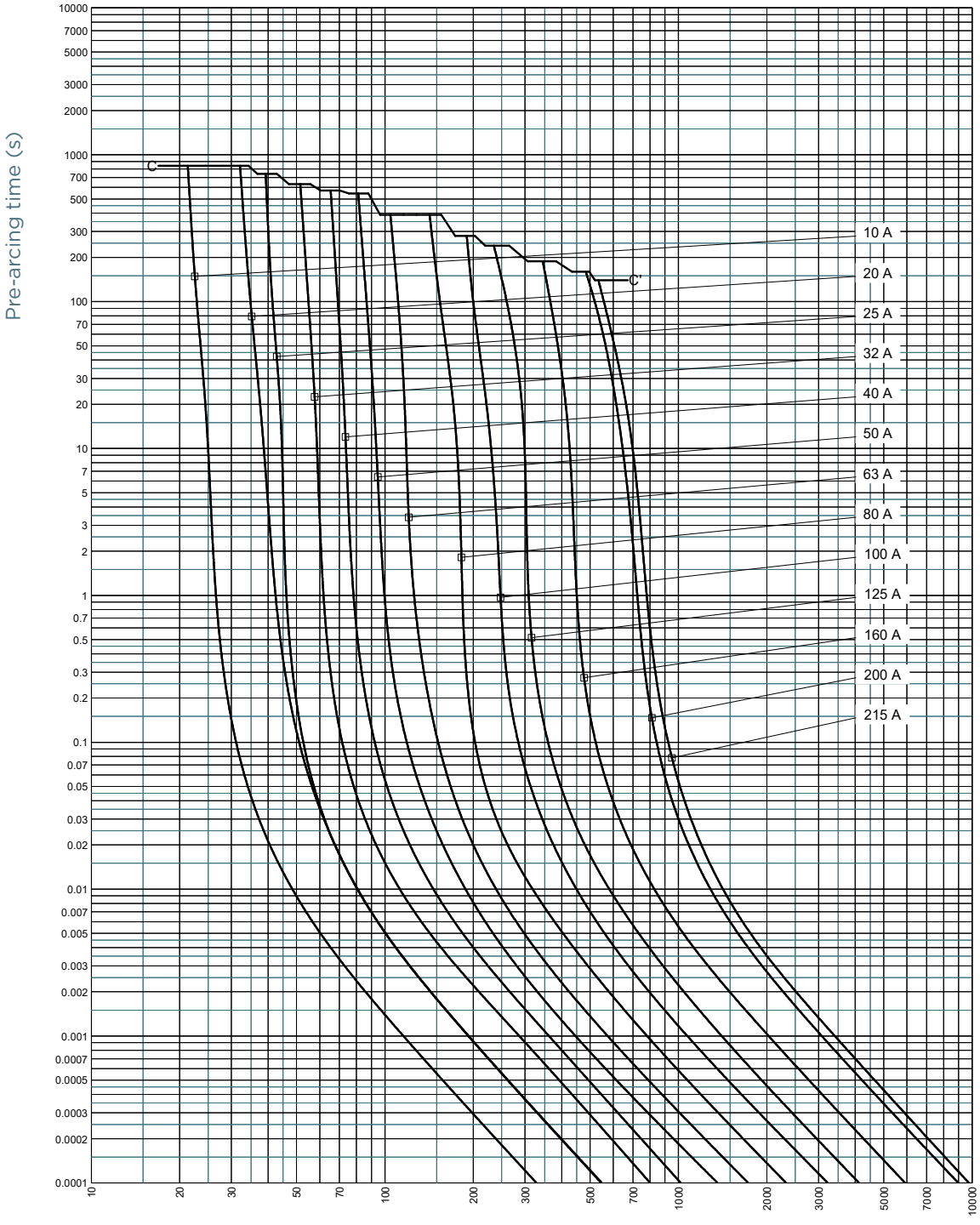
D120SC20C20QF

Size 120 SR 2000VDC

Catalog number	Item number	Rated voltage DC (IEC)	Rated current I_n	Rated breaking capacity DC	Max. total I^2t @1600V for L/R=15ms	Max. total I^2t @1600V for L/R=45ms	Power dissipation at I_n	Power dissipation at 0.8 I_n	Weight
D120SC20C10QF	D076616	2000 V	10 A	100 kA	65 A^2s	112 A^2s	11 W	5.5 W	0.9 kg
D120SC20C20QF	J079450	2000 V	20 A	100 kA	180 A^2s	310 A^2s	16 W	8 W	0.9 kg
D120SC20C25QF	K079451	2000 V	25 A	100 kA	180 A^2s	310 A^2s	25 W	12.5 W	0.9 kg
D120SC20C32QF	L079452	2000 V	32 A	100 kA	350 A^2s	610 A^2s	29.5 W	14.5 W	0.9 kg
D120SC20C40QF	M079453	2000 V	40 A	100 kA	580 A^2s	1000 A^2s	36 W	17.5 W	0.9 kg
D120SC20C50QF	N079454	2000 V	50 A	100 kA	1030 A^2s	1800 A^2s	42 W	20.5 W	0.9 kg
D120SC20C63QF	P079455	2000 V	63 A	100 kA	1600 A^2s	2800 A^2s	53.5 W	26 W	0.9 kg
D120SC20C80QF	Q079456	2000 V	80 A	100 kA	3100 A^2s	5400 A^2s	61.5 W	30 W	0.9 kg
D120SC20C100QF	R079457	2000 V	100 A	100 kA	5800 A^2s	10000 A^2s	70.5 W	35 W	0.9 kg
D120SC20C125QF	S079458	2000 V	125 A	100 kA	9200 A^2s	16000 A^2s	87.5 W	43 W	0.9 kg
D120SC20C160QF	T079459	2000 V	160 A	100 kA	19200 A^2s	33200 A^2s	99 W	49 W	0.9 kg
D120SC20C200QF	V079460	2000 V	200 A	100 kA	45000 A^2s	78500 A^2s	101 W	49.5 W	0.9 kg
D120SC20C215QF	W079461	2000 V	215 A	100 kA	55000 A^2s	95000 A^2s	106 W	52 W	0.9 kg

TIME CURRENT CHARACTERISTIC CURVES

Size 120 aR 2000VDC

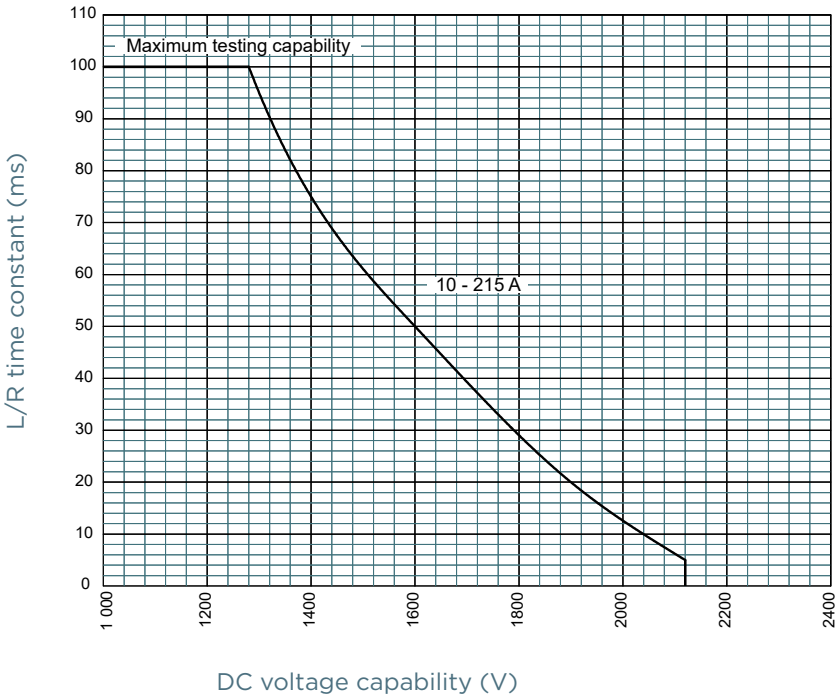


CC' limit stands for avoiding the excessive self overheating of fuse. It does not indicate the minimum breaking current the fuse is able to clear at rated voltage.

RMS value of pre-arcing/melting current (A) +- 8%

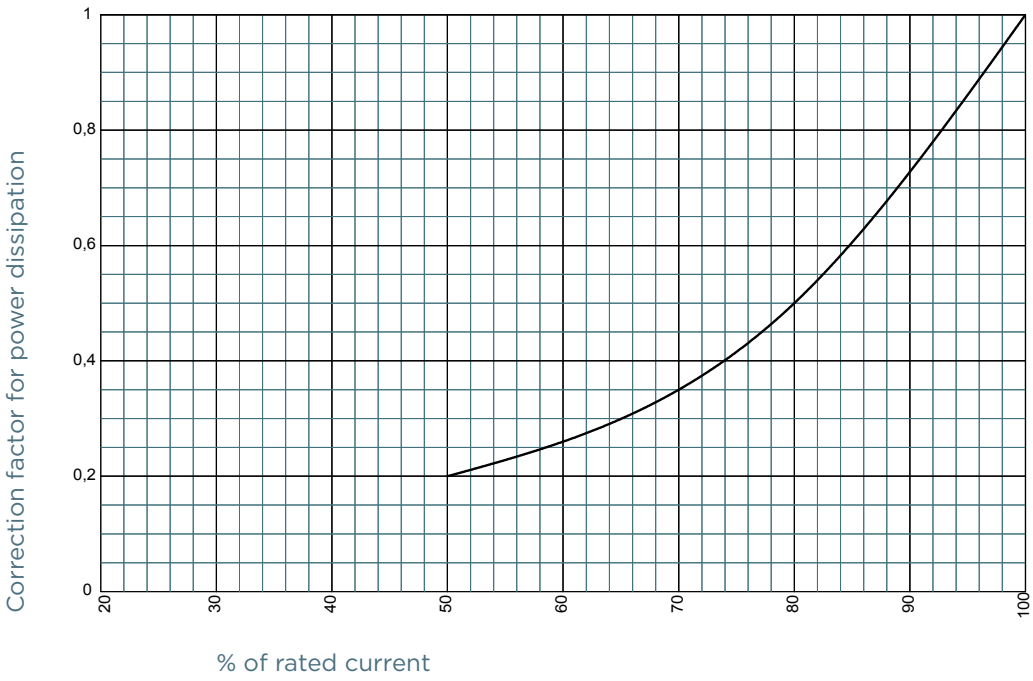
L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

Size 120 aR 2000VDC



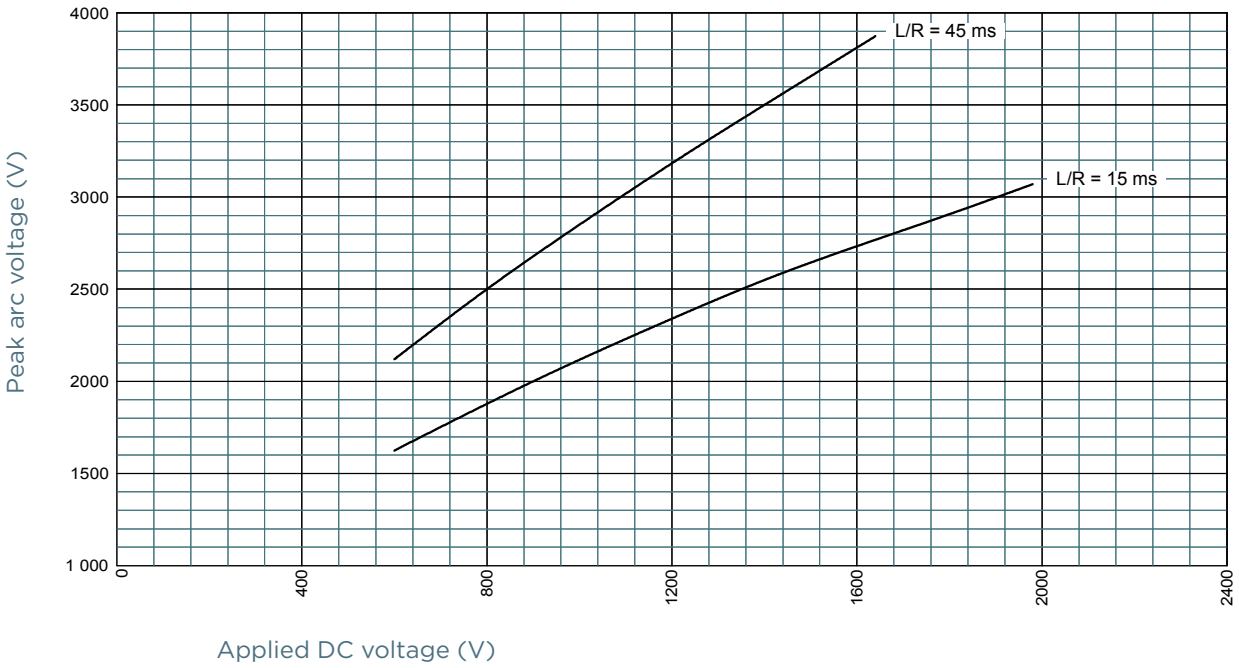
POWER DISSIPATION

Size 120 aR 2000VDC



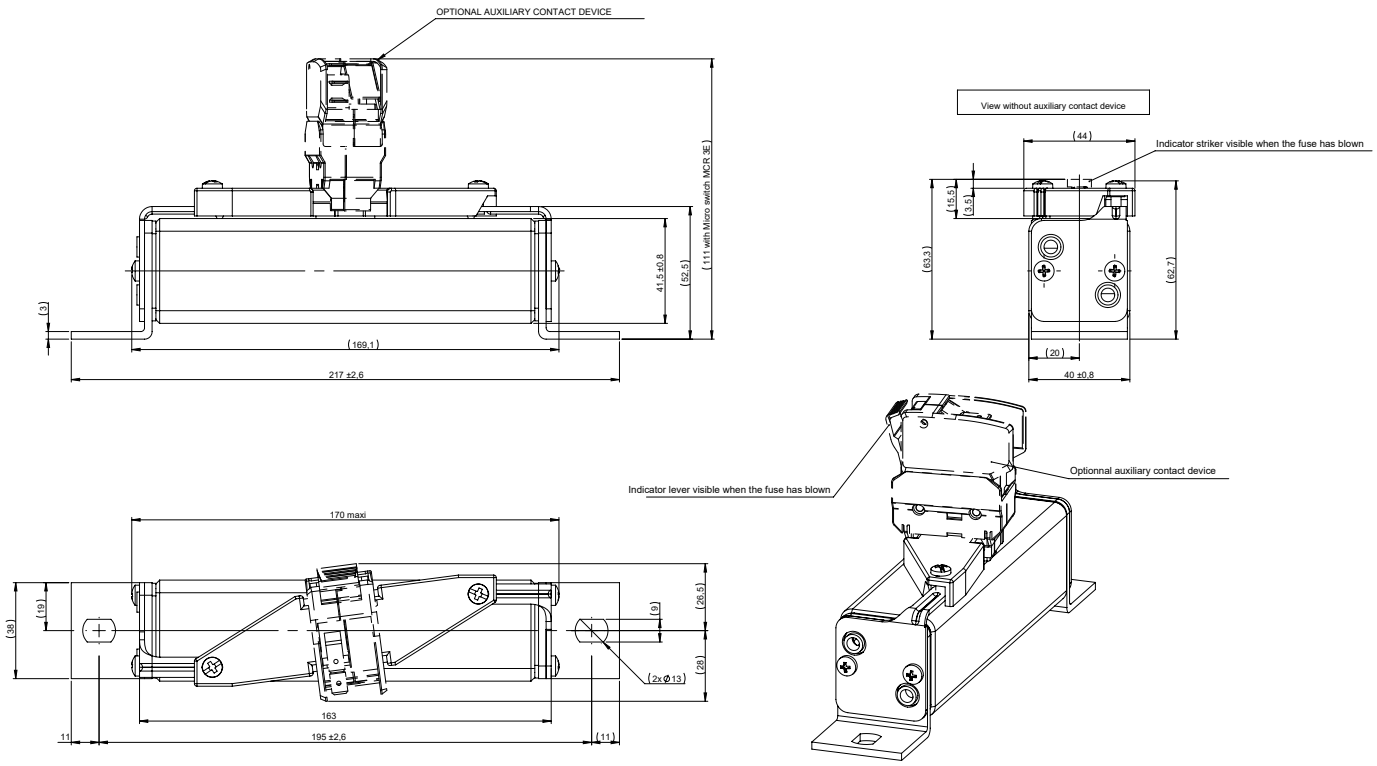
PEAK ARC VOLTAGE

Size 120 aR 2000VDC



DIMENSIONS

Size 120aR 2000VDC



Dimensions in mm