

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## SEMICONDUCTOR PROTECTION FUSES

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



The 690V Protistor® fuse-links provide maximum flexibility in equipment design and ultimate protection for small power conversion equipment. These ultra-fast acting aR fuses have been engineered to provide state-of-the-art protection for semiconductors: diodes, thyristors and IGBT devices. They are assembled with die-cut elements embedded in solidified sand, which helps control arcing characteristics for a lower  $I^2t$  and high interrupting rating level. All contact surfaces are silver plated and all hardware is non-magnetic. Each fuse-link can be equipped with a low voltage trip-indicator which can operate a field mountable microswitch.

## TECHNICAL DATA OVERVIEW

Rated voltage AC (IEC / UL)	500...690 VAC
Rated voltage DC (UL)	320...500VDC : please see Product Range table
Ampere Range (A)	16 ... 400 A
Size per Standard	000, 00
Speed/Characteristic	aR
I.R. AC (IEC/UL)	120 to 200kA

## FEATURES & BENEFITS

- aR Class according to IEC 60269-4 and VDE 636-23
- Very low  $I^2t$  for improved semiconductor protection
- Ultra fast acting
- Superior cycling capability

## APPLICATIONS

- Protection of inverters, motor drives, UPS systems and similar 690V or less equipments.

## STANDARDS

- IEC 60269-4 Compliance
- cURus Recognized Component
- AC: UL Guide No. E76491



# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## PRODUCT RANGE



DN000UB69V315

### Size 000 DIN80, vertical body, without indicator

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated voltage DC (UL)	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Rated breaking capacity AC	Power dissipation at $I_n$	Package	Weight
DN000UB69V80	K330036	690 V	500 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	6	0.13 kg
DN000UB69V100	L330037	690 V	500 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	6	0.13 kg
DN000UB69V125	M330038	690 V	500 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	6	0.13 kg
DN000UB69V160	N330039	690 V	500 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	6	0.13 kg
DN000UB69V200	P330040	690 V	500 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	6	0.13 kg
DN000UB69V250	Q330041	690 V	500 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	6	0.13 kg
DN000UB69V315	R330042	690 V	500 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	6	0.13 kg
DN000UB50V350	V330114	500 V	320 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	6	0.13 kg
DN000UB50V400	D330191	500 V	320 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	6	0.13 kg



DN000UB69V160V

### Size 000 DIN80, vertical body, with indicator

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated voltage DC (UL)	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Rated breaking capacity AC	Power dissipation at $I_n$	Package	Weight
DN000UB69V80V	W330023	690 V	320 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	6	0.13 kg
DN000UB69V100V	X330024	690 V	320 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	6	0.13 kg
DN000UB69V125V	Y330025	690 V	320 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	6	0.13 kg
DN000UB69V160V	Z330026	690 V	320 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	6	0.13 kg
DN000UB69V200V	A330027	690 V	320 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	6	0.13 kg
DN000UB69V250V	B330028	690 V	320 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	6	0.13 kg
DN000UB69V315V	C330029	690 V	320 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	6	0.13 kg
DN000UB50V350V	W330115	500 V	320 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	6	0.13 kg
DN000UB50V400V	E330192	500 V	320 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	6	0.13 kg

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## PRODUCT RANGE



DN000UB50V400L

### Size 000 DIN80, vertical body, for monitoring micro-contact

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated voltage DC (UL)	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Rated breaking capacity AC	Power dissipation at $I_n$	Package	Weight
DN000UB69V80L	T330182	690 V	500 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	6	0.13 kg
DN000UB69V100L	V330183	690 V	500 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	6	0.13 kg
DN000UB69V125L	W330184	690 V	500 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	6	0.13 kg
DN000UB69V160L	X330185	690 V	500 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	6	0.13 kg
DN000UB69V200L	Y330186	690 V	500 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	6	0.13 kg
DN000UB69V250L	Z330187	690 V	500 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	6	0.13 kg
DN000UB69V315L	A330188	690 V	500 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	6	0.13 kg
DN000UB50V350L	B330189	500 V	320 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	6	0.13 kg
DN000UB50V400L	F330193	500 V	320 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	6	0.13 kg



BS000UB50V400

### Size 000 BS88, horizontal body, without indicator

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated voltage DC (UL)	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Rated breaking capacity AC	Power dissipation at $I_n$	Package	Weight
BS000UB69V75	B330051	690 V <sup>1</sup>	500 V	75 A	340 A <sup>2</sup> s	2250 A <sup>2</sup> s	200 kA	20.5 W	3	0.14 kg
BS000UB69V80	C330052	690 V <sup>1</sup>	500 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	3	0.14 kg
BS000UB69V100	D330053	690 V <sup>1</sup>	500 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	3	0.14 kg
BS000UB69V110	E330100	690 V <sup>1</sup>	500 V	110 A	950 A <sup>2</sup> s	6800 A <sup>2</sup> s	200 kA	24.5 W	3	0.14 kg
BS000UB69V125	E330054	690 V <sup>1</sup>	500 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	3	0.14 kg
BS000UB69V160	F330055	690 V <sup>1</sup>	500 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	3	0.14 kg
BS000UB69V200	G330056	690 V <sup>1</sup>	500 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	3	0.14 kg
BS000UB69V250	H330057	690 V	500 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	3	0.14 kg
BS000UB69V315	J330058	690 V	500 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	3	0.14 kg
BS000UB50V350	X330116	500 V	320 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	3	0.14 kg
BS000UB50V400	G330194	500 V	320 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	3	0.14 kg

<sup>1</sup>For DC BUS applications: UL recognized qualified at 600VDC, capable of interrupting circuits having an available current between 20 to 55 kA, with a time constant not exceeding 12 ms.

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## PRODUCT RANGE



BS000UB69V315P

### Size 000 BS88, horizontal body, with indicator

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
BS000UB69V75P	H330126	690 V	500 V	75 A	340 A <sup>2</sup> s	2250 A <sup>2</sup> s	200 kA	20.5 W	3	0.16 kg
BS000UB69V80P	J330127	690 V	500 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	3	0.16 kg
BS000UB69V100P	K330128	690 V	500 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	3	0.16 kg
BS000UB69V110P	L330129	690 V	500 V	110 A	950 A <sup>2</sup> s	6800 A <sup>2</sup> s	200 kA	24.5 W	3	0.16 kg
BS000UB69V125P	M330130	690 V	500 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	3	0.16 kg
BS000UB69V160P	P330132	690 V	500 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	3	0.16 kg
BS000UB69V200P	Q330133	690 V	500 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	3	0.16 kg
BS000UB69V250P	R330134	690 V	500 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	3	0.16 kg
BS000UB69V315P	S330135	690 V	500 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	3	0.16 kg
BS000UB50V350P	T330136	500 V	320 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	3	0.16 kg
BS000UB50V400P	H330195	500 V	320 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	3	0.16 kg



DN00UB69V400L

### Size 00 DIN80, vertical body, for monitoring micro-contact

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
DN00UB69V16L	V330275	690 V	16 A	7 A <sup>2</sup> s	52 A <sup>2</sup> s	200 kA	7 W	3	0.20 kg
DN00UB69V20L	T330274	690 V	20 A	10 A <sup>2</sup> s	75 A <sup>2</sup> s	200 kA	9 W	3	0.20 kg
DN00UB69V25L	M330268	690 V	25 A	15 A <sup>2</sup> s	120 A <sup>2</sup> s	200 kA	11 W	3	0.20 kg
DN00UB69V32L	N330269	690 V	32 A	32 A <sup>2</sup> s	210 A <sup>2</sup> s	200 kA	15 W	3	0.20 kg
DN00UB69V40L	P330270	690 V	40 A	61 A <sup>2</sup> s	400 A <sup>2</sup> s	200 kA	18 W	3	0.20 kg
DN00UB69V50L	Q330271	690 V	50 A	102 A <sup>2</sup> s	700 A <sup>2</sup> s	200 kA	21 W	3	0.20 kg
DN00UB69V63L	R330272	690 V	63 A	177 A <sup>2</sup> s	1200 A <sup>2</sup> s	200 kA	23 W	3	0.20 kg
DN00UB69V80L	D330237	690 V	80 A	390 A <sup>2</sup> s	2200 A <sup>2</sup> s	200 kA	25 W	3	0.20 kg
DN00UB69V100L	E330238	690 V	100 A	692 A <sup>2</sup> s	3900 A <sup>2</sup> s	200 kA	28 W	3	0.20 kg
DN00UB69V125L	F330239	690 V	125 A	1170 A <sup>2</sup> s	6600 A <sup>2</sup> s	200 kA	33 W	3	0.20 kg
DN00UB69V160L	G330240	690 V	160 A	2680 A <sup>2</sup> s	14000 A <sup>2</sup> s	200 kA	36 W	3	0.20 kg
DN00UB69V200L	H330241	690 V	200 A	4690 A <sup>2</sup> s	24000 A <sup>2</sup> s	200 kA	42 W	3	0.20 kg
DN00UB69V250L	J330242	690 V	250 A	8300 A <sup>2</sup> s	42500 A <sup>2</sup> s	200 kA	50 W	3	0.20 kg
DN00UB69V315L	K330243	690 V	315 A	17520 A <sup>2</sup> s	81000 A <sup>2</sup> s	200 kA	58 W	3	0.20 kg
DN00UB69V350L	L330244	690 V	350 A	25450 A <sup>2</sup> s	118000 A <sup>2</sup> s	200 kA	60 W	3	0.20 kg
DN00UB69V400L	M330245	690 V	400 A	33180 A <sup>2</sup> s	150000 A <sup>2</sup> s	200 kA	70 W	3	0.20 kg

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## PRODUCT RANGE



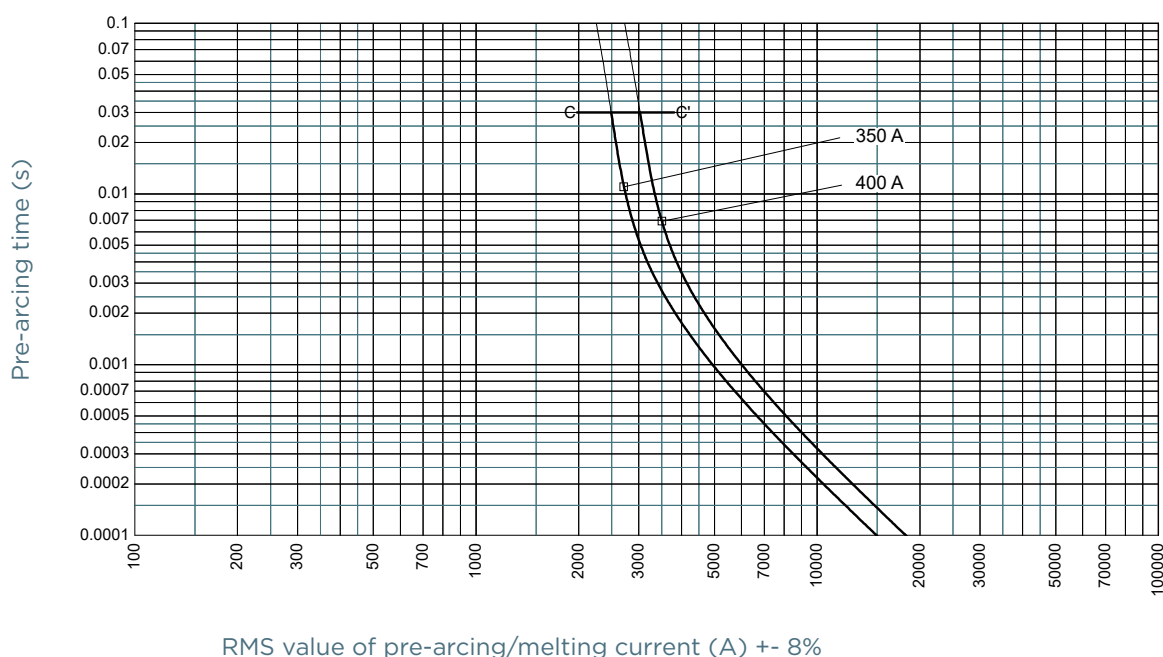
DN00UB69V400D1L

### Size 00 DIN110, vertical body, for monitoring micro-contact

Catalog number	Item number	Rated voltage AC (IEC / UL)	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Rated breaking capacity AC	Power dissipation at $I_n$	Package	Weight
DN00UB69V80D1L	A330257	690 V	80 A	390 A <sup>2</sup> s	2200 A <sup>2</sup> s	200 kA	25 W	3	0.24 kg
DN00UB69V100D1L	B330258	690 V	100 A	692 A <sup>2</sup> s	3900 A <sup>2</sup> s	200 kA	28 W	3	0.24 kg
DN00UB69V125D1L	C330259	690 V	125 A	1170 A <sup>2</sup> s	6600 A <sup>2</sup> s	200 kA	33 W	3	0.24 kg
DN00UB69V160D1L	D330260	690 V	160 A	2680 A <sup>2</sup> s	14000 A <sup>2</sup> s	200 kA	36 W	3	0.24 kg
DN00UB69V200D1L	E330261	690 V	200 A	4690 A <sup>2</sup> s	24000 A <sup>2</sup> s	200 kA	42 W	3	0.24 kg
DN00UB69V250D1L	F330262	690 V	250 A	8300 A <sup>2</sup> s	42500 A <sup>2</sup> s	200 kA	50 W	3	0.24 kg
DN00UB69V315D1L	G330263	690 V	315 A	17520 A <sup>2</sup> s	81000 A <sup>2</sup> s	200 kA	58 W	3	0.24 kg
DN00UB69V350D1L	H330264	690 V	350 A	25450 A <sup>2</sup> s	118000 A <sup>2</sup> s	200 kA	60 W	3	0.24 kg
DN00UB69V400D1L	J330265	690 V	400 A	33180 A <sup>2</sup> s	150000 A <sup>2</sup> s	200 kA	70 W	3	0.24 kg

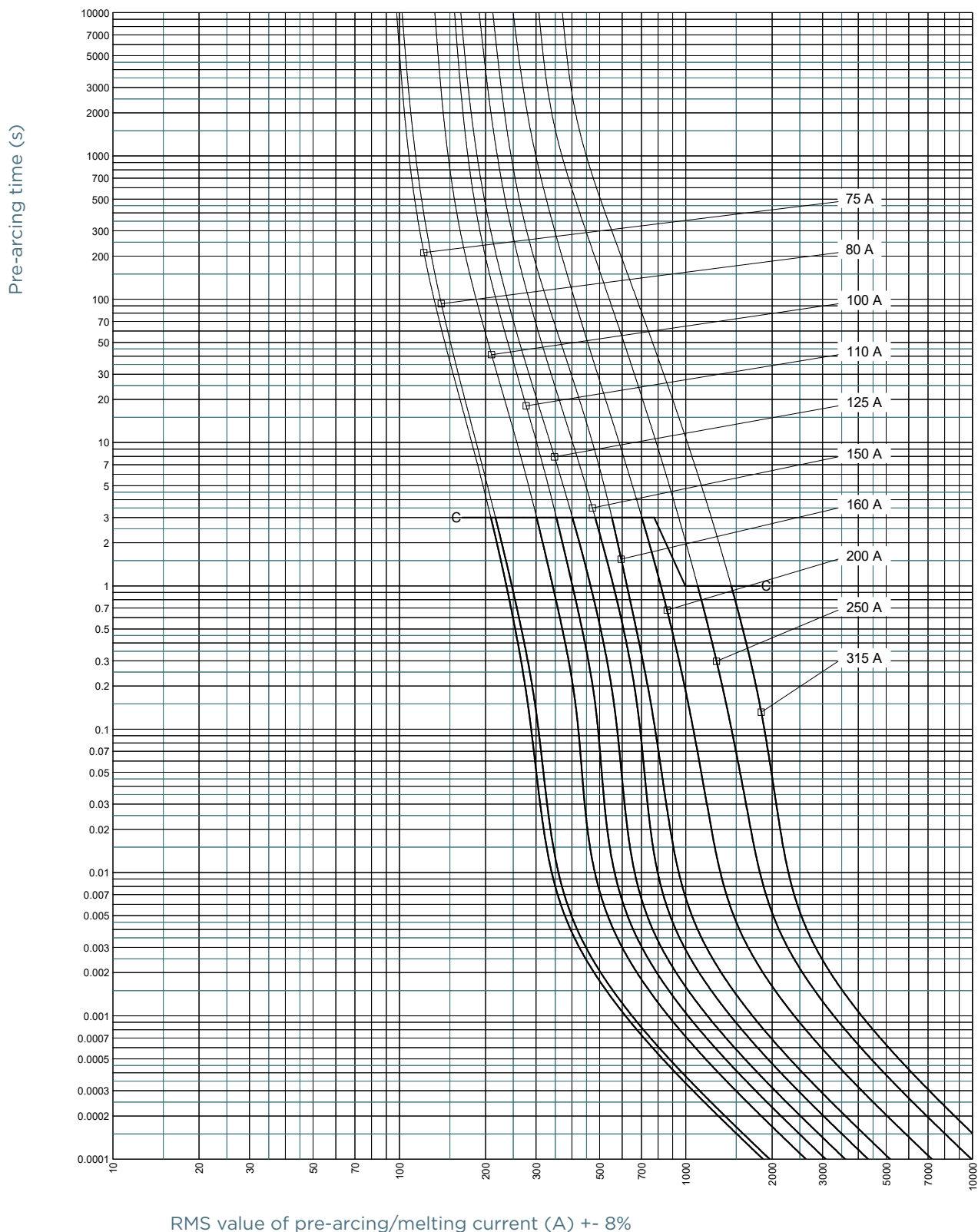
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### Size 000, 500VAC



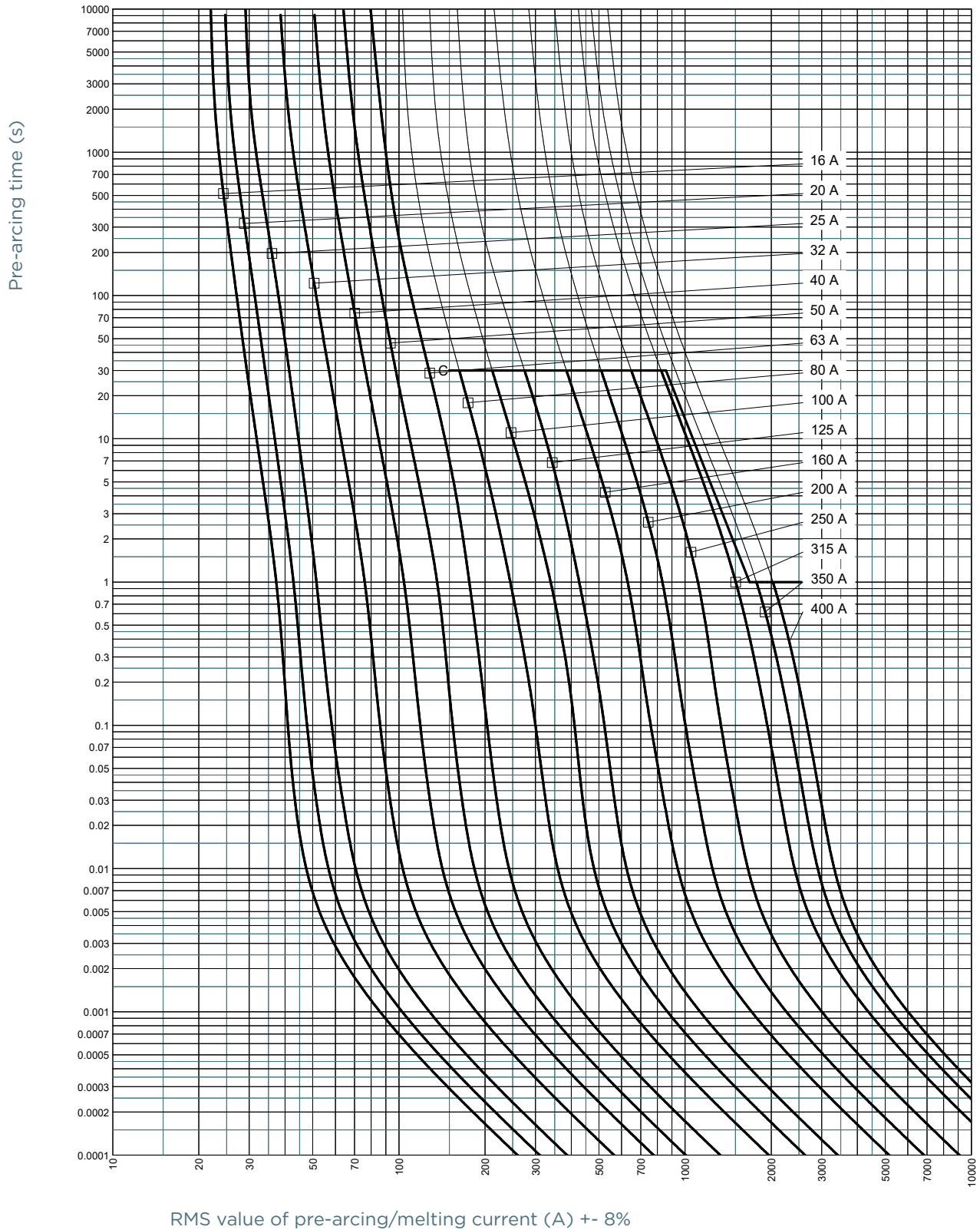
## TIME CURRENT CHARACTERISTIC CURVES

Size 000, 690VAC



## TIME CURRENT CHARACTERISTIC CURVES

Size 00, 690VAC

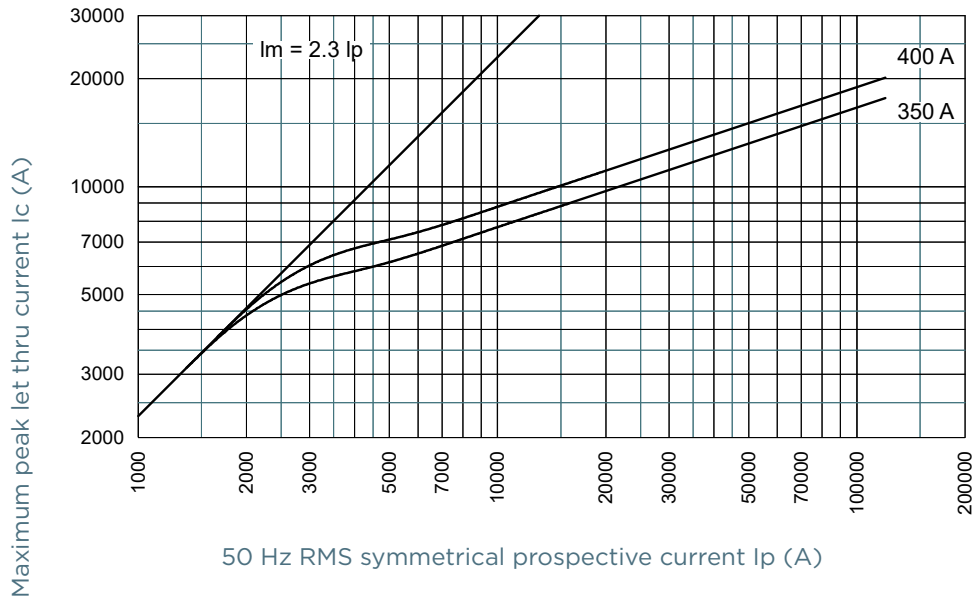


# Protistor® size 000/00 aR

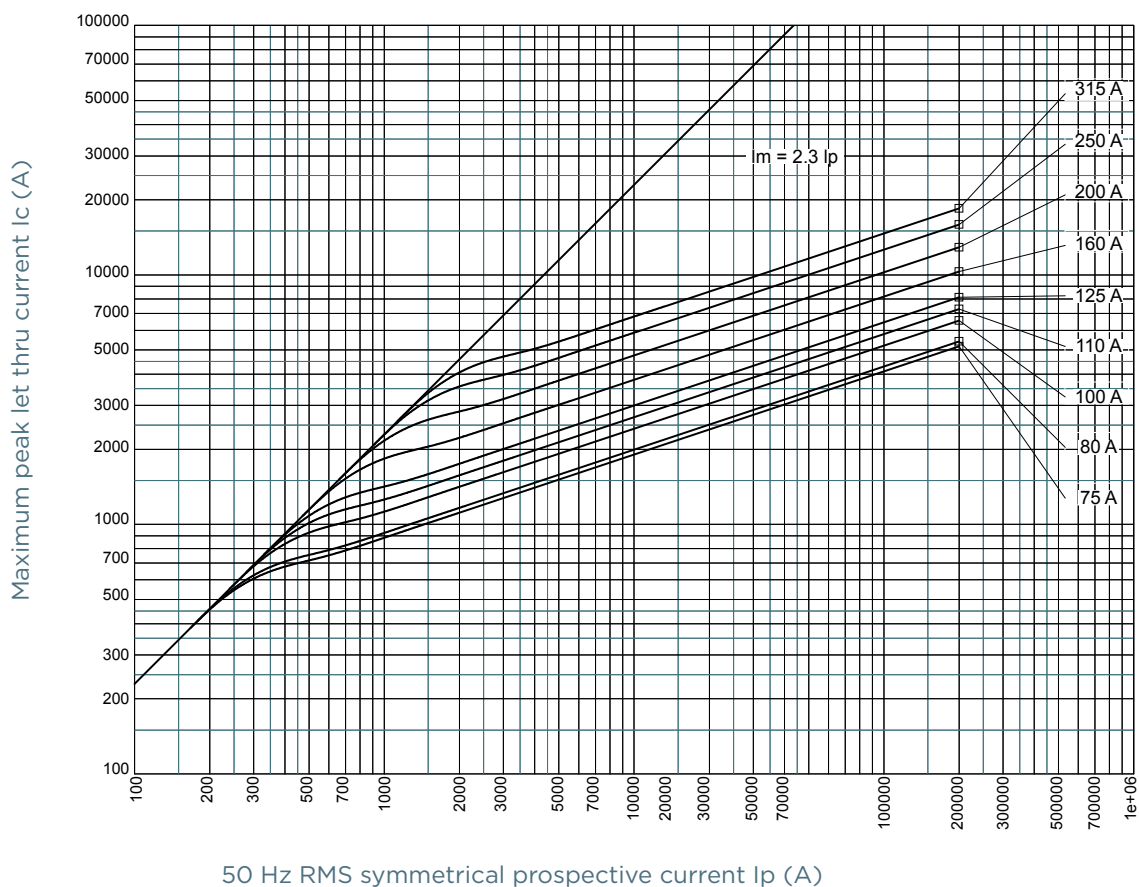
500 to 690VAC (IEC / UL) / 600VDC (UL)

## CUT-OFF CURRENT CHARACTERISTIC

### Size 000, 500VAC



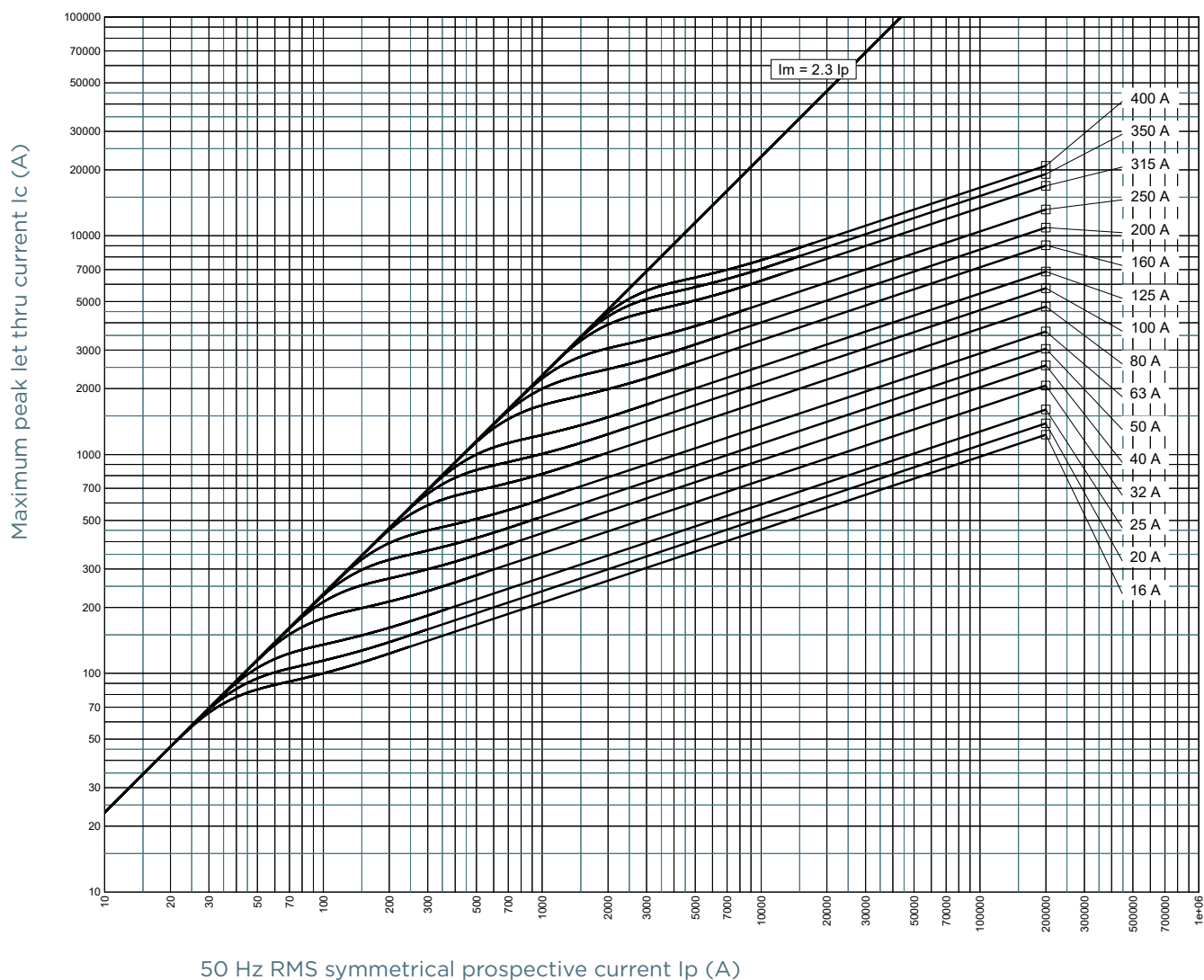
### Size 000, 690VAC





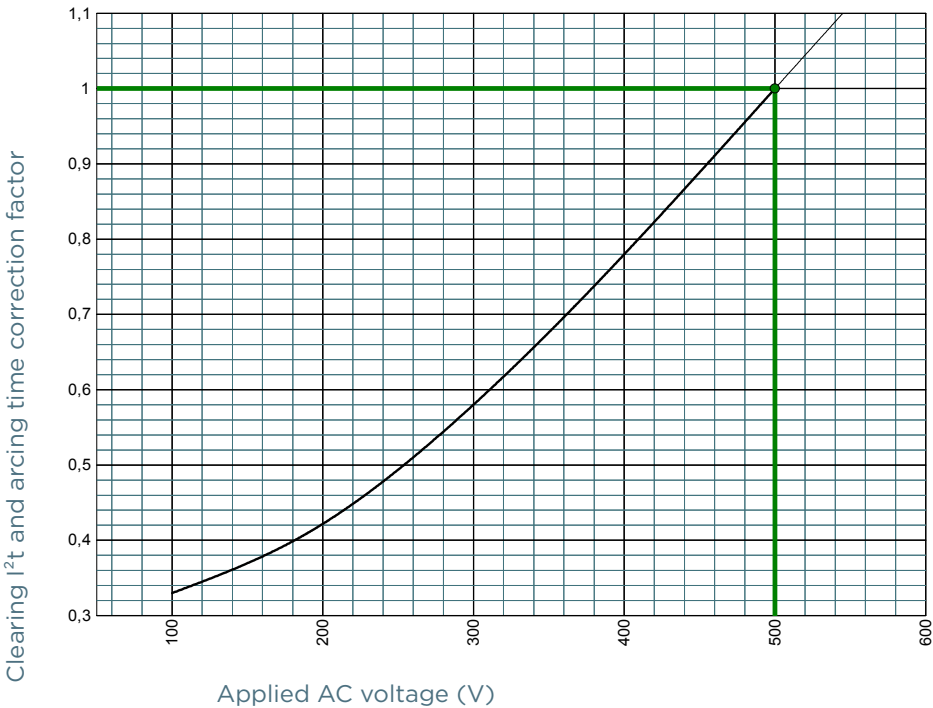
## CUT-OFF CURRENT CHARACTERISTIC

Size 00, 690VAC

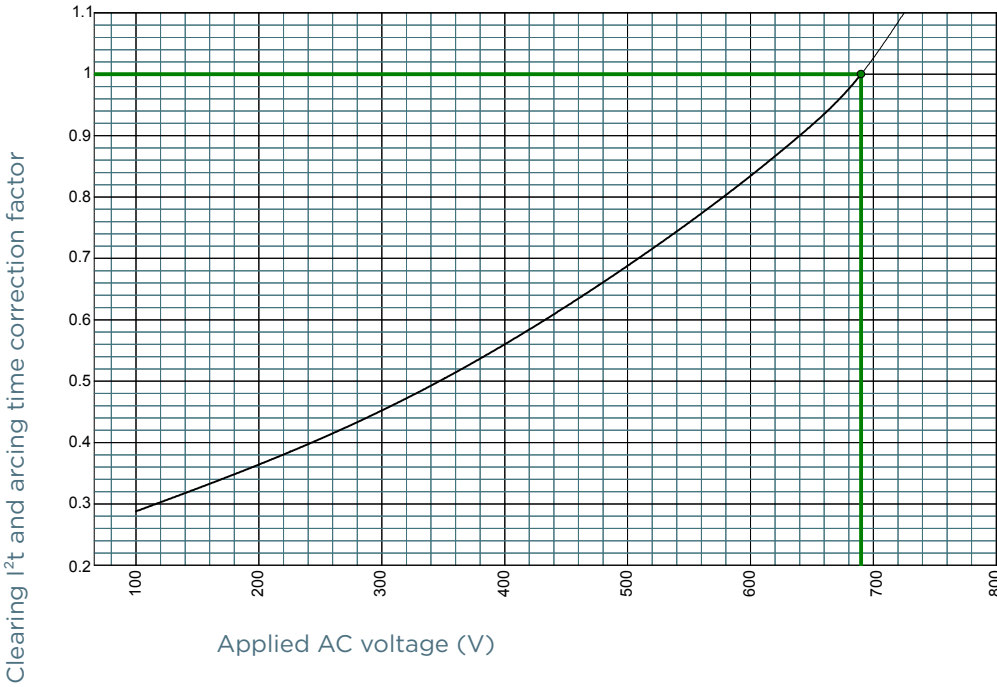


I<sup>2</sup>T MULTIPLIER COEFFICIENT

Size 000, 500VAC

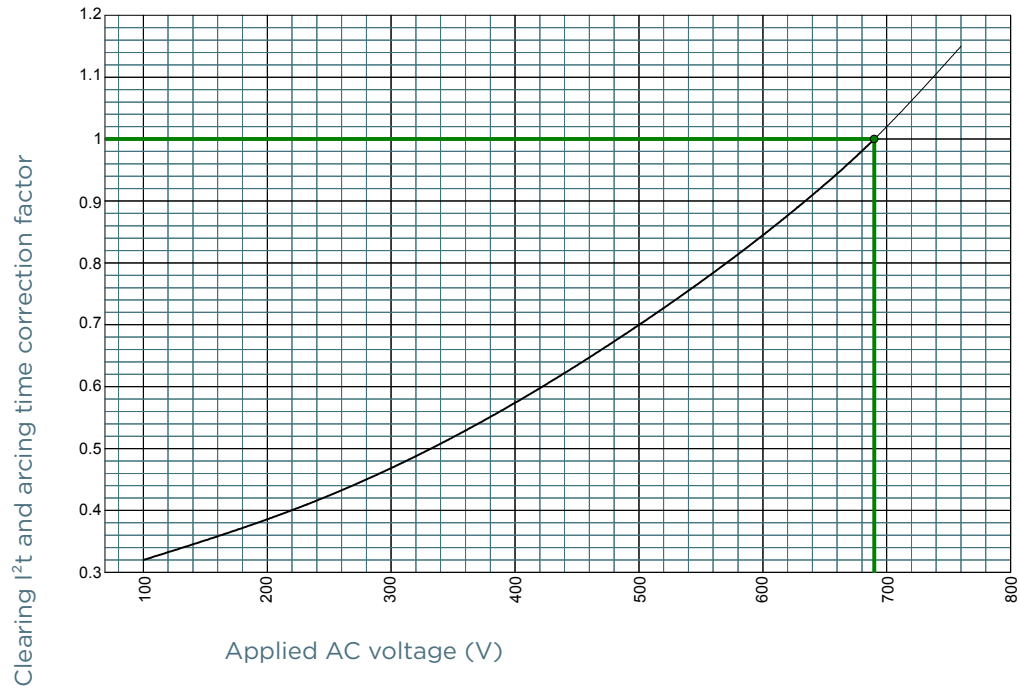


Size 000, 690VAC



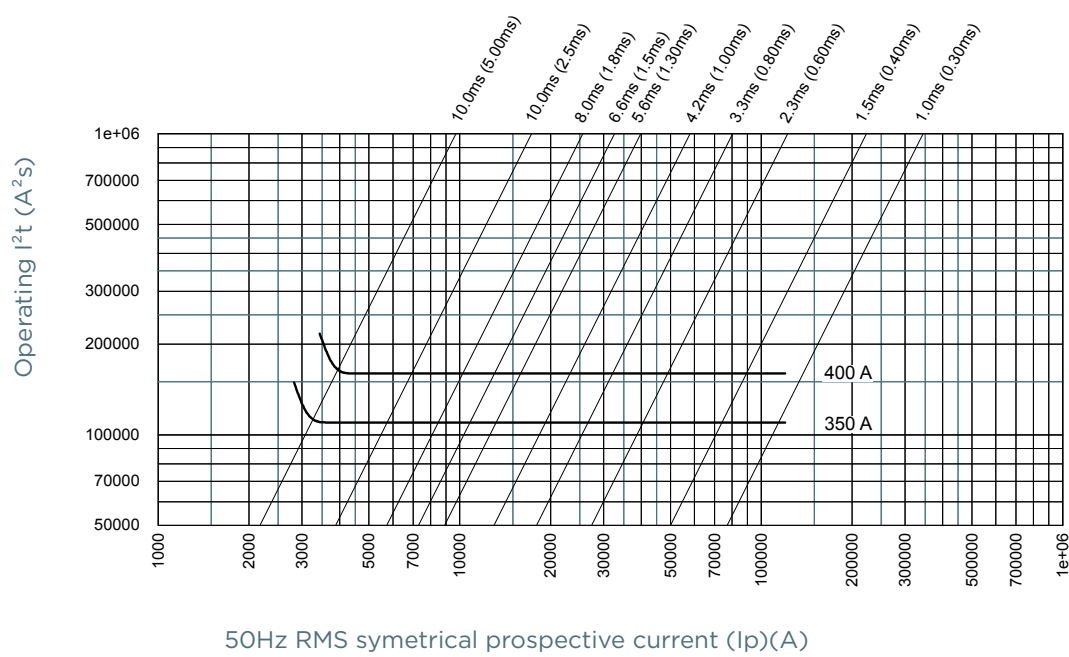
I<sup>2</sup>T MULTIPLIER COEFFICIENT

Size 00, 690VAC



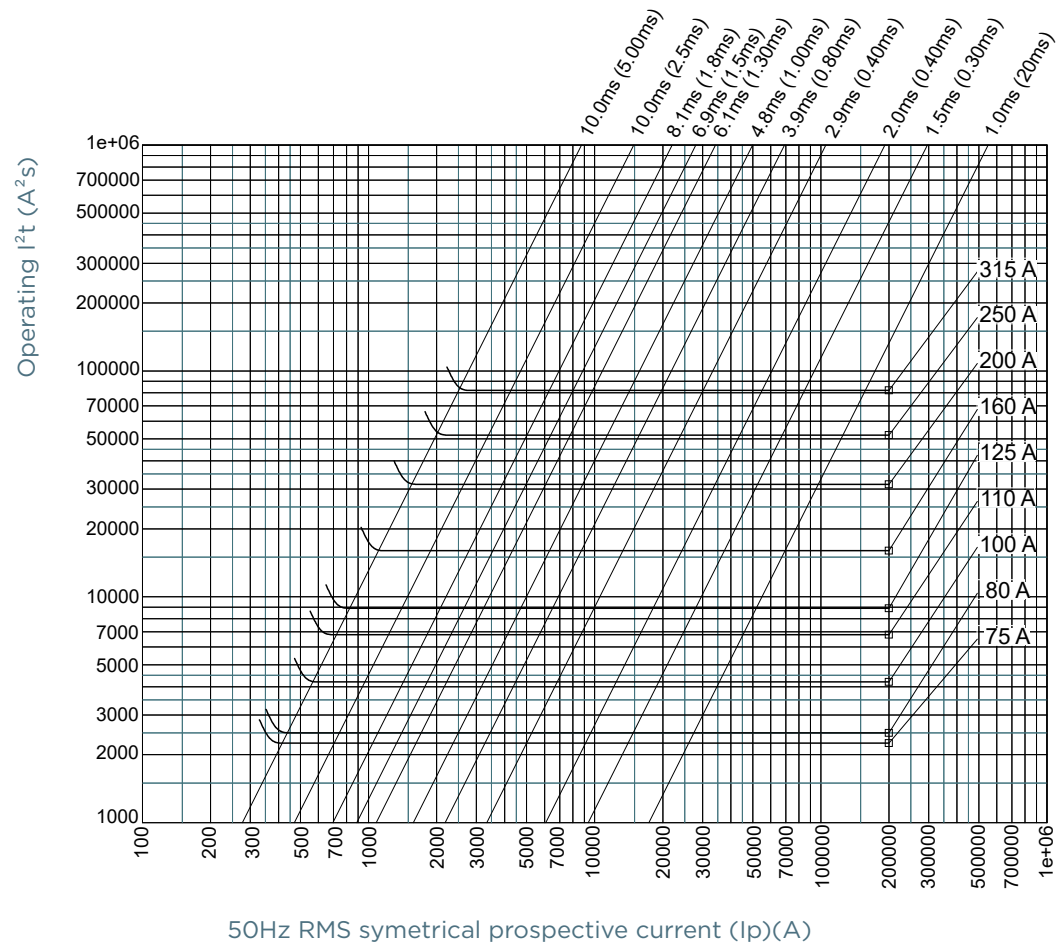
CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

Size 000, 500VAC



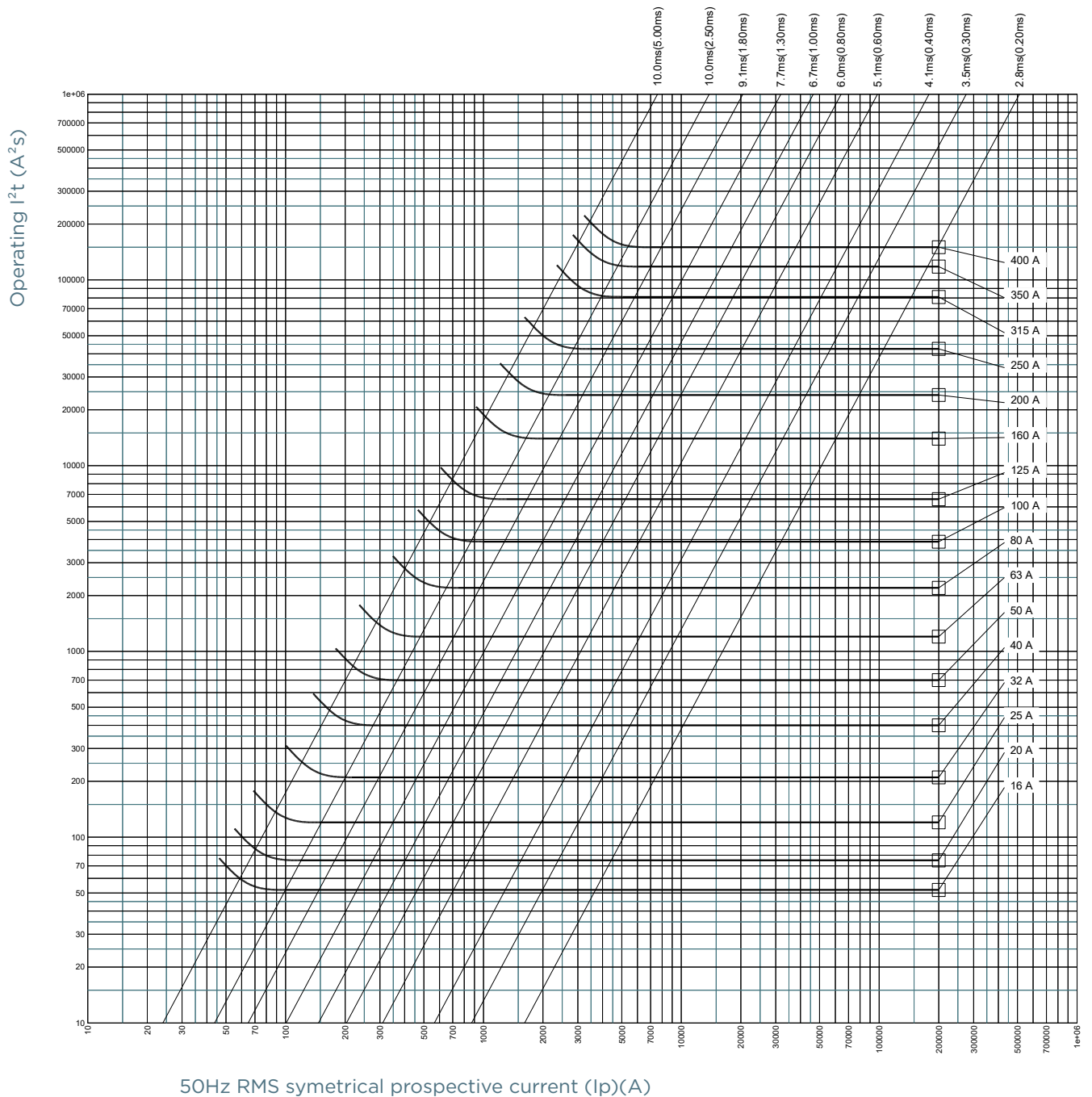
CHARACTERISTICS TOTAL I²T CURVE

Size 000, 690VAC



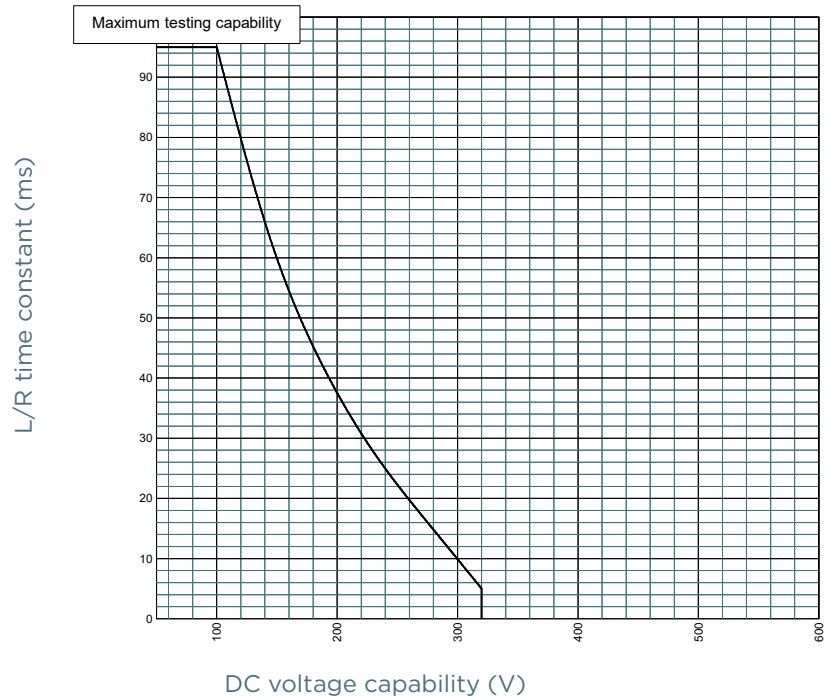
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Size 00, 690VAC

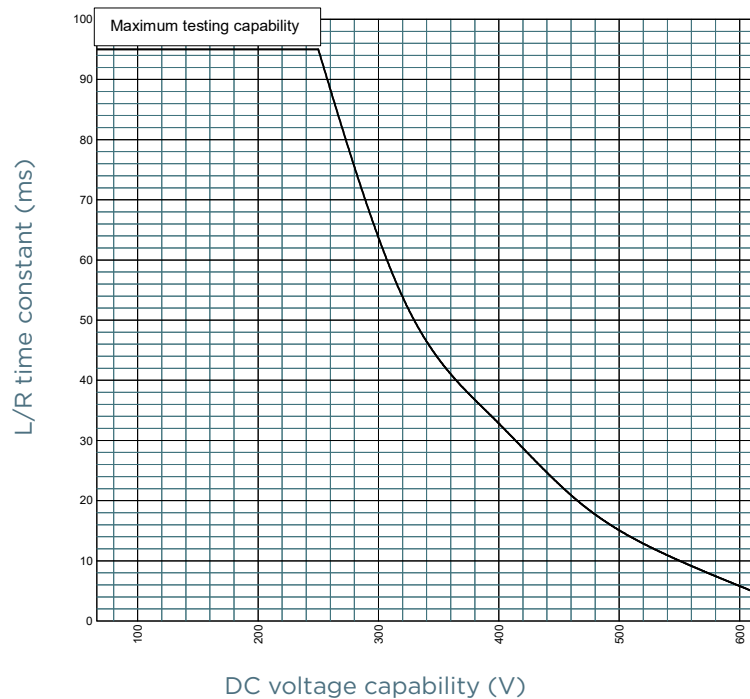


L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

Size 000, 500VAC

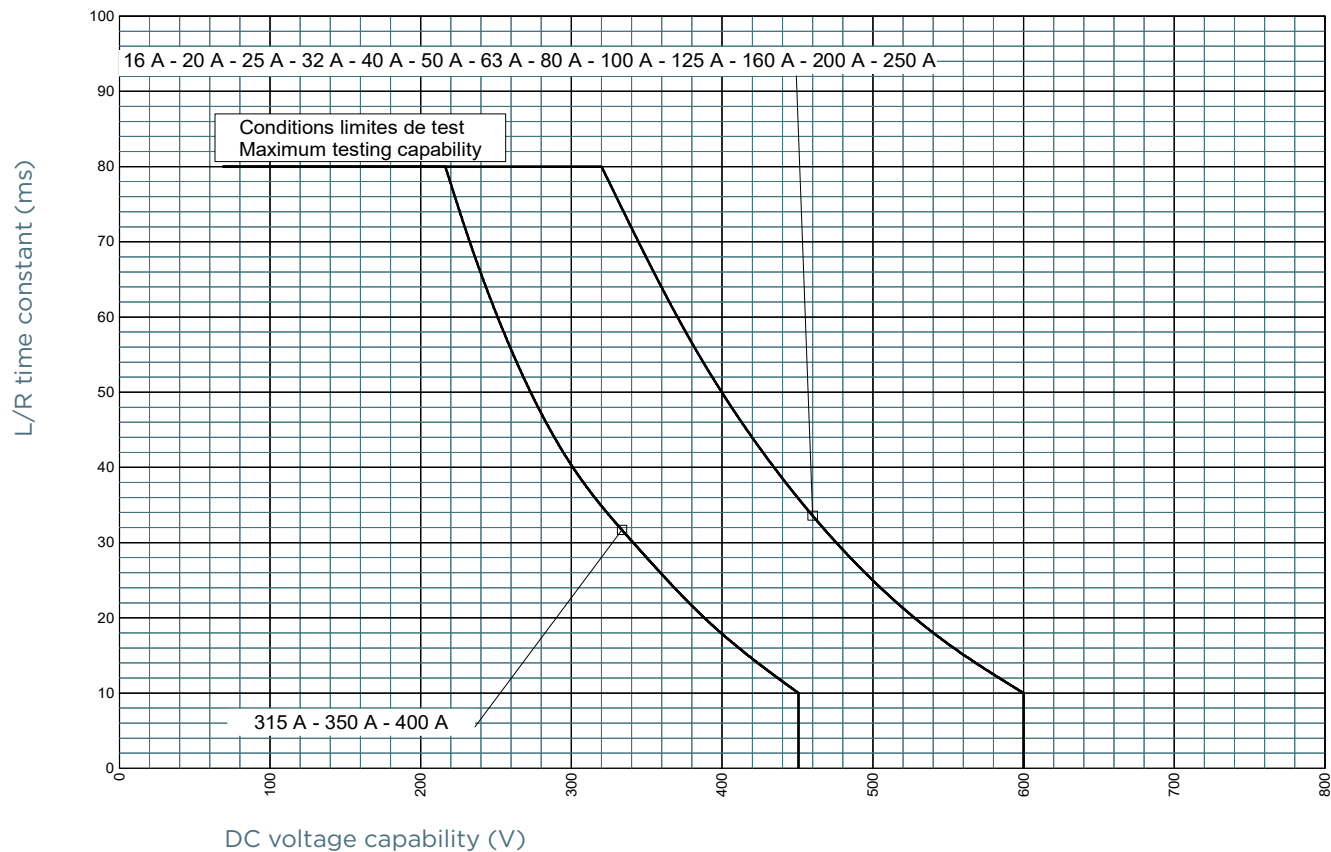


Size 000, 690VAC



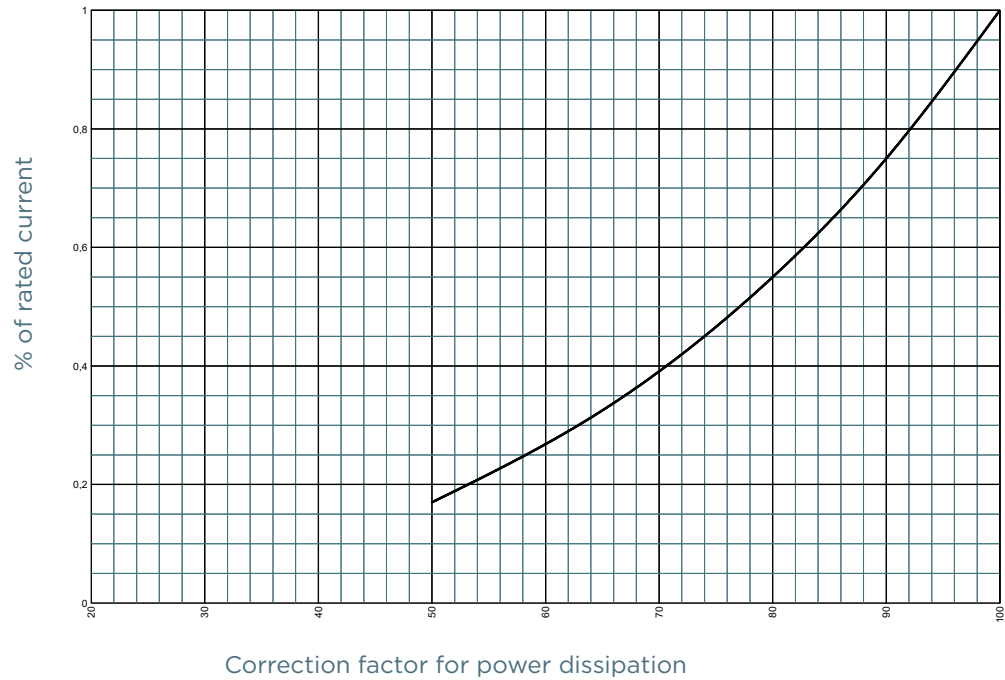
L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

Size 00, 690VAC

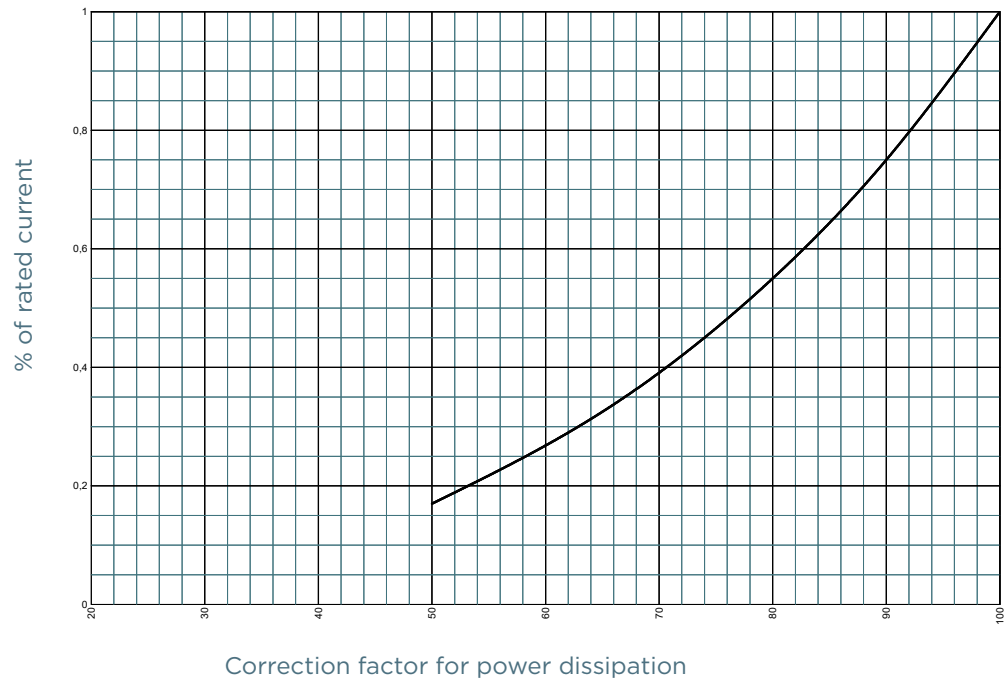


POWER DISSIPATION

Size 000, 500VAC



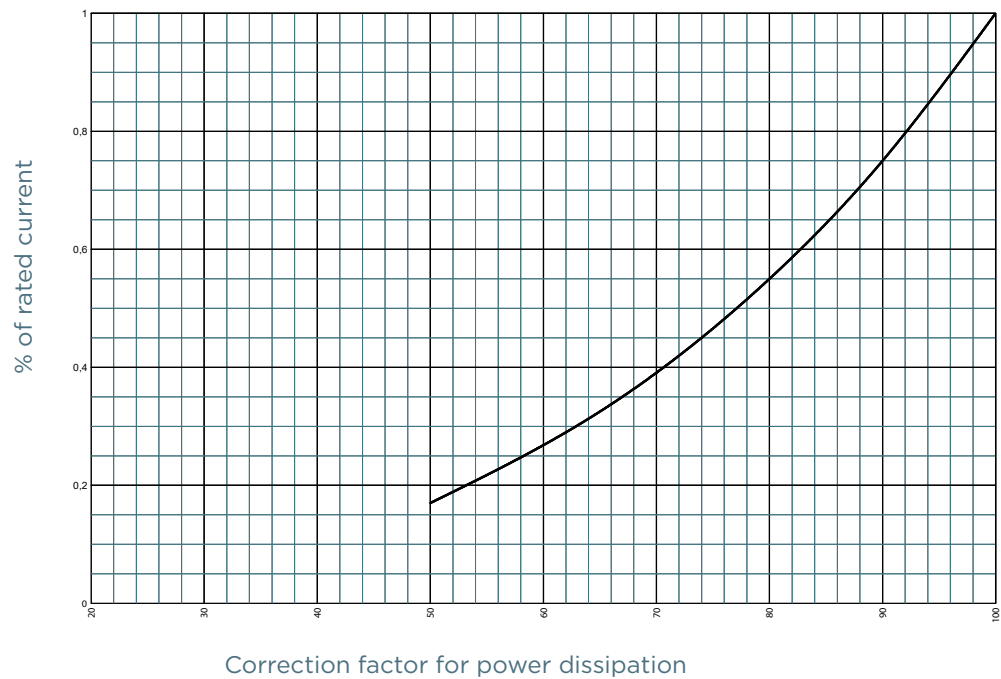
Size 000, 690VAC





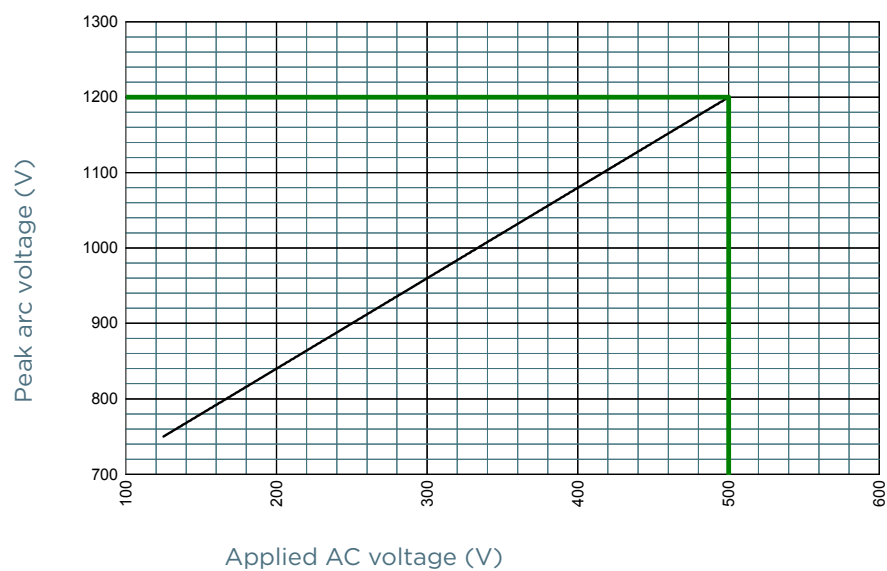
POWER DISSIPATION

Size 00, 690VAC



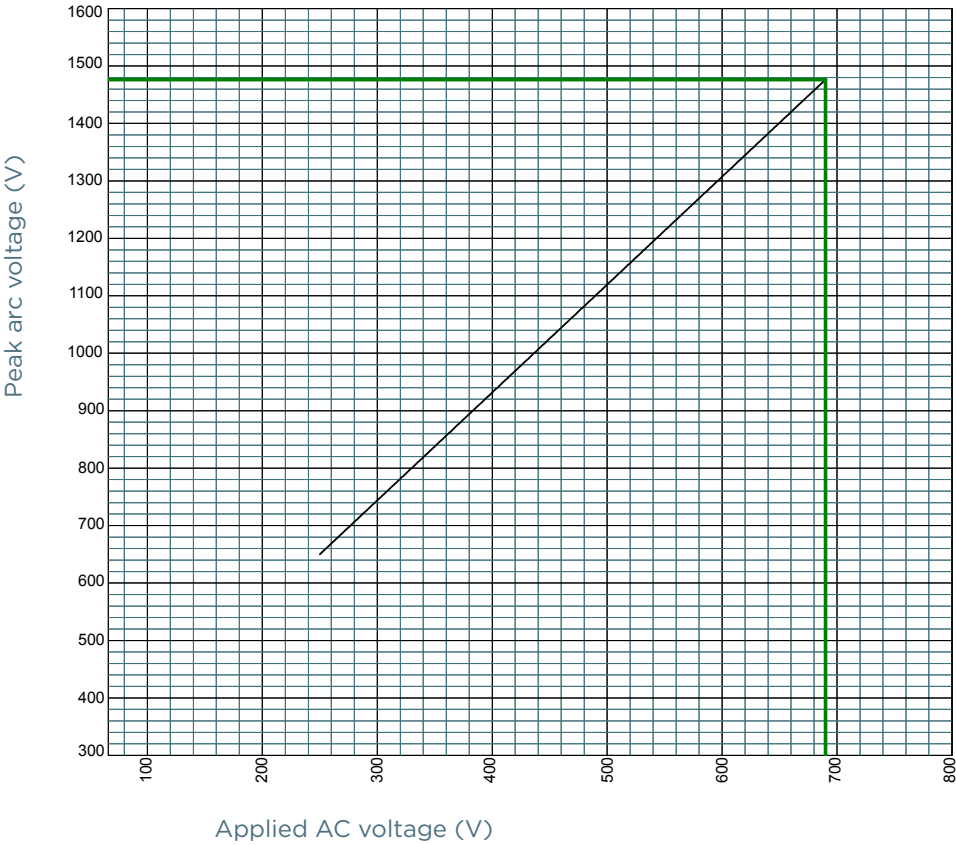
PEAK ARC VOLTAGE

Size 000, 500VAC



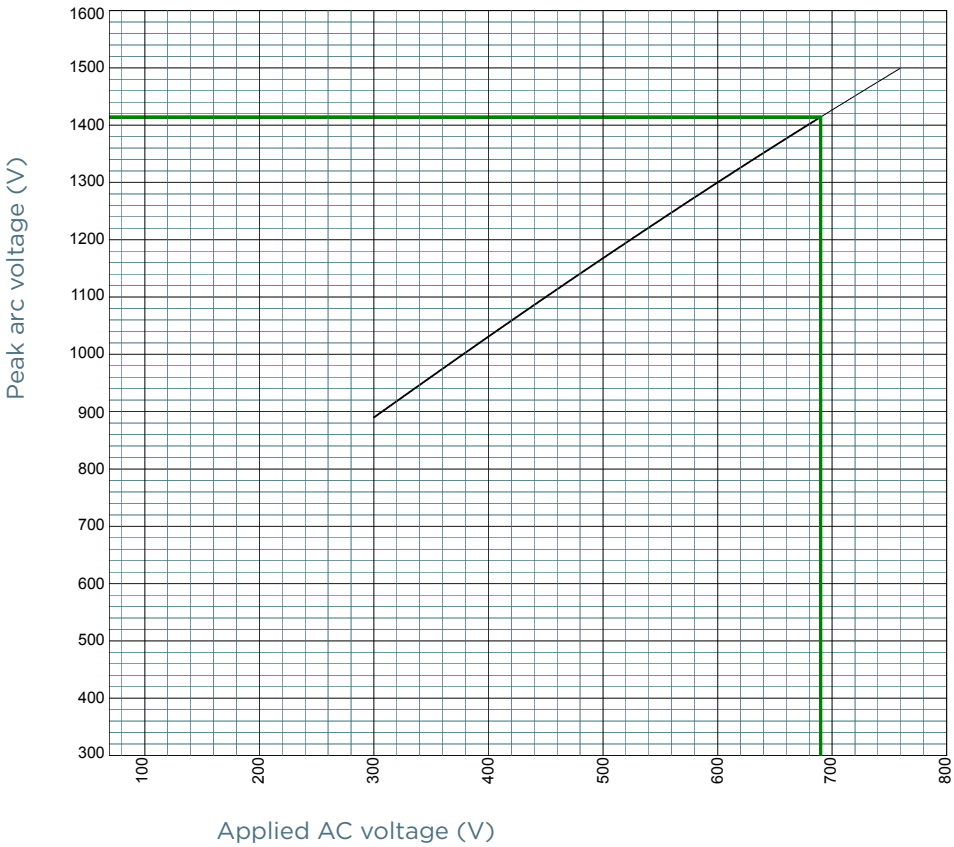
PEAK ARC VOLTAGE

Size 000, 690VAC



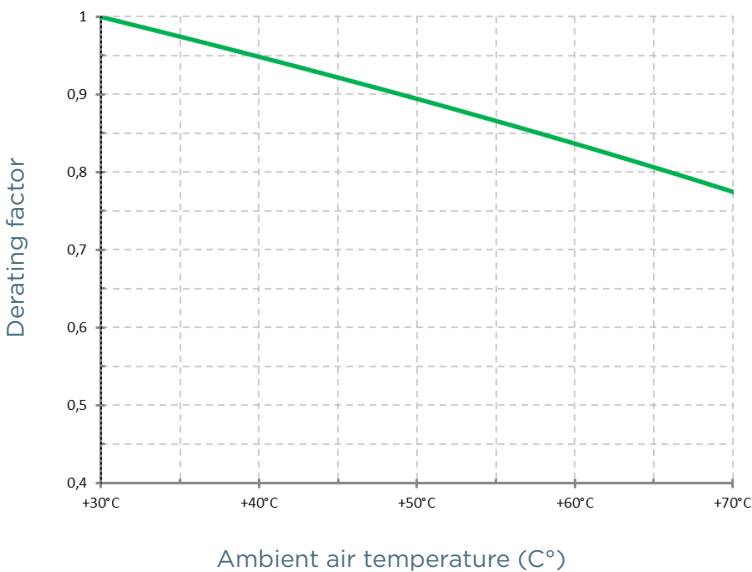
PEAK ARC VOLTAGE

Size 00, 690VAC



TEMPERATURE DERATING

Derating factor of rated current according to ambient air temperature (C°)

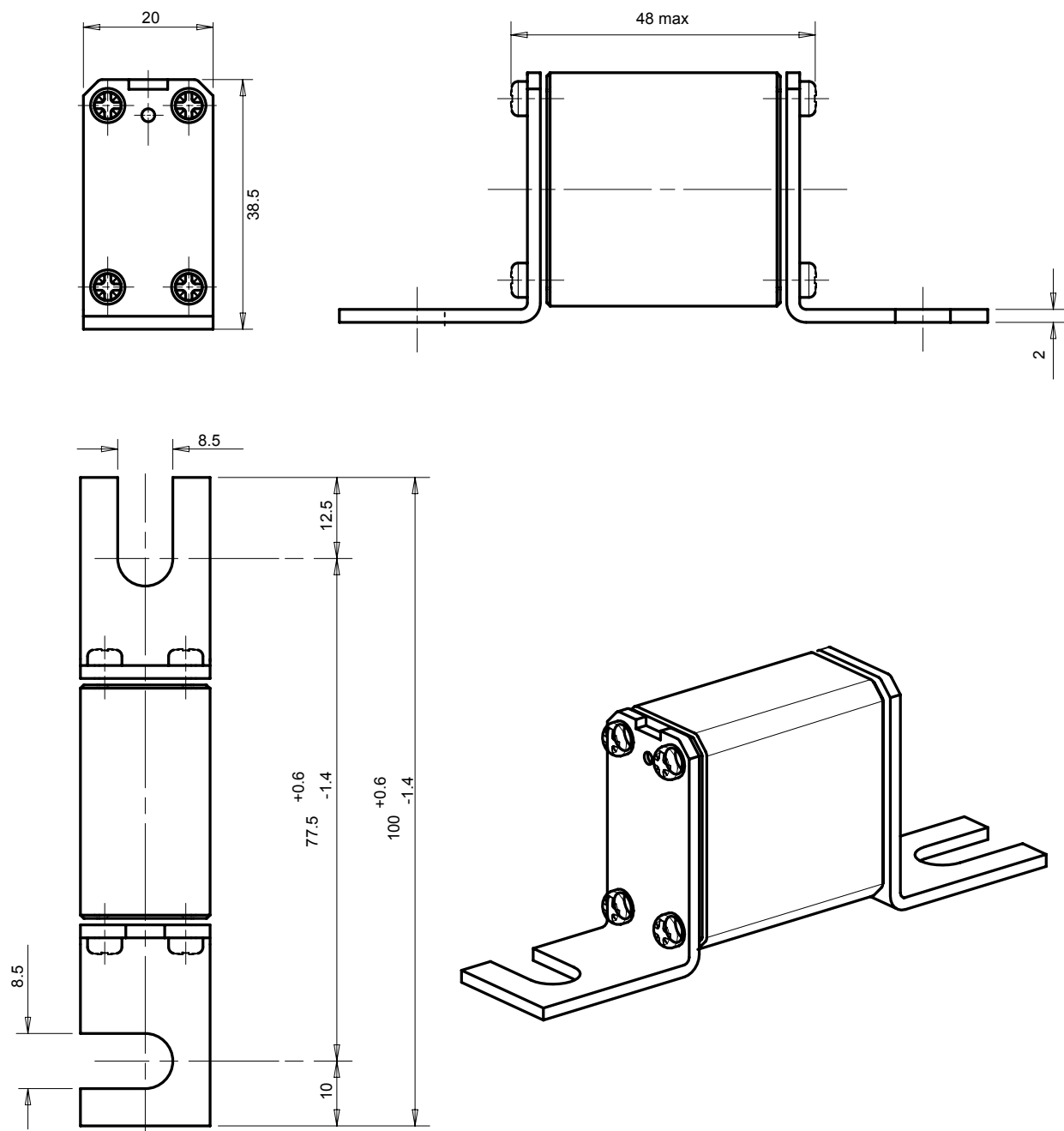


# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## DIMENSIONS

### Size 000 without indicator



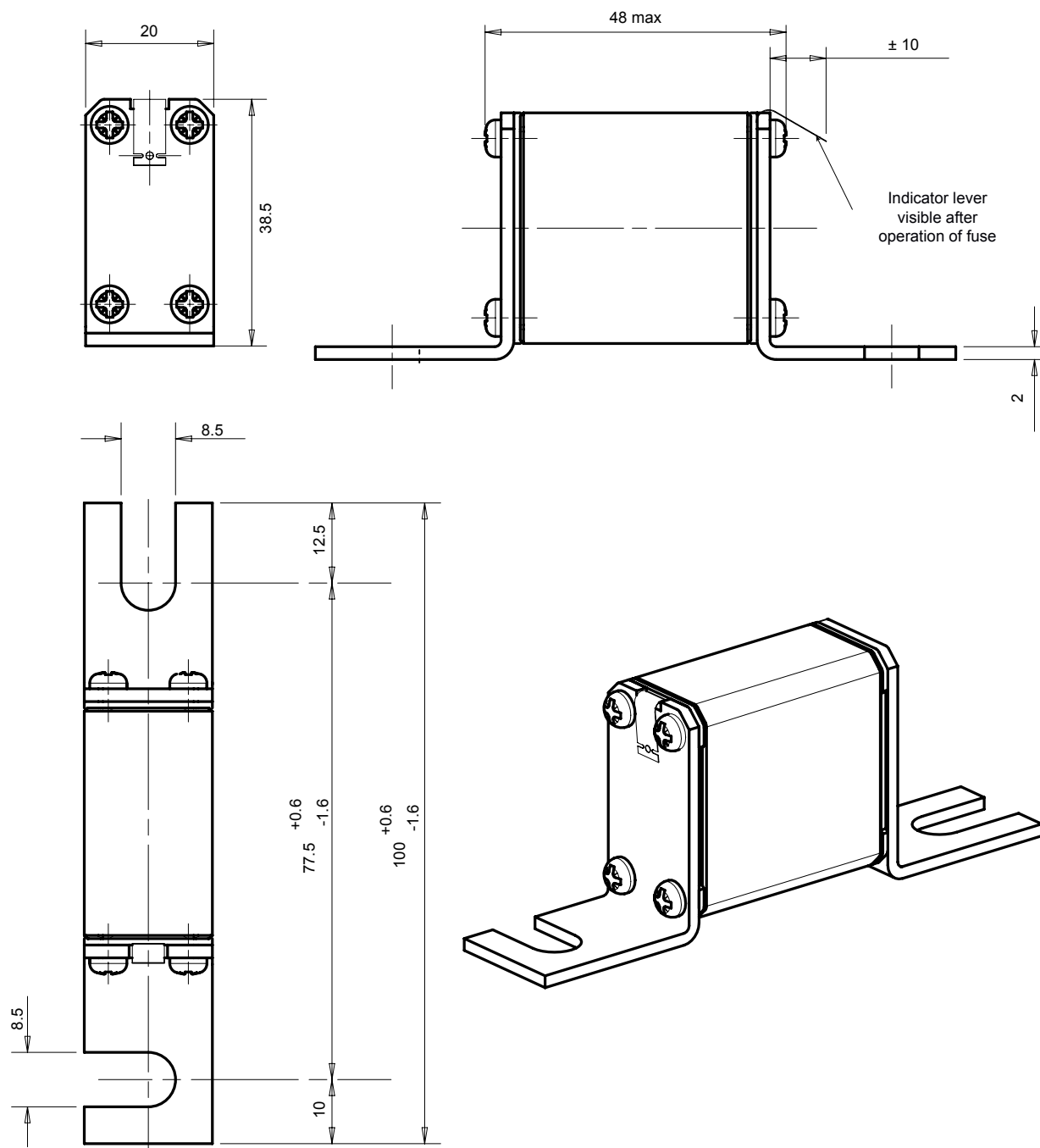
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## DIMENSIONS

### Size 000 with indicator



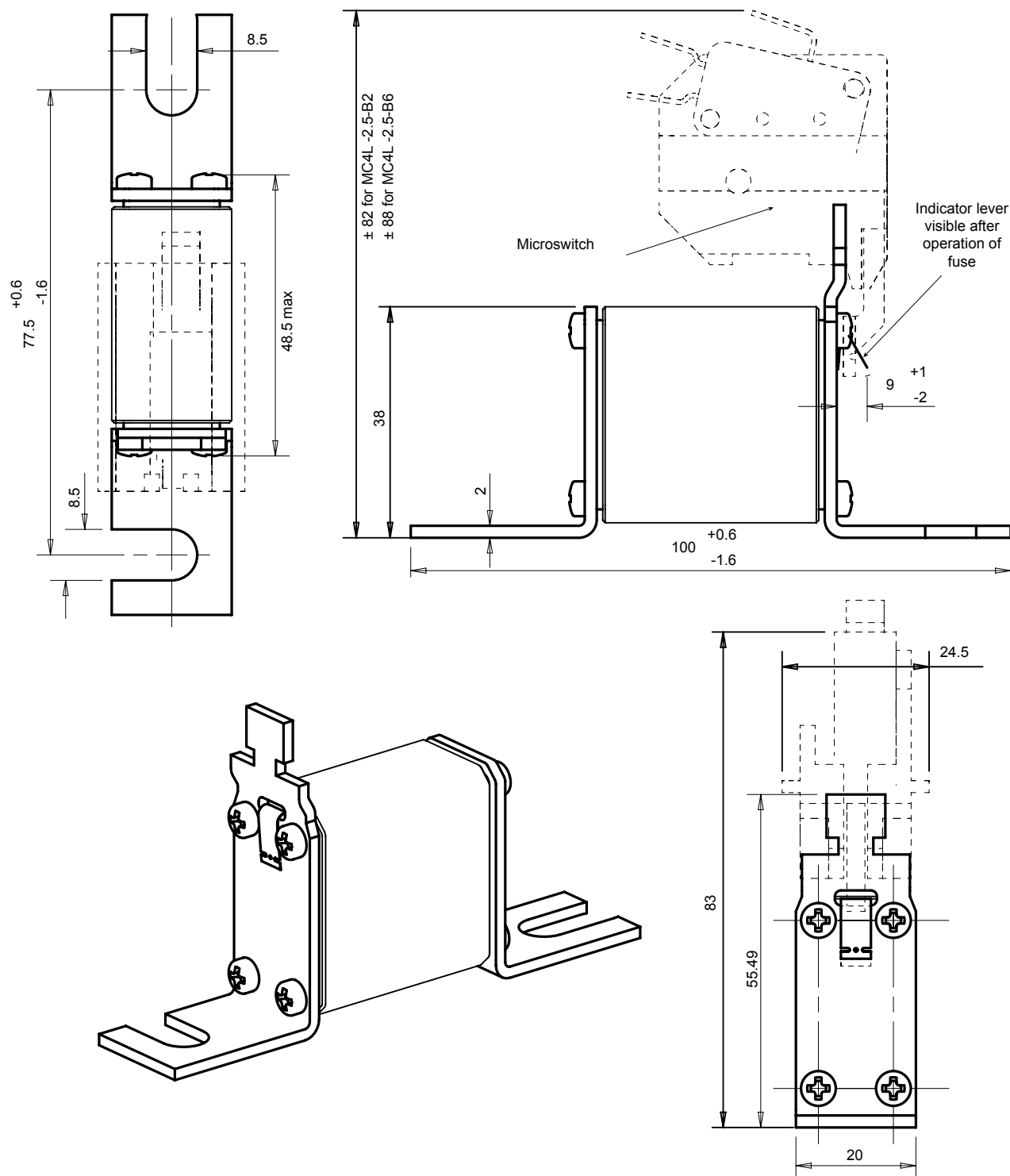
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## DIMENSIONS

### Size 000 for monitoring micro-contact



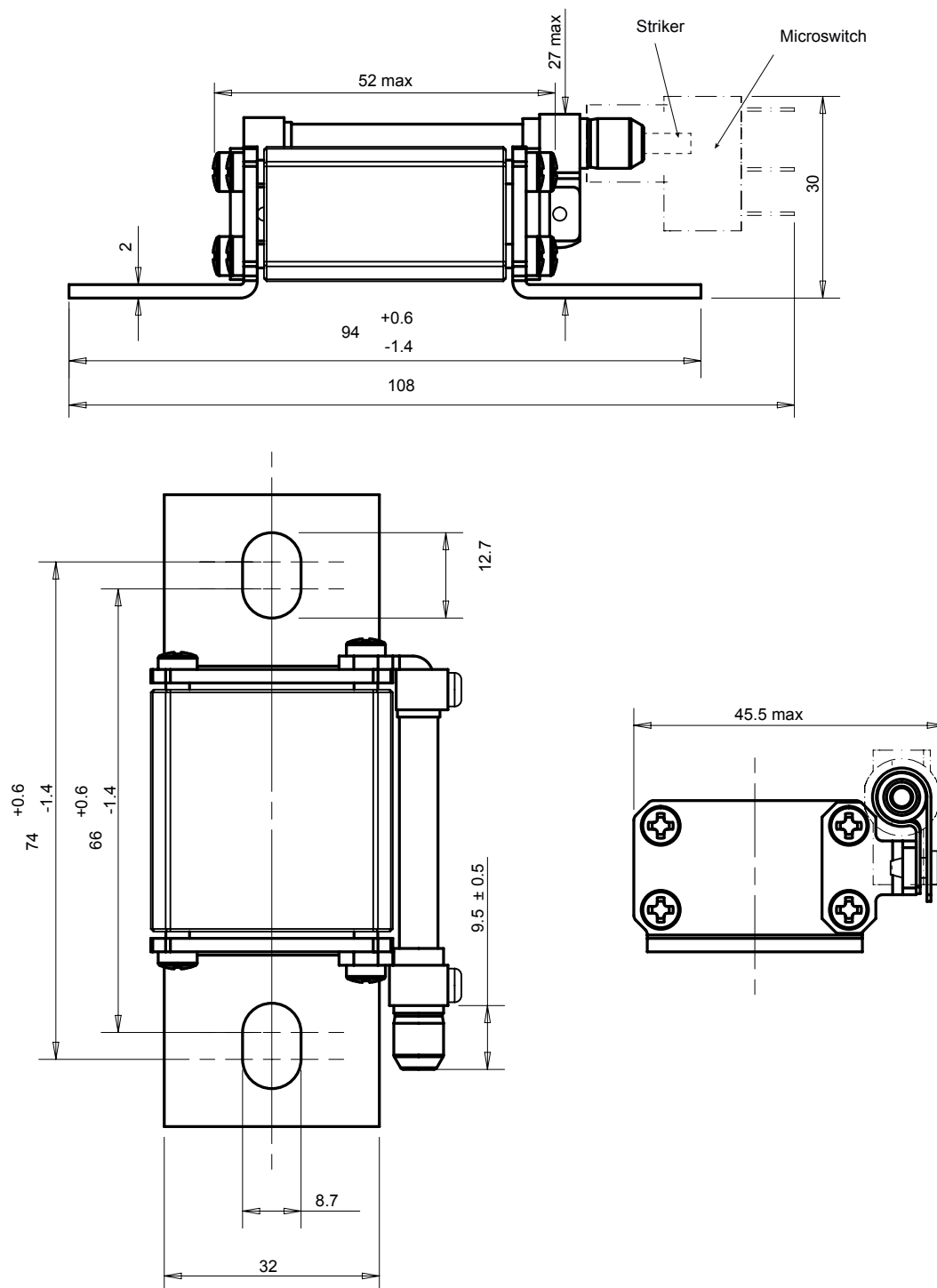
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## DIMENSIONS

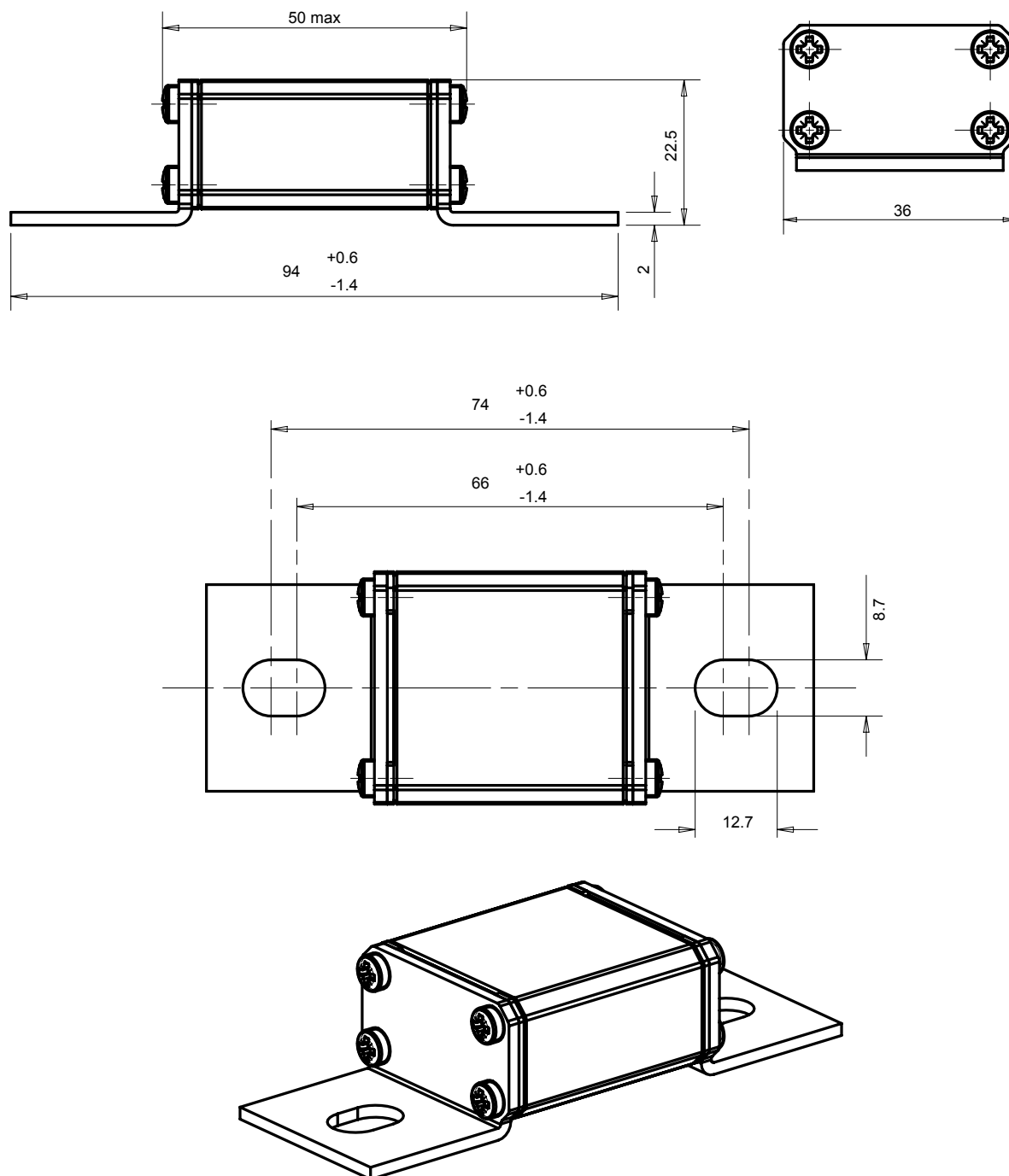
### Size 000 BS88 with indicator



Dimensions in mm

## DIMENSIONS

### Size 000 BS88 without indicator

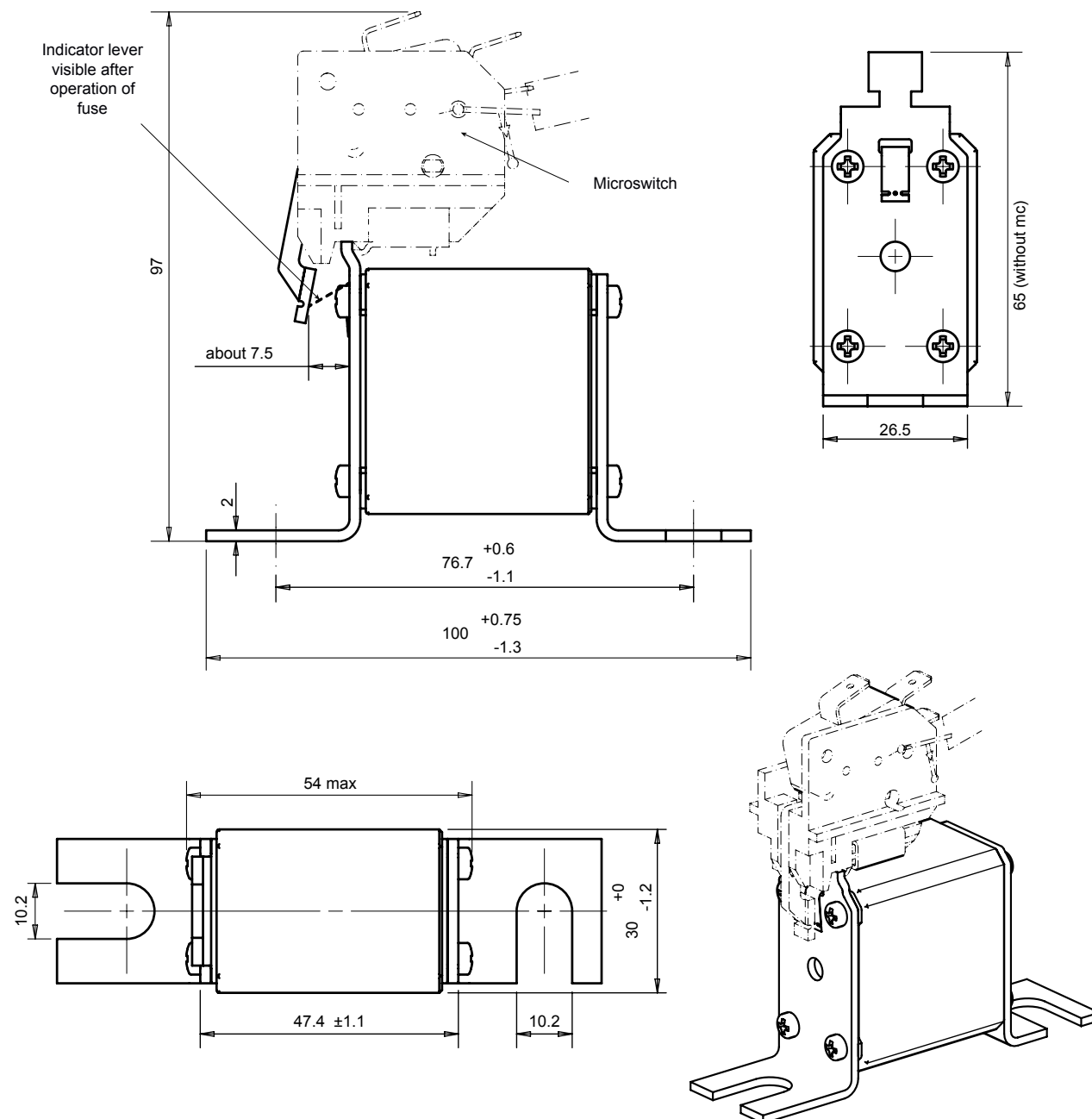


Dimensions in mm



## DIMENSIONS

### Size 00 DIN80 for monitoring micro-contact



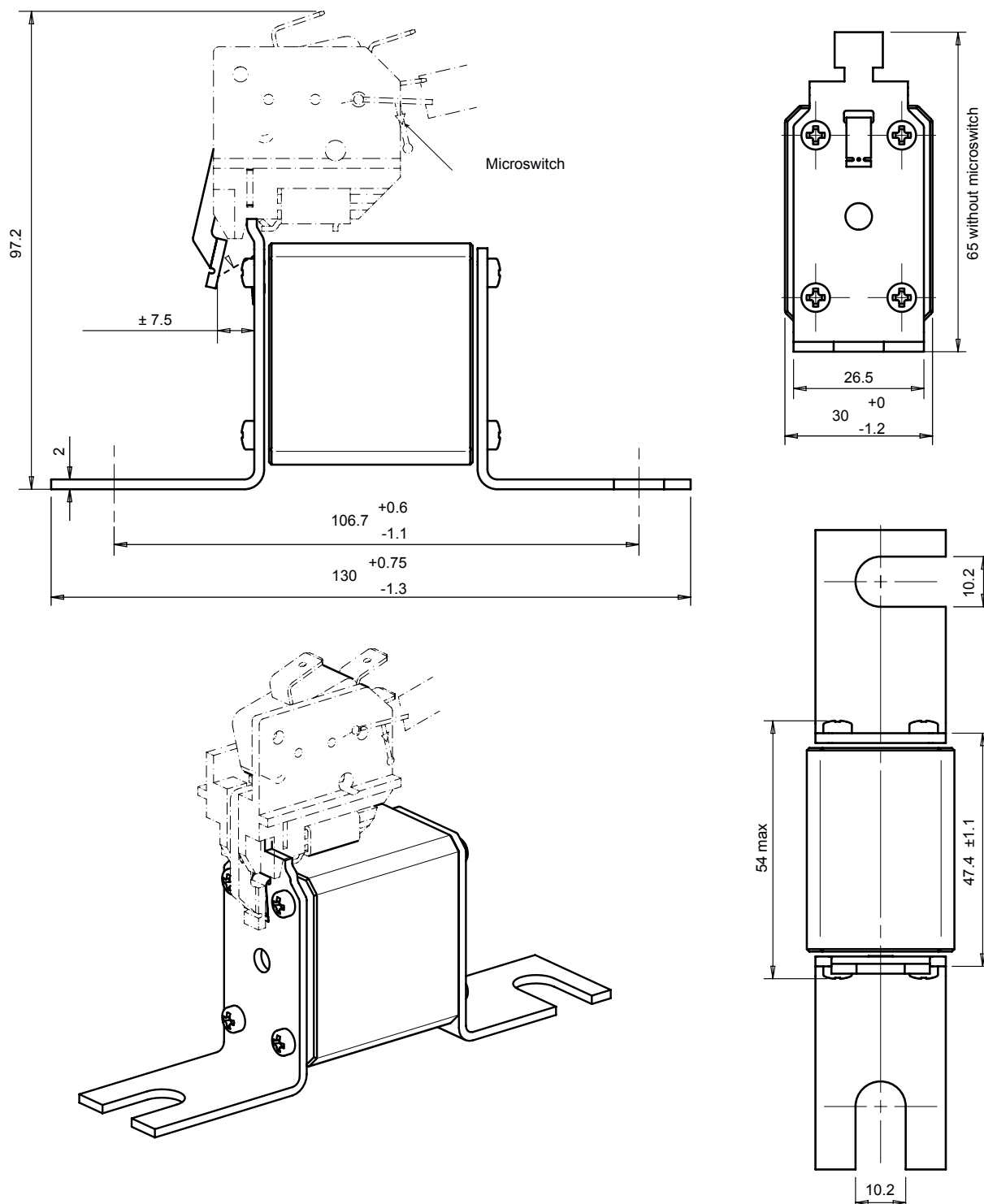
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC / UL) / 600VDC (UL)

## DIMENSIONS

### Size 00 DIN110 for monitoring micro-contact



Dimensions in mm