

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## SEMICONDUCTOR PROTECTION FUSES

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



The 690/700V 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

Voltage Range AC	500 ... 690 VAC
Ampere Range (A)	16 ... 400 A
Size per Standard	000, 00
Speed/Characteristic	aR
I.R. AC (IEC)	120 kA 200 kA

## 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
- UL/CSA Recognized Component
- AC: UL Guide No. E76491



## PRODUCT RANGE



DN000UB69V315

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
DN000UB69V80	K330036	690 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	0.132 kg	6
DN000UB69V100	L330037	690 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	0.132 kg	6
DN000UB69V125	M330038	690 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	0.132 kg	6
DN000UB69V160	N330039	690 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	0.132 kg	6
DN000UB69V200	P330040	690 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	44 g	6
DN000UB69V250	Q330041	690 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	0.132 kg	6
DN000UB69V315	R330042	690 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	0.132 kg	6
DN000UB50V350	V330114	500 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	0.132 kg	6
DN000UB50V400	D330191	500 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	0.132 kg	6

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
DN000UB69V80V	W330023	690 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	0.1253 kg	6
DN000UB69V100V	X330024	690 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	0.1253 kg	6
DN000UB69V125V	Y330025	690 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	0.1253 kg	6
DN000UB69V160V	Z330026	690 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	0.1253 kg	6
DN000UB69V200V	A330027	690 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	0.1253 kg	6
DN000UB69V250V	B330028	690 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	0.1253 kg	6
DN000UB69V315V	C330029	690 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	0.1253 kg	6
DN000UB50V350V	W330115	500 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	0.1253 kg	6
DN000UB50V400V	E330192	500 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	0.13 kg	6



DN000UB69V400L

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
DN000UB69V80L	T330182	690 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	0.1283 kg	6
DN000UB69V100L	V330183	690 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	0.1283 kg	6
DN000UB69V125L	W330184	690 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	0.1283 kg	6
DN000UB69V160L	X330185	690 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	0.1283 kg	6
DN000UB69V200L	Y330186	690 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	0.1283 kg	6
DN000UB69V250L	Z330187	690 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	0.1283 kg	6
DN000UB69V315L	A330188	690 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	0.1283 kg	6
DN000UB50V350L	B330189	500 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	0.1283 kg	6
DN000UB69V400L	F330193	500 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	0.1283 kg	6

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## PRODUCT RANGE

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
BS000UB69V75	B330051	690 V	75 A	340 A <sup>2</sup> s	2250 A <sup>2</sup> s	200 kA	20.5 W	0.141 kg	3
BS000UB69V80	C330052	690 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	0.14 kg	3
BS000UB69V100	D330053	690 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	0.141 kg	3
BS000UB69V110	E330100	690 V	110 A	950 A <sup>2</sup> s	6800 A <sup>2</sup> s	200 kA	24.5 W	0.141 kg	3
BS000UB69V125	E330054	690 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	0.141 kg	3
BS000UB69V160	F330055	690 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	0.141 kg	3
BS000UB69V200	G330056	690 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	0.141 kg	3
BS000UB69V250	H330057	690 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	0.141 kg	3
BS000UB69V315	J330058	690 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	0.141 kg	3
BS000UB50V350	X330116	500 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	0.141 kg	3
BS000UB50V400	G330194	500 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	0.141 kg	3

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
BS000UB69V75P	H330126	690 V	75 A	340 A <sup>2</sup> s	2250 A <sup>2</sup> s	200 kA	20.5 W	0.155 kg	3
BS000UB69V80P	J330127	690 V	80 A	390 A <sup>2</sup> s	2500 A <sup>2</sup> s	200 kA	21 W	0.155 kg	3
BS000UB69V100P	K330128	690 V	100 A	690 A <sup>2</sup> s	4200 A <sup>2</sup> s	200 kA	23 W	0.1556 kg	3
BS000UB69V110P	L330129	690 V	110 A	950 A <sup>2</sup> s	6800 A <sup>2</sup> s	200 kA	24.5 W	0.155 kg	3
BS000UB69V125P	M330130	690 V	125 A	1310 A <sup>2</sup> s	8900 A <sup>2</sup> s	200 kA	26 W	0.1556 kg	3
BS000UB69V160P	P330132	690 V	160 A	2680 A <sup>2</sup> s	16000 A <sup>2</sup> s	200 kA	31 W	0.1556 kg	3
BS000UB69V200P	Q330133	690 V	200 A	5250 A <sup>2</sup> s	31500 A <sup>2</sup> s	200 kA	36 W	0.1556 kg	3
BS000UB69V250P	R330134	690 V	250 A	9860 A <sup>2</sup> s	52000 A <sup>2</sup> s	200 kA	45 W	0.155 kg	3
BS000UB50V315P	S330135	500 V	315 A	15420 A <sup>2</sup> s	82000 A <sup>2</sup> s	200 kA	58 W	0.1556 kg	3
BS000UB50V350P	T330136	500 V	350 A	22400 A <sup>2</sup> s	110000 A <sup>2</sup> s	120 kA	58 W	0.155 kg	3
BS000UB50V400P	H330195	500 V	400 A	33180 A <sup>2</sup> s	160000 A <sup>2</sup> s	120 kA	66 W	0.1556 kg	3

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# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## PRODUCT RANGE



DN00UB69V400L

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

Catalog number	Item number	Rated voltage AC (IEC)	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>	Weight	Package
DN00UB69V16L	V330275	690 V	16 A	7 A <sup>2</sup> s	52 A <sup>2</sup> s	200 kA	7 W	200 g	3
DN00UB69V20L	T330274	690 V	20 A	10 A <sup>2</sup> s	75 A <sup>2</sup> s	200 kA	9 W	200 g	3
DN00UB69V25L	M330268	690 V	25 A	15 A <sup>2</sup> s	120 A <sup>2</sup> s	200 kA	11 W	200 g	3
DN00UB69V32L	N330269	690 V	32 A	32 A <sup>2</sup> s	210 A <sup>2</sup> s	200 kA	15 W	200 g	3
DN00UB69V40L	P330270	690 V	40 A	61 A <sup>2</sup> s	400 A <sup>2</sup> s	200 kA	18 W	200 g	3
DN00UB69V50L	Q330271	690 V	50 A	102 A <sup>2</sup> s	700 A <sup>2</sup> s	200 kA	21 W	200 g	3
DN00UB69V63L	R330272	690 V	63 A	177 A <sup>2</sup> s	1200 A <sup>2</sup> s	200 kA	23 W	200 g	3
DN00UB69V80L	D330237	690 V	80 A	390 A <sup>2</sup> s	2200 A <sup>2</sup> s	200 kA	25 W	200 g	3
DN00UB69V100L	E330238	690 V	100 A	692 A <sup>2</sup> s	3900 A <sup>2</sup> s	200 kA	28 W	200 g	3
DN00UB69V125L	F330239	690 V	125 A	1170 A <sup>2</sup> s	6600 A <sup>2</sup> s	200 kA	33 W	200 g	3
DN00UB69V160L	G330240	690 V	160 A	2680 A <sup>2</sup> s	14000 A <sup>2</sup> s	200 kA	36 W	200 g	3
DN00UB69V200L	H330241	690 V	200 A	4690 A <sup>2</sup> s	24000 A <sup>2</sup> s	200 kA	42 W	0.2026 kg	3
DN00UB69V250L	J330242	690 V	250 A	8300 A <sup>2</sup> s	42500 A <sup>2</sup> s	200 kA	50 W	0.2026 kg	3
DN00UB69V315L	K330243	690 V	315 A	17520 A <sup>2</sup> s	81000 A <sup>2</sup> s	200 kA	58 W	0.2066 kg	3
DN00UB69V350L	L330244	690 V	350 A	25450 A <sup>2</sup> s	118000 A <sup>2</sup> s	200 kA	60 W	0.2026 kg	3
DN00UB69V400L	M330245	690 V	400 A	33180 A <sup>2</sup> s	150000 A <sup>2</sup> s	200 kA	70 W	0.2026 kg	3

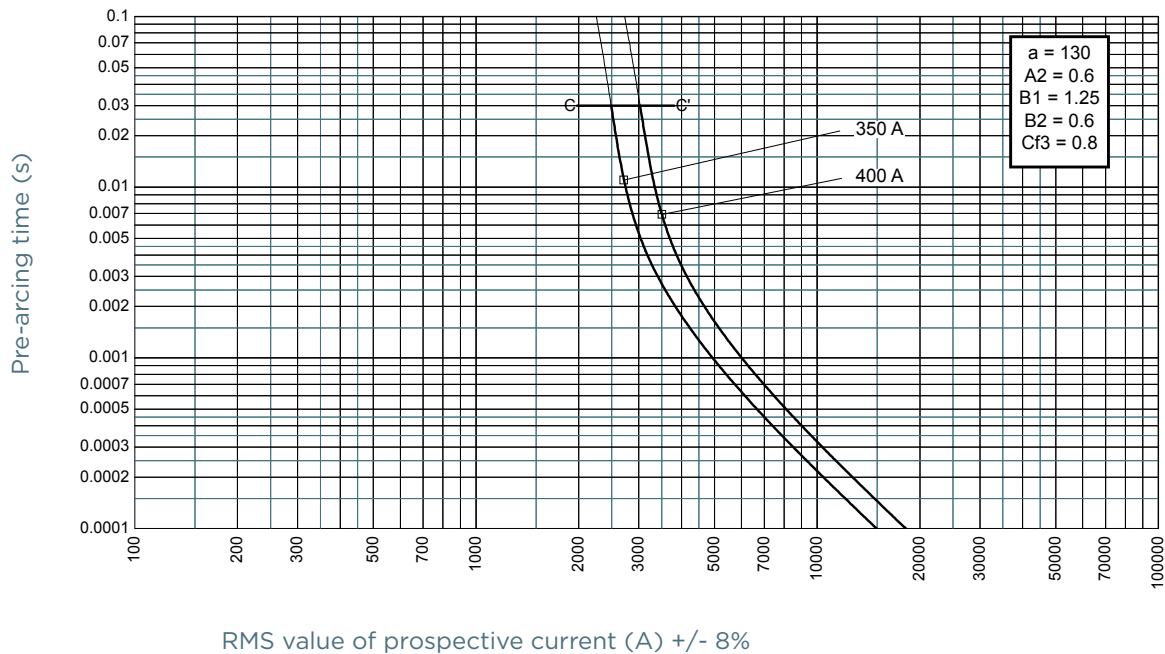
### Size 00 DIN110, vertical body, for monitoring micro-contact

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DN00UB69V80D1L	A330257	690 V	80 A	390 A <sup>2</sup> s	2200 A <sup>2</sup> s	200 kA	25 W	240 g	3
DN00UB69V100D1L	B330258	690 V	100 A	692 A <sup>2</sup> s	3900 A <sup>2</sup> s	200 kA	28 W	240 g	3
DN00UB69V125D1L	C330259	690 V	125 A	1170 A <sup>2</sup> s	6600 A <sup>2</sup> s	200 kA	33 W	240 g	3
DN00UB69V160D1L	D330260	690 V	160 A	2680 A <sup>2</sup> s	14000 A <sup>2</sup> s	200 kA	36 W	240 g	3
DN00UB69V200D1L	E330261	690 V	200 A	4690 A <sup>2</sup> s	24000 A <sup>2</sup> s	200 kA	42 W	240 g	3
DN00UB69V250D1L	F330262	690 V	250 A	8300 A <sup>2</sup> s	42500 A <sup>2</sup> s	200 kA	50 W	240 g	3
DN00UB69V315D1L	G330263	690 V	315 A	17520 A <sup>2</sup> s	81000 A <sup>2</sup> s	200 kA	58 W	240 g	3
DN00UB69V350D1L	H330264	690 V	350 A	25450 A <sup>2</sup> s	118000 A <sup>2</sup> s	200 kA	60 W	240 g	3
DN00UB69V400D1L	J330265	690 V	400 A	33180 A <sup>2</sup> s	150000 A <sup>2</sup> s	200 kA	70 W	240 g	3

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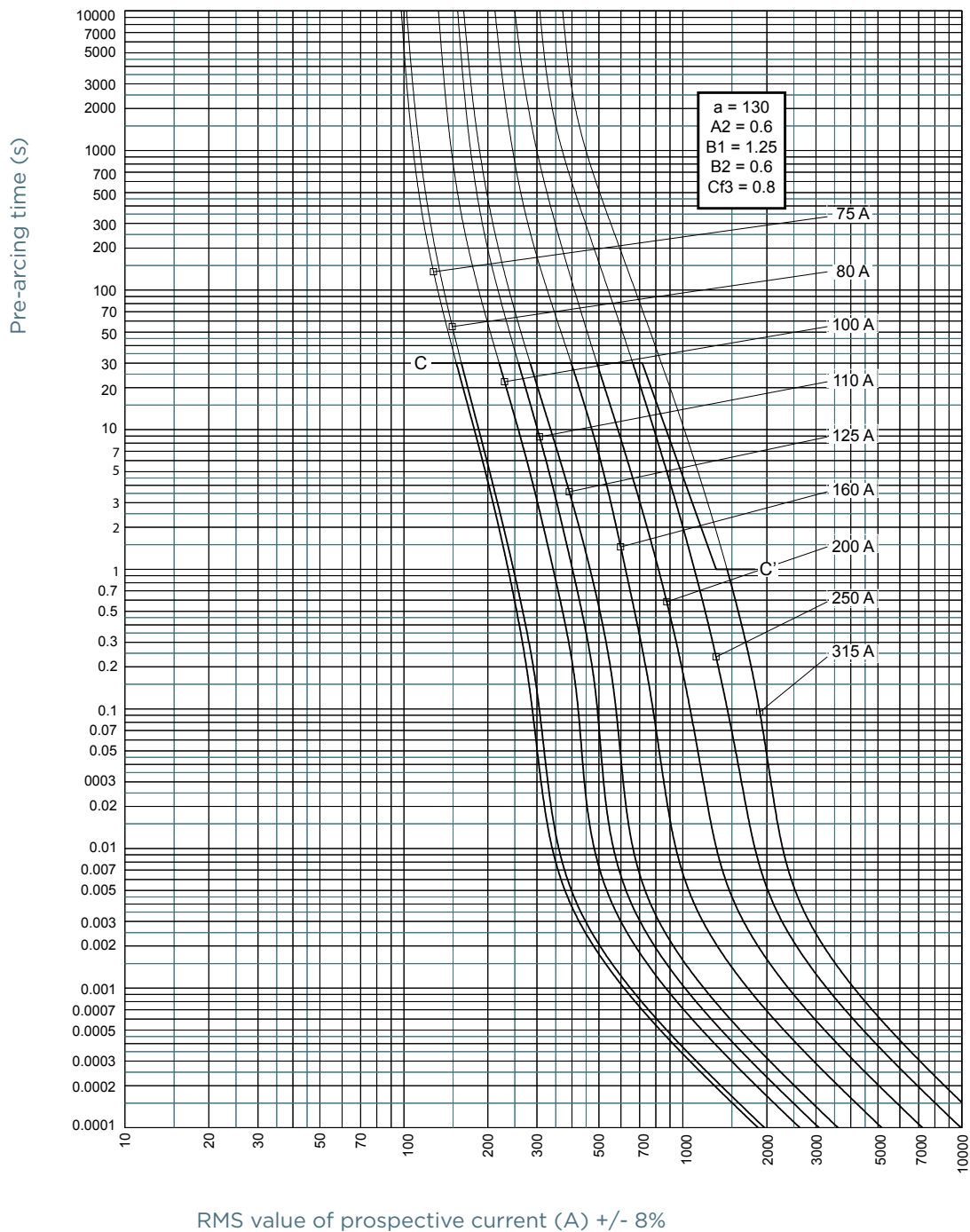
## TIME CURRENT CHARACTERISTIC CURVES

### Size 000, 500VAC



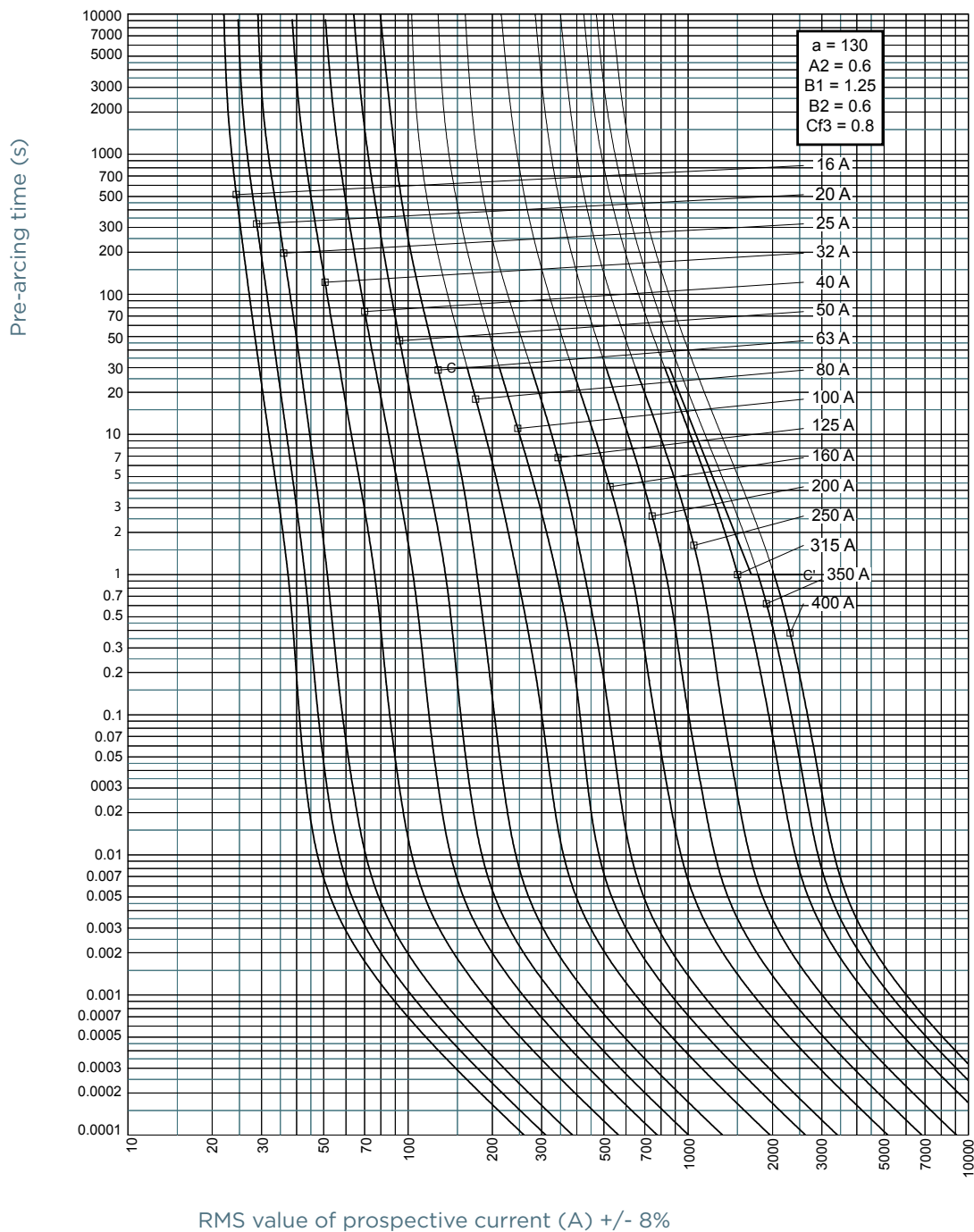
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Size 000, 690VAC



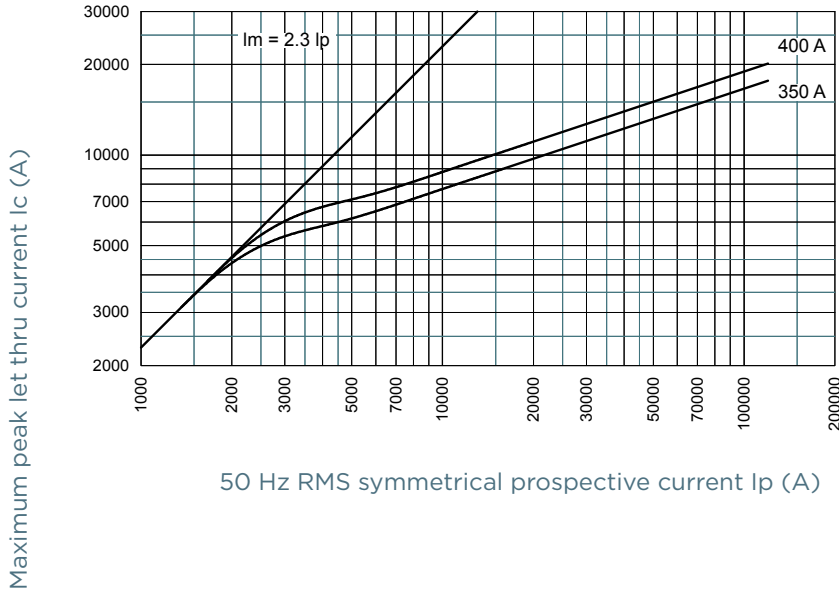
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Size 00, 690VAC

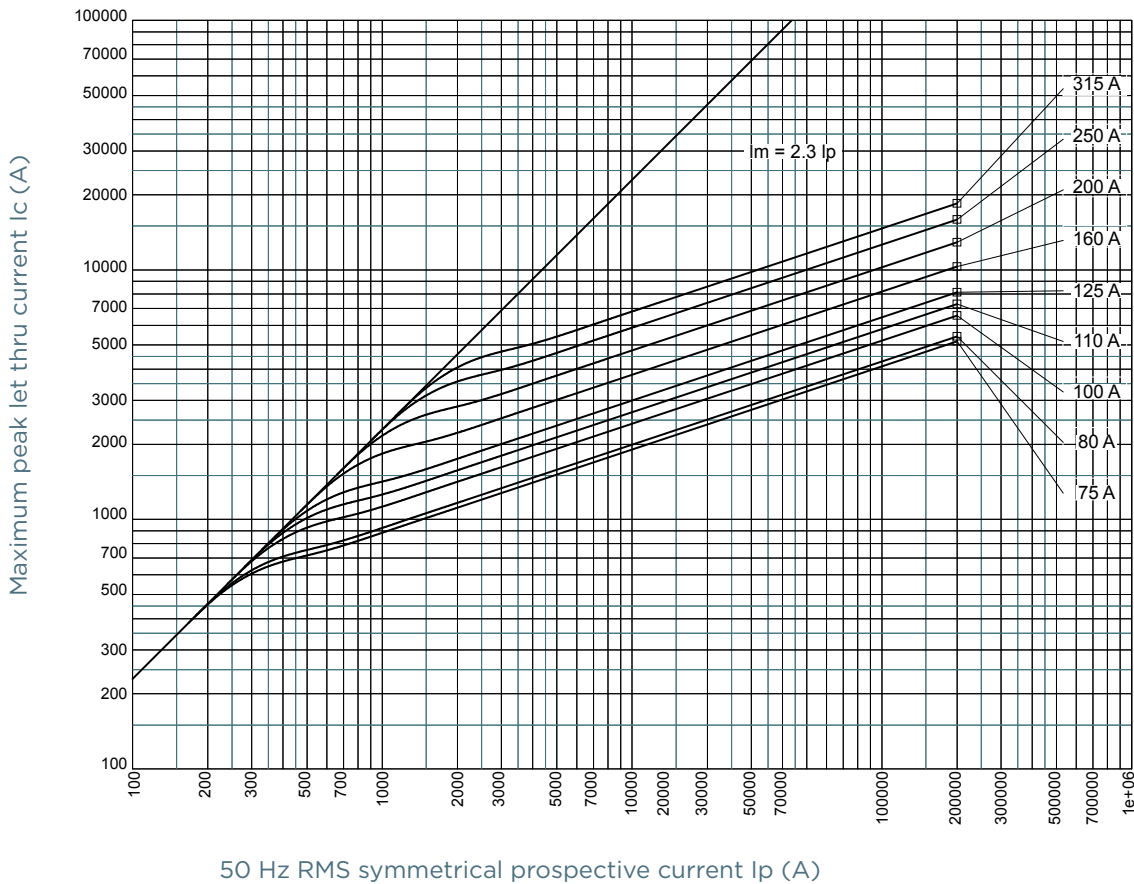


CUT-OFF CURRENT CHARACTERISTIC

Size 000, 500VAC



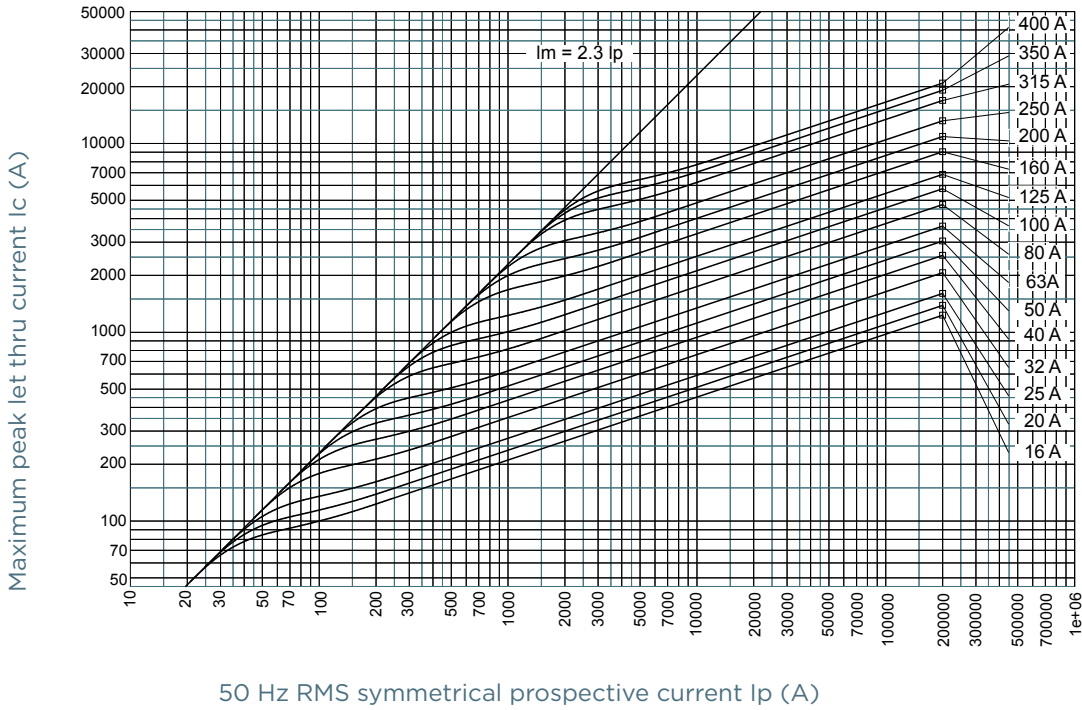
Size 000, 690VAC



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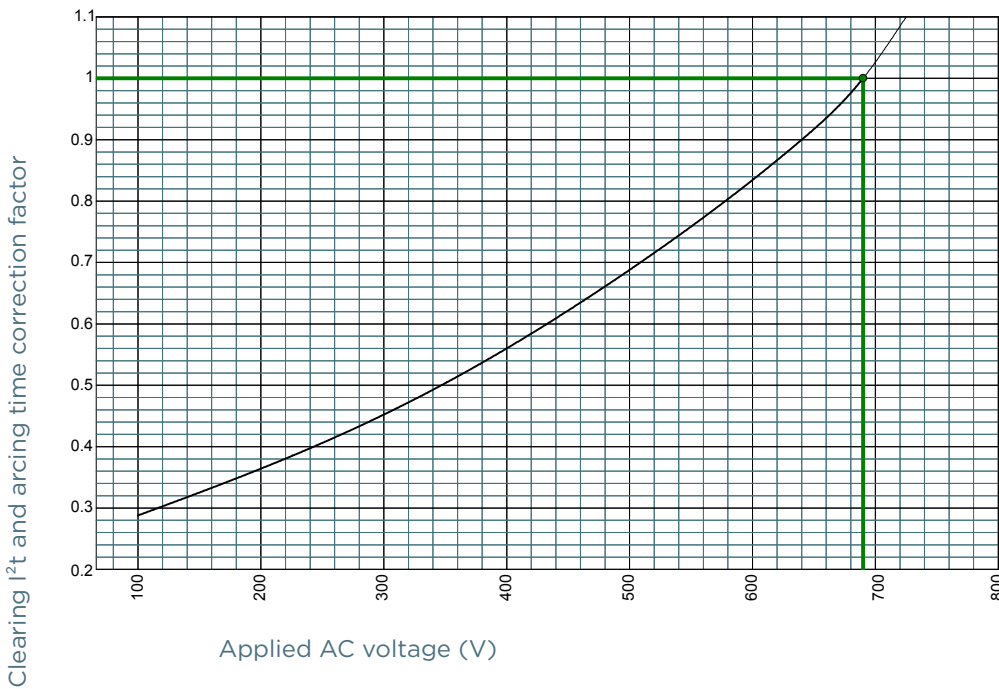
CUT-OFF CURRENT CHARACTERISTIC

Size 00, 690VAC



$I^2t$  MULTIPLIER COEFFICIENT

Size 000, 500VAC



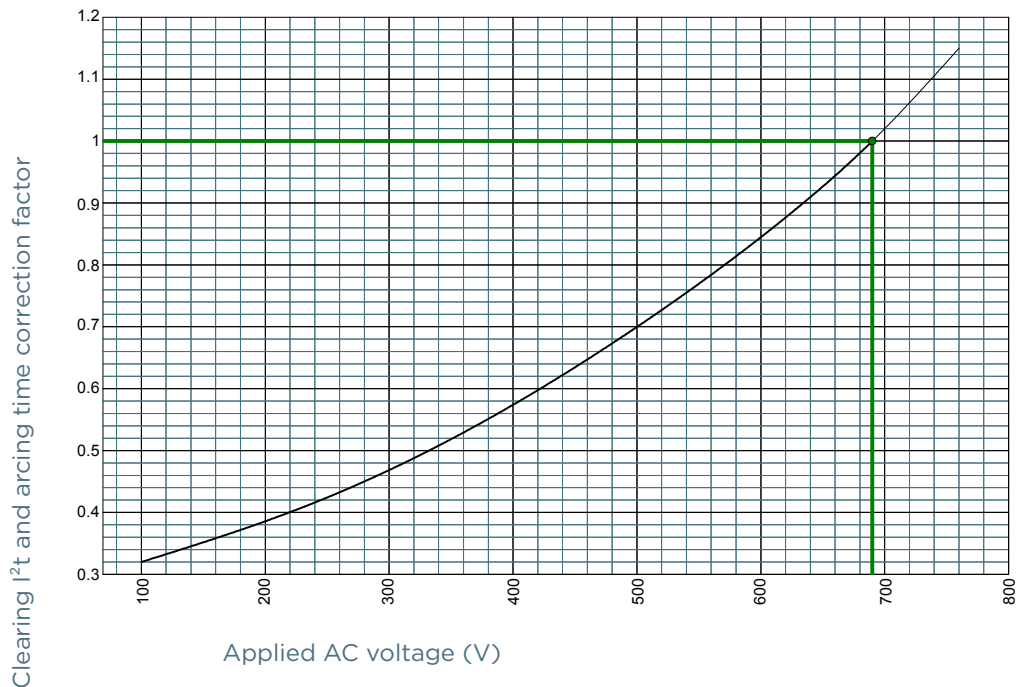
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# Protistor® size 000/00 aR

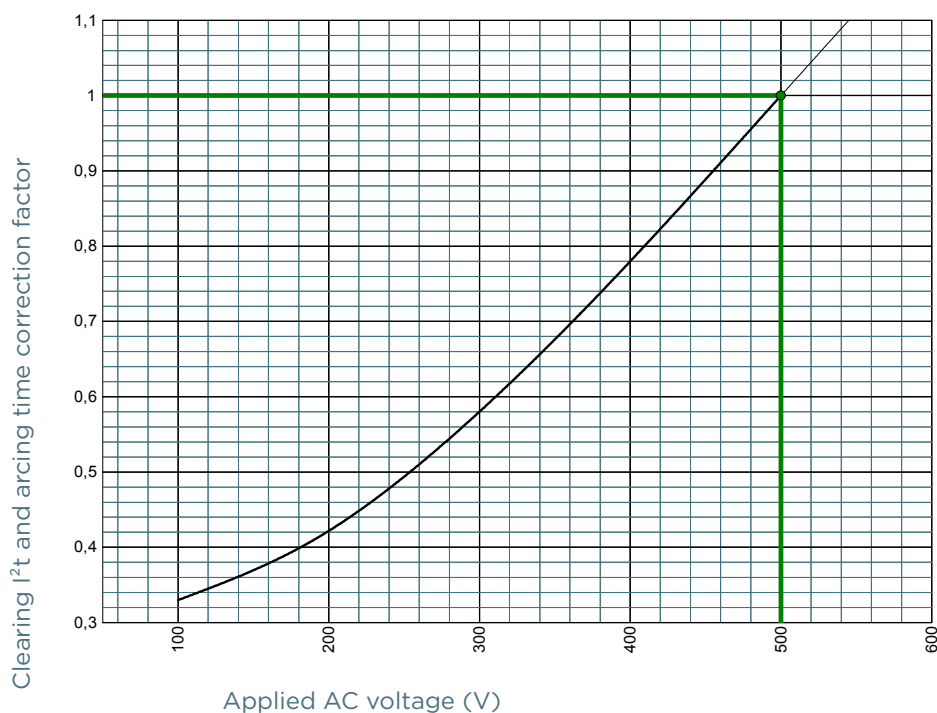
500 to 690VAC (IEC) / 700VAC (UL)

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

### Size 000, 690VAC



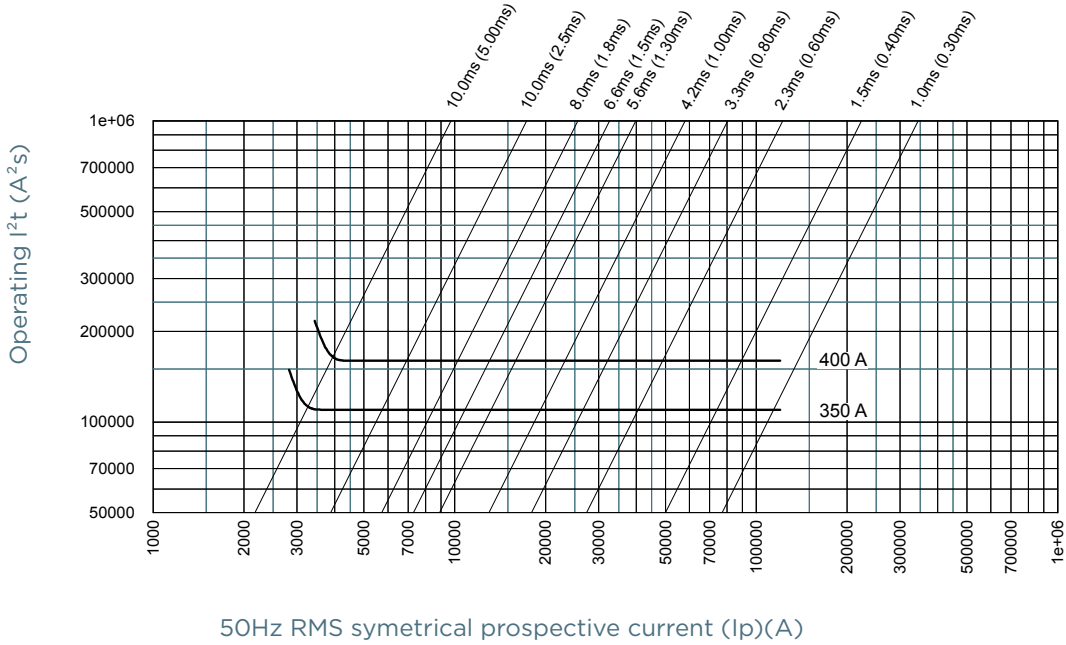
### Size 00, 690VAC



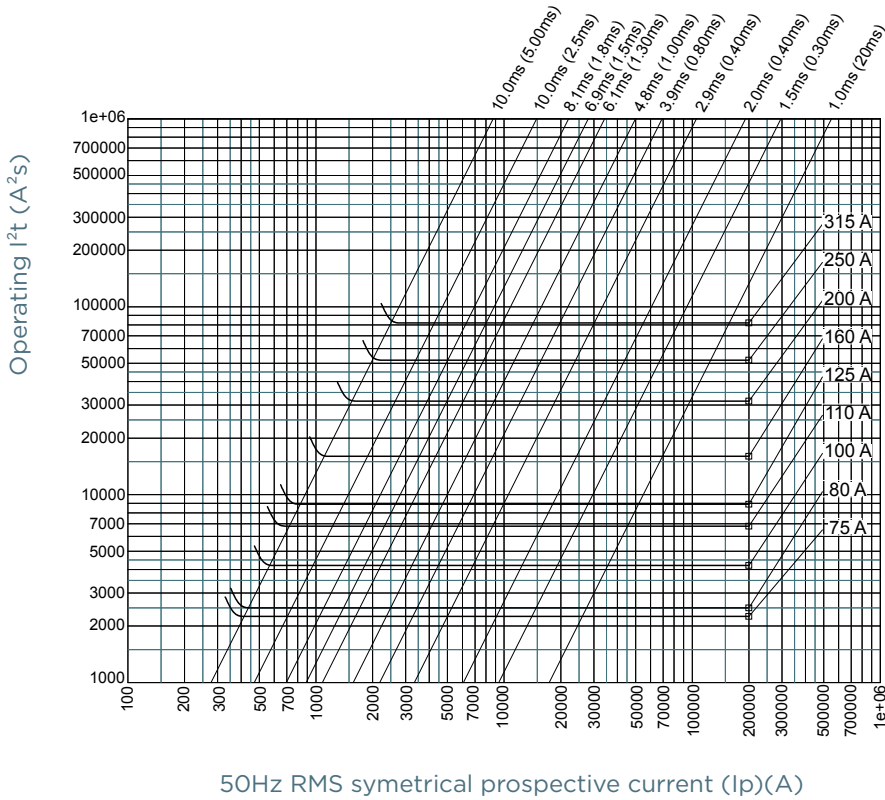
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## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

### Size 000, 500VAC



### Size 000, 690VAC

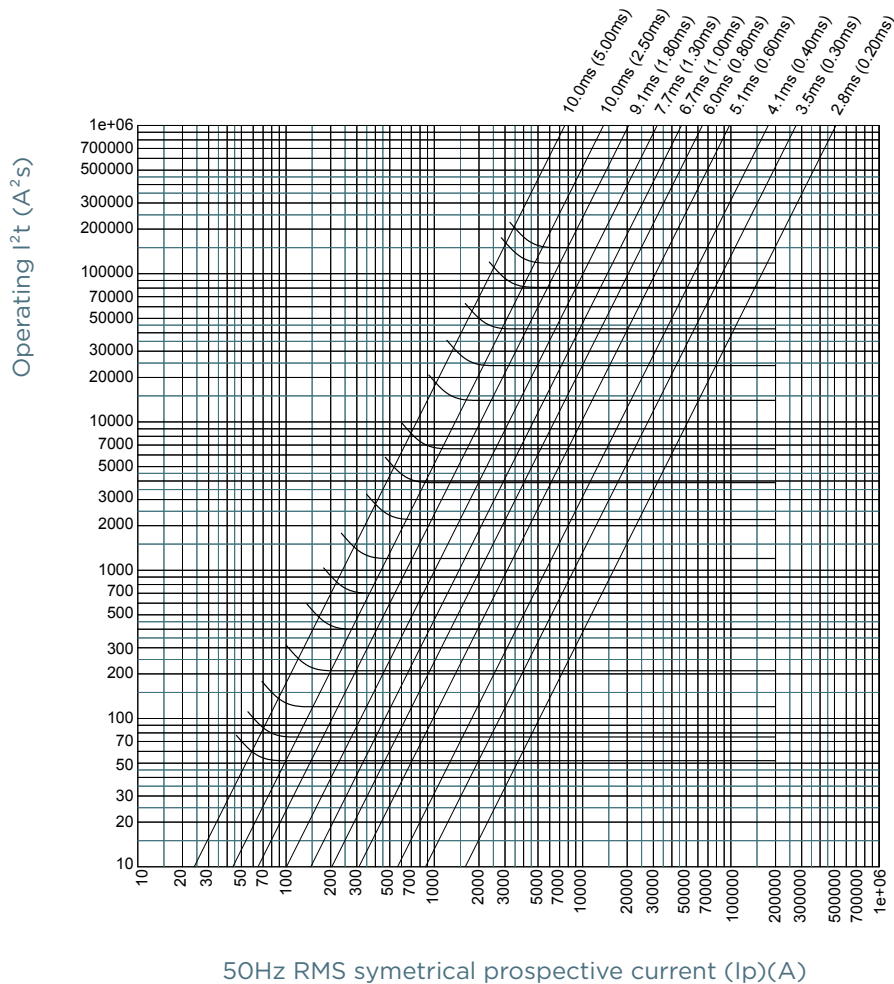


# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

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

Size 00, 690VAC



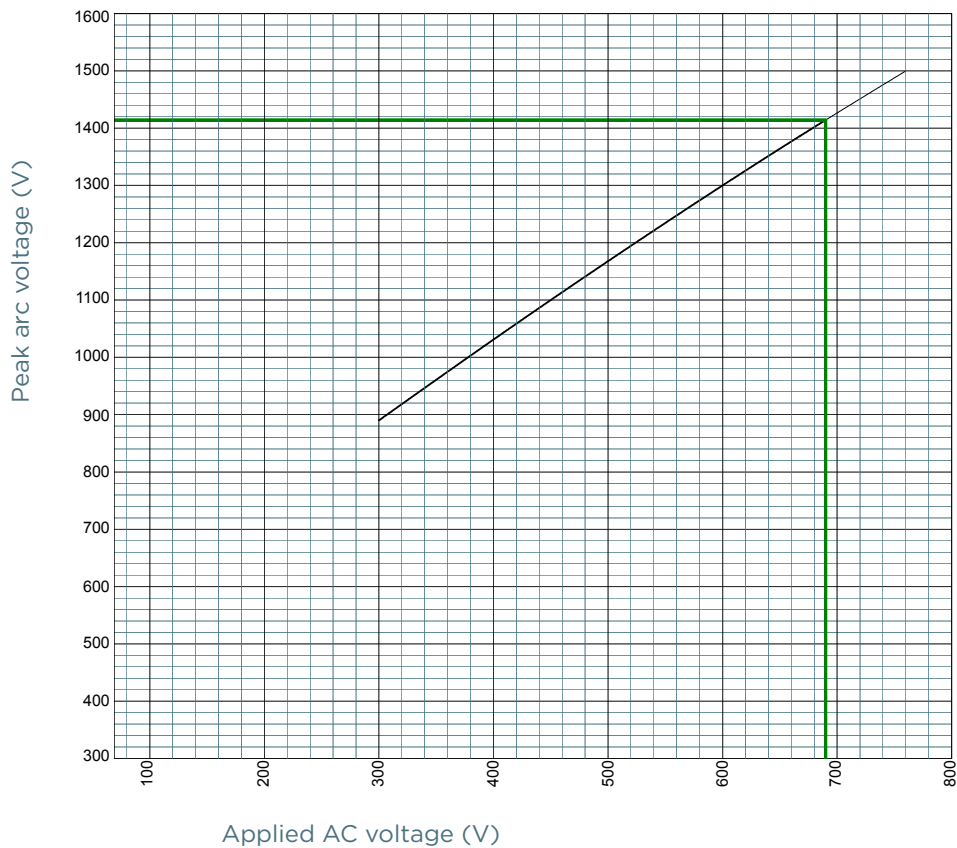
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# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## PEAK ARC VOLTAGE

### Size 000, 500VAC



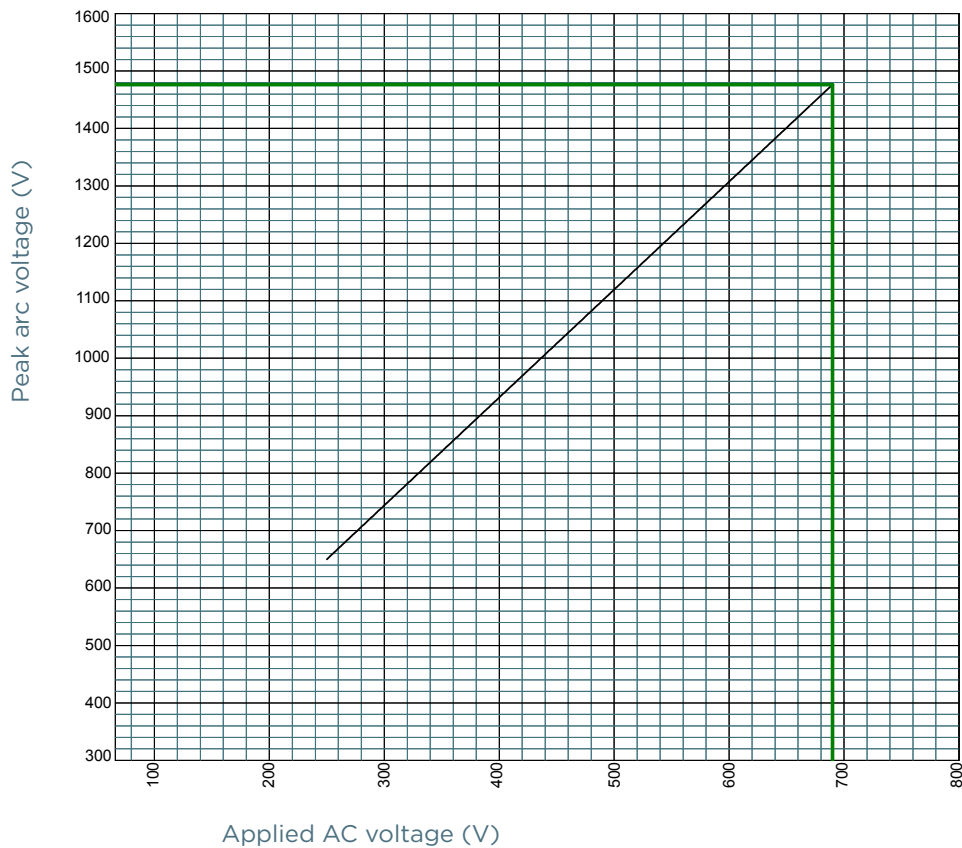
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# Protistor® size 000/00 aR

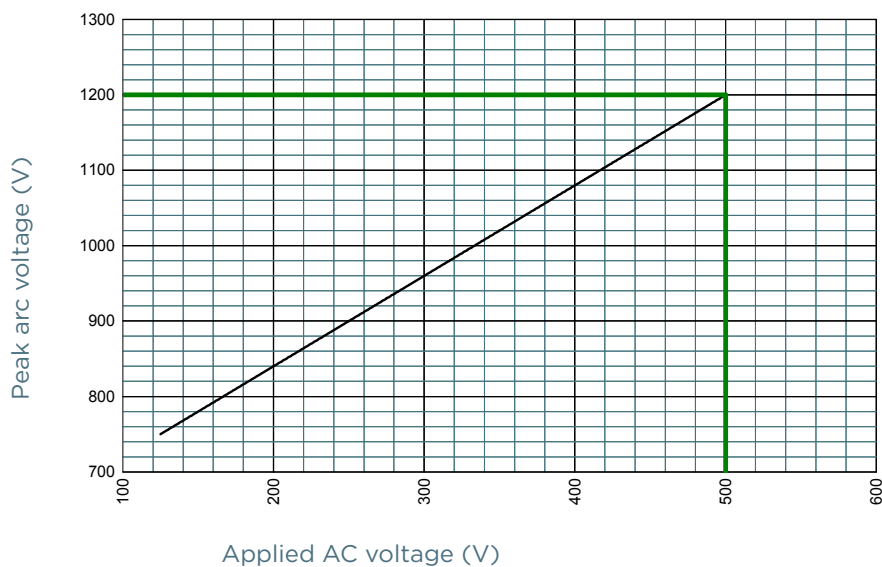
500 to 690VAC (IEC) / 700VAC (UL)

## PEAK ARC VOLTAGE

### Size 000, 690VAC



### Size 00, 690VAC



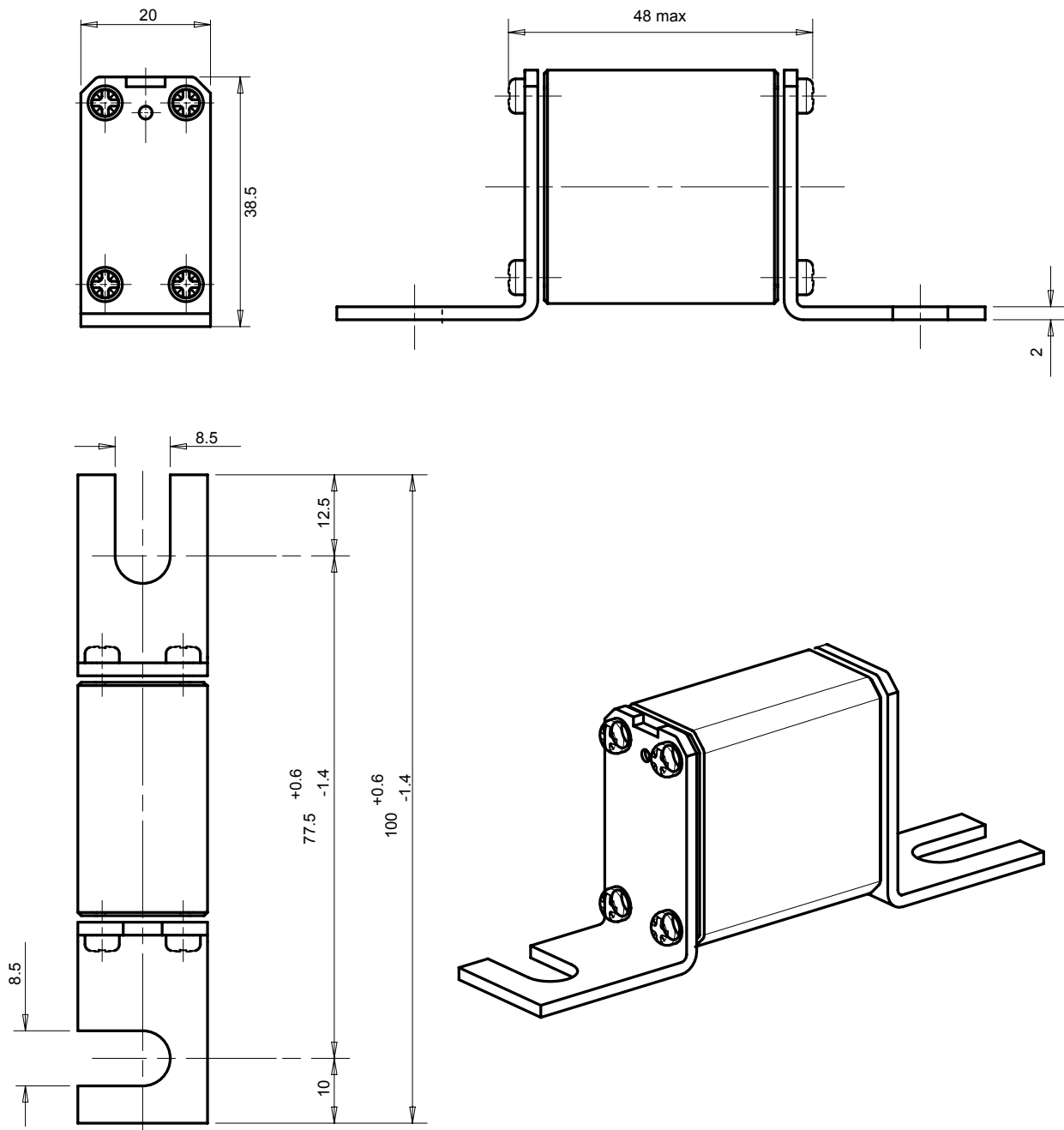
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# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 000 without indicator



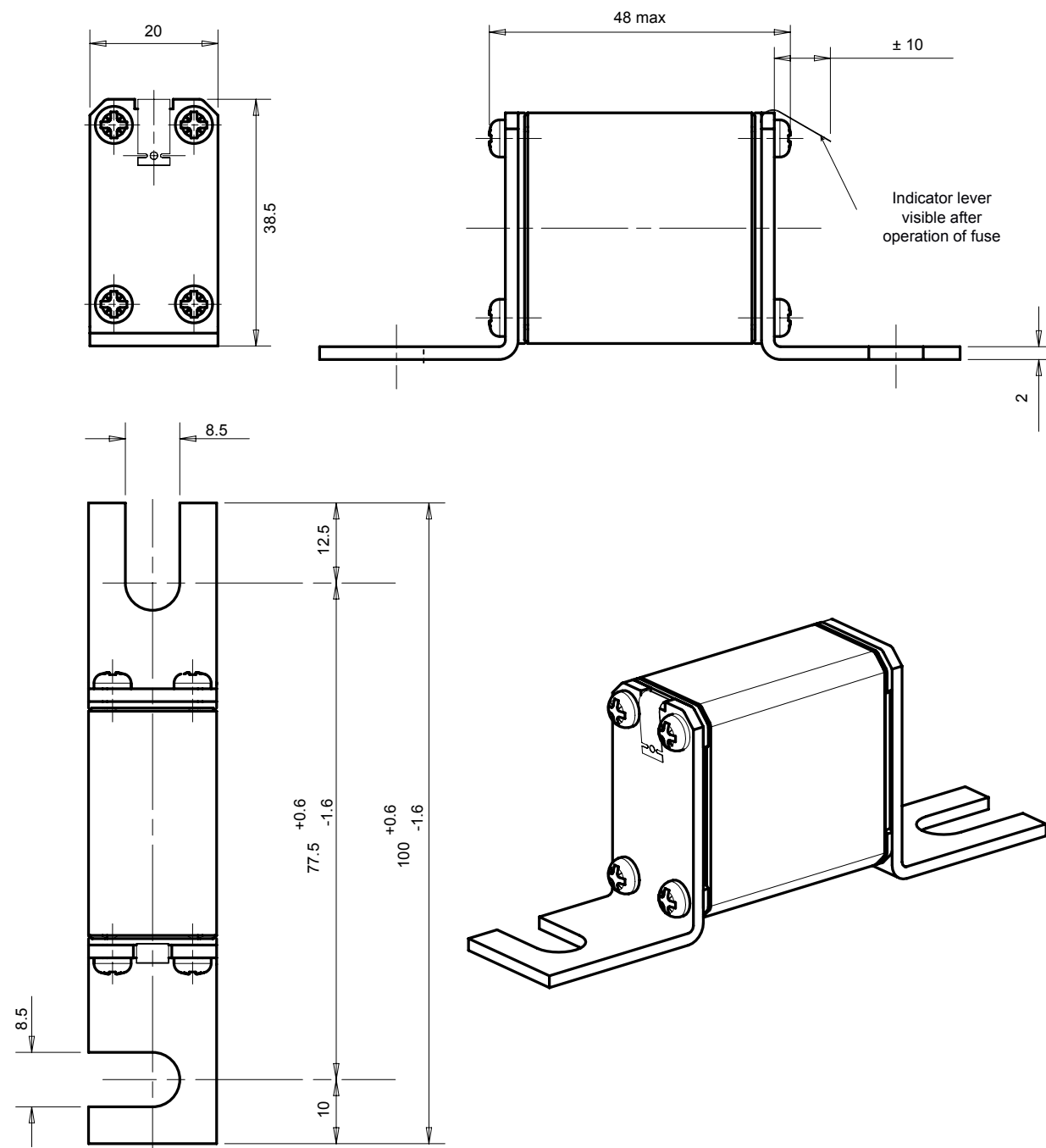
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 000 with indicator



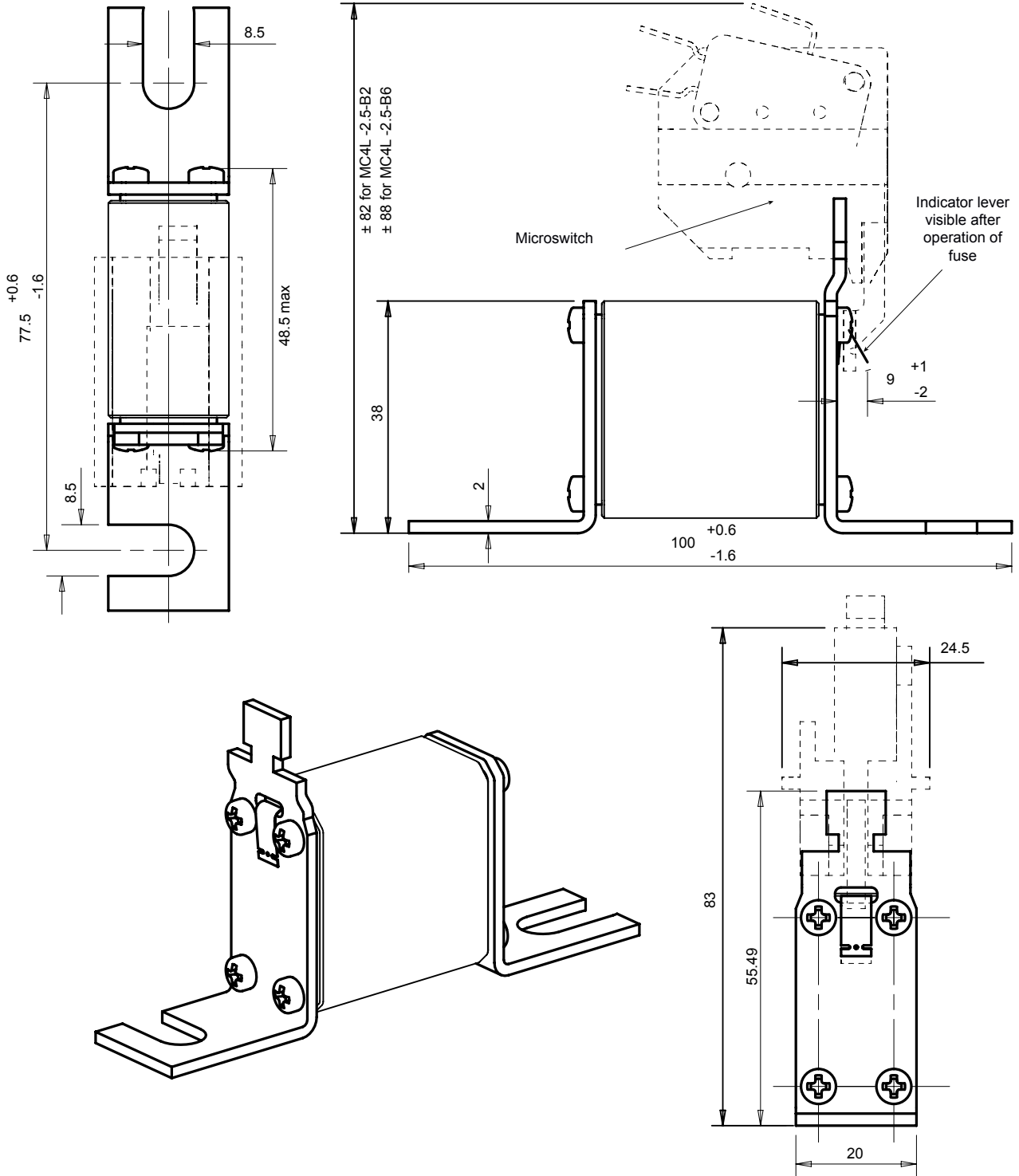
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 000 for monitoring micro-contact



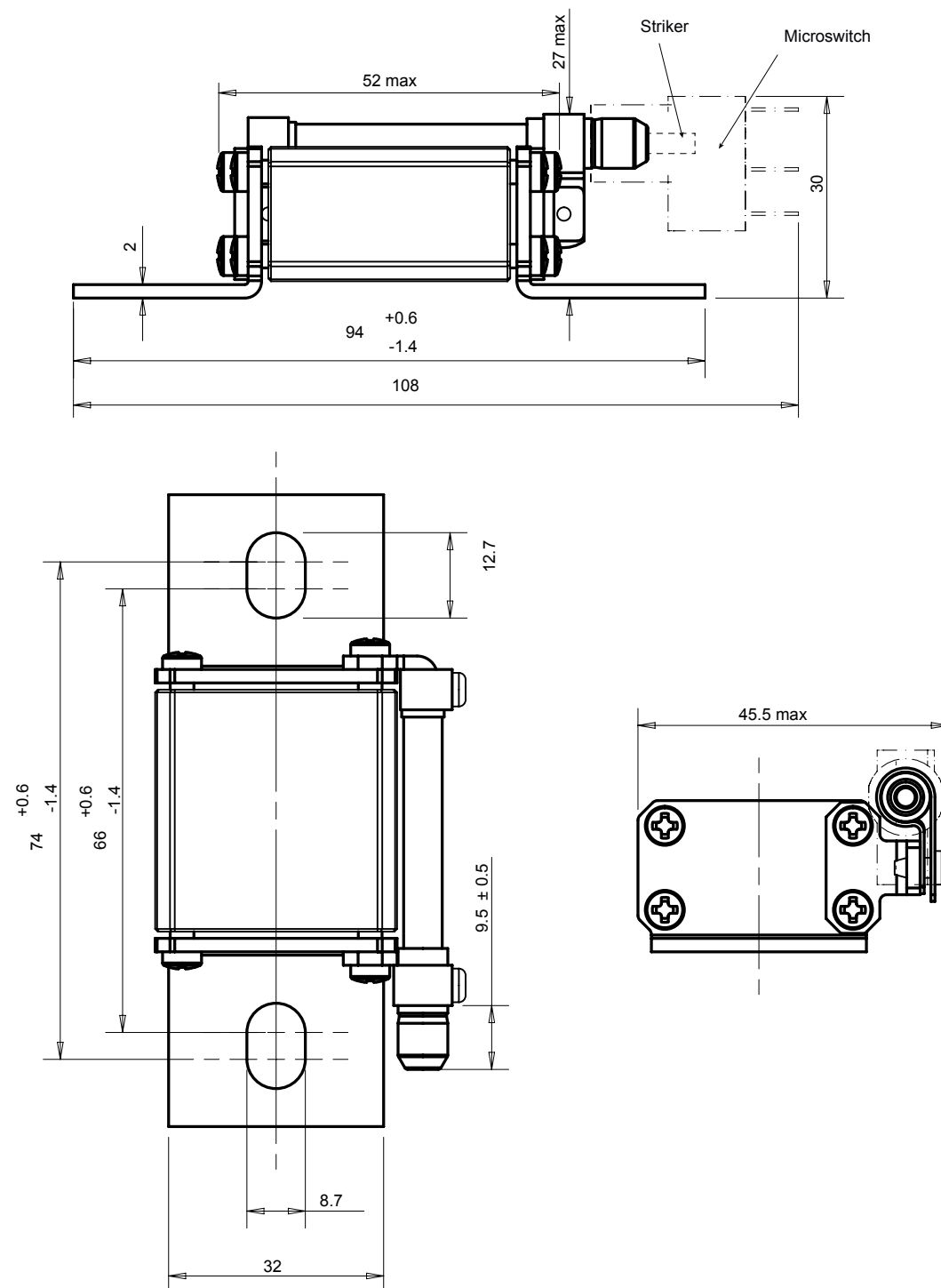
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 000 BS88 with indicator



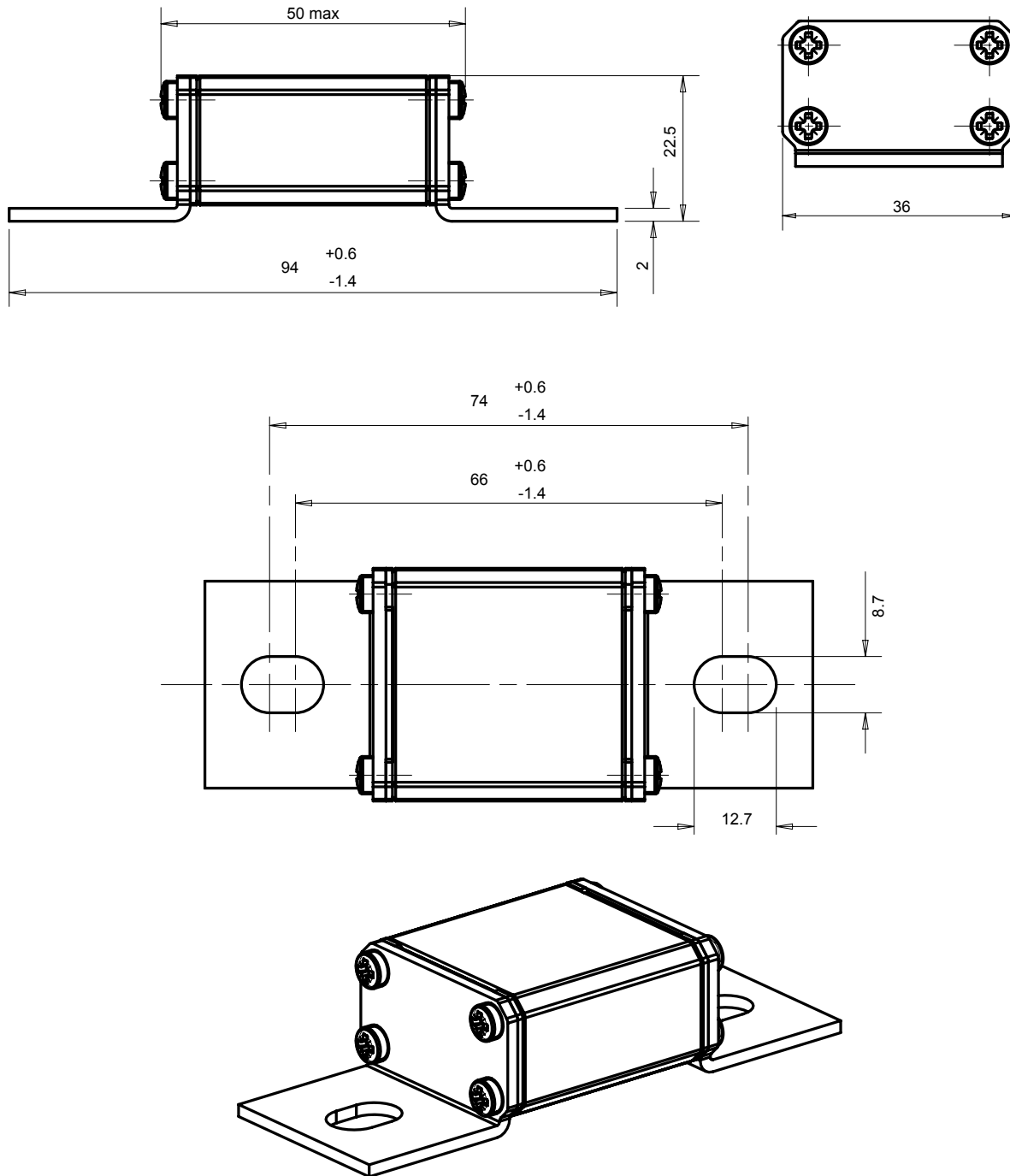
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 000 BS88 without indicator



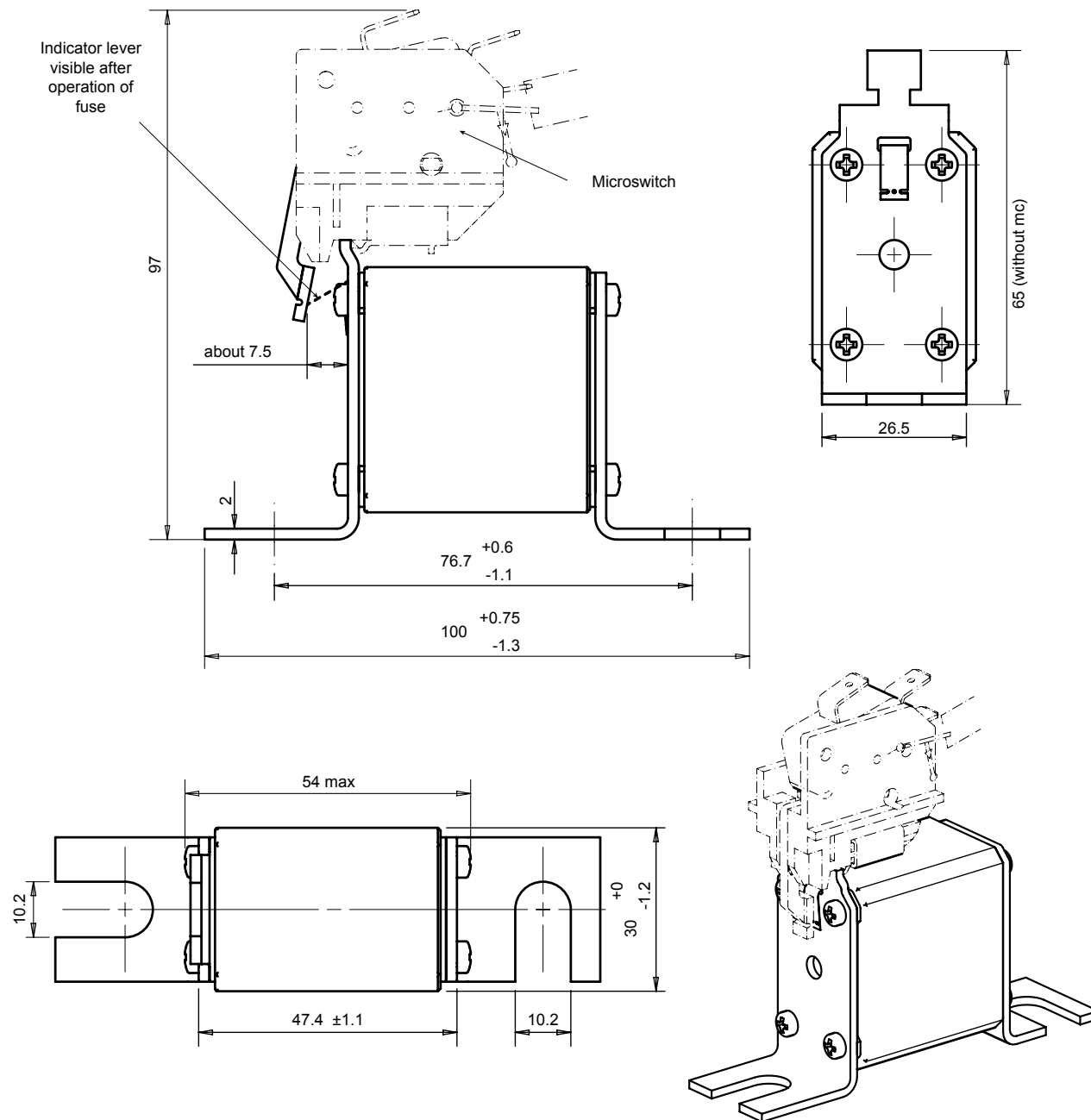
Dimensions in mm

# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 00 DIN80 for monitoring micro-contact



Dimensions in mm

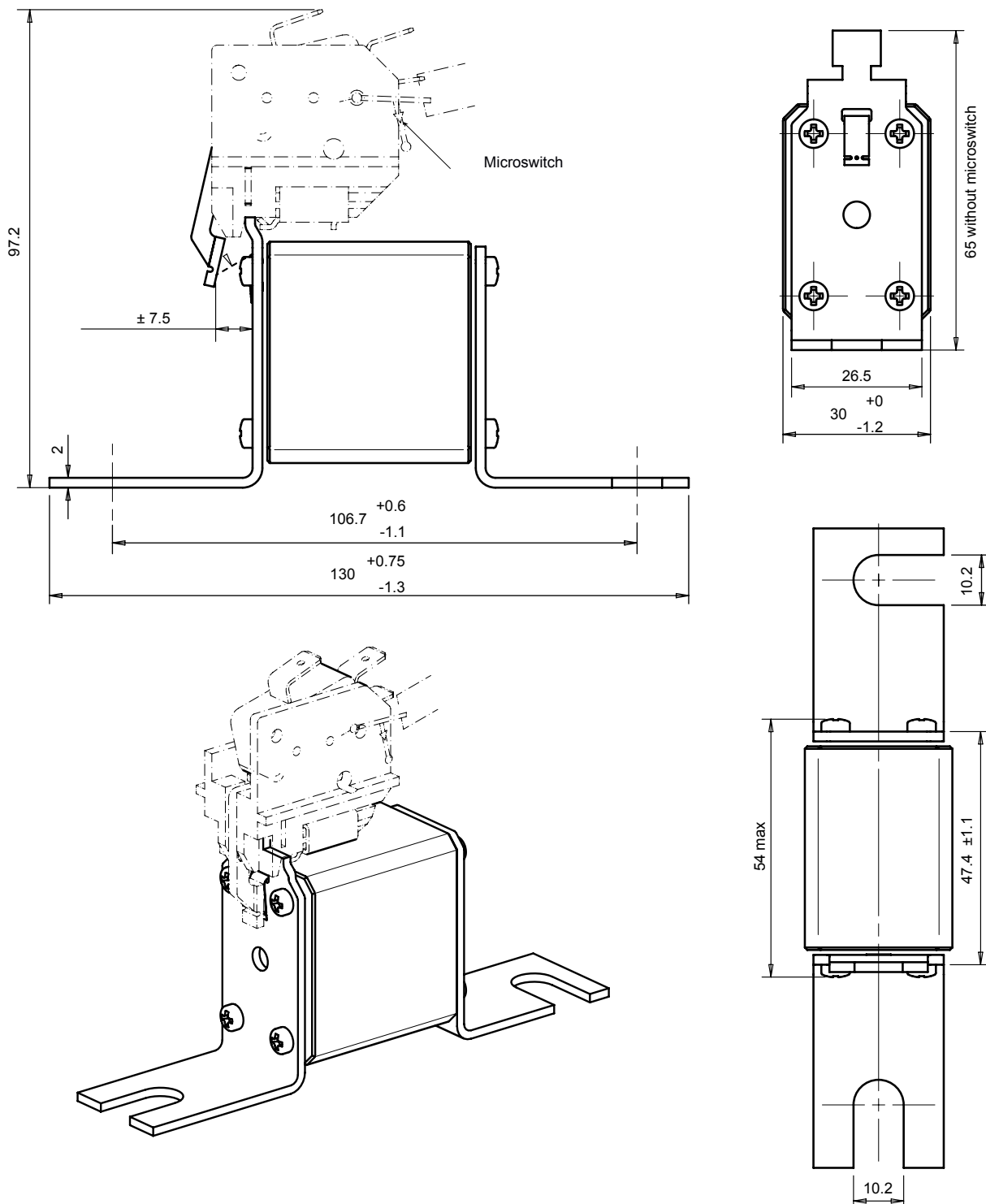
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# Protistor® size 000/00 aR

500 to 690VAC (IEC) / 700VAC (UL)

## DIMENSIONS

### Size 00 DIN110 for monitoring micro-contact



Dimensions in mm

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