

Protistor® size 33 aR

450 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 today's power conversion equipment. These aR ultra-fast acting square body fuse-links are available in different body sizes, each size having multiple worldwide acceptable mounting styles.

The Protistor® have been engineered to provide state-of-the-art protection for semiconductors: diodes, thyristors and IGBT devices. Fuses 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	450 ... 690 VAC
Ampere Range (A)	450 ... 2500 A
Speed/Characteristic	aR
I.R. AC	110 ... 200 kA
Product Size	33

FEATURES & BENEFITS

- Multiple body sizes and terminals or blades combination
- aR Class according to IEC 60269-4 and VDE 636-23
- Very low I^2t for improved semiconductor protection
- Ultra fast acting
- Current limiting
- 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 E76491 : see « UL certified » status given in Product Range table
- CCC GB 13539.4 for Asian market only



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PRODUCT RANGE

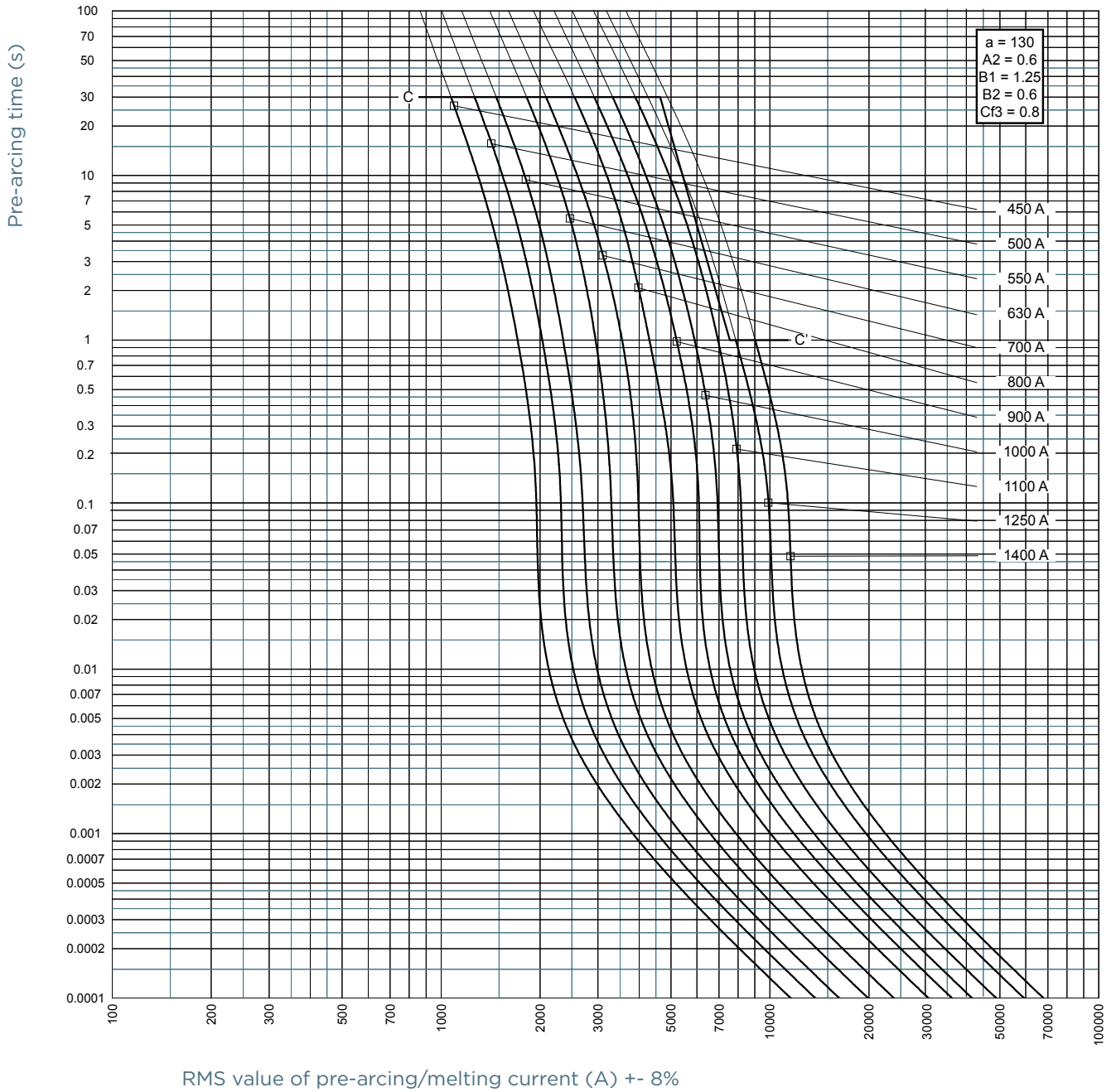


PC33UD69V1400TF

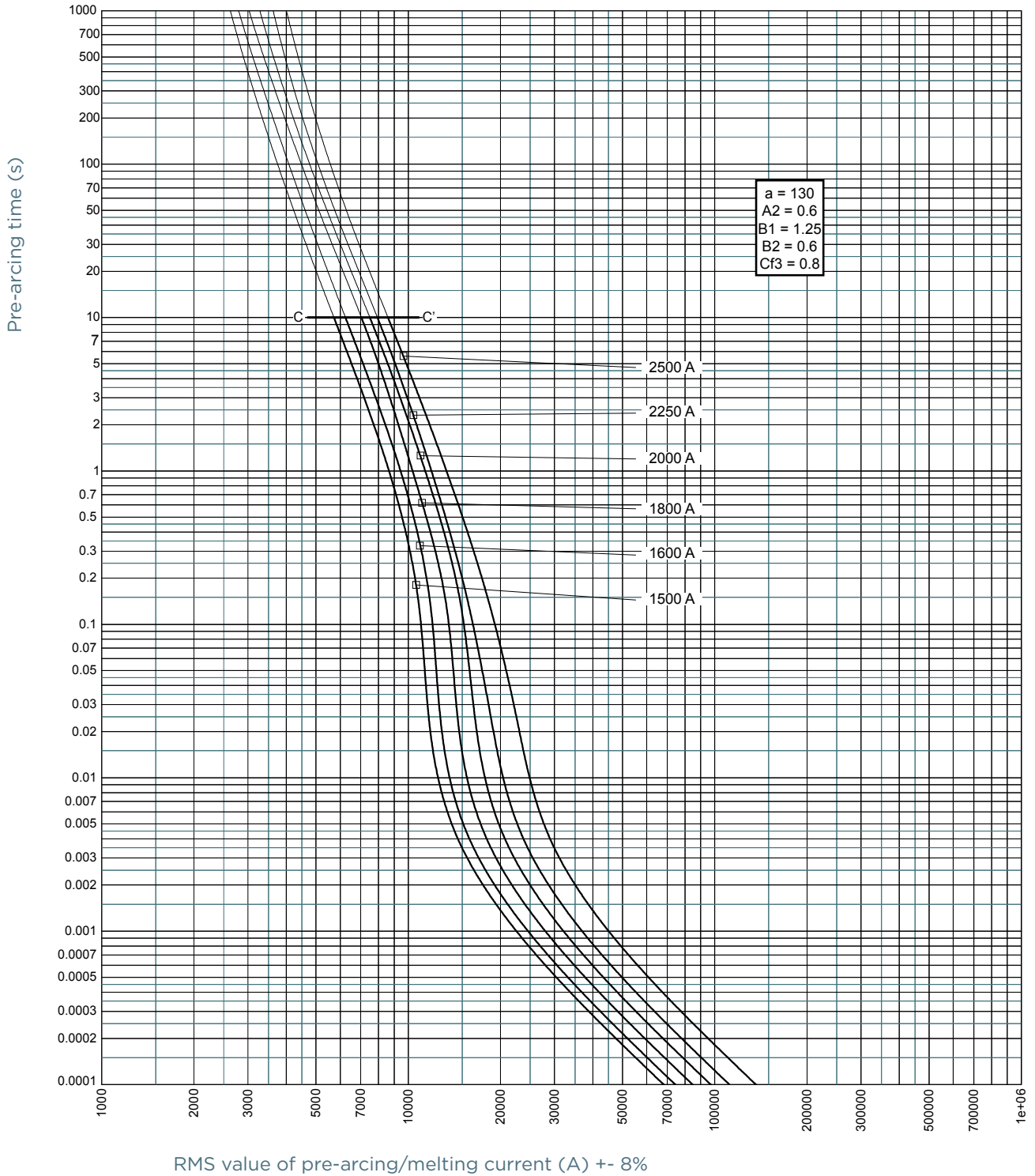
Size 33 type TTF M12 threaded terminals

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	UL certified	Package	Weight
Standard Terminal											
PC33UD69V450TF	W302170	690 V	700 V	450 A	13.45 kA ² s	87 kA ² s	200 kA	84 W	✓	3	0.81 kg
PC33UD69V500TF	V300076	690 V	700 V	500 A	19 kA ² s	110 kA ² s	200 kA	105 W	✓	3	0.81 kg
PC33UD69V550TF	W300077	690 V	700 V	550 A	27 kA ² s	155 kA ² s	200 kA	105 W	✓	3	0.81 kg
PC33UD69V630TF	X300078	690 V	700 V	630 A	40 kA ² s	230 kA ² s	200 kA	110 W	✓	3	0.81 kg
PC33UD69V700TF	Y300079	690 V	700 V	700 A	57 kA ² s	330 kA ² s	200 kA	115 W	✓	3	0.81 kg
PC33UD69V800TF	Z300080	690 V	700 V	800 A	93 kA ² s	540 kA ² s	200 kA	120 W	✓	3	0.81 kg
PC33UD69V900TF	A300081	690 V	700 V	900 A	130 kA ² s	770 kA ² s	200 kA	120 W	✓	3	0.81 kg
PC33UD69V1000TF	B300082	690 V	700 V	1000 A	170 kA ² s	990 kA ² s	200 kA	135 W	✓	3	0.81 kg
PC33UD69V1100TF	C300083	690 V	700 V	1100 A	240 kA ² s	1390 kA ² s	200 kA	135 W	✓	3	0.81 kg
Reinforced Terminal											
PC33UD69V1250TF	D300084	690 V	700 V	1250 A	355 kA ² s	2053 kA ² s	200 kA	150 W	✓	3	0.81 kg
PC33UD69V1400TF	E300085	690 V	700 V	1400 A	465 kA ² s	2700 kA ² s	200 kA	160 W	✓	3	0.81 kg
PC33UD60V1500TF	Y300585	600 V	650 V	1500 A	470 kA ² s	2500 kA ² s	200 kA	210 W	✓	3	0.81 kg
PC33UD60V1600TF	Z300586	600 V	650 V	1600 A	555 kA ² s	2900 kA ² s	200 kA	210 W	✓	3	0.81 kg
PC33UD60V1800TF	A300587	600 V	650 V	1800 A	720 kA ² s	3870 kA ² s	200 kA	225 W	✓	3	0.81 kg
PC33UD55V2000TF	B300588	550 V	600 V	2000 A	950 kA ² s	4500 kA ² s	200 kA	250 W	✓	3	0.81 kg
PC33UD50V2250TF	K300757	500 V	550 V	2250 A	1250 kA ² s	5160 kA ² s	200 kA	280 W	✓	3	0.81 kg
PC33UD45V2500TF	L300758	450 V	500 V	2500 A	1870 kA ² s	6540 kA ² s	200 kA	280 W	✓	3	0.81 kg

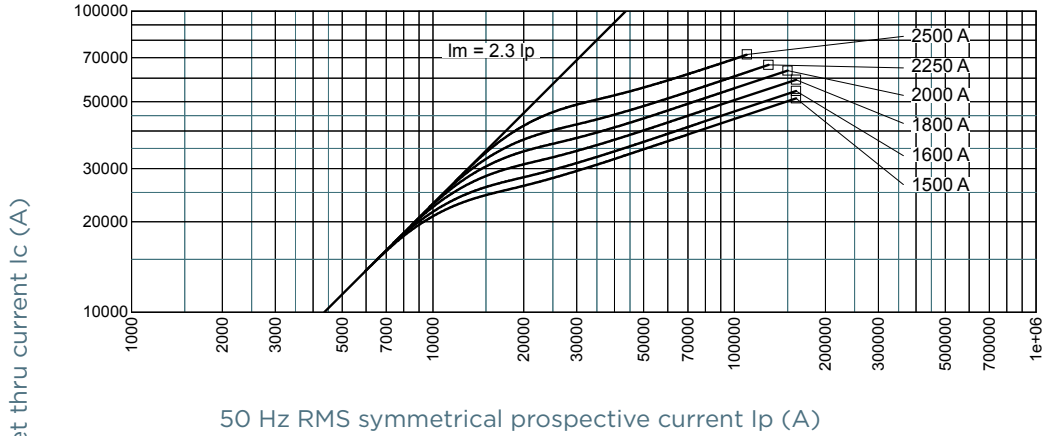
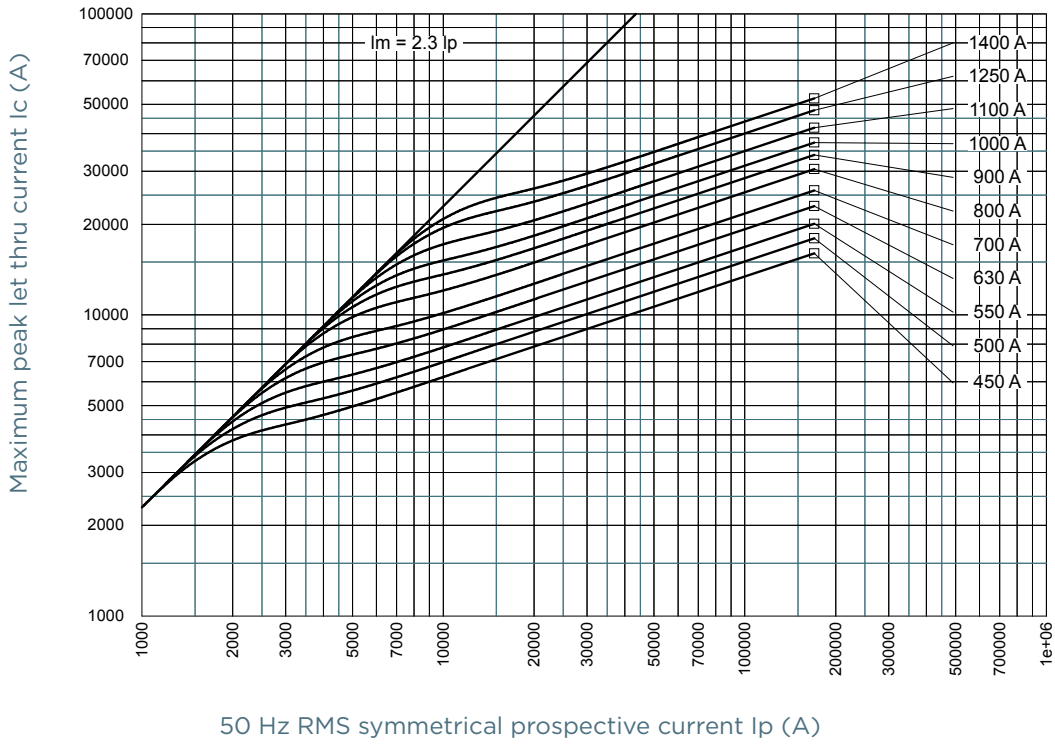
TIME CURRENT CHARACTERISTIC CURVES



TIME CURRENT CHARACTERISTIC CURVES



CUT-OFF CURRENT CHARACTERISTIC

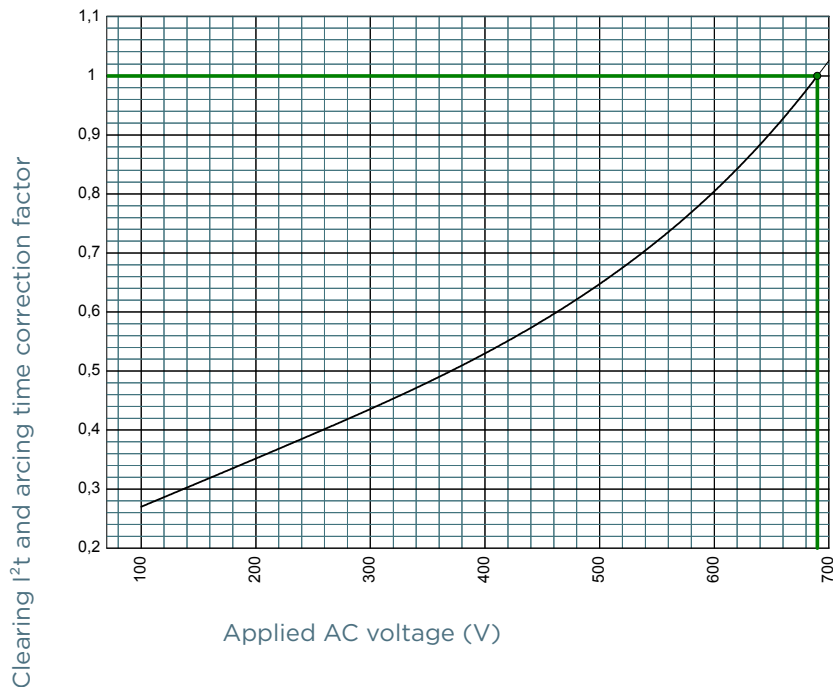


Protistor® size 33 aR

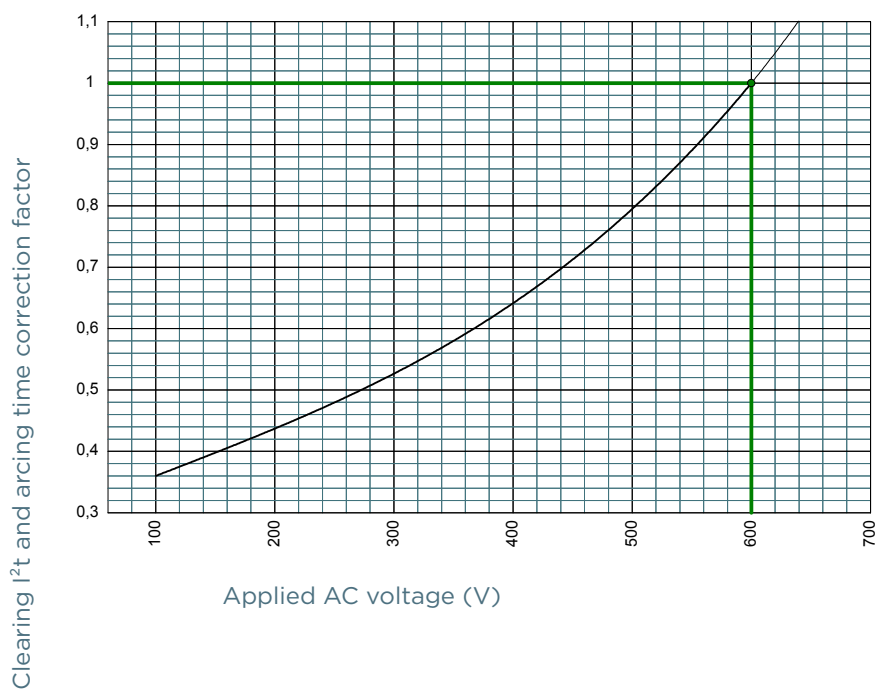
450 to 690VAC (IEC) / 700VAC (UL)

I²T MULTIPLIER COEFFICIENT

Size 33 690V



Size 33 600V

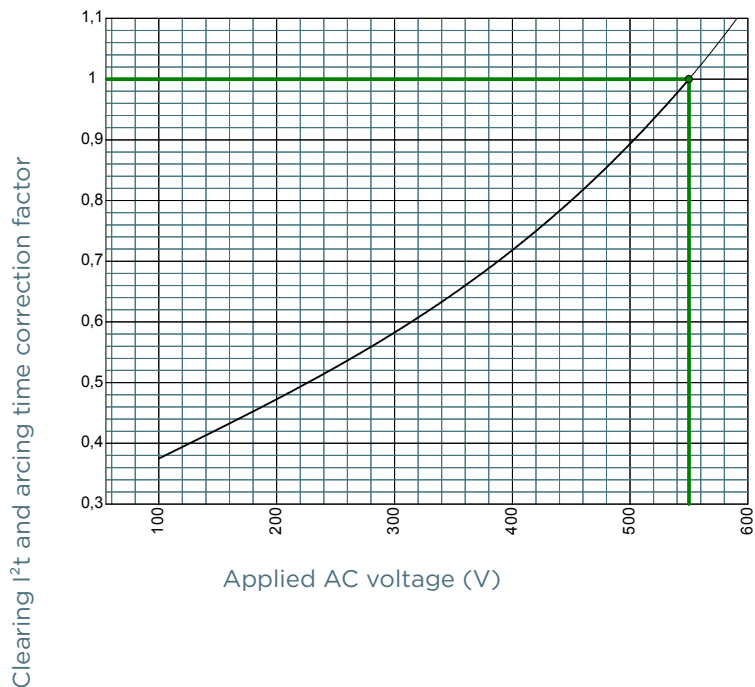


Protistor® size 33 aR

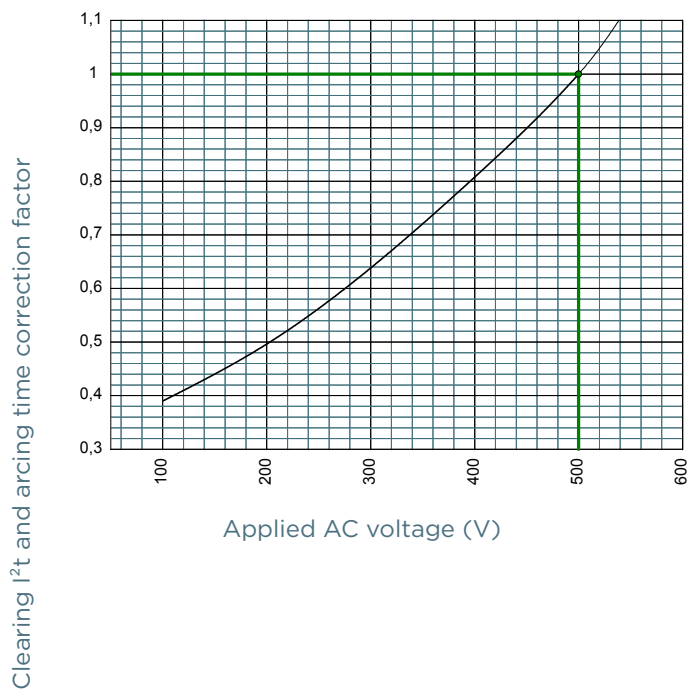
450 to 690VAC (IEC) / 700VAC (UL)

I²T MULTIPLIER COEFFICIENT

Size 33 550V



Size 33 500V

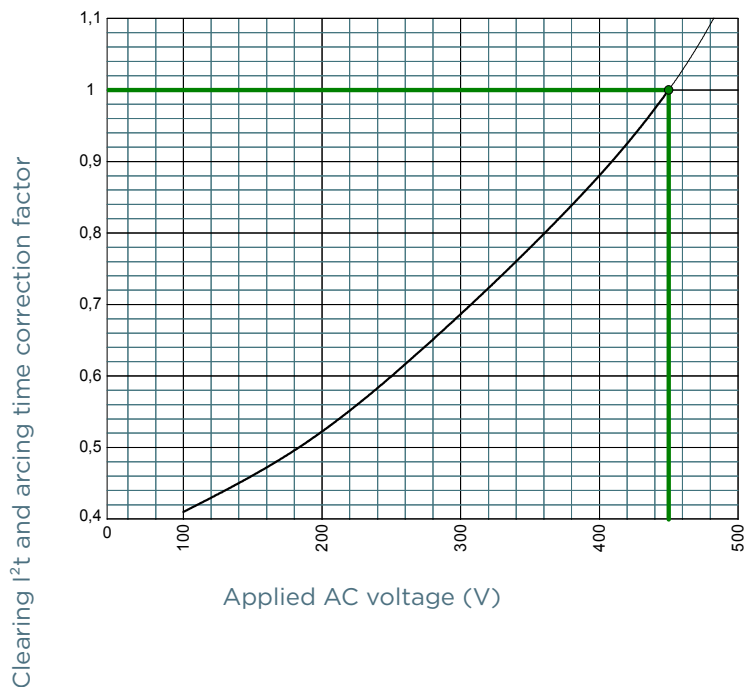


Protistor® size 33 aR

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

I²T MULTIPLIER COEFFICIENT

Size 33 450V

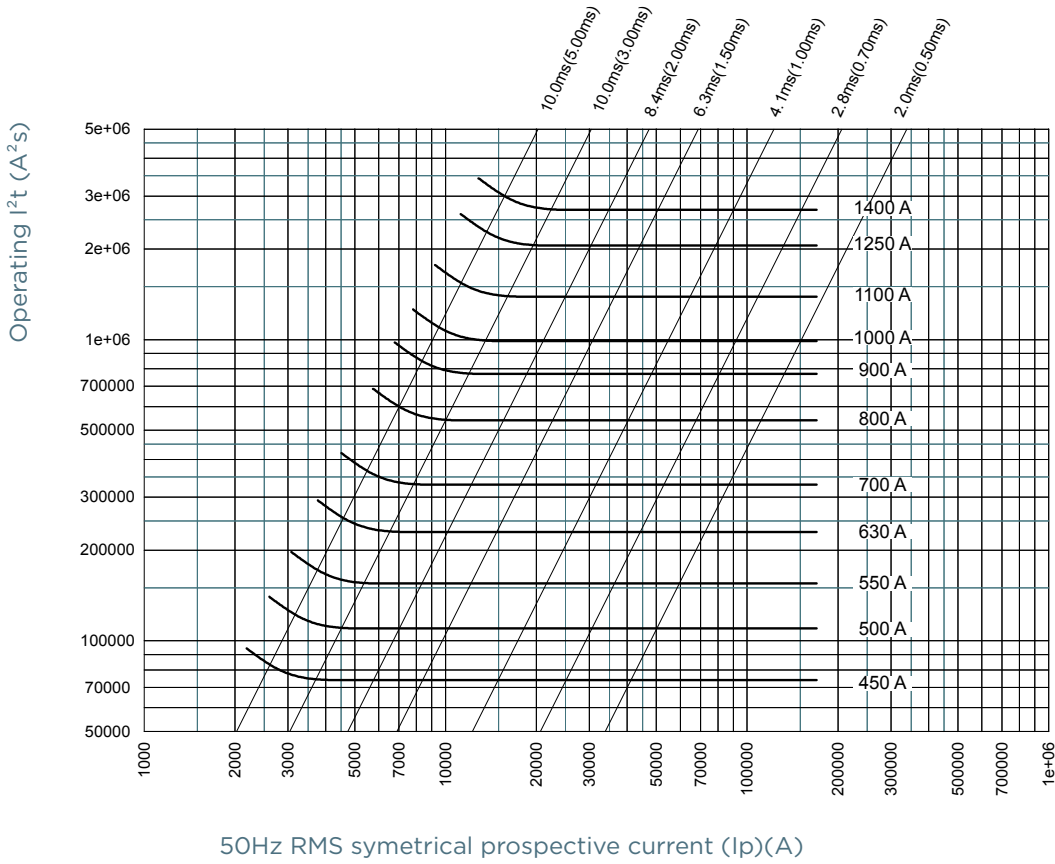


Protistor® size 33 aR

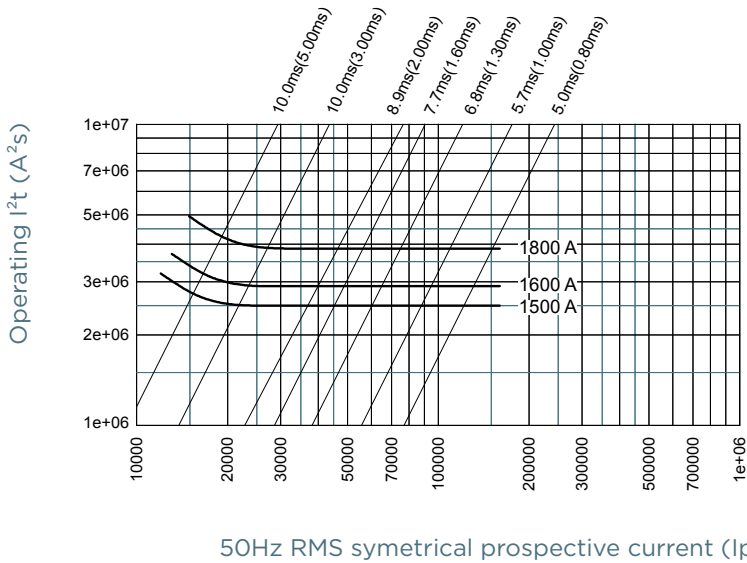
450 to 690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

Size 33 690V

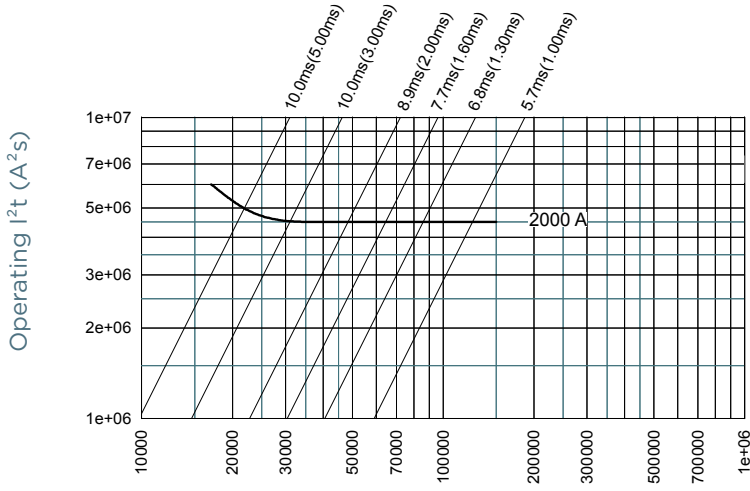


Size 33 600V



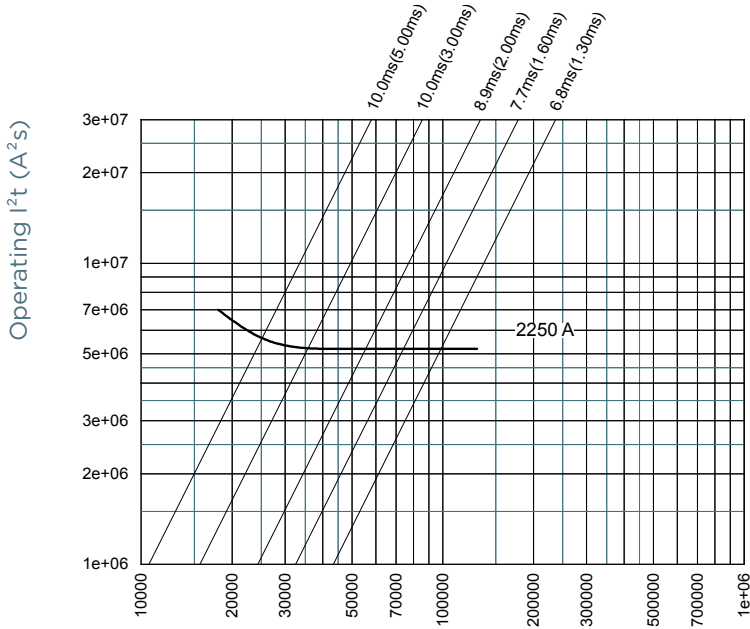
CHARACTERISTICS TOTAL I²T CURVE

Size 33 550V



50Hz RMS symmetrical prospective current (Ip)(A)

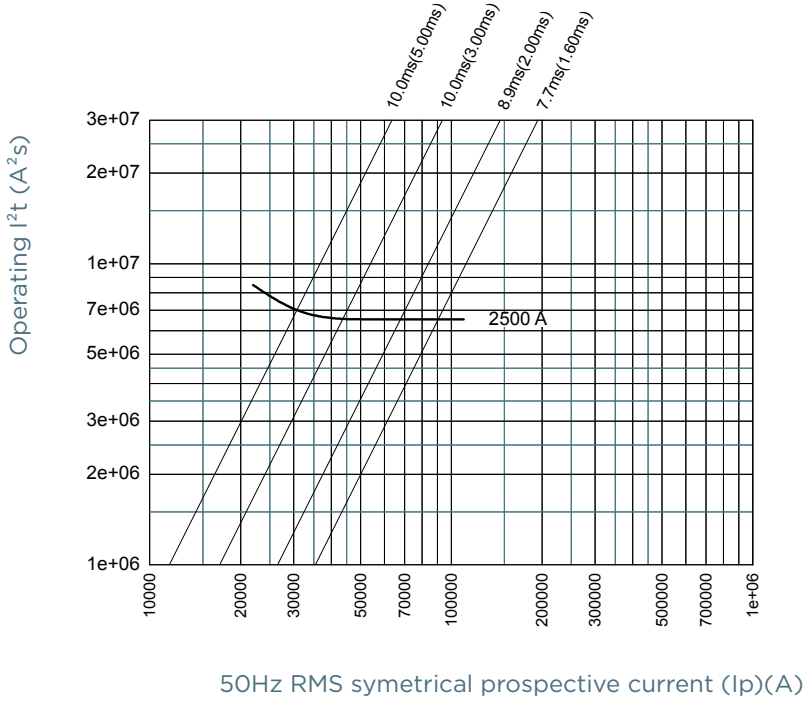
Size 33 500V



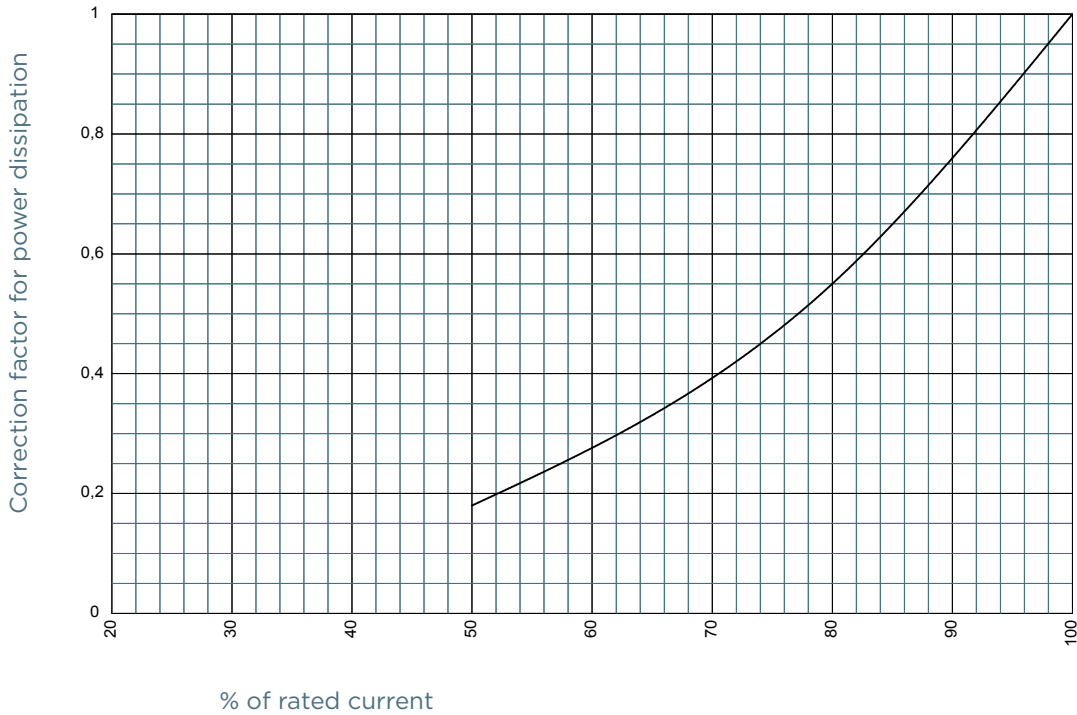
50Hz RMS symmetrical prospective current (Ip)(A)

CHARACTERISTICS TOTAL I²T CURVE

Size 33 450V



POWER DISSIPATION

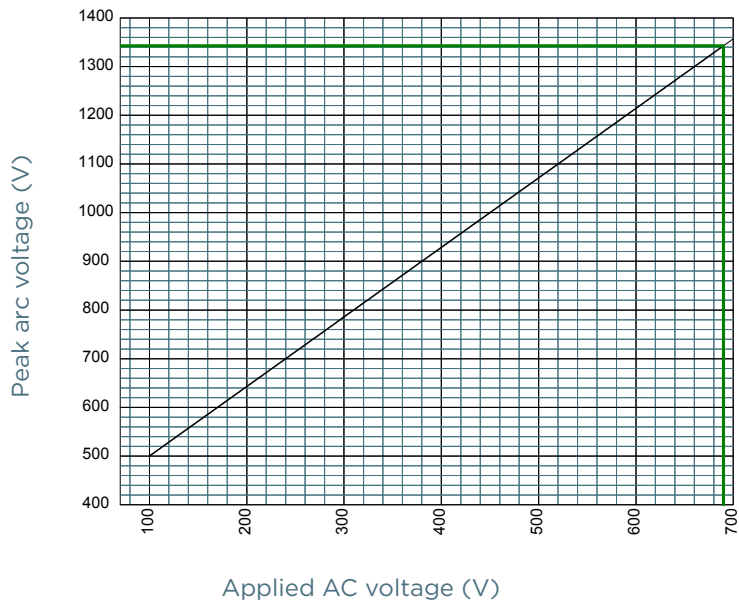


Protistor® size 33 aR

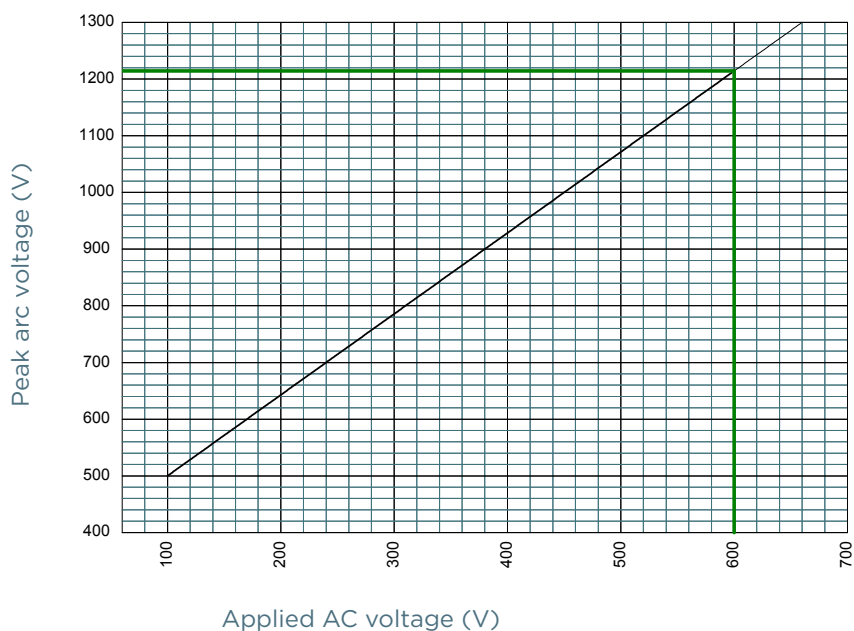
450 to 690VAC (IEC) / 700VAC (UL)

PEAK ARC VOLTAGE

Size 33 690V



Size 33 600V

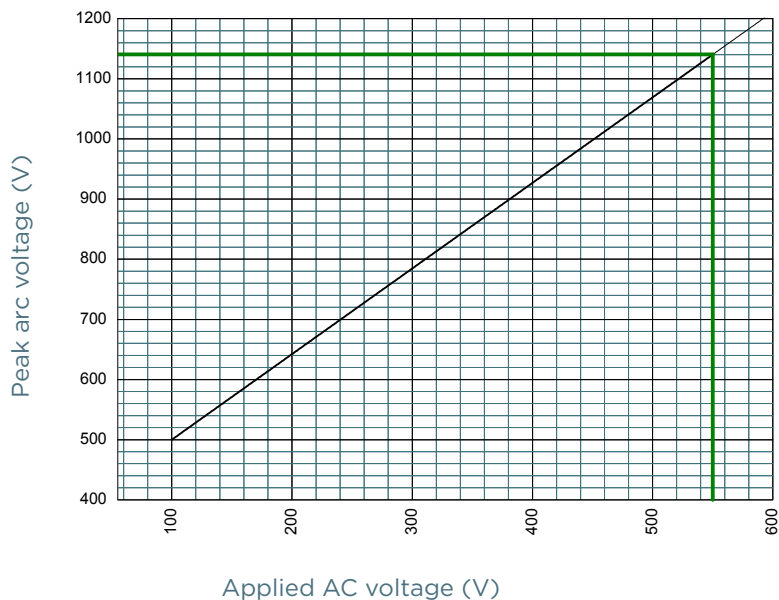


Protistor® size 33 aR

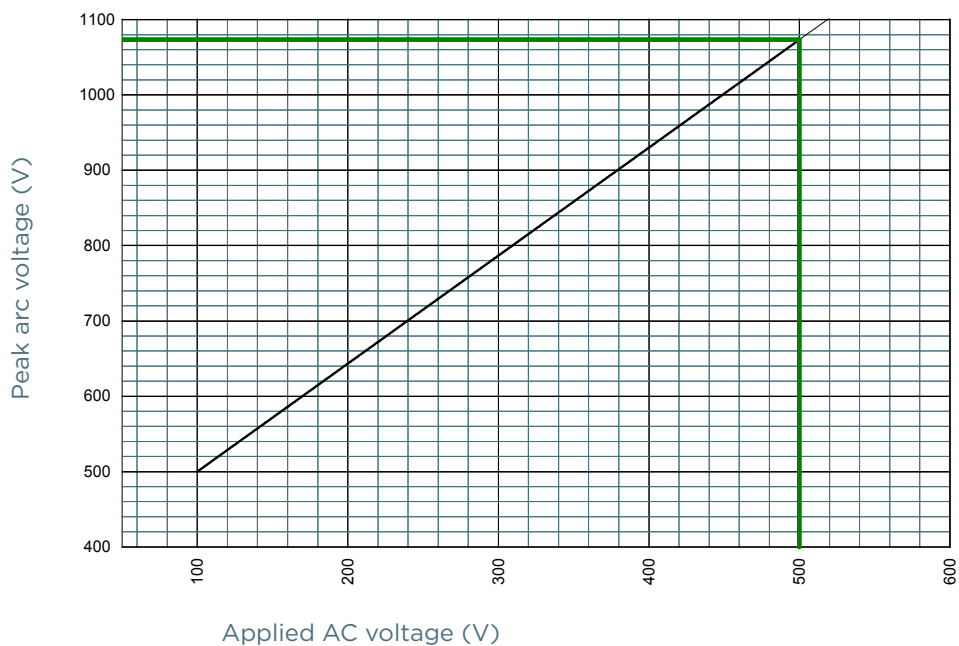
450 to 690VAC (IEC) / 700VAC (UL)

PEAK ARC VOLTAGE

Size 33 550V



Size 33 500V

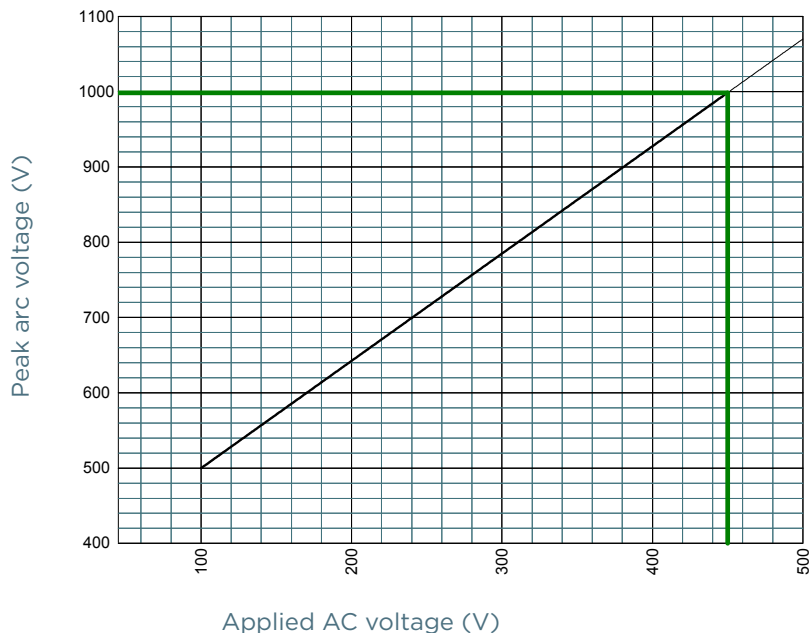


Protistor® size 33 aR

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

PEAK ARC VOLTAGE

Size 33 450V

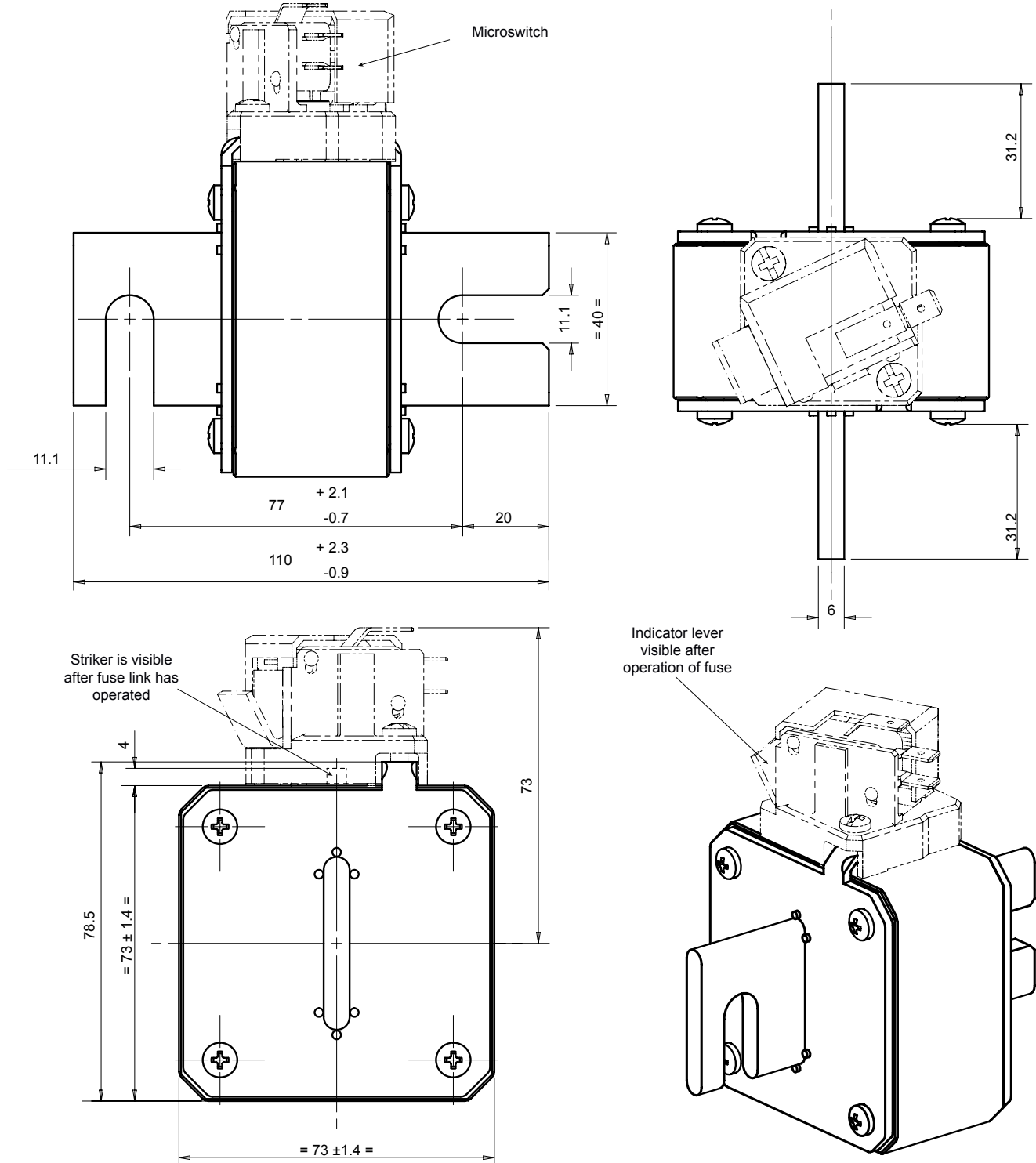


Protistor® size 33 aR

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

DIMENSIONS

size 33 type DIN 80 (102931)



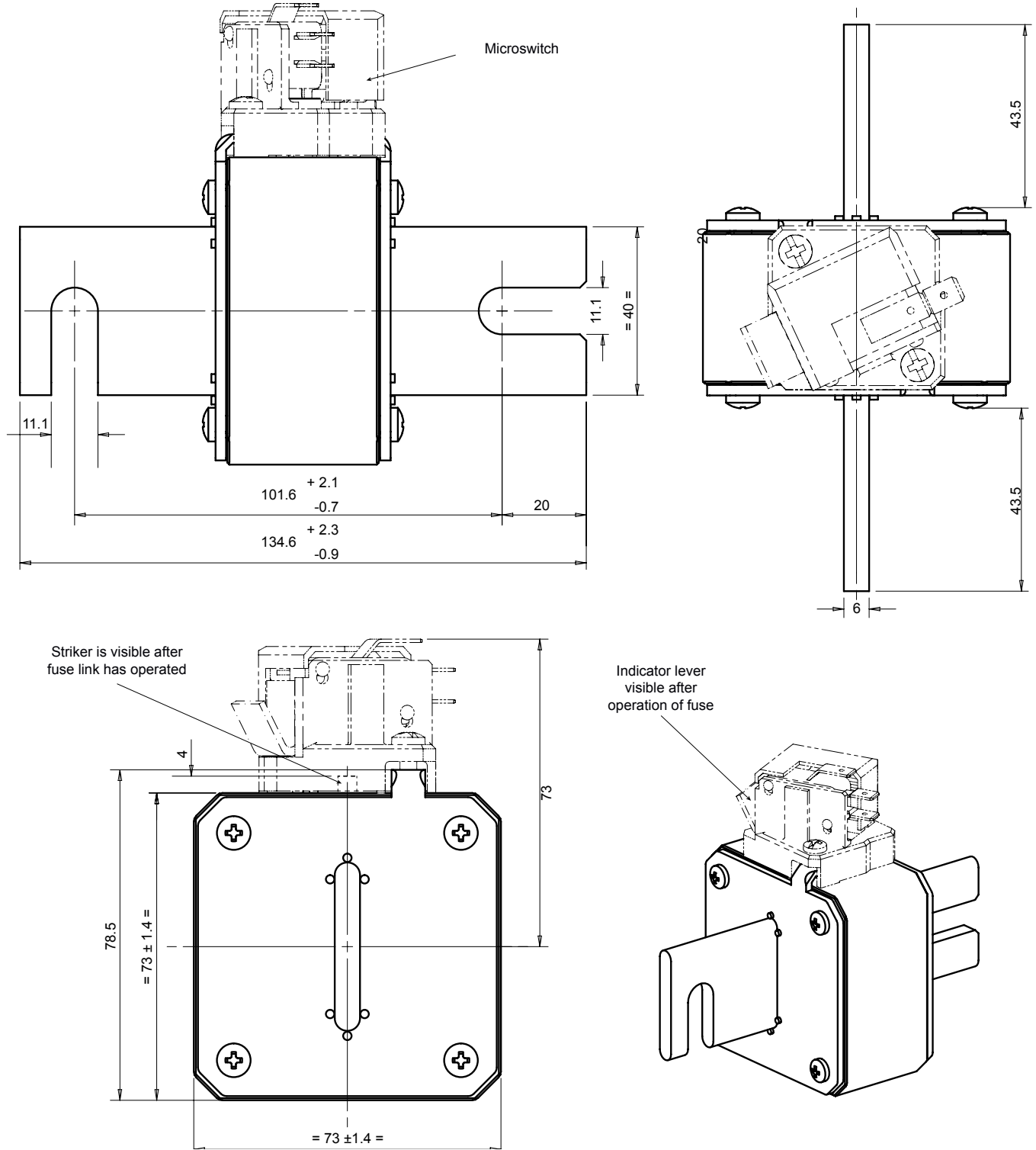
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type DIN 110 (102932)



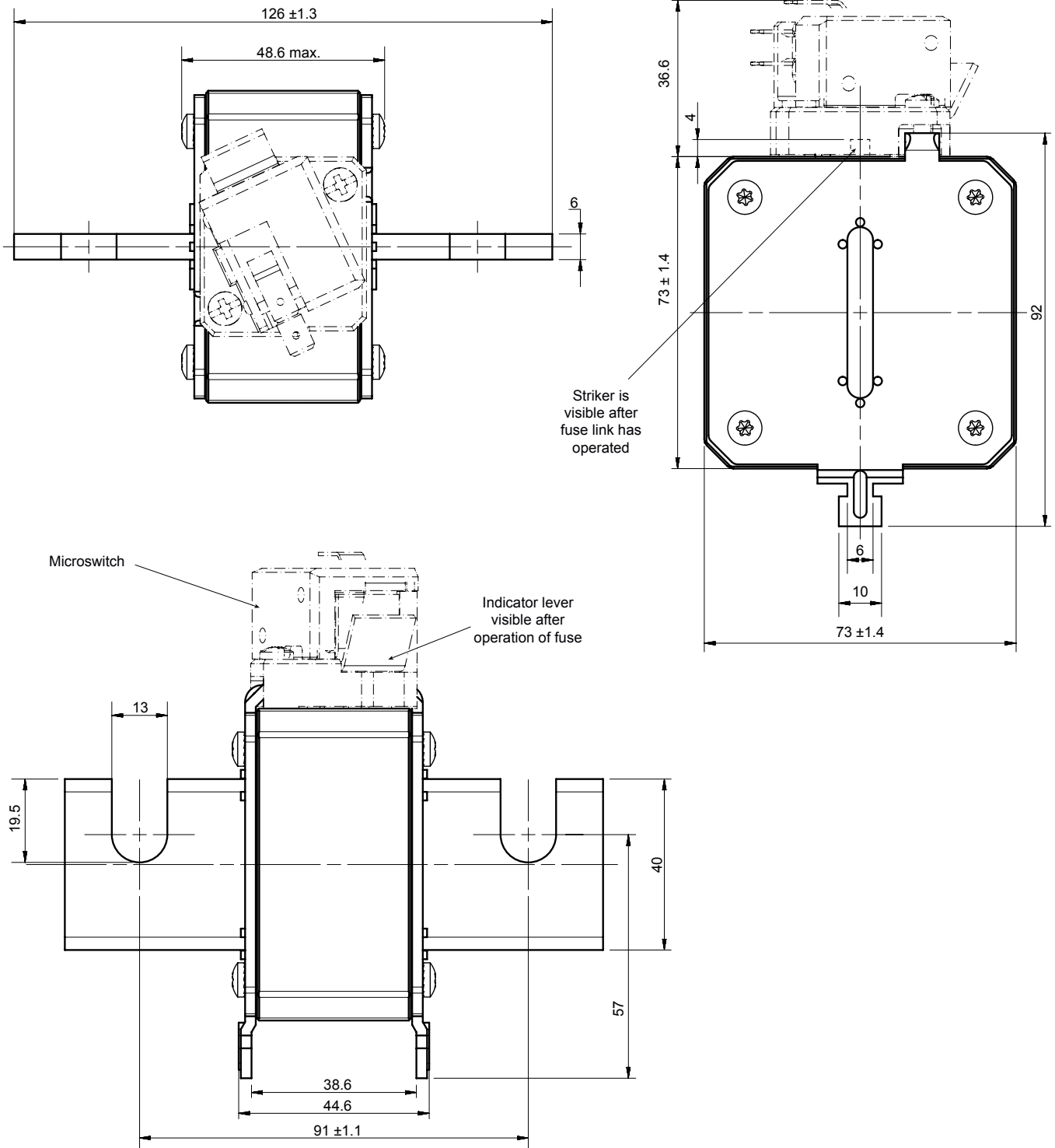
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type EF (102930)



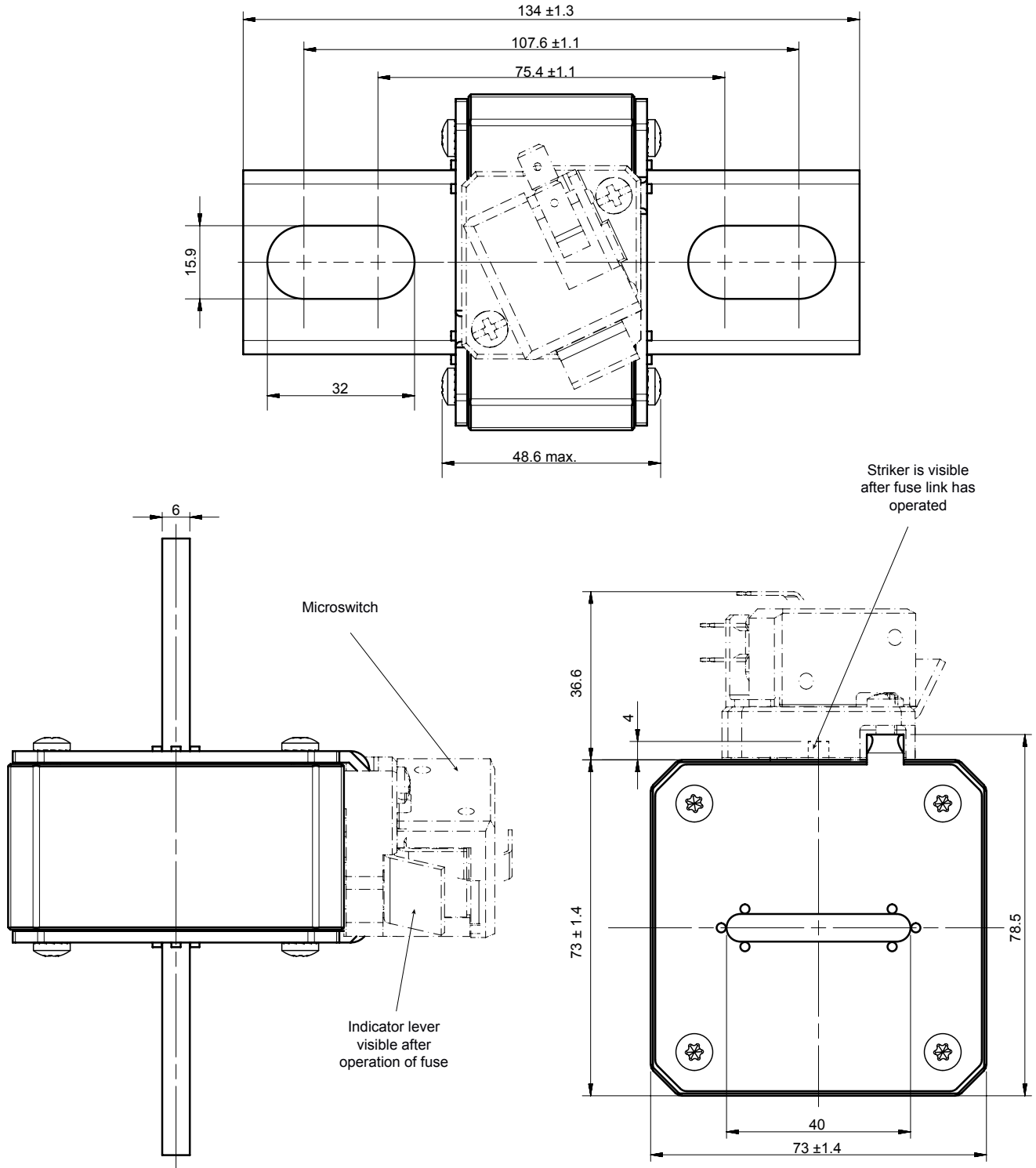
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type KI (102929)



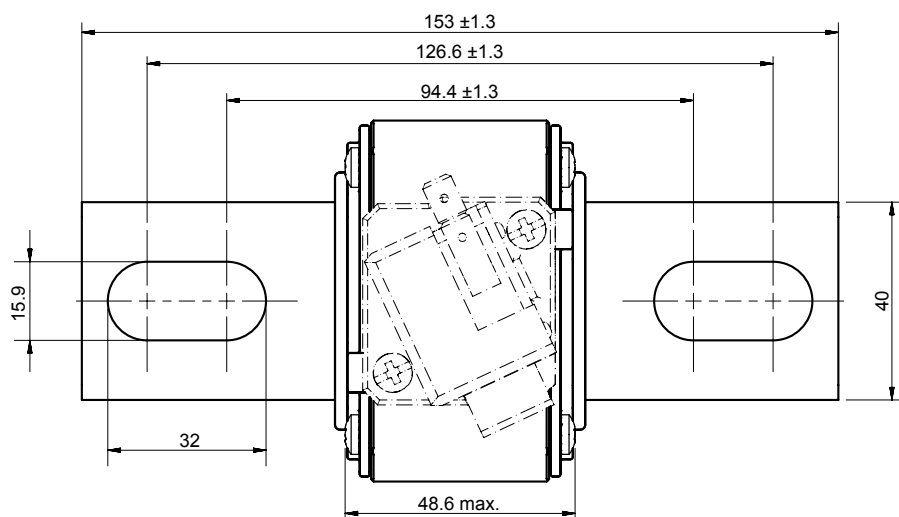
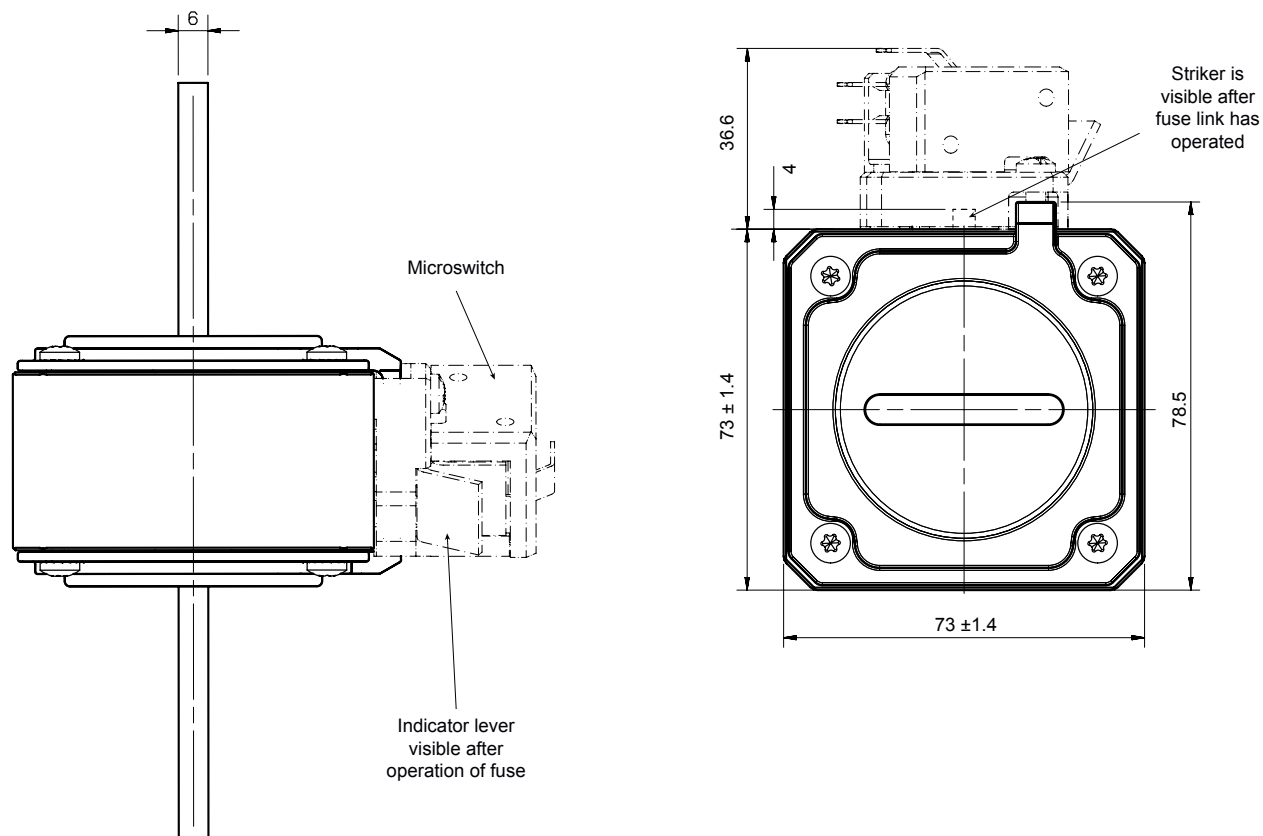
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type LI reinforced (109524)



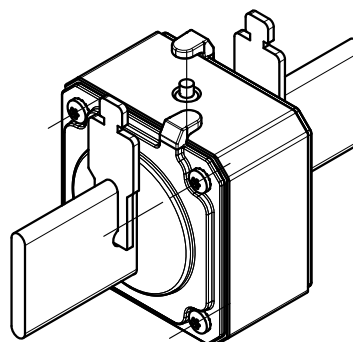
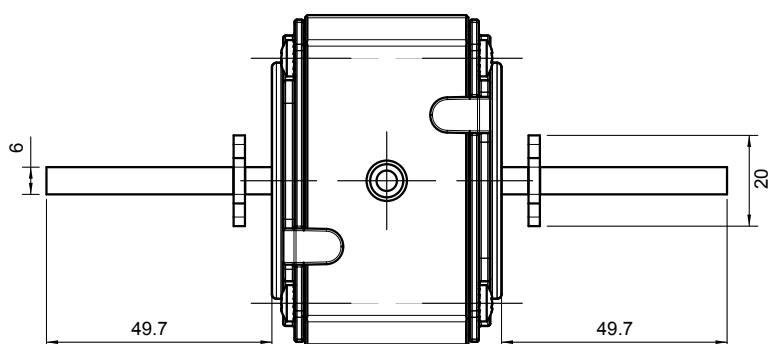
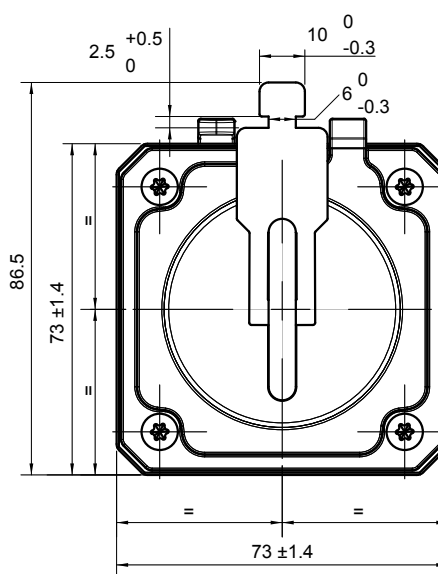
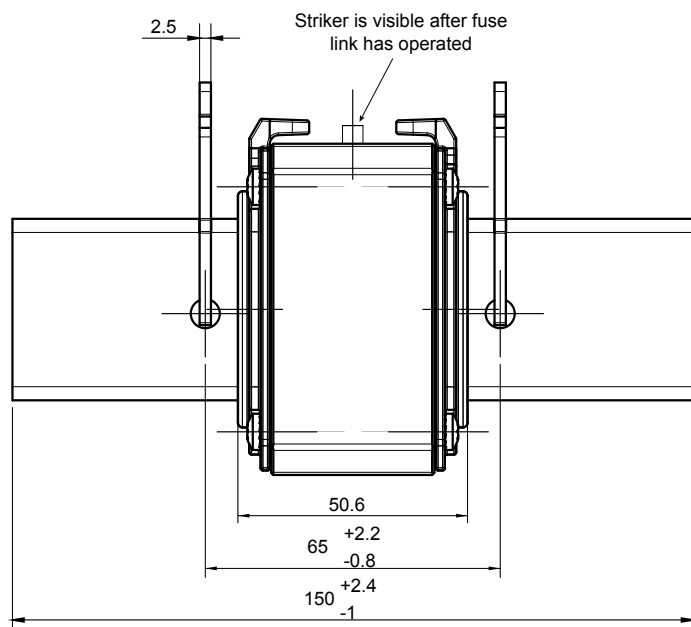
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type PA plain blades (107900)



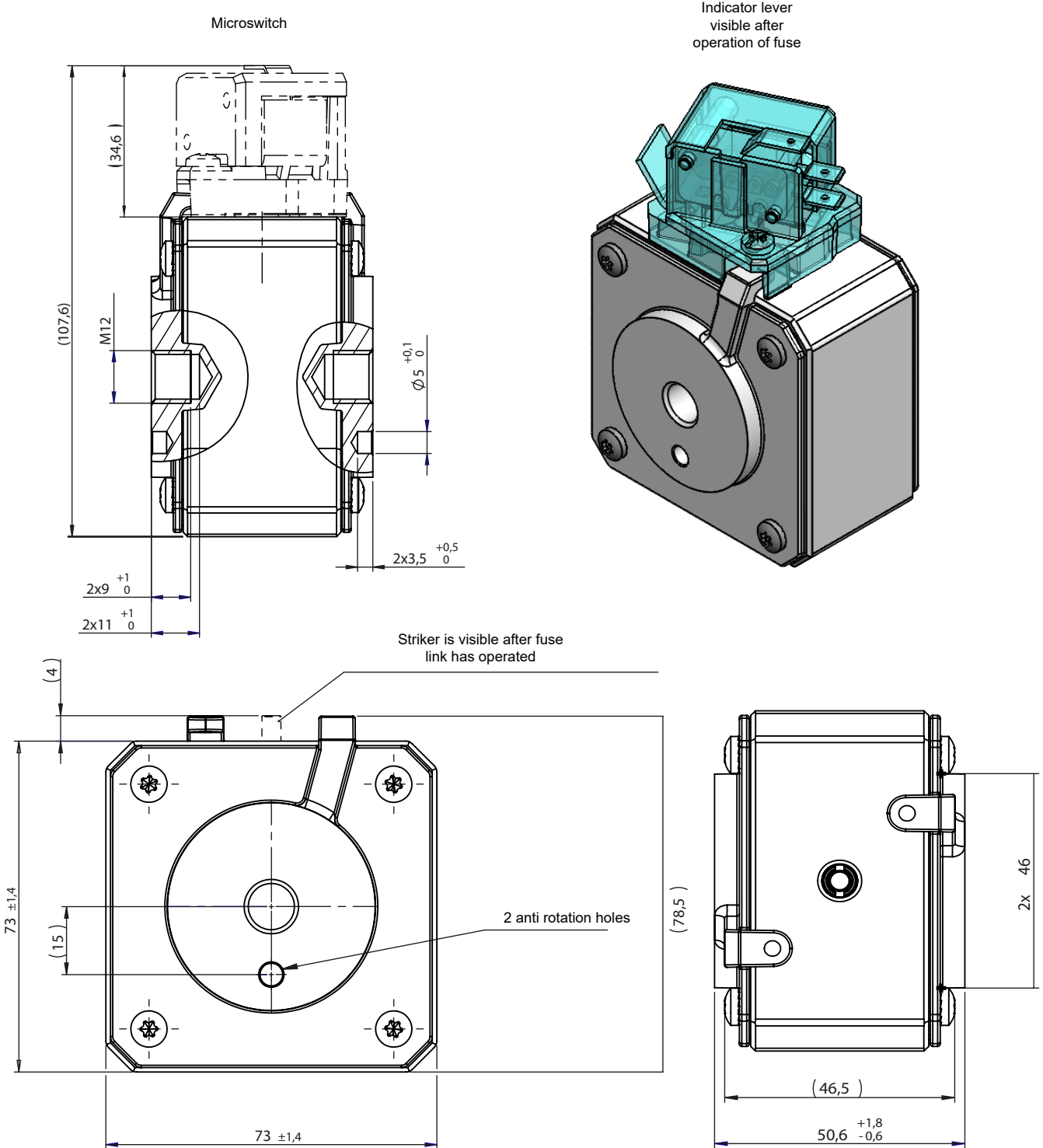
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 TTF Standard Terminal (102757)



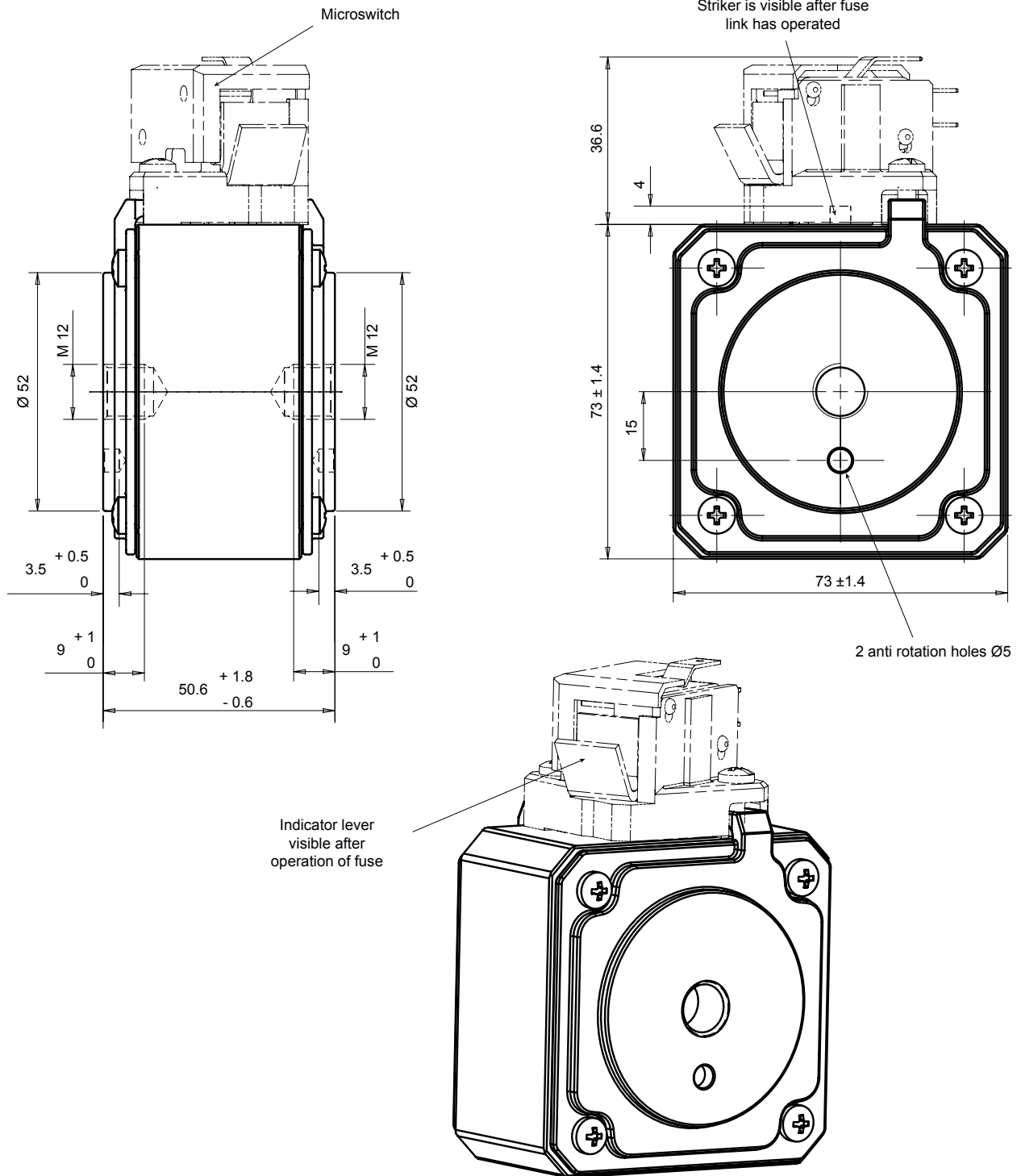
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type TTF reinforced (108835)



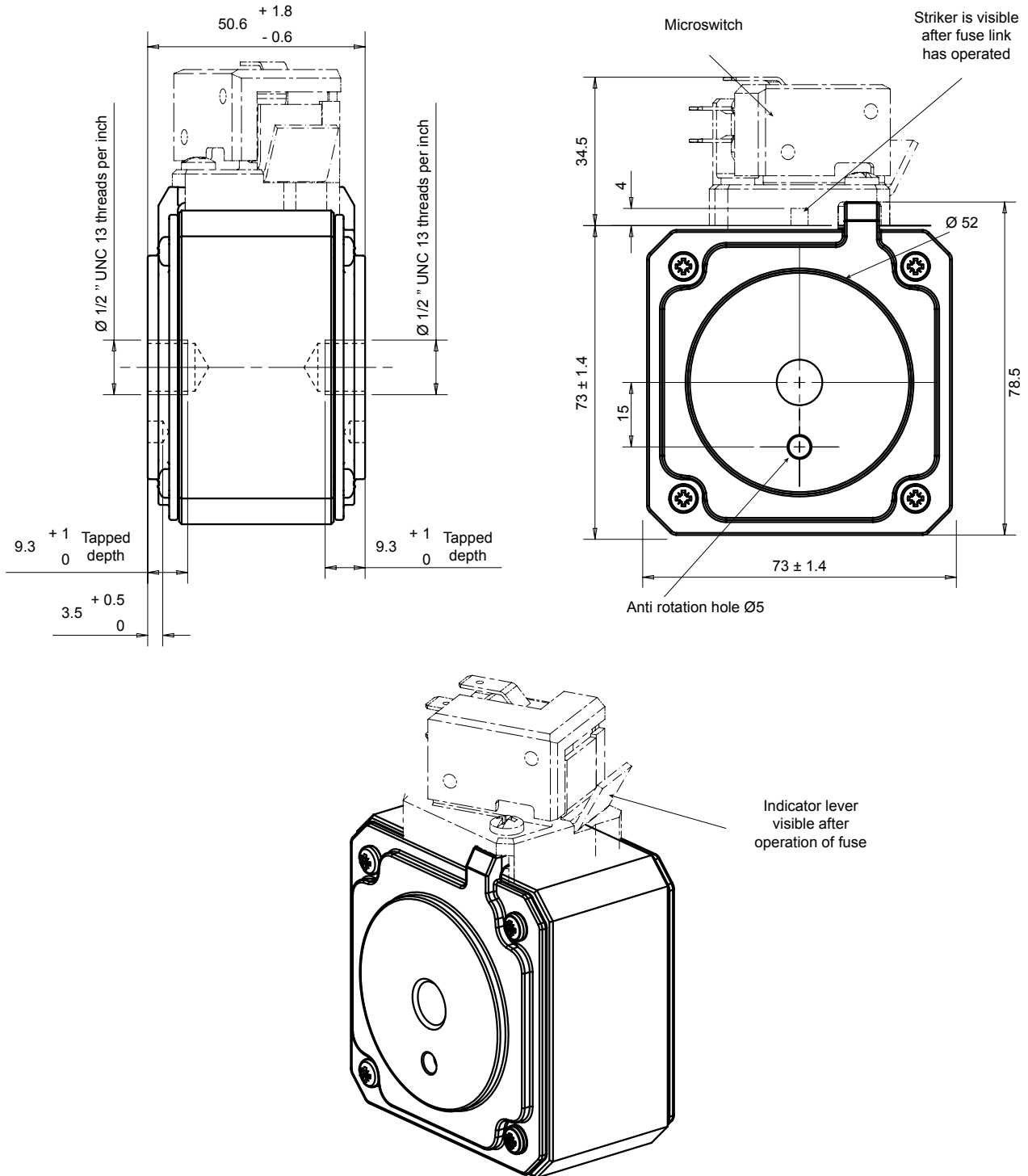
Dimensions in mm

Protistor® size 33 aR

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

DIMENSIONS

size 33 type TTI reinforced



Dimensions in mm

Protistor® size 33 aR

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

APPENDIX

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Catalog number	Item number	Description 1	Page
PC33UD69V450TF	W302170	6,9 URD 33 TT F 0450	2
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PC33UD69V550TF	W300077	6,9 URD 33 TT F 0550	2
PC33UD69V630TF	X300078	6,9 URD 33 TT F 0630	2
PC33UD69V700TF	Y300079	6,9 URD 33 TT F 0700	2
PC33UD69V800TF	Z300080	6,9 URD 33 TT F 0800	2
PC33UD69V900TF	A300081	6,9 URD 33 TT F 0900	2
PC33UD69V1000TF	B300082	6,9 URD 33 TT F 1000	2
PC33UD69V1100TF	C300083	6,9 URD 33 TT F 1100	2
PC33UD69V1250TF	D300084	6,9 URD 33 TT F 1250	2
PC33UD69V1400TF	E300085	6,9 URD 33 TT F 1400	2
PC33UD60V1500TF	Y300585	6 URD 33 TT F 1500	2
PC33UD60V1600TF	Z300586	6 URD 33 TT F 1600	2
PC33UD60V1800TF	A300587	6 URD 33 TT F 1800	2
PC33UD55V2000TF	B300588	5,5 URD 33 TT F 2000	2
PC33UD50V2250TF	K300757	5 URD 33 TT F 2250	2
PC33UD45V2500TF	L300758	4,5 URD 33 TTF 2500	2
A070UD33TTI450	X302171	A070 URD 33 TTI 0450	3
A070UD33TTI500	X300446	A070 URD 33 TTI 0500	3
A070UD33TTI550	Y300447	A070 URD 33 TTI 0550	3
A070UD33TTI630	Z300448	A070 URD 33 TTI 0630	3
A070UD33TTI700	A300449	A070 URD 33 TTI 0700	3
A070UD33TTI800	T300443	A070 URD 33 TTI 0800	3
A070UD33TTI900	B300450	A070 URD 33 TTI 0900	3
A070UD33TTI1000	C300451	A070 URD 33 TTI 1000	3
A070UD33TTI1100	D300452	A070 URD 33 TTI 1100	3
A070UD33TTI1250	E300453	A070 URD 33 TTI 1250	3
A070UD33TTI1400	F300454	A070 URD 33 TTI 1400	3
A065UD33TTI1500	F302064	A065 URD 33 TTI 1500	3
A065UD33TTI1600	S301086	A065 URD 33 TTI 1600	3
A065UD33TTI1800	T301087	A065 URD 33 TTI 1800	3
A060UD33TTI2000	V301088	A060 URD 33 TTI 2000	3
A055UD33TTI2250	W301089	A055 URD 33 TTI 2250	3
A050UD33TTI2500	Y300838	A050 URD 33 TTI 2500	3
PC33UD69V450A	T302168	6,9 URD 33 D08 A 0450	4
PC33UD69V500A	G300248	6,9 URD 33 D08 A 0500	4
PC33UD69V550A	H300249	6,9 URD 33 D08 A 0550	4
PC33UD69V630A	J300250	6,9 URD 33 D08 A 0630	4
PC33UD69V700A	K300251	6,9 URD 33 D08 A 0700	4
PC33UD69V800A	L300252	6,9 URD 33 D08 A 0800	4
PC33UD69V900A	M300253	6,9 URD 33 D08 A 0900	4
PC33UD69V1000A	N300254	6,9 URD 33 D08 A 1000	4
PC33UD69V1100A	P300255	6,9 URD 33 D08 A 1100	4
PC33UD69V1250A	Q300256	6,9 URD 33 D08 A 1250	4
PC33UD69V1400A	R300257	6,9 URD 33 D08 A 1400	4
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PC33UD60V1600A	X301803	6 URD 33 D08 A 1600	4
PC33UD60V1800A	E301971	6 URD 33 D08 A 1800	4
PC33UD55V2000A	A302657	5,5 URD 33 D08 A 2000	4
PC33UD69V450D1A	V302169	6,9 URD 33 D11 A 0450	4
PC33UD69V500D1A	S300258	6,9 URD 33 D11 A 0500	4
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PC33UD69V630D1A	V300260	6,9 URD 33 D11 A 0630	4
PC33UD69V700D1A	W300261	6,9 URD 33 D11 A 0700	4
PC33UD69V800D1A	X300262	6,9 URD 33 D11 A 0800	4

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APPENDIX

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Catalog number	Item number	Description 1	Page
PC33UD69V900D1A	Y300263	6,9 URD 33 D11 A 0900	4
PC33UD69V10CD1A	Z300264	6,9 URD 33 D11 A 1000	4
PC33UD69V11CD1A	A300265	6,9 URD 33 D11 A 1100	4
PC33UD69V12CD1A	B300266	6,9 URD 33 D11 A 1250	4
PC33UD69V14CD1A	C300267	6,9 URD 33 D11 A 1400	4
PC33UD60V15CD1A	H301974	6 URD 33 D11 A 1500	4
PC33UD60V16CD1A	Z301437	6 URD 33 D11 A 1600	4
PC33UD55V20CD1A	S1015765	5,5 URD 33 D11A 2000A	4
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A070UD33KI550	X300239	A 070 URD 33 KI 0550	5
A070UD33KI630	Y300240	A 070 URD 33 KI 0630	5
A070UD33KI700	Z300241	A 070 URD 33 KI 0700	5
A070UD33KI800	A300242	A 070 URD 33 KI 0800	5
A070UD33KI900	B300243	A 070 URD 33 KI 0900	5
A070UD33KI1000	C300244	A 070 URD 33 KI 1000	5
A070UD33KI1100	D300245	A 070 URD 33 KI 1100	5
A070UD33KI1250	E300246	A 070 URD 33 KI 1250	5
A070UD33KI1400	F300247	A 070 URD 33 KI 1400	5
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A070UD33LI630	M300230	A 070 URD 33 LI 0630	5
A070UD33LI700	N300231	A 070 URD 33 LI 0700	5
A070UD33LI800	P300232	A 070 URD 33 LI 0800	5
A070UD33LI900	Q300233	A 070 URD 33 LI 0900	5
A070UD33LI1000	R300234	A 070 URD 33 LI 1000	5
A070UD33LI1100	S300235	A 070 URD 33 LI 1100	5
A070UD33LI1250	T300236	A 070 URD 33 LI 1250	5
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A060UD33LI1500	P300531	A 060 URD 33 LI 1500	5
A060UD33LI2000	J301078	A 060 URD 33 LI 2000	5
A065UD33LI1600	G301076	A 065 URD 33 LI 1600	5
A065UD33LI1800	H301077	A 065 URD 33 LI 1800	5
PC33UD69V500EF	Z300218	6,9 URD 33 E F 0500	6
PC33UD69V550EF	A300219	6,9 URD 33 E F 0550	6
PC33UD69V630EF	B300220	6,9 URD 33 E F 0630	6
PC33UD69V700EF	C300221	6,9 URD 33 E F 0700	6
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PC33UD69V1400EF	J300227	6,9 URD 33 E F 1400	6
PC33UD60V1600PA	W302722	6 URD 3 PA 1600	6
PC33UD69V1250PA	V302721	6,9 URD 3 PA 1250	6
PC33UD69V1400PA	P1028044	6,9 URD 3 PA 1400	6