

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

SEMICONDUCTOR PROTECTION FUSES

NH 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 NH style fuse-links are defined as per DIN 43620/00 for a worldwide acceptance into NH modular system fuse-holders, fuse switch disconnectors for direct installation.

The Protistor® have been engineered to provide state-of-the-art protection for semiconductors: diodes, thyristors, GTO's and IGBT devices. Fuses are assembled with pure silver, 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 AC	690 VAC
Ampere Range (A)	16 ... 1000 A
Size per Standard	NH 000, 00, 0, 1, 2, 3
Speed/Characteristic	aR

FEATURES & BENEFITS

- Multiple body sizes
- aR Class according to VDE 636-23 and IEC 60269-4
- Very low I^2t for improved semiconductor protection
- Ultra fast acting
- Current limiting
- Superior cycling capability
- Indication system with double indicator

APPLICATIONS

- Protection of inverters, UPS systems, motor drives and similar 700V or less equipment.

STANDARDS

- UL/CSA Recognized Component
- IEC 60269-4 Compliance



Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

PRODUCT RANGE



Size 000 aR 690VAC

NH000UD69V200PV

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	Weight	Package
NH000UD69V16PV	P320035	690 V	700 V	16 A	8 A ² s	0.05 kA ² s	80 kA	2.8 W	0.13 kg	3
NH000UD69V20PV	R320037	690 V	700 V	20 A	15 A ² s	0.09 kA ² s	80 kA	2.8 W	0.13 kg	3
NH000UD69V25PV	T320039	690 V	700 V	25 A	21 A ² s	0.13 kA ² s	80 kA	4.2 W	0.13 kg	3
NH000UD69V32PV	Y320043	690 V	700 V	32 A	46 A ² s	0.27 kA ² s	80 kA	5.5 W	0.13 kg	3
NH000UD69V40PV	C320047	690 V	700 V	40 A	67 A ² s	0.4 kA ² s	80 kA	5.5 W	0.13 kg	3
NH000UD69V50PV	G320051	690 V	700 V	50 A	110 A ² s	0.63 kA ² s	80 kA	9.7 W	0.13 kg	3
NH000UD69V63PV	L320055	690 V	700 V	63 A	216 A ² s	1.3 kA ² s	80 kA	12.5 W	0.13 kg	3
NH000UD69V80PV	Q320059	690 V	700 V	80 A	348 A ² s	2 kA ² s	80 kA	16.7 W	0.13 kg	3
NH000UD69V100PV	V320063	690 V	700 V	100 A	722 A ² s	4.3 kA ² s	80 kA	19.4 W	0.13 kg	3
NH000UD69V125PV	X320065	690 V	700 V	125 A	1390 A ² s	8.2 kA ² s	80 kA	20.8 W	0.13 kg	3
NH000UD69V160PV	B320069	690 V	700 V	160 A	2080 A ² s	12.2 kA ² s	80 kA	30.5 W	0.13 kg	3
NH000UD69V200PV	D320071	690 V	700 V	200 A	3870 A ² s	22.7 kA ² s	80 kA	36.1 W	0.13 kg	3
NH000UD69V250PV	H320075	690 V	700 V	250 A	7540 A ² s	44.4 kA ² s	80 kA	44.1 W	0.13 kg	3
NH000UD50V315PV	M320079	500 V	550 V	315 A	15400 A ² s	90.7 kA ² s	80 kA	60.2 W	0.13 kg	3



Size 00 aR 690VAC

NH00UD69V125PV

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	Weight	Package
NH00UD69V20PV	A320137	690 V	700 V	20 A	16 A ² s	0.09 kA ² s	170 kA	2.8 W	0.2 kg	3
NH00UD69V25PV	C320139	690 V	700 V	25 A	21 A ² s	0.13 kA ² s	170 kA	4.2 W	0.2 kg	3
NH00UD69V32PV	G320143	690 V	700 V	32 A	46 A ² s	0.27 kA ² s	170 kA	5.5 W	0.2 kg	3
NH00UD69V40PV	L320147	690 V	700 V	40 A	67 A ² s	0.4 kA ² s	170 kA	8.3 W	0.2 kg	3
NH00UD69V50PV	Q320151	690 V	700 V	50 A	110 A ² s	0.63 kA ² s	170 kA	9.7 W	0.2 kg	3
NH00UD69V63PV	V320155	690 V	700 V	63 A	216 A ² s	1.3 kA ² s	170 kA	12.5 W	0.2 kg	3
NH00UD69V80PV	Z320159	690 V	700 V	80 A	348 A ² s	2 kA ² s	170 kA	16.7 W	0.2 kg	3
NH00UD69V100PV	D320163	690 V	700 V	100 A	722 A ² s	4.3 kA ² s	170 kA	19.4 W	0.2 kg	3
NH00UD69V125PV	F320165	690 V	700 V	125 A	1390 A ² s	8.2 kA ² s	170 kA	20.8 W	0.2 kg	3
NH00UD69V160PV	K320169	690 V	700 V	160 A	2070 A ² s	12.2 kA ² s	170 kA	30.5 W	0.2 kg	3
NH00UD69V200PV	M320171	690 V	700 V	200 A	3870 A ² s	22.7 kA ² s	170 kA	36.1 W	0.2 kg	3
NH00UD69V250PV	R320175	690 V	700 V	250 A	7540 A ² s	44.4 kA ² s	170 kA	44.4 W	0.2 kg	3
NH00UD69V315PV	W320179	690 V	700 V	315 A	15400 A ² s	90.7 kA ² s	170 kA	60 W	0.2 kg	3

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

PRODUCT RANGE



NH0UD69V315PV

Size 0 aR 690VAC

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	Weight	Package
NH0UD69V32PV	Q320243	690 V	700 V	32 A	32 A ² s	0.17 kA ² s	170 kA	19.4 W	0.27 kg	3
NH0UD69V40PV	V320247	690 V	700 V	40 A	54 A ² s	0.28 kA ² s	170 kA	20.8 W	0.27 kg	3
NH0UD69V50PV	Z320251	690 V	700 V	50 A	87 A ² s	0.47 kA ² s	170 kA	20.8 W	0.27 kg	3
NH0UD69V63PV	D320255	690 V	700 V	63 A	128 A ² s	0.7 kA ² s	170 kA	23.6 W	0.27 kg	3
NH0UD69V80PV	H320259	690 V	700 V	80 A	184 A ² s	0.97 kA ² s	170 kA	25 W	0.27 kg	3
NH0UD69V100PV	M320263	690 V	700 V	100 A	392 A ² s	2.08 kA ² s	170 kA	30.5 W	0.27 kg	3
NH0UD69V125PV	P320265	690 V	700 V	125 A	722 A ² s	3.89 kA ² s	170 kA	36.1 W	0.27 kg	3
NH0UD69V160PV	T320269	690 V	700 V	160 A	1550 A ² s	8.32 kA ² s	170 kA	44.4 W	0.27 kg	3
NH0UD69V200PV	W320271	690 V	700 V	200 A	2950 A ² s	15.9 kA ² s	170 kA	54.2 W	0.27 kg	3
NH0UD69V250PV	A320275	690 V	700 V	250 A	5580 A ² s	29.9 kA ² s	170 kA	66.7 W	0.27 kg	3
NH0UD69V315PV	E320279	690 V	700 V	315 A	11600 A ² s	62.3 kA ² s	170 kA	80 W	0.27 kg	3



NH1UD69V315PV

Size 1 aR 690VAC

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	Weight	Package
NH1UD69V63PV	M320355	690 V	700 V	63 A	128 A ² s	0.7 kA ² s	170 kA	36.1 W	0.42 kg	3
NH1UD69V80PV	K320399	690 V	700 V	80 A	216 A ² s	1.17 kA ² s	170 kA	43 W	0.42 kg	3
NH1UD69V100PV	W320363	690 V	700 V	100 A	288 A ² s	1.57 kA ² s	170 kA	45.8 W	0.42 kg	3
NH1UD69V125PV	Y320365	690 V	700 V	125 A	620 A ² s	3.32 kA ² s	170 kA	53 W	0.42 kg	3
NH1UD69V160PV	C320369	690 V	700 V	160 A	1170 A ² s	6.27 kA ² s	170 kA	58 W	0.42 kg	3
NH1UD69V200PV	E320371	690 V	700 V	200 A	2480 A ² s	13.3 kA ² s	170 kA	66.7 W	0.42 kg	3
NH1UD69V250PV	J320375	690 V	700 V	250 A	4690 A ² s	25.1 kA ² s	170 kA	75 W	0.42 kg	3
NH1UD69V315PV	N320379	690 V	700 V	315 A	9580 A ² s	51.4 kA ² s	170 kA	83 W	0.42 kg	3
NH1UD69V350PV	P320380	690 V	700 V	350 A	13500 A ² s	72.3 kA ² s	170 kA	89 W	0.42 kg	3
NH1UD69V400PV	S320383	690 V	700 V	400 A	19500 A ² s	105 kA ² s	170 kA	97 W	0.42 kg	3

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

PRODUCT RANGE



NH2UD69V500PV

Size 2

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	Weight	Package
NH2UD69V160PV	L320469	690 V	700 V	160 A	968 A ² s	5.18 kA ² s	170 kA	75 W	0.62 kg	3
NH2UD69V200PV	N320471	690 V	700 V	200 A	1710 A ² s	9.22 kA ² s	170 kA	83 W	0.62 kg	3
NH2UD69V250PV	S320475	690 V	700 V	250 A	3500 A ² s	18.7 kA ² s	170 kA	93 W	0.62 kg	3
NH2UD69V315PV	X320479	690 V	700 V	315 A	6870 A ² s	36.9 kA ² s	170 kA	108 W	0.62 kg	3
NH2UD69V350PV	Y320480	690 V	700 V	350 A	9580 A ² s	51.4 kA ² s	170 kA	116 W	0.62 kg	3
NH2UD69V400PV	B320483	690 V	700 V	400 A	13500 A ² s	72.3 kA ² s	170 kA	125 W	0.62 kg	3
NH2UD69V450PV	D320485	690 V	700 V	450 A	21000 A ² s	113 kA ² s	170 kA	139 W	0.62 kg	3
NH2UD69V500PV	F320487	690 V	700 V	500 A	27500 A ² s	147 kA ² s	170 kA	147 W	0.62 kg	3
NH2UD69V550PV	G320488	690 V	700 V	550 A	38400 A ² s	206 kA ² s	170 kA	155 W	0.62 kg	3
NH2UD69V630PV	H320489	690 V	700 V	630 A	58600 A ² s	315 kA ² s	170 kA	169 W	0.62 kg	3
NH2UD69V700PV	J320490	690 V	700 V	700 A	78100 A ² s	420 kA ² s	170 kA	175 W	0.62 kg	3



NH3UD69V700PV

Size 3 aR 690VAC

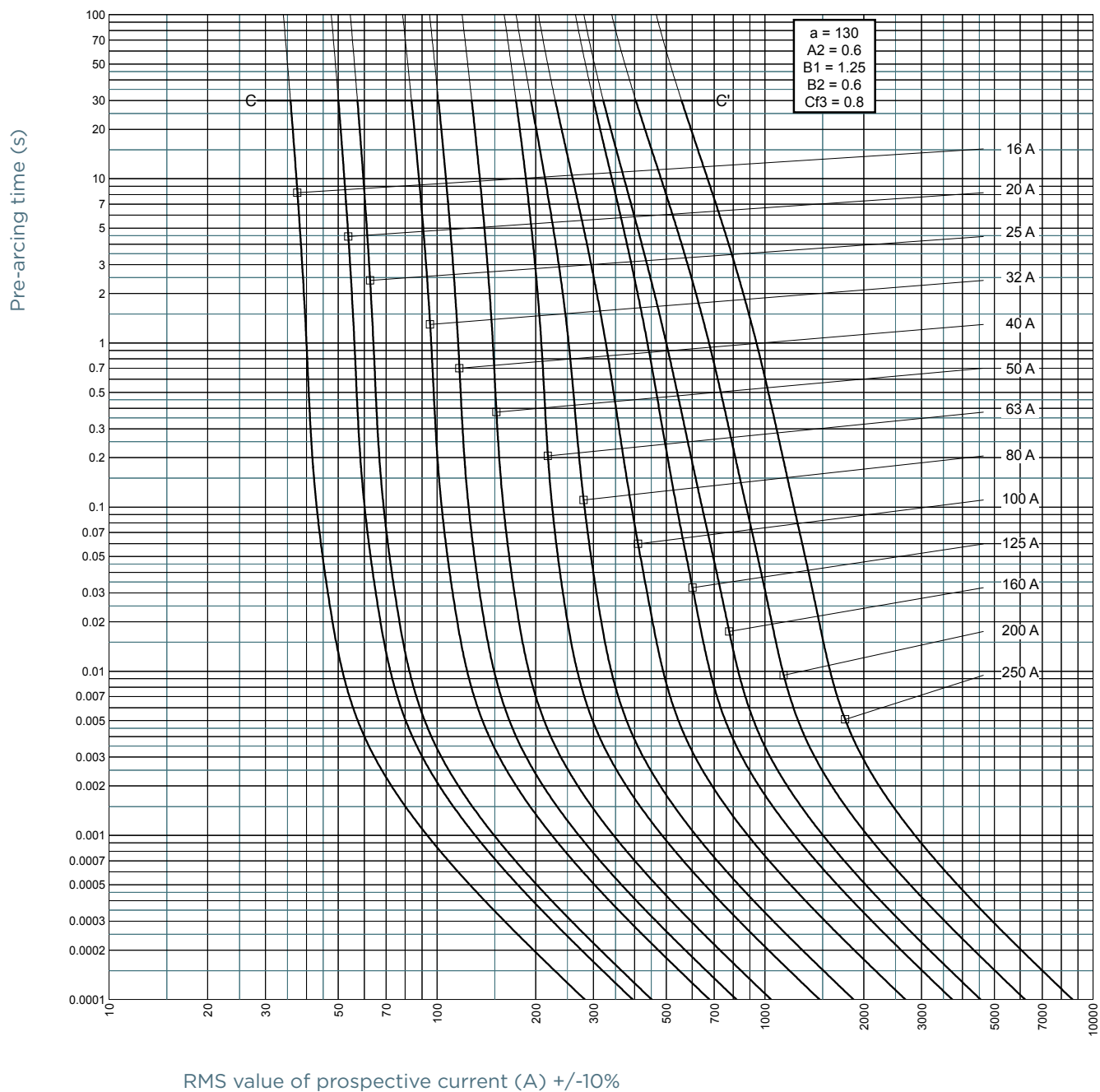
Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Weight	Package
NH3UD69V315PV	F320579	690 V	700 V	315 A	5240 A ² s	28.2 kA ² s	170 kA	113 W	1.05 kg	1
NH3UD69V350PV	G320580	690 V	700 V	350 A	7540 A ² s	40.6 kA ² s	170 kA	117 W	1.05 kg	1
NH3UD69V400PV	K320583	690 V	700 V	400 A	10500 A ² s	56.5 kA ² s	170 kA	130 W	1.05 kg	1
NH3UD69V450PV	M320585	690 V	700 V	450 A	15700 A ² s	84.3 kA ² s	170 kA	139 W	1.05 kg	1
NH3UD69V500PV	P320587	690 V	700 V	500 A	22200 A ² s	119 kA ² s	170 kA	150 W	1.05 kg	1
NH3UD69V550PV	Q320588	690 V	700 V	550 A	30300 A ² s	163 kA ² s	170 kA	160 W	1.05 kg	1
NH3UD69V630PV	R320589	690 V	700 V	630 A	42100 A ² s	226 kA ² s	170 kA	175 W	1.05 kg	1
NH3UD69V700PV	S320590	690 V	700 V	700 A	61700 A ² s	332 kA ² s	170 kA	200 W	1.05 kg	1
NH3UD69V800PV	T320591	690 V	700 V	800 A	88900 A ² s	478 kA ² s	170 kA	220 W	1.05 kg	1
NH3UD69V900PV	V320592	690 V	700 V	900 A	124000 A ² s	666 kA ² s	170 kA	250 W	1.05 kg	1
NH3UD69V1000PV	W320593	690 V	700 V	1000 A	178000 A ² s	959 kA ² s	170 kA	280 W	1.05 kg	1

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

TIME CURRENT CHARACTERISTIC CURVES

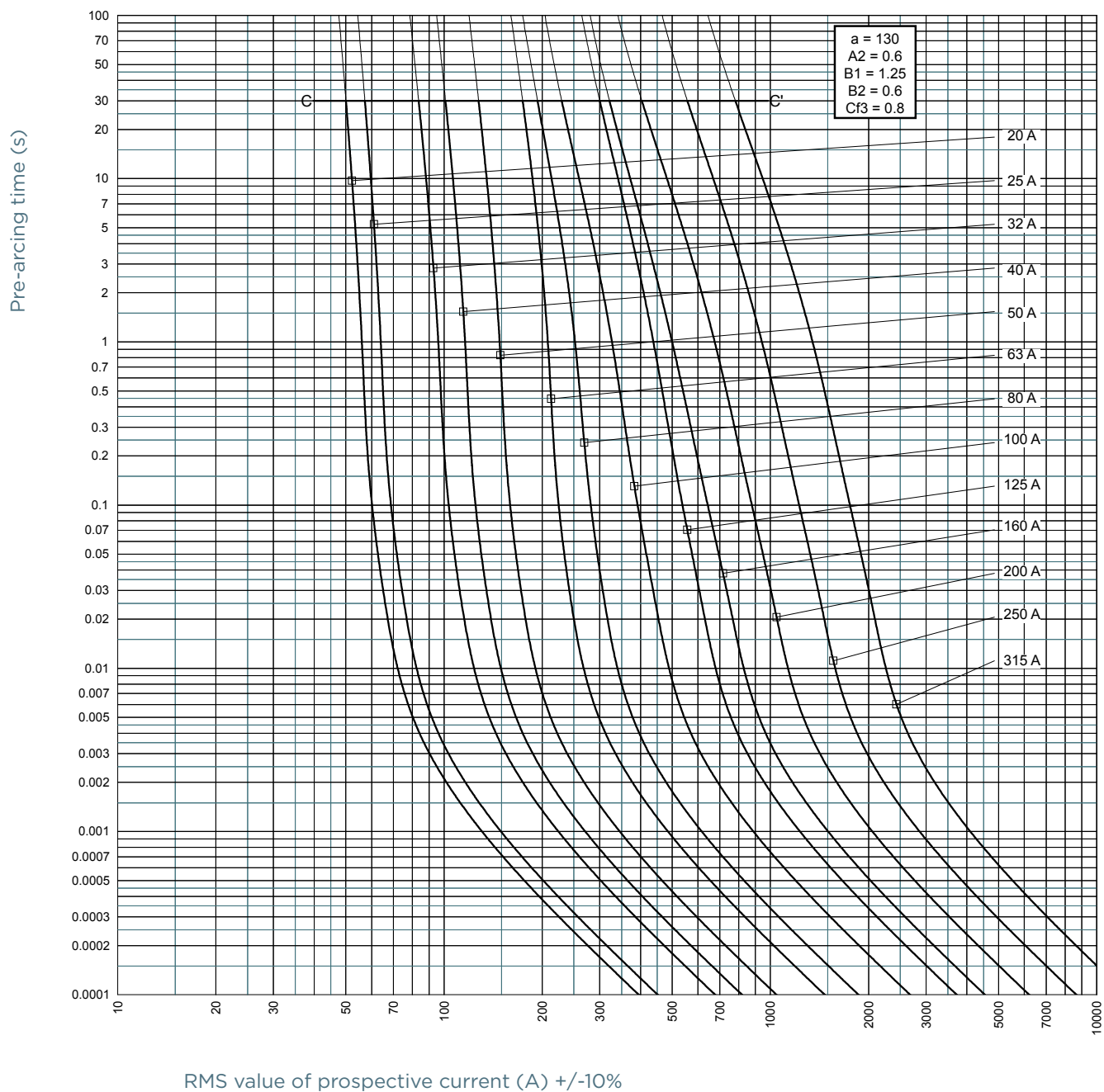
Size 000



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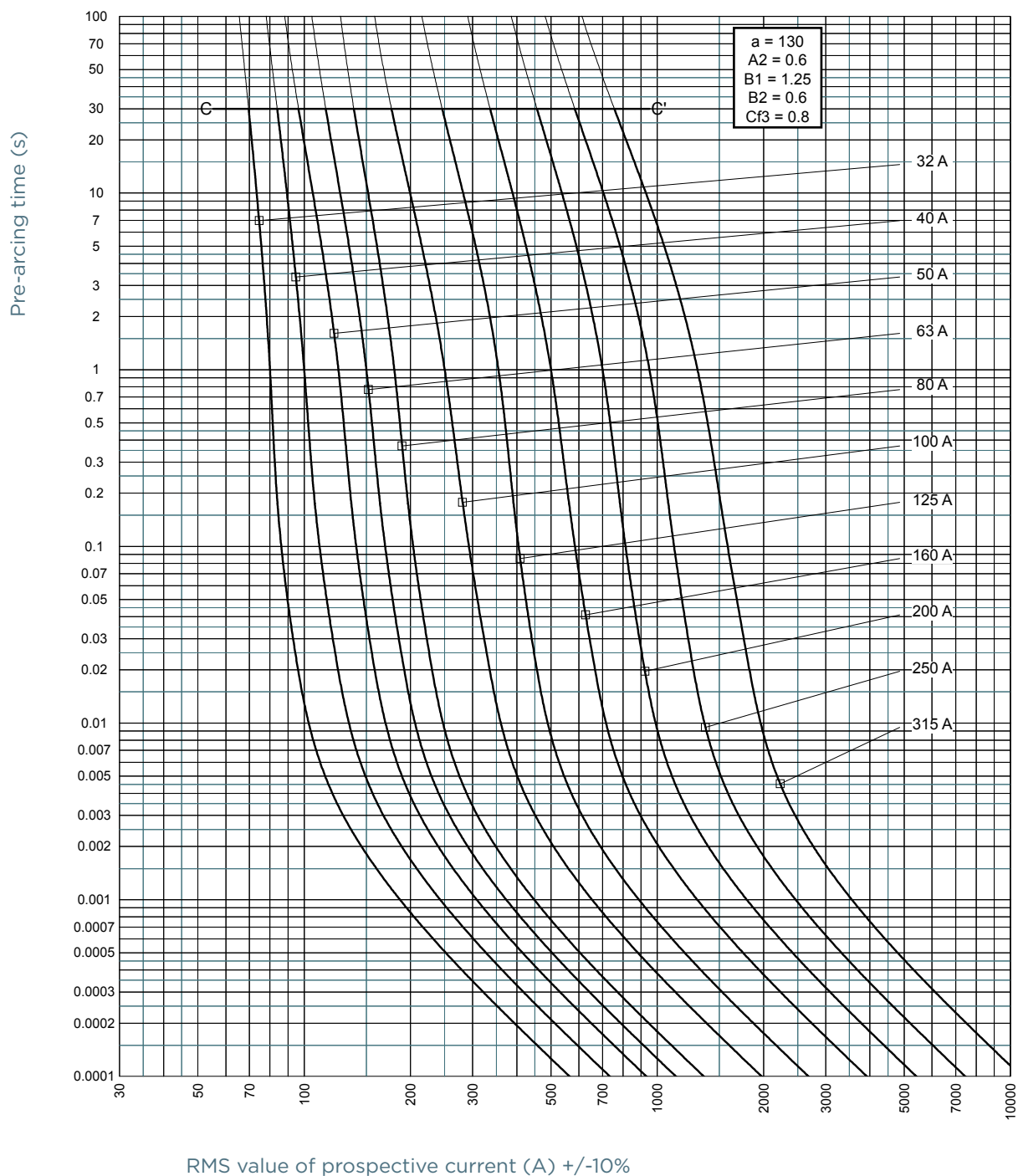
TIME CURRENT CHARACTERISTIC CURVES

Size 00



TIME CURRENT CHARACTERISTIC CURVES

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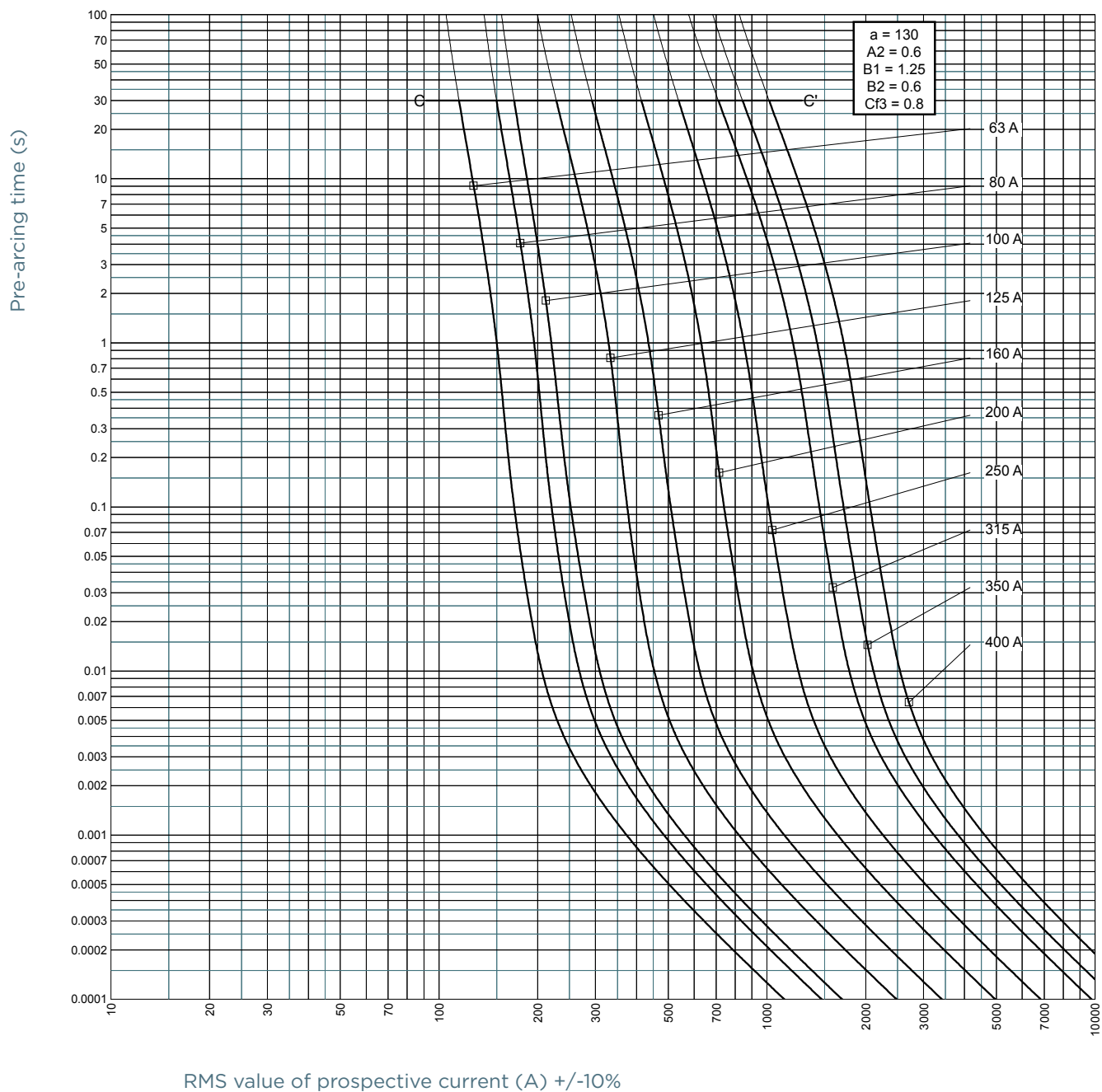


Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

TIME CURRENT CHARACTERISTIC CURVES

Size 1



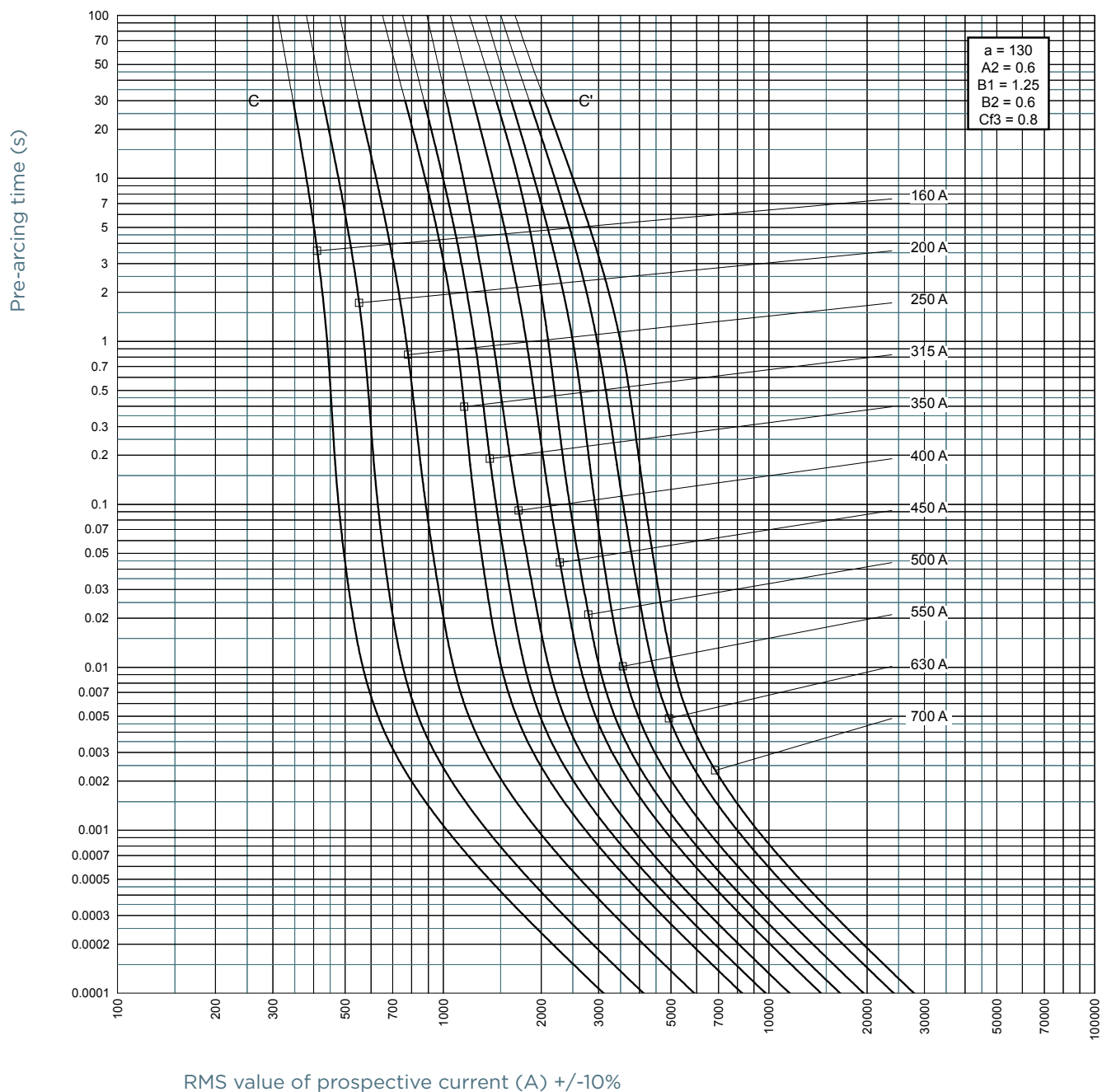
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

TIME CURRENT CHARACTERISTIC CURVES

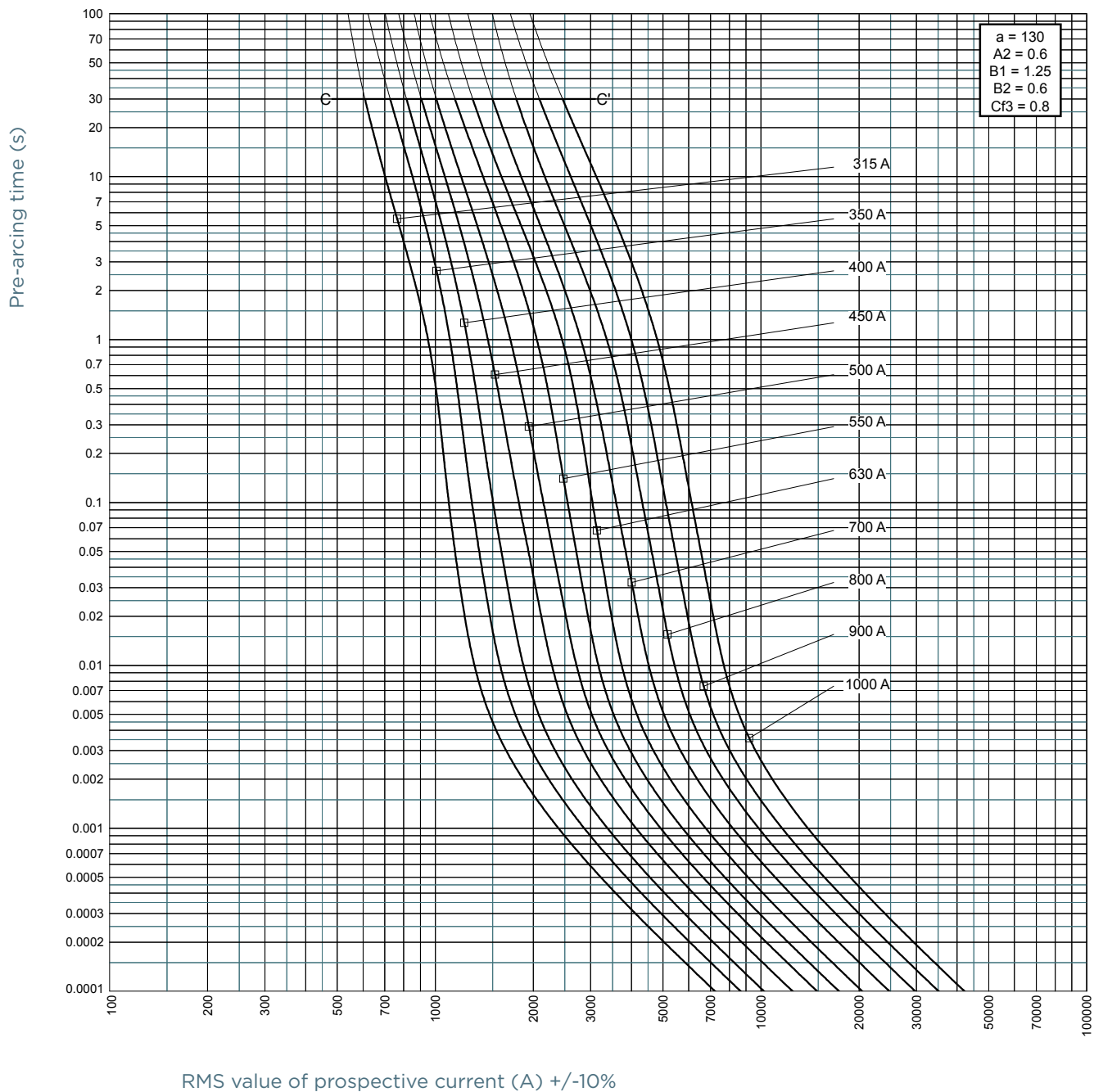
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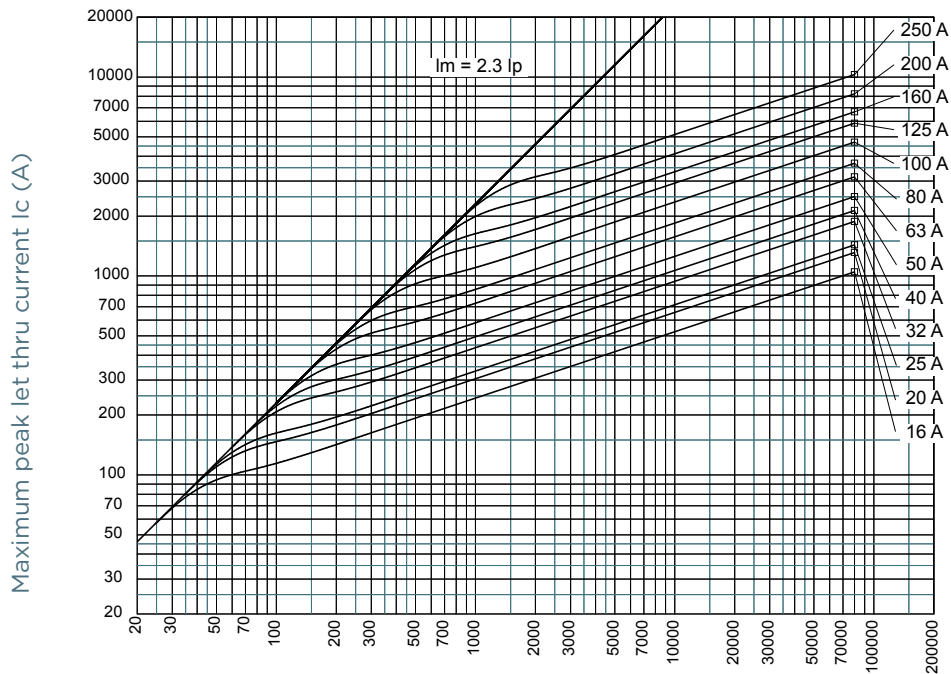
TIME CURRENT CHARACTERISTIC CURVES

Size 3



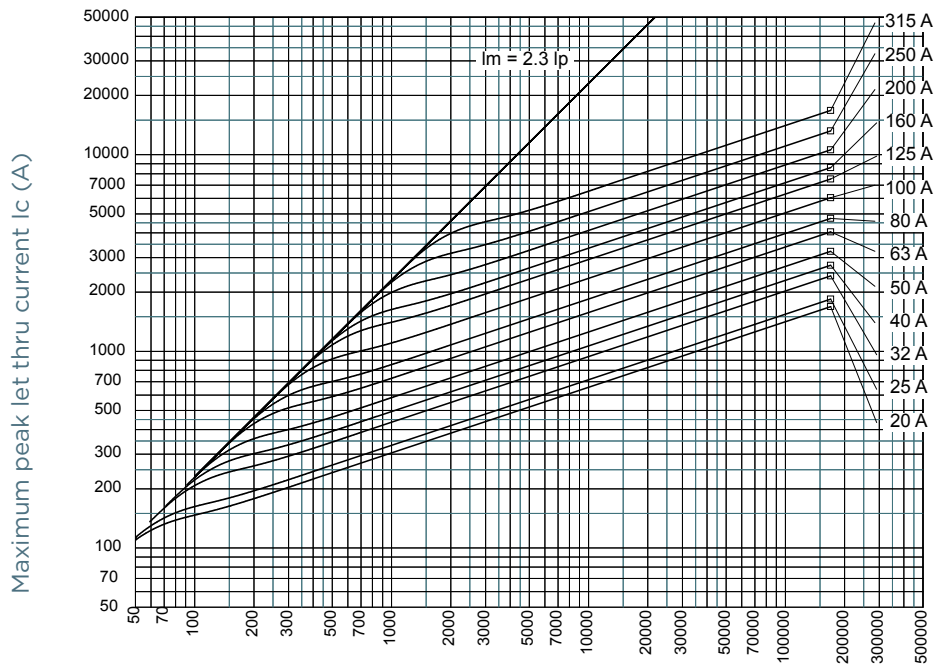
CUT-OFF CURRENT CHARACTERISTIC

Size 000



50 Hz RMS symmetrical prospective current I_p (A)

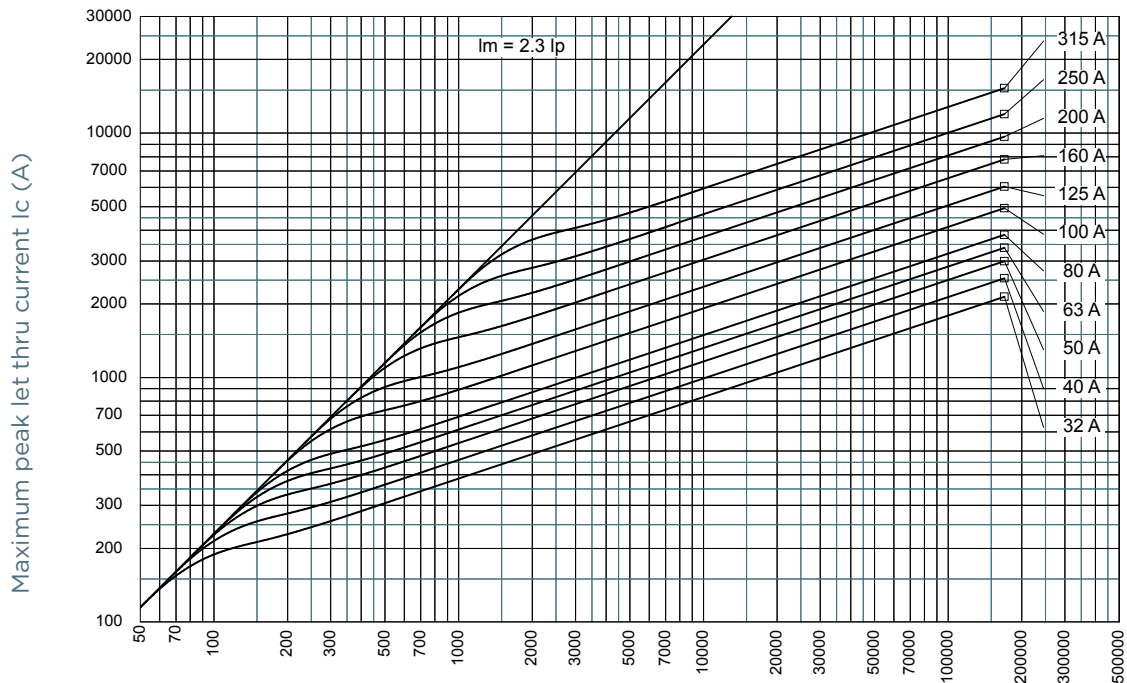
Size 00



50 Hz RMS symmetrical prospective current I_p (A)

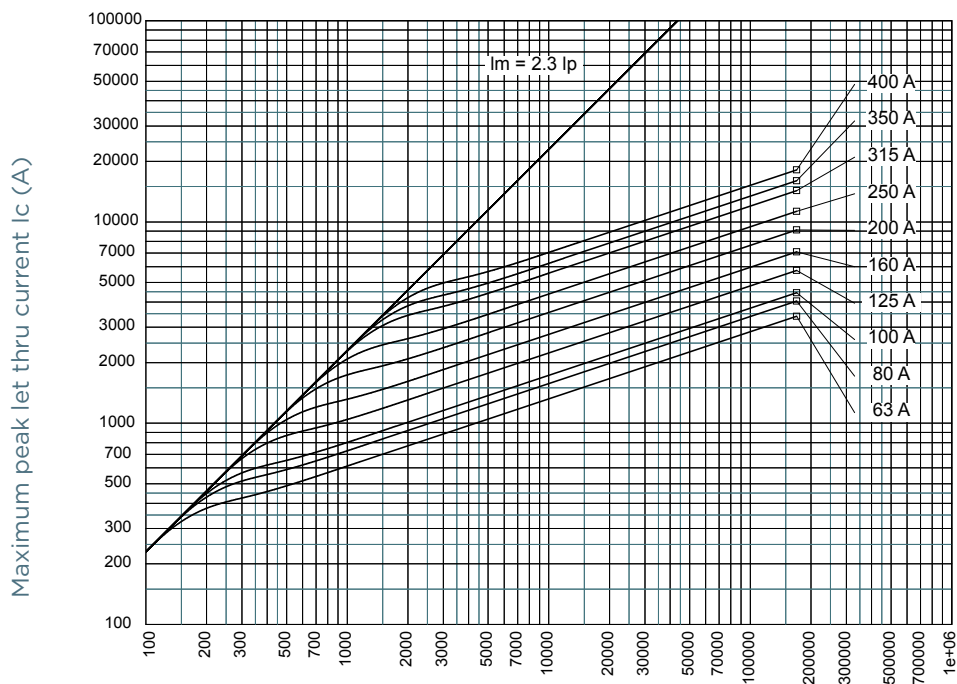
CUT-OFF CURRENT CHARACTERISTIC

Size 0



50 Hz RMS symmetrical prospective current I_p (A)

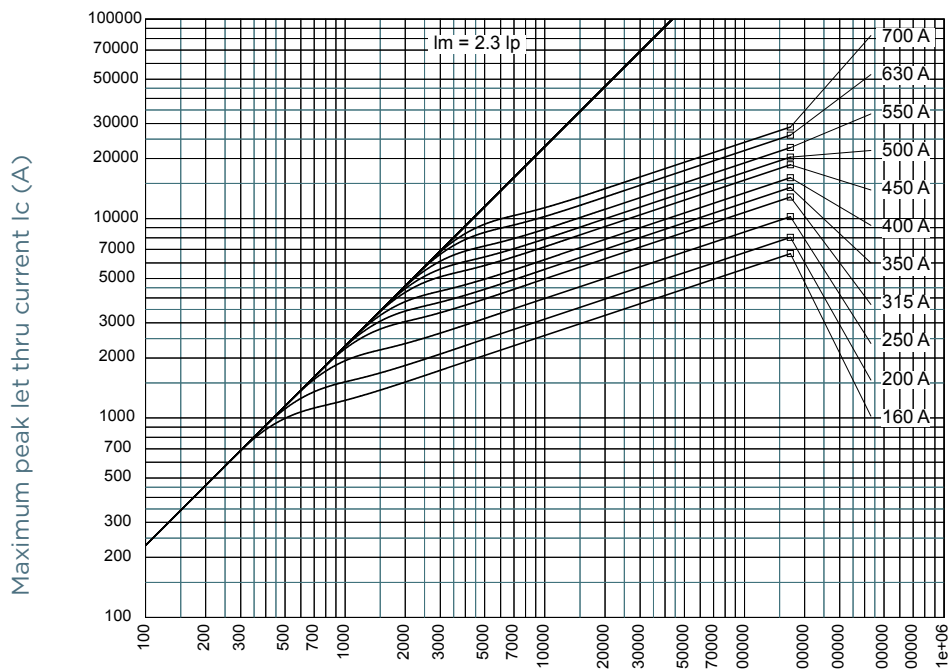
Size 1



50 Hz RMS symmetrical prospective current I_p (A)

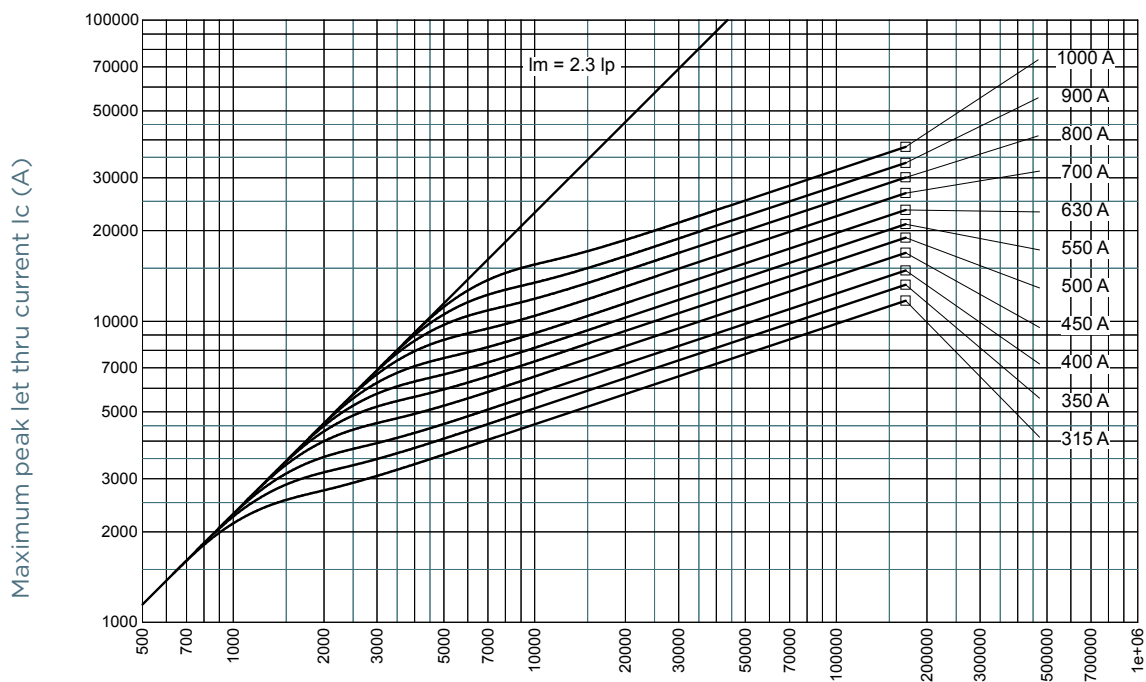
CUT-OFF CURRENT CHARACTERISTIC

Size 2



50 Hz RMS symmetrical prospective current I_p (A)

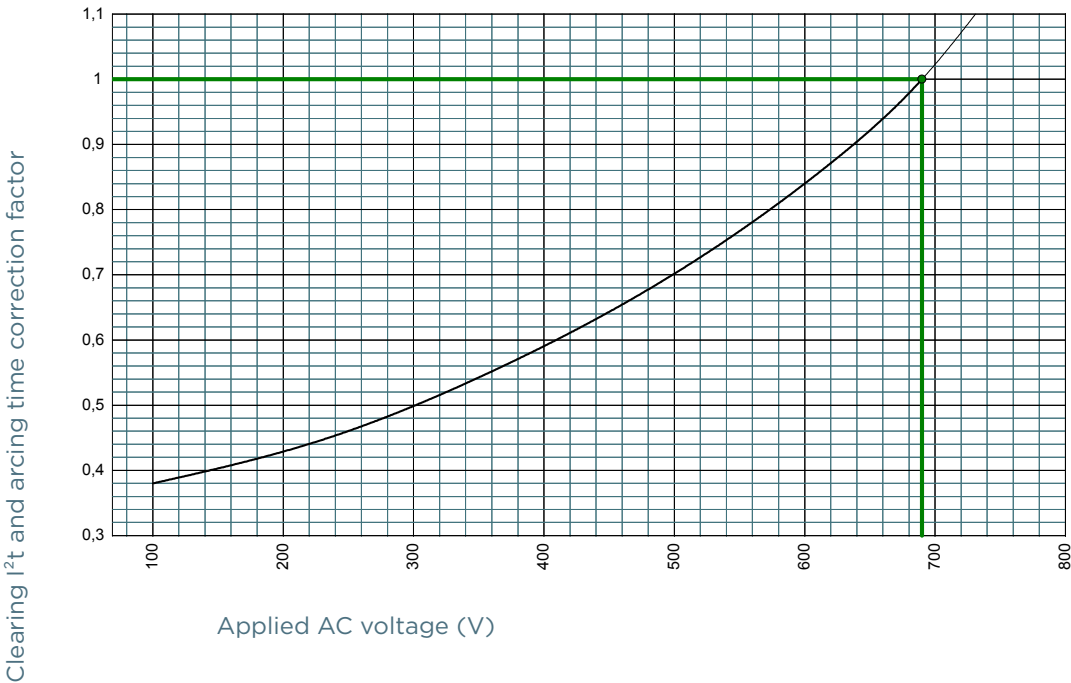
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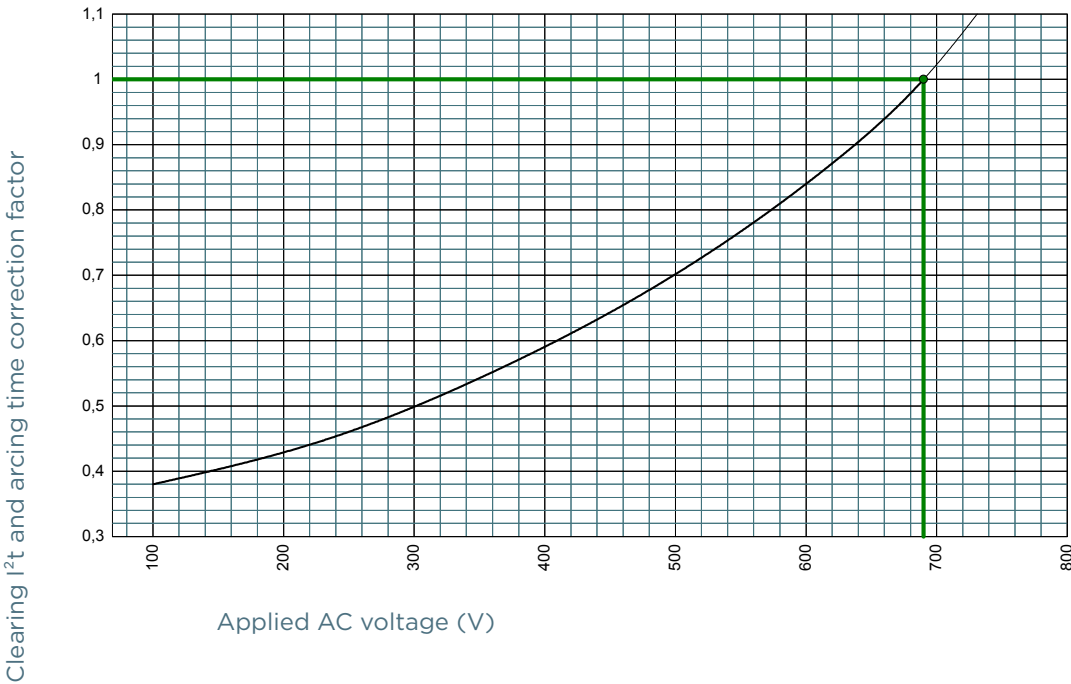
50 Hz RMS symmetrical prospective current I_p (A)

I²T MULTIPLIER COEFFICIENT

Size 000

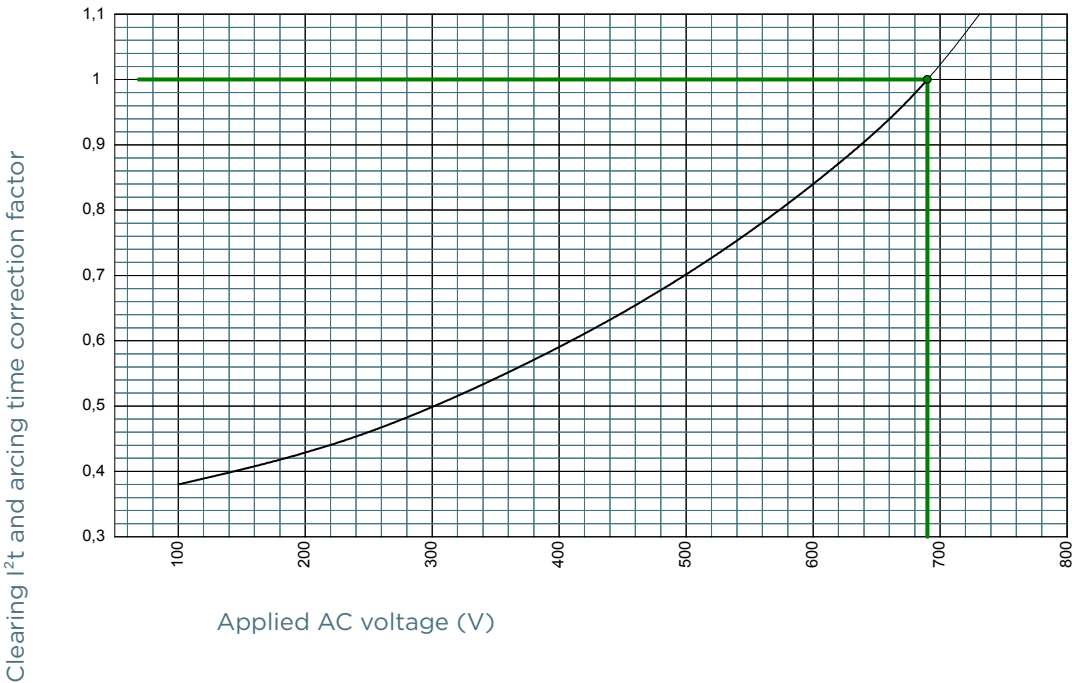


Size 00

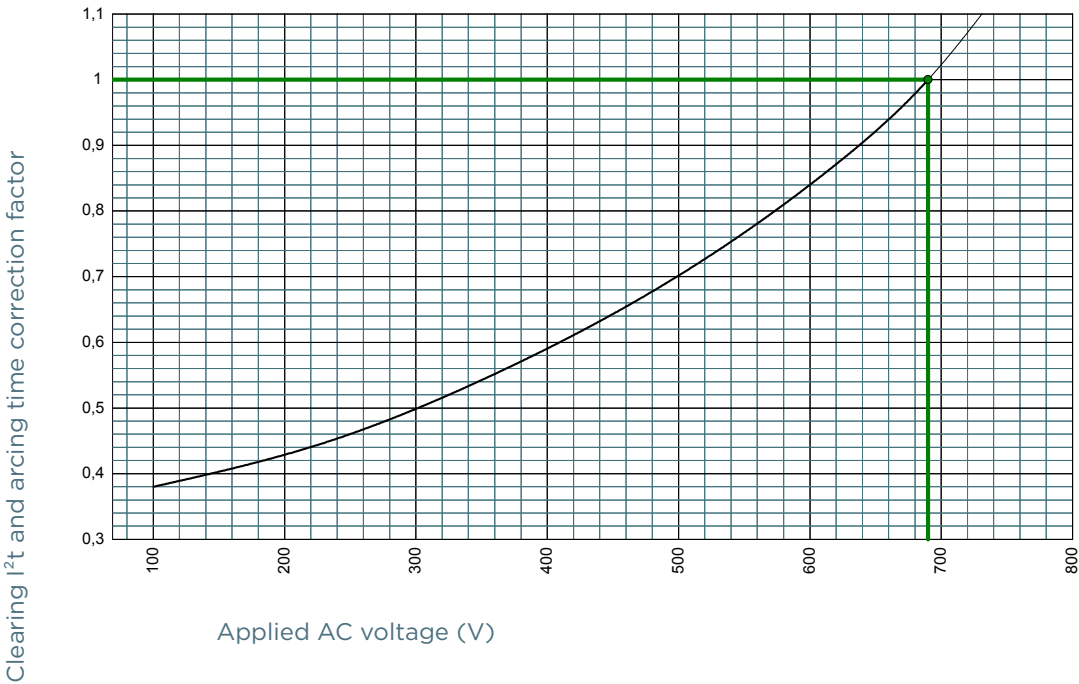


I²T MULTIPLIER COEFFICIENT

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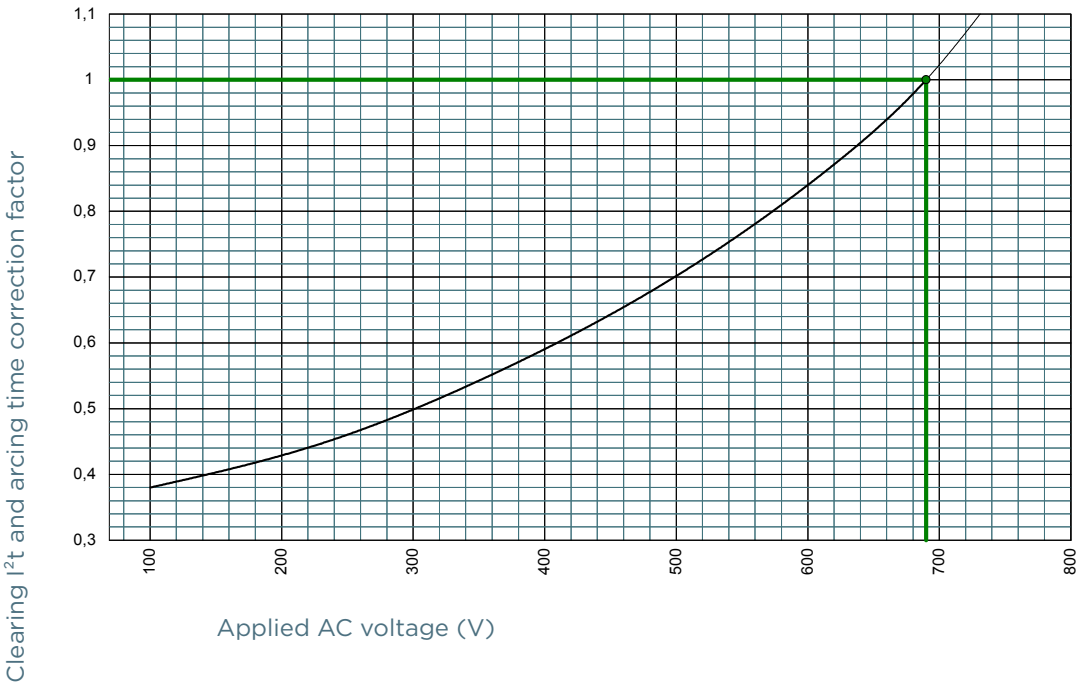


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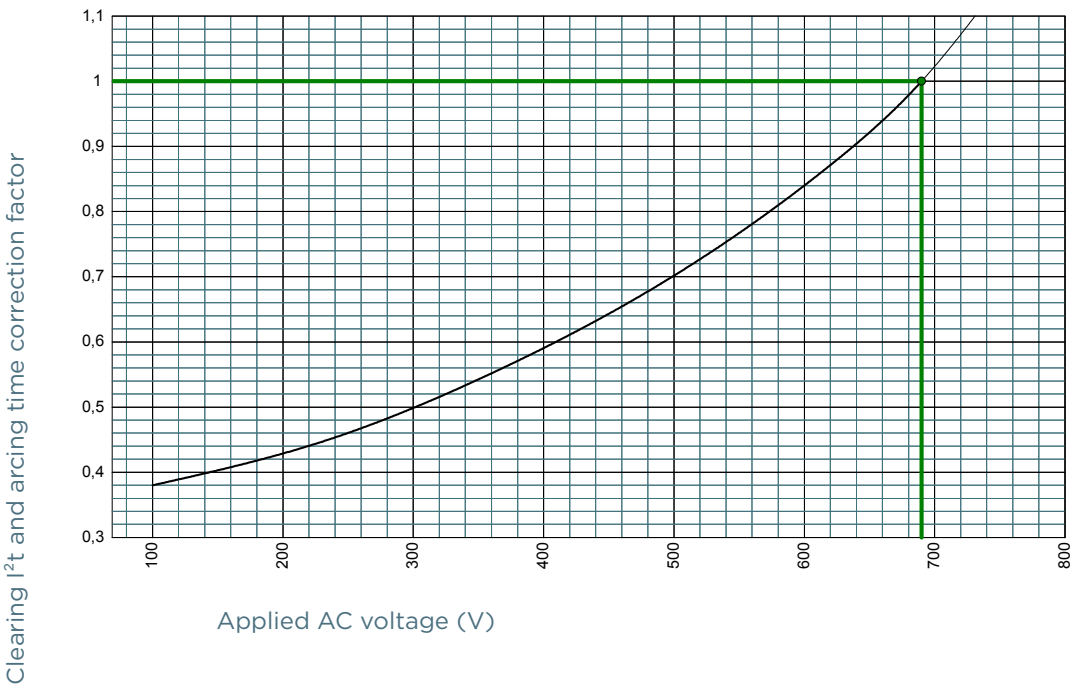


I²T MULTIPLIER COEFFICIENT

Size 2

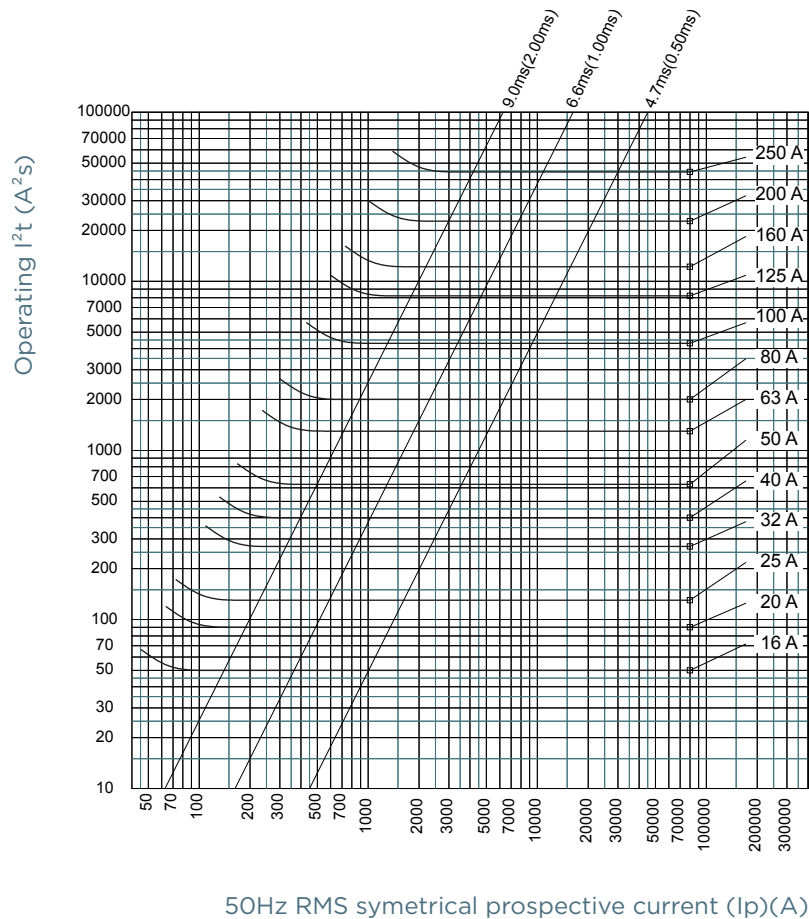


Size 3



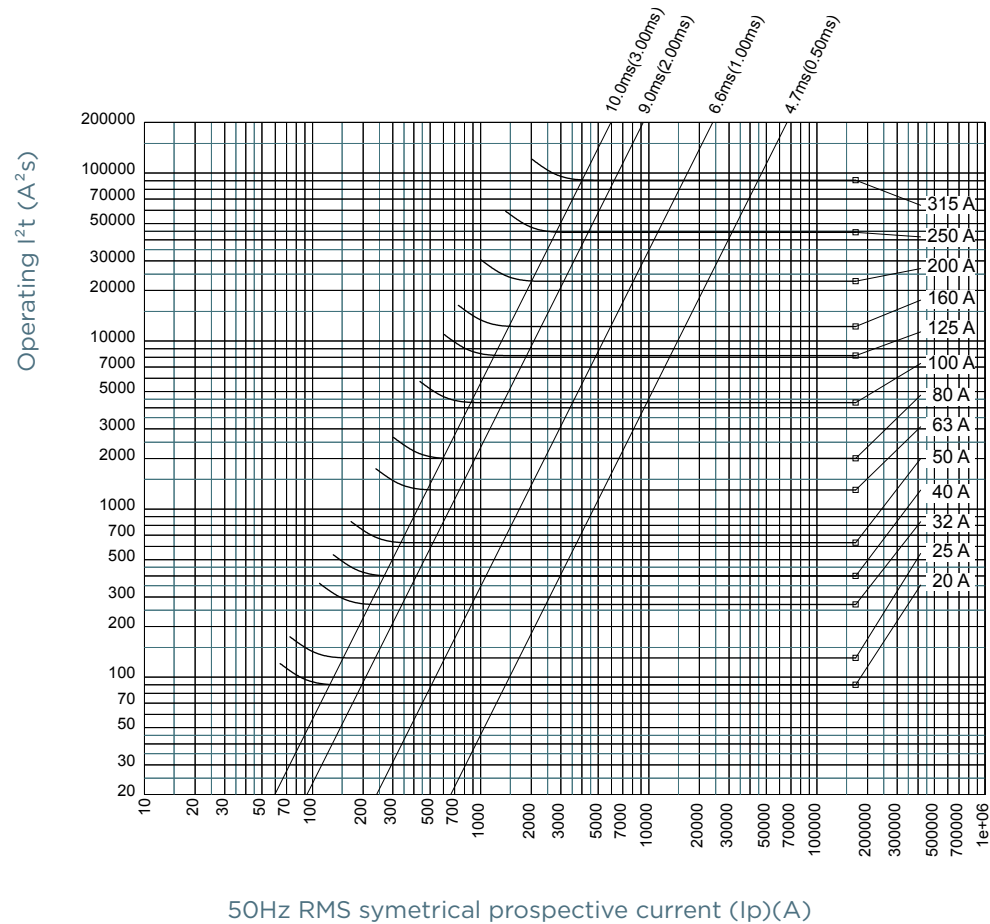
CHARACTERISTICS TOTAL I²T CURVE

Size 000



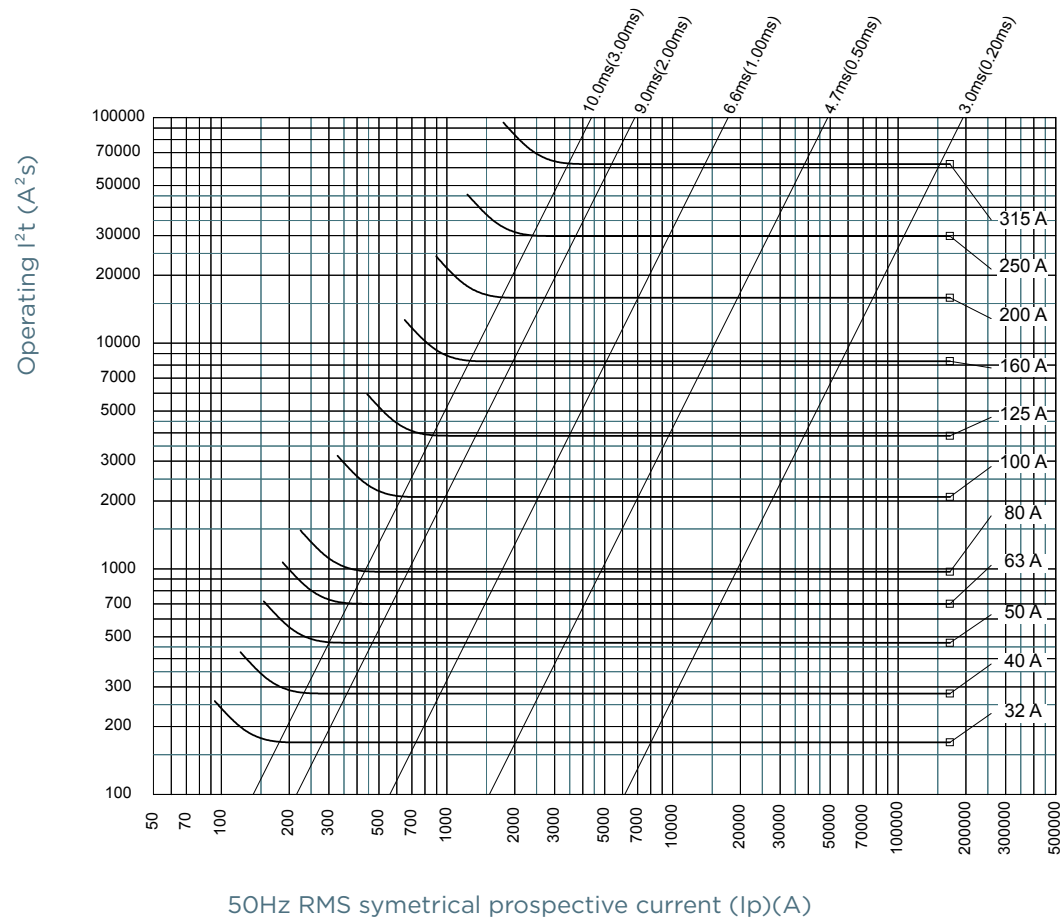
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Size 00



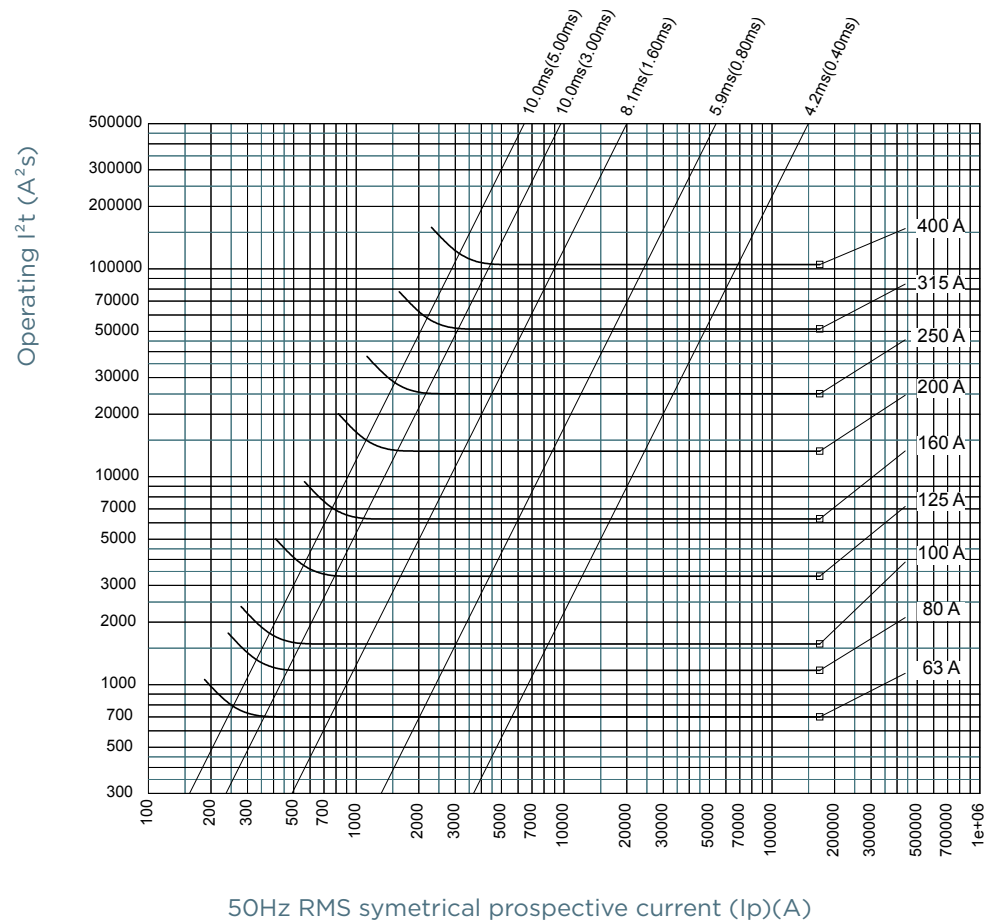
CHARACTERISTICS TOTAL I²T CURVE

Size 0



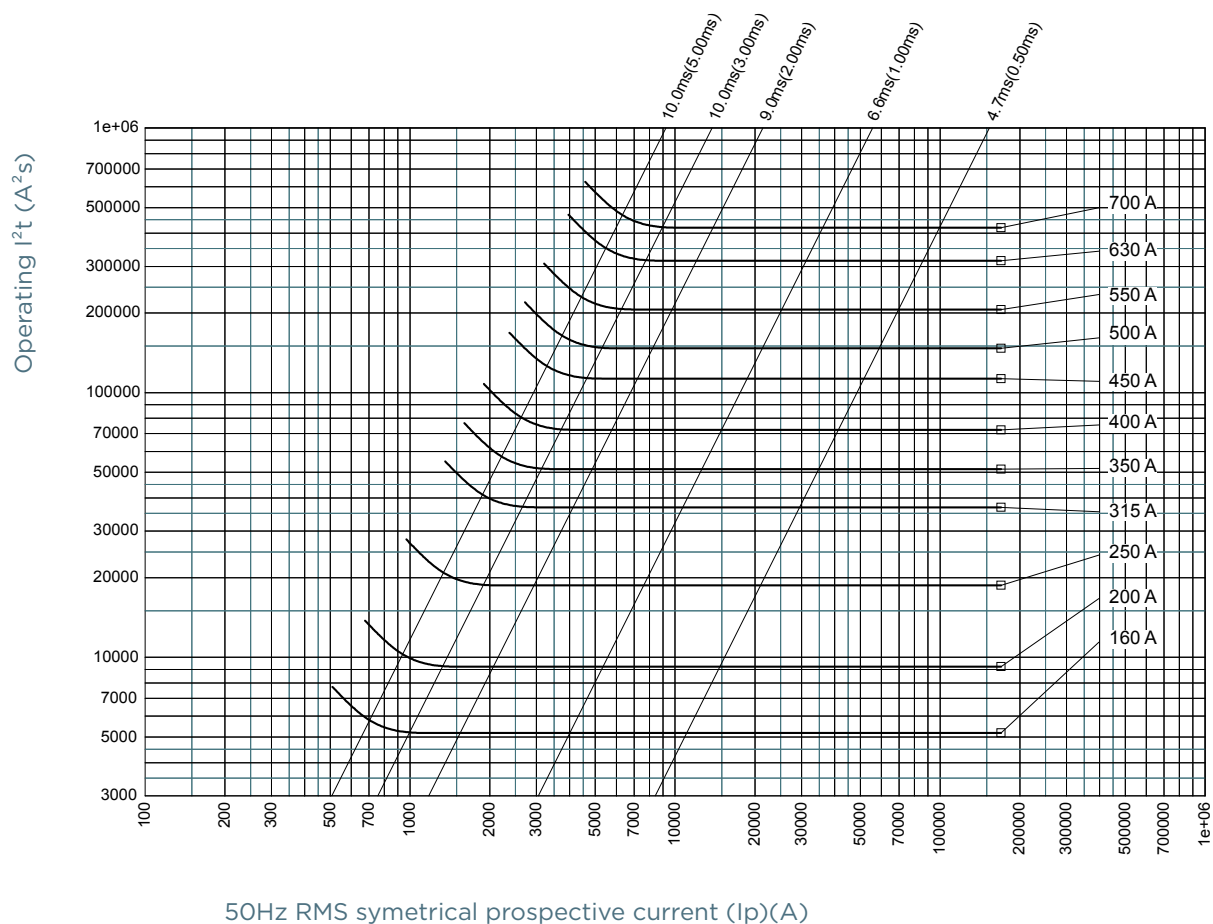
CHARACTERISTICS TOTAL I²T CURVE

Size 1



CHARACTERISTICS TOTAL I²T CURVE

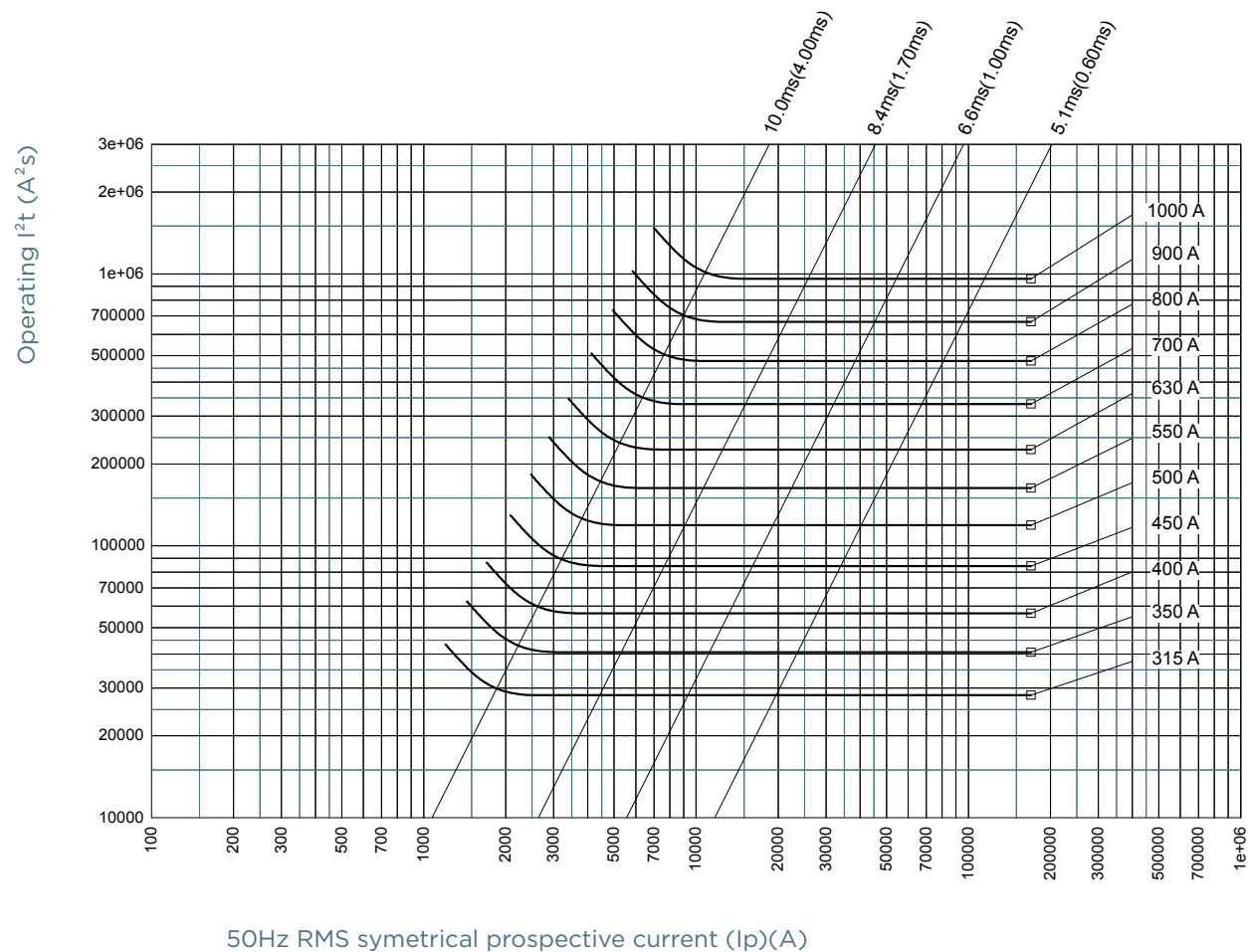
Size 2



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

CHARACTERISTICS TOTAL I²T CURVE

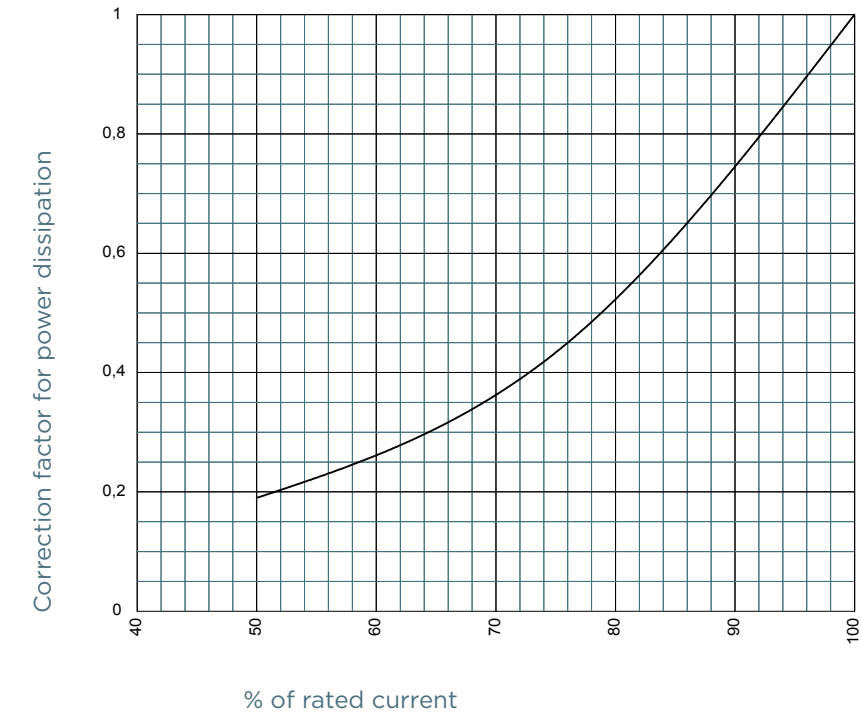
Size 3



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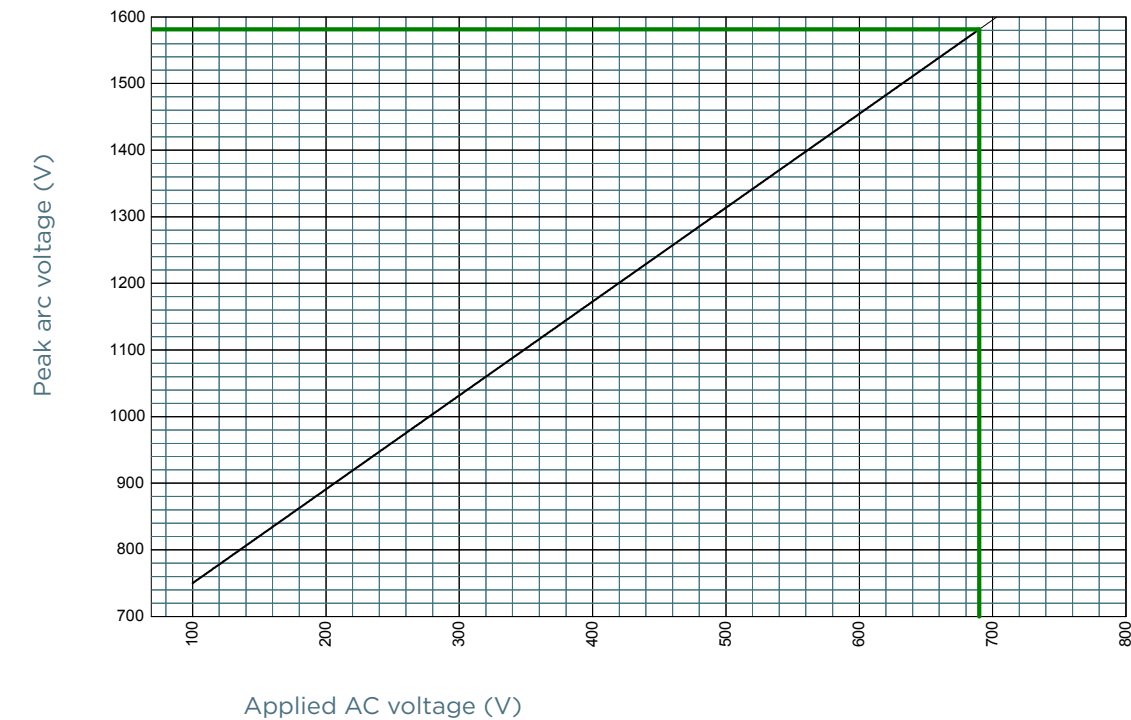
POWER DISSIPATION

Sizes 000, 00, 0, 1, 2, 3



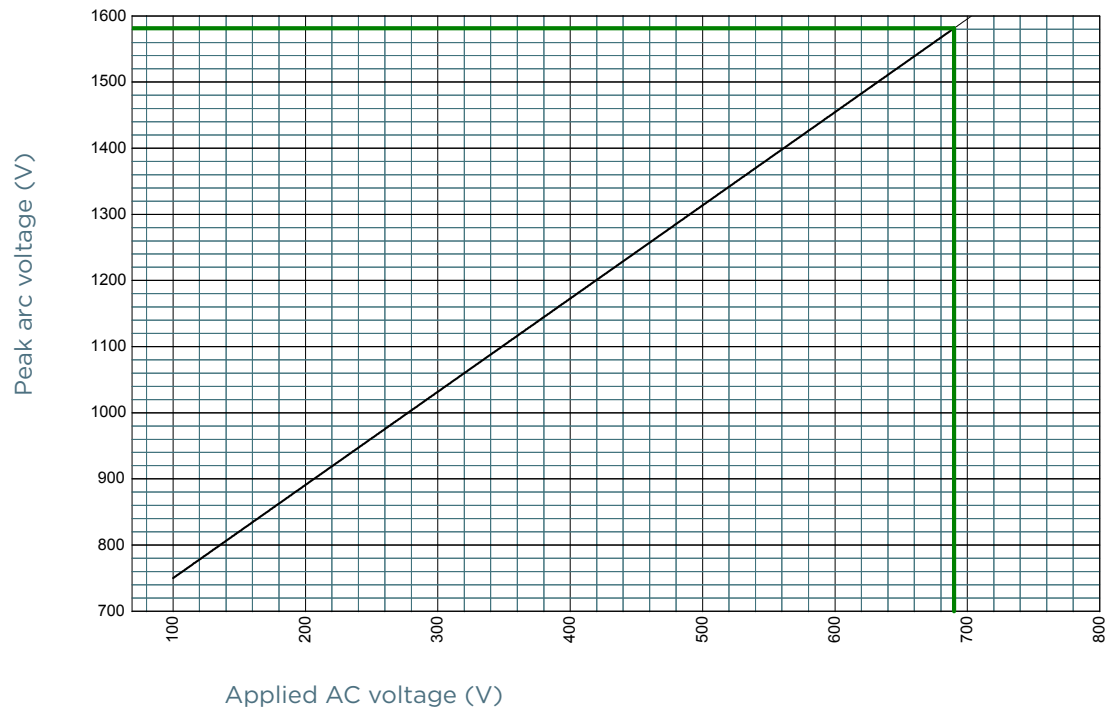
PEAK ARC VOLTAGE

Size 000

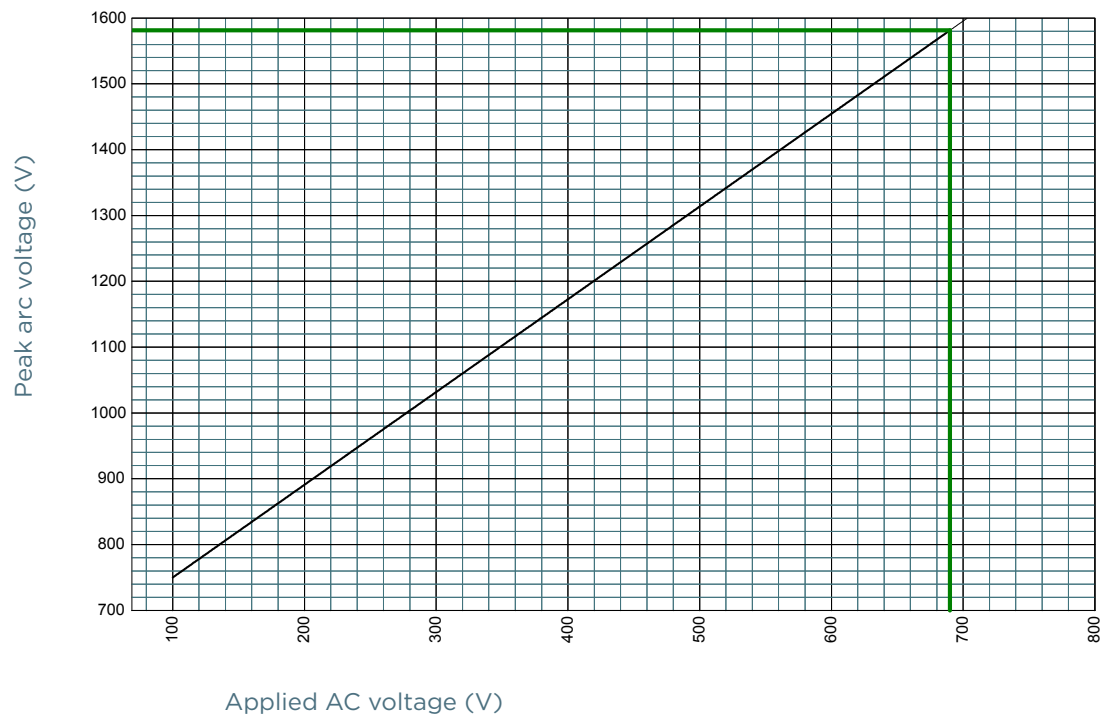


PEAK ARC VOLTAGE

Size 00

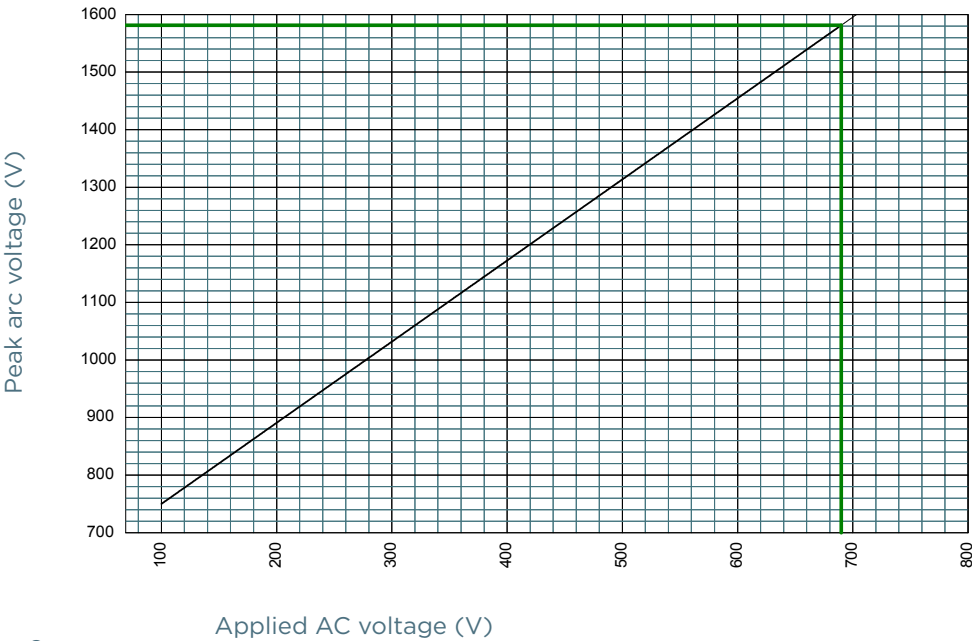


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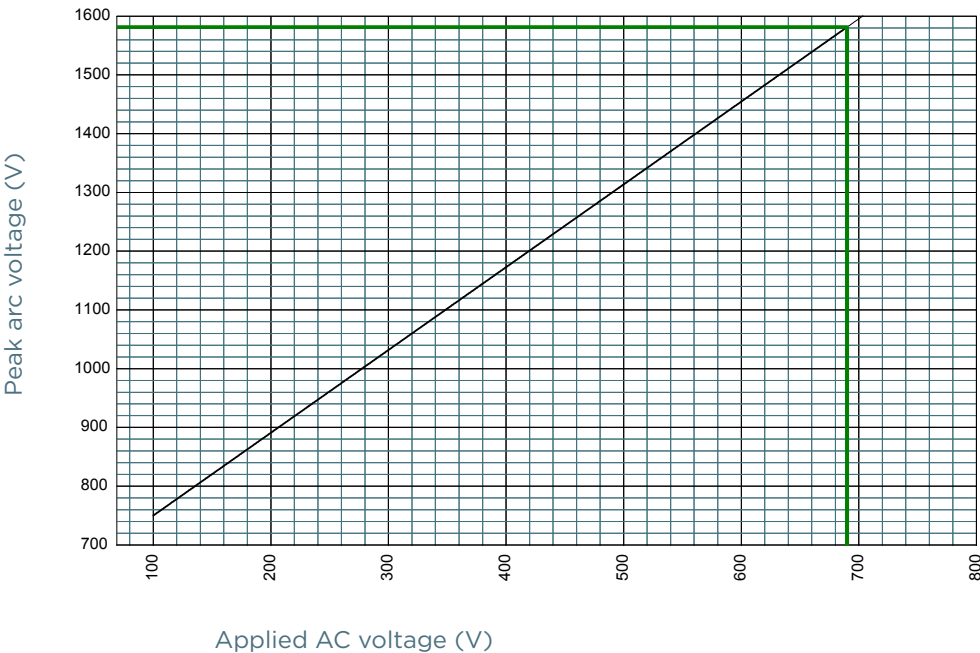


PEAK ARC VOLTAGE

Size 1

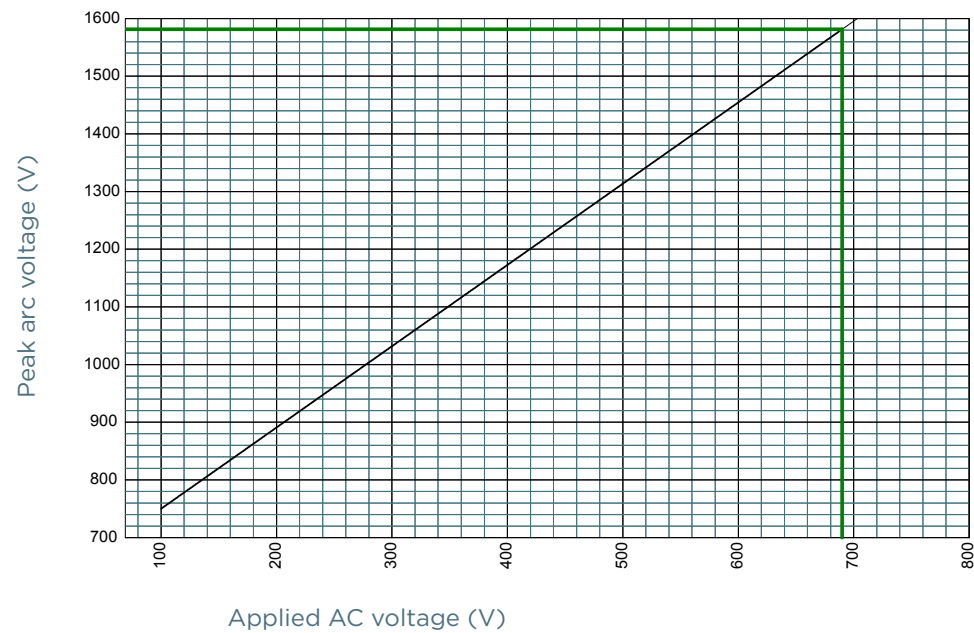


Size 2



PEAK ARC VOLTAGE

Size 3

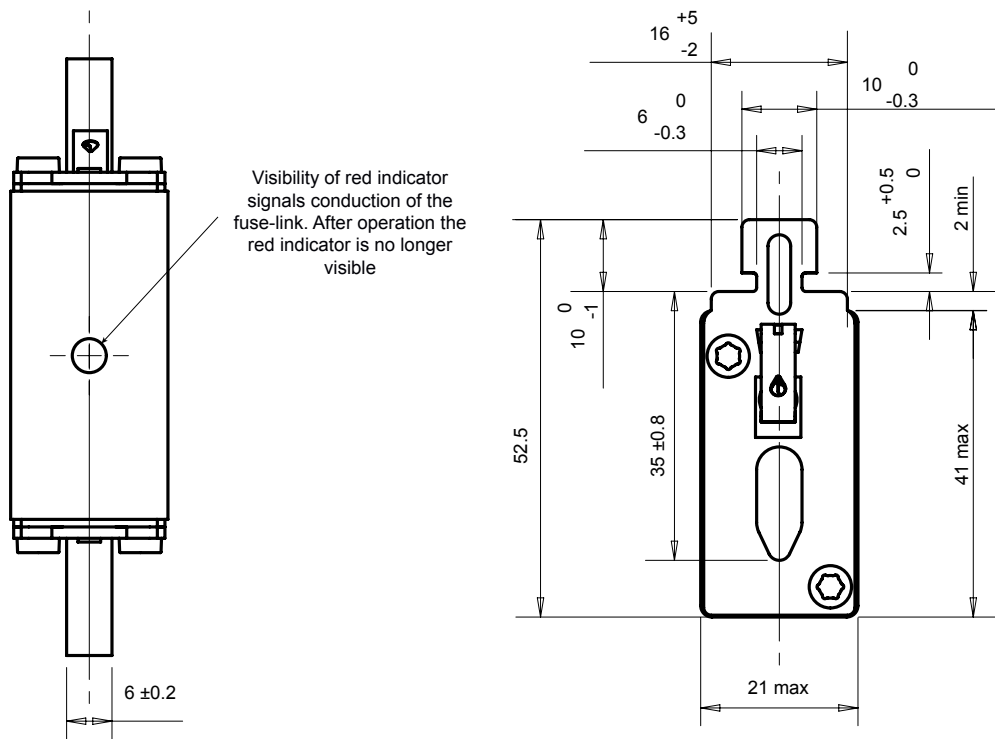


Protistor® size NH 000, 00, 0, 1, 2, 3 aR

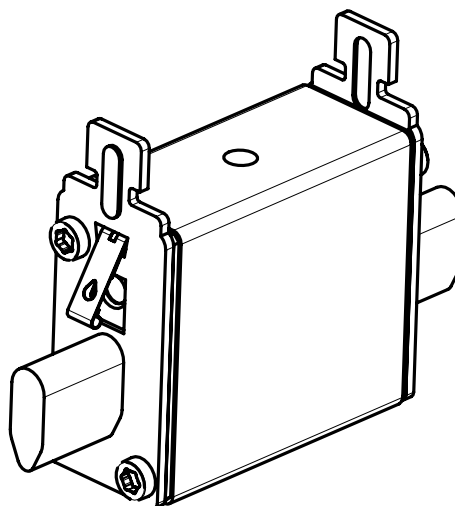
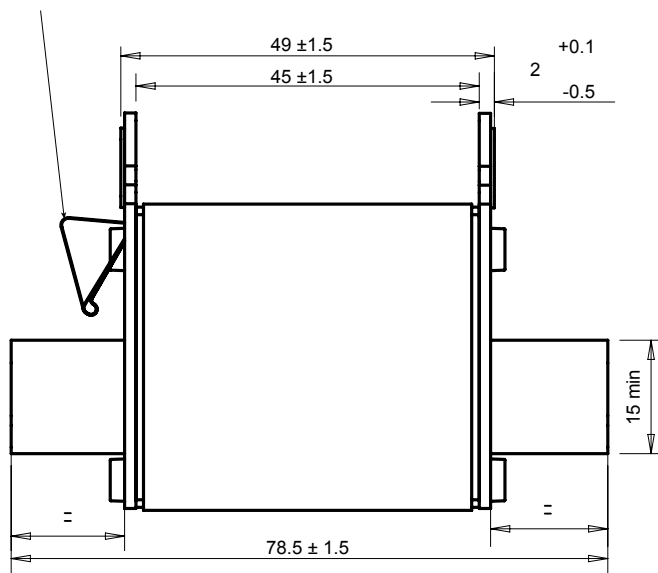
690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 000 aR



Indicator lever is visible after operation of fuse



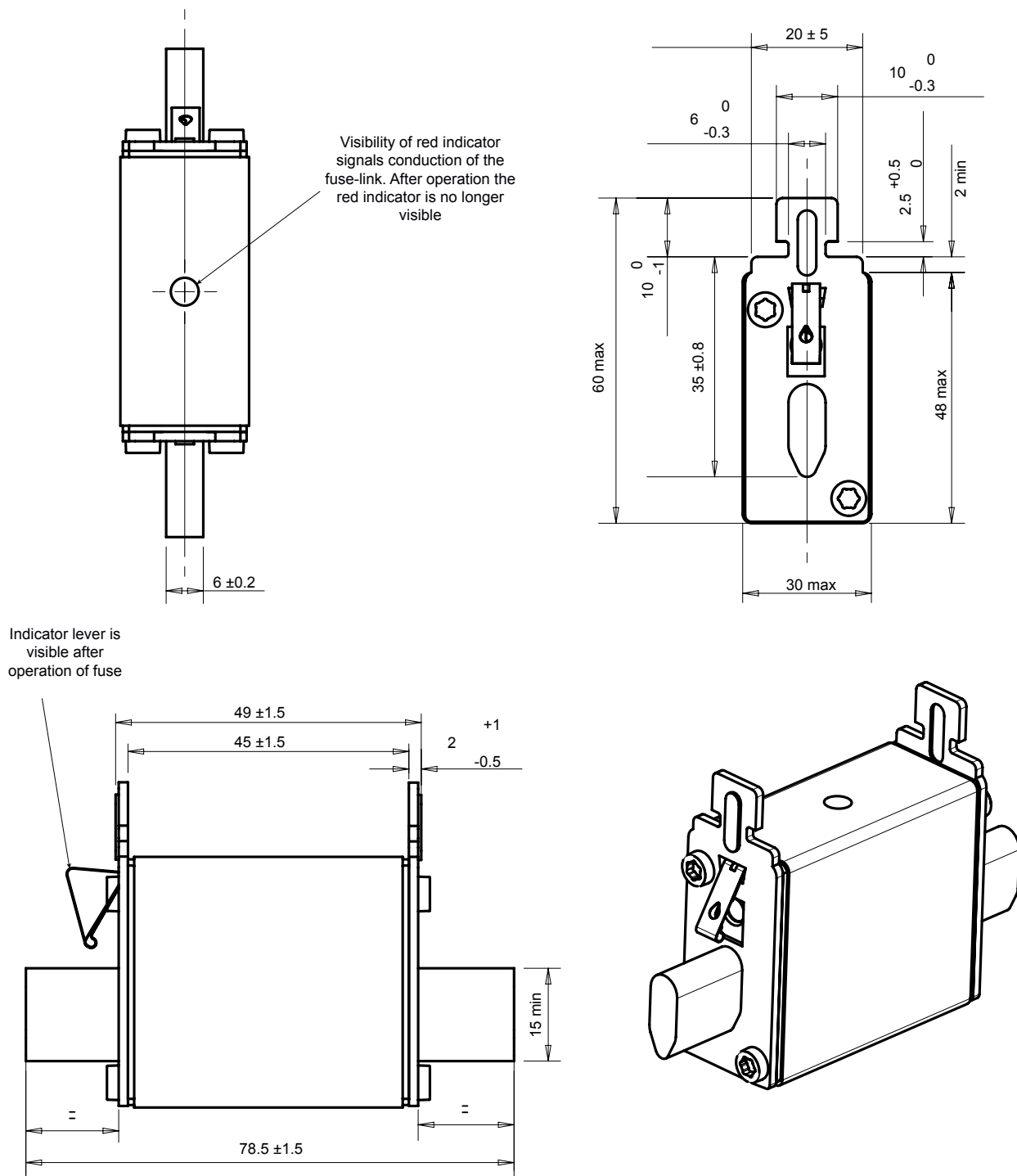
Dimensions in mm

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 00 aR



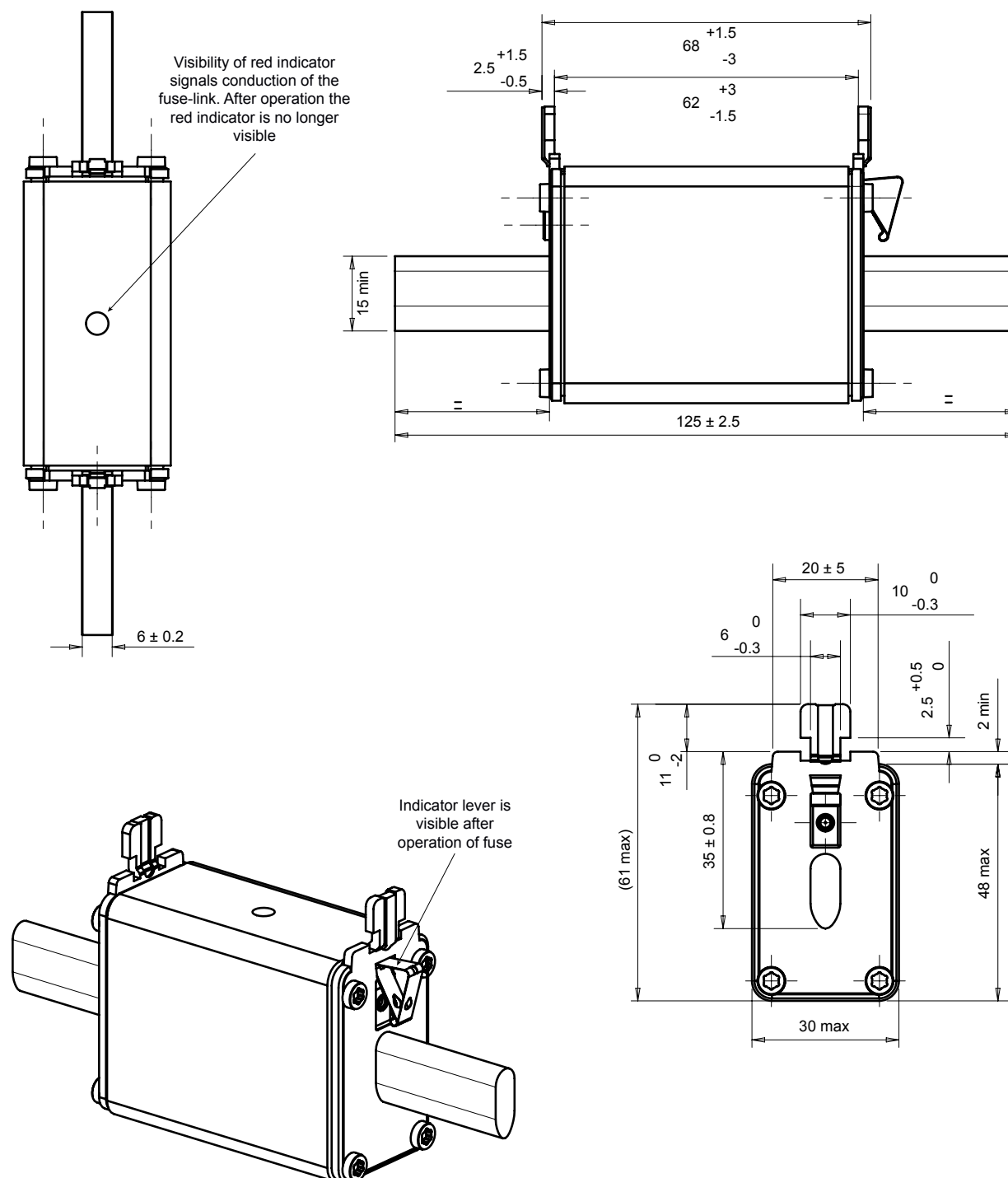
Dimensions in mm

Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 0 aR



Dimensions in mm

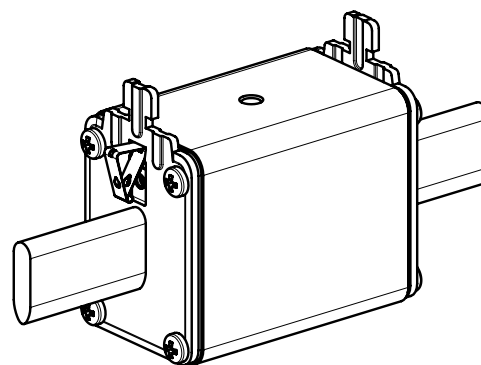
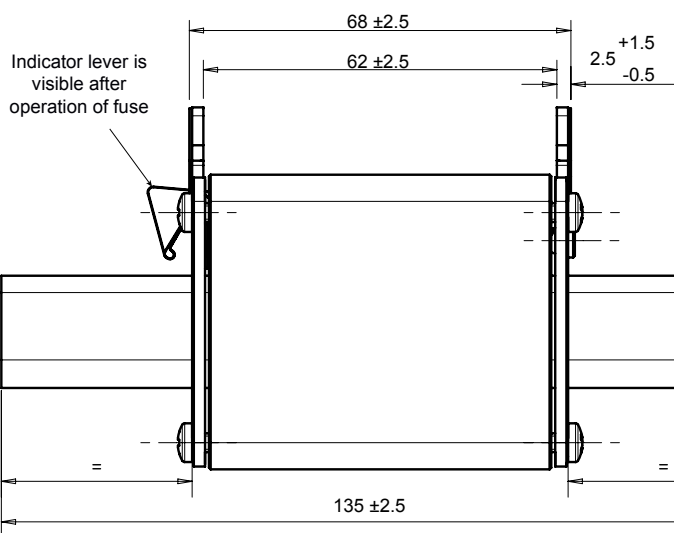
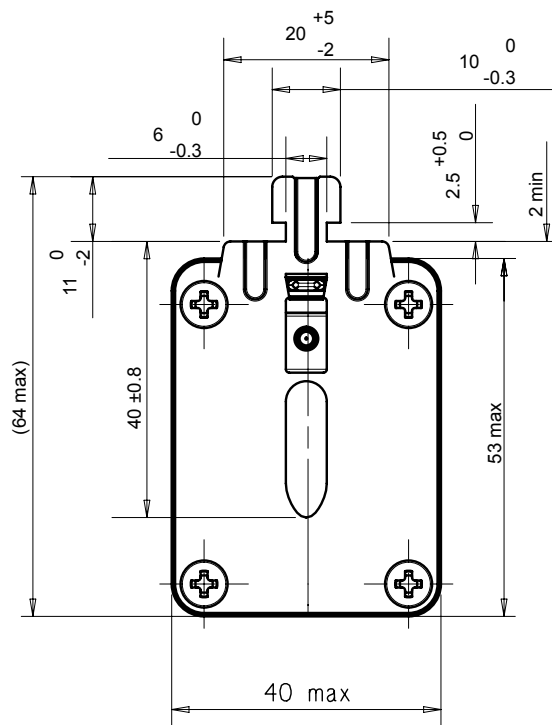
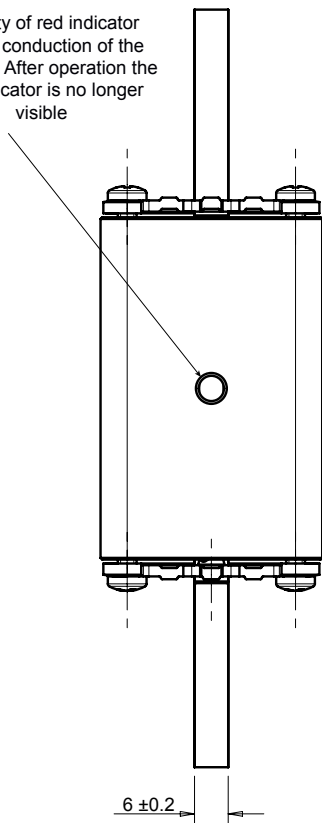
Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 1 aR

Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible



Dimensions in mm

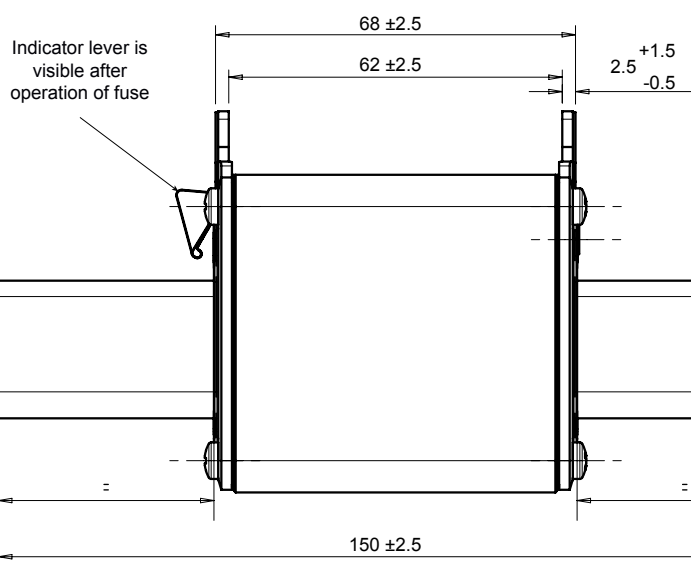
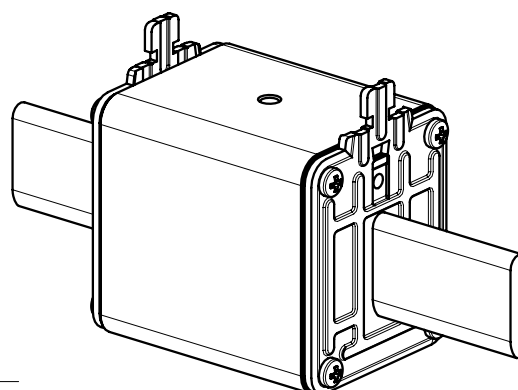
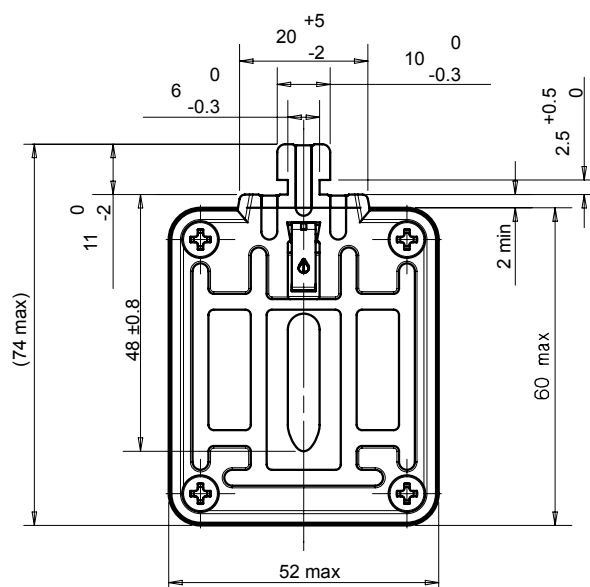
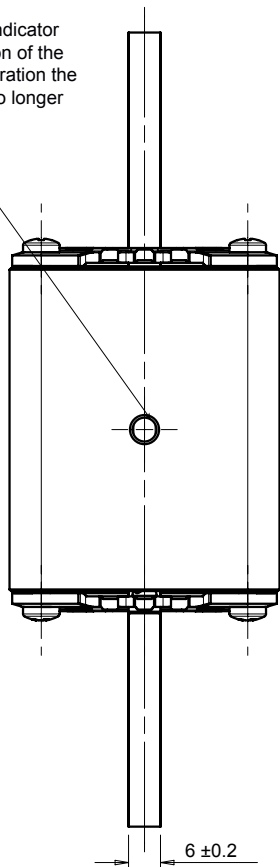
Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 2 aR

Visibility of red indicator signals conduction of the fuse-link. After operation the red indicator is no longer visible



Dimensions in mm

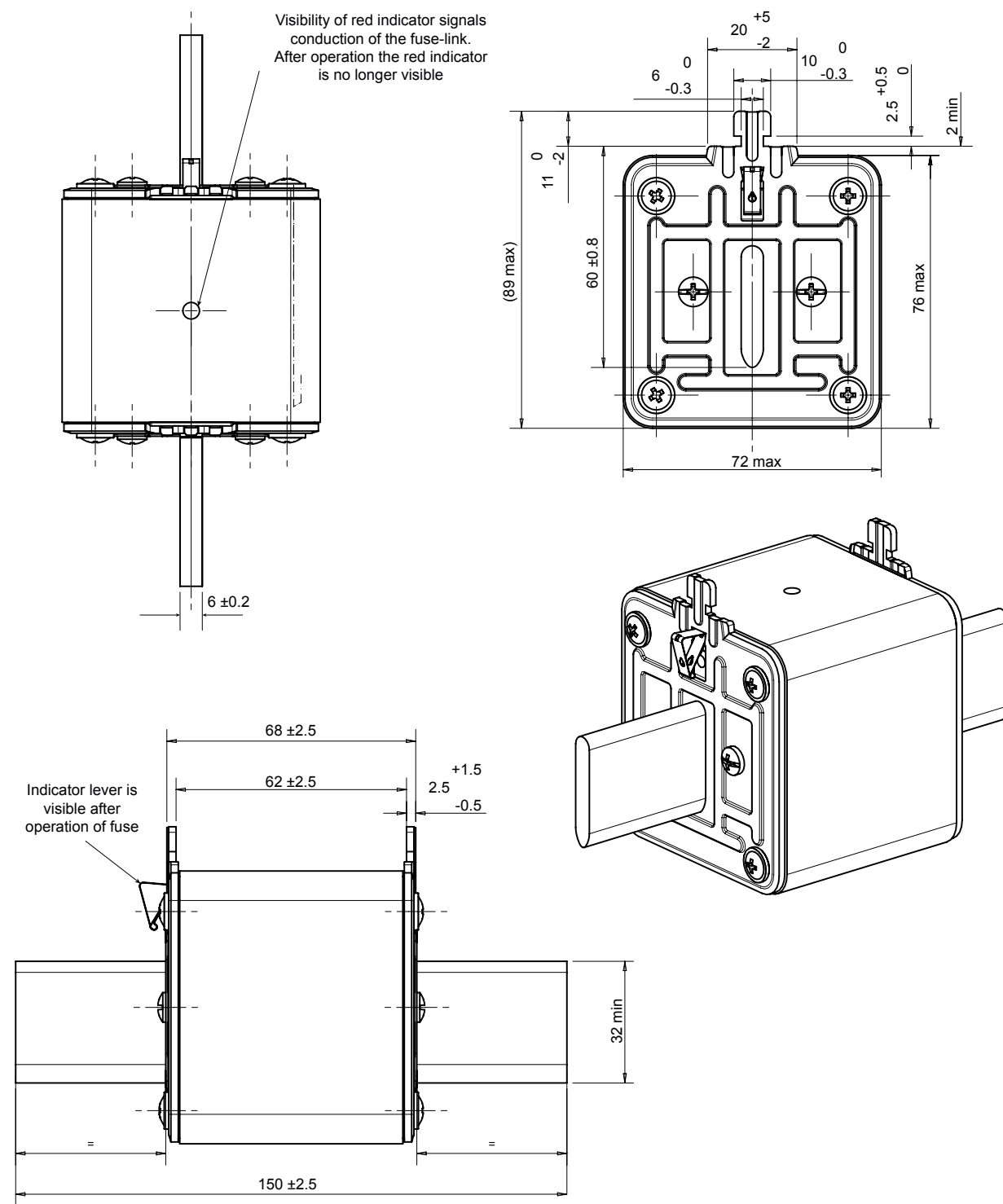
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 3 aR



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