

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



NH000UD69V200PV

Size 000 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
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



NH00UD69V125PV

Size 00 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
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

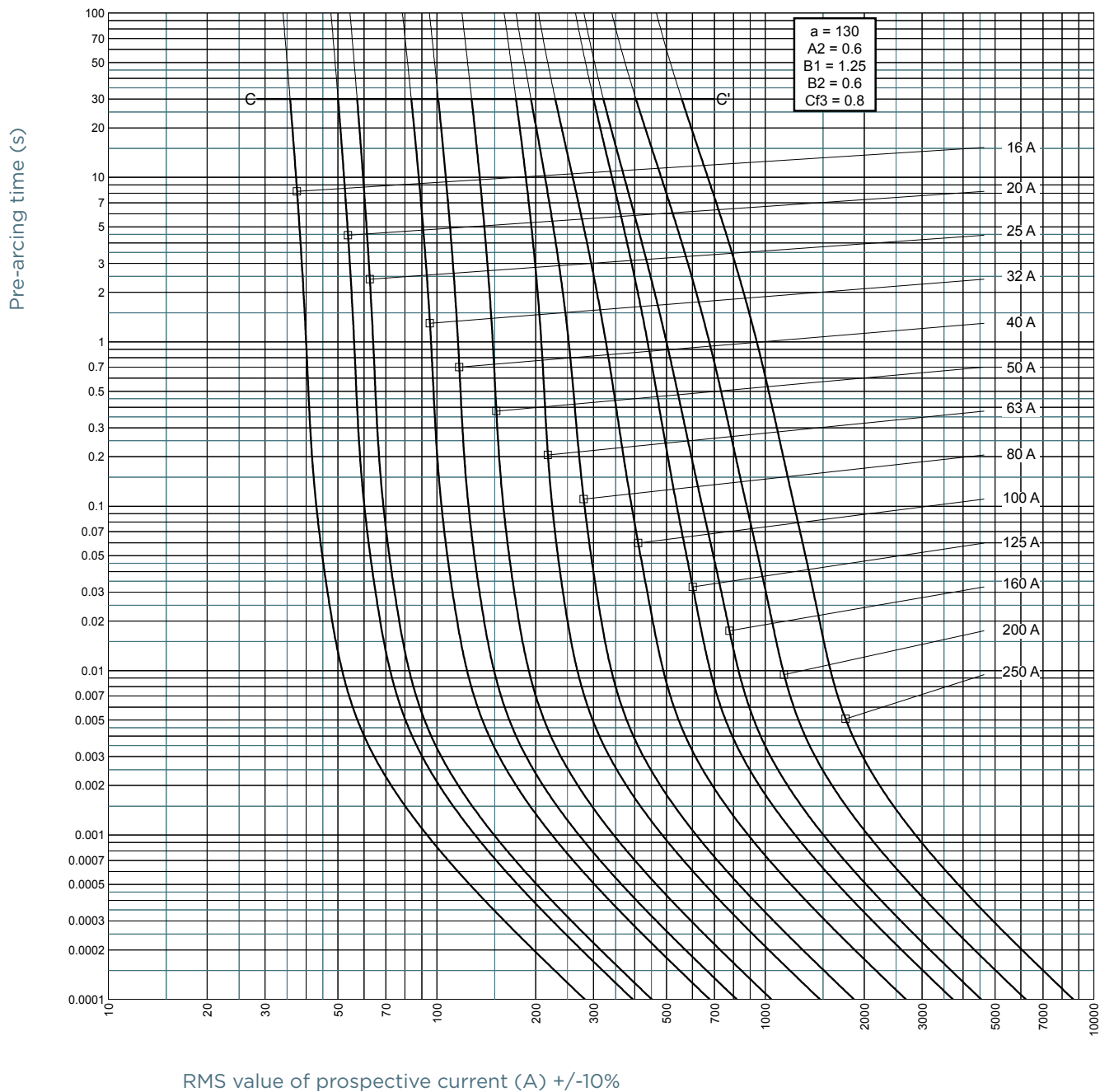
Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Weight	Package
NH3UD69V315PV	F320579	690 V	700 V	315 A	5240 A ² s	28.2 kA ² s	170 kA	113 W	1.05 kg	1
NH3UD69V350PV	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

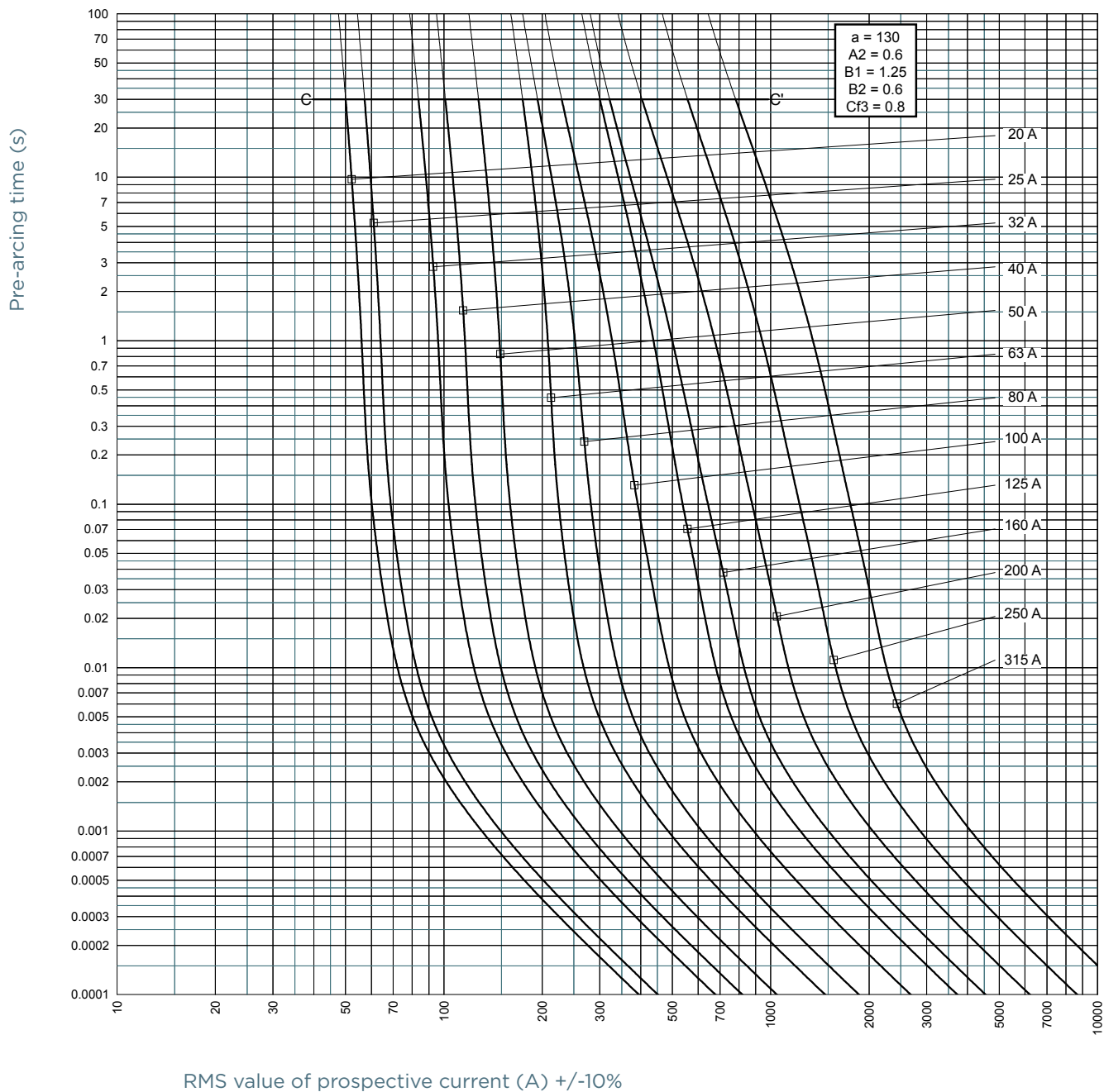
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TIME CURRENT CHARACTERISTIC CURVES

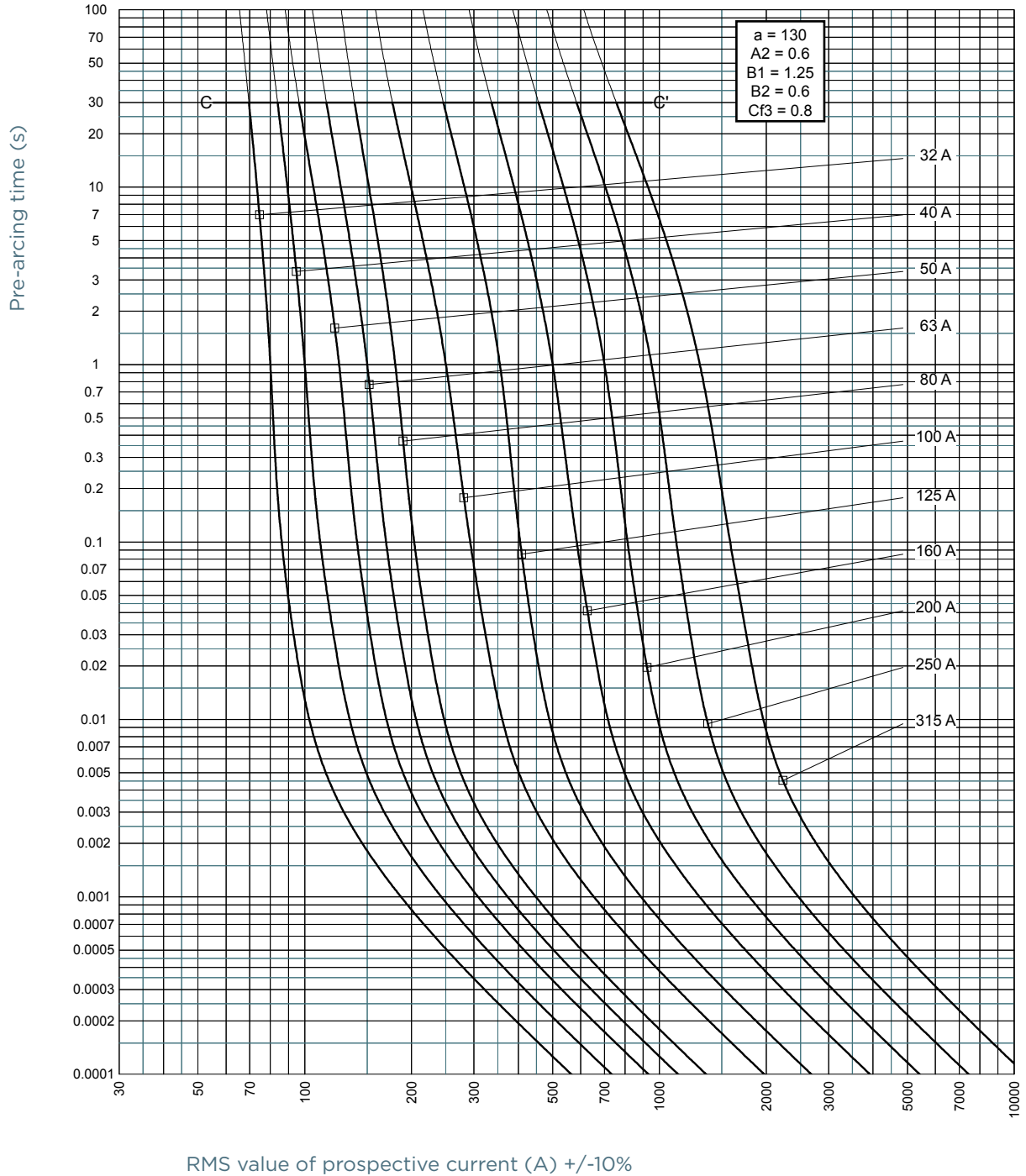
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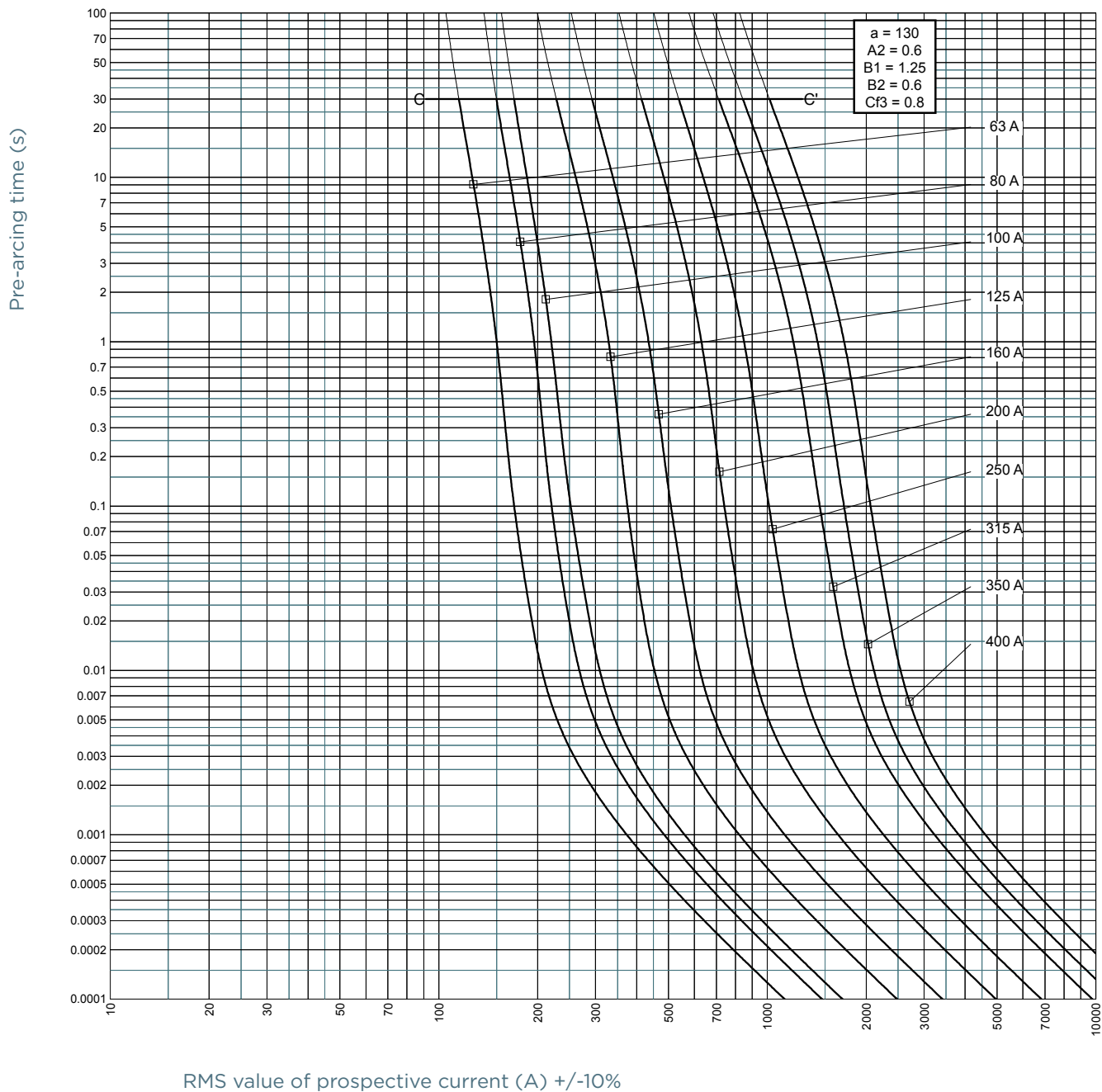
TIME CURRENT CHARACTERISTIC CURVES

Size 0



TIME CURRENT CHARACTERISTIC CURVES

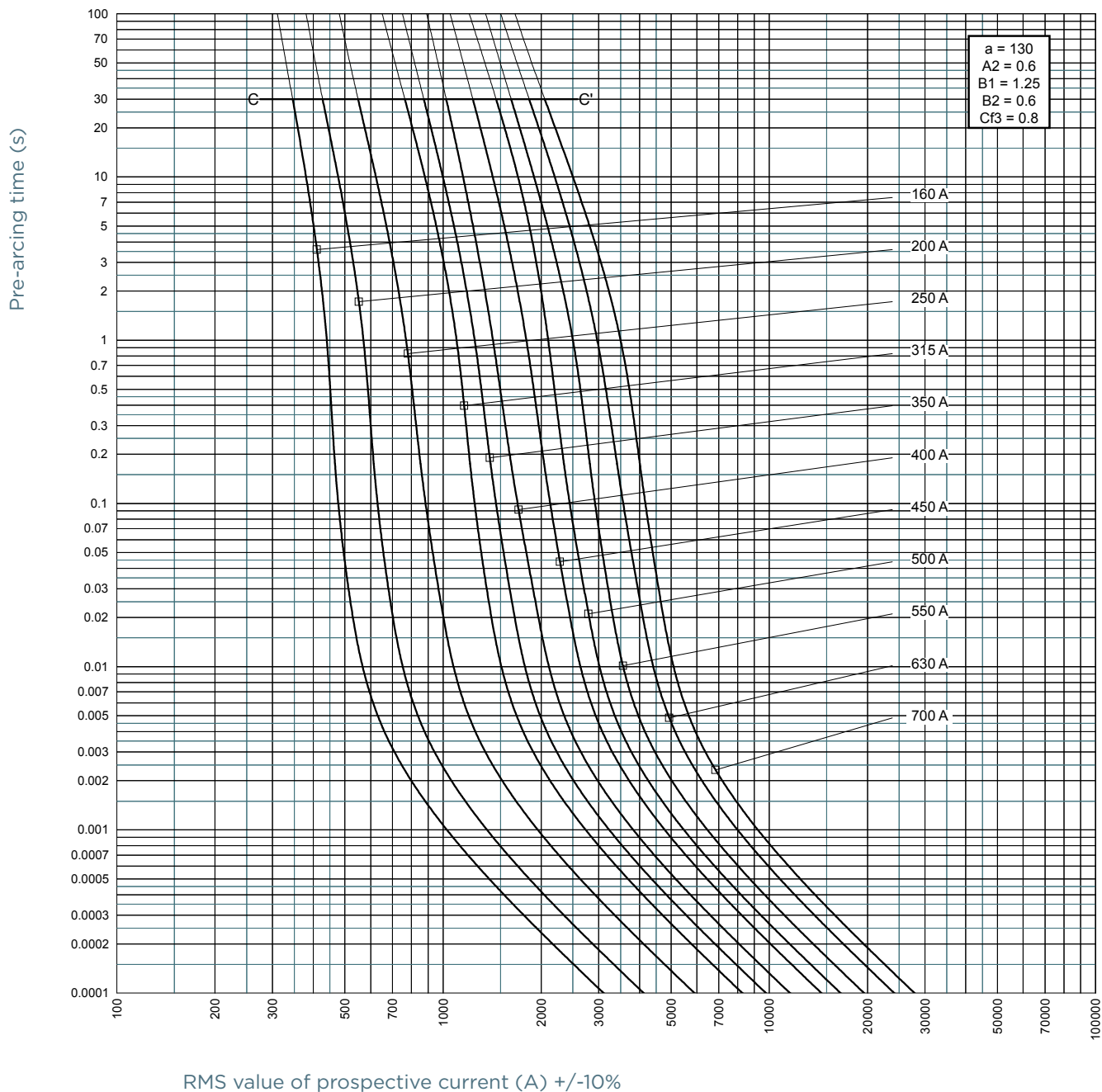
Size 1



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TIME CURRENT CHARACTERISTIC CURVES

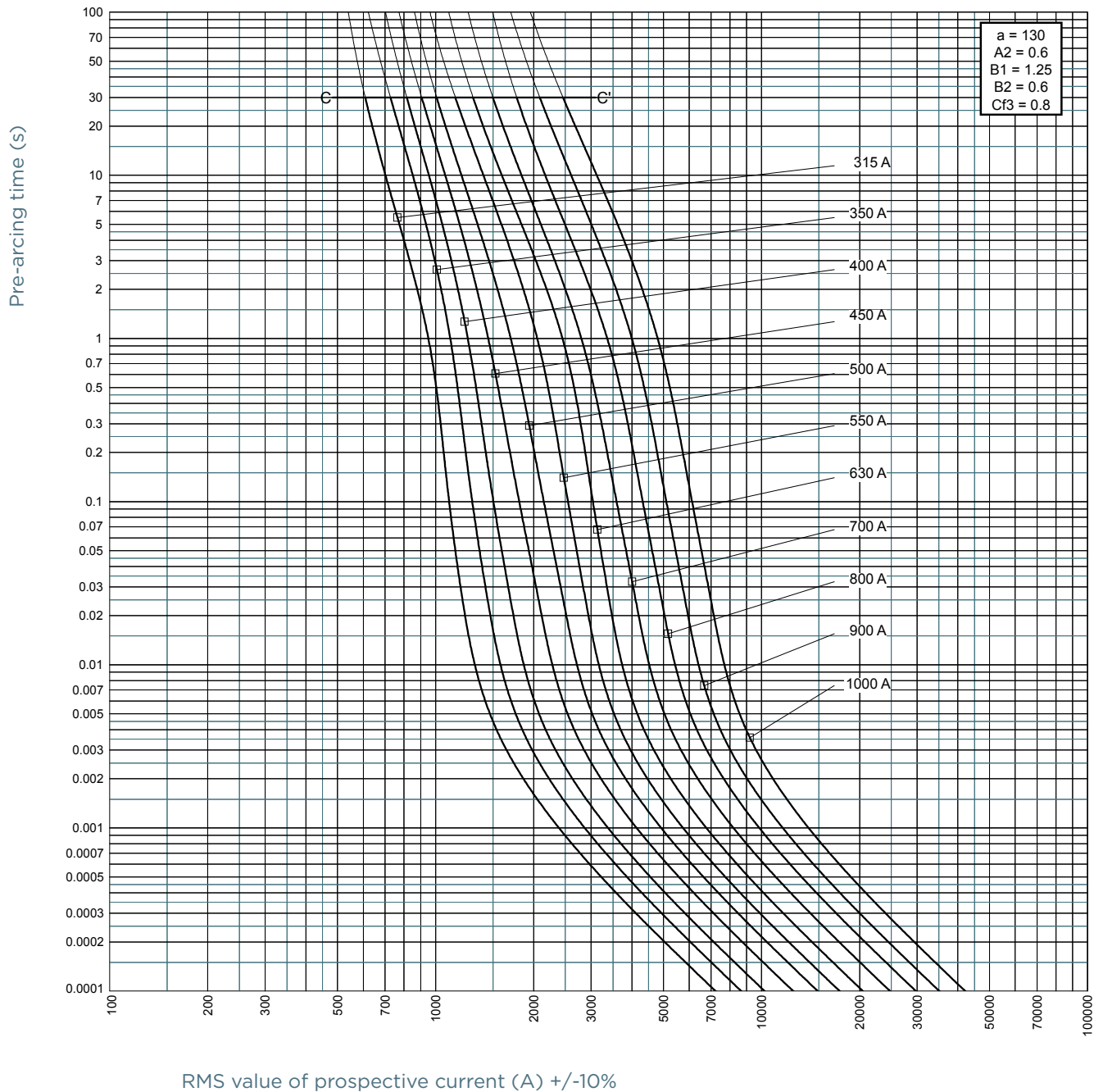
Size 2



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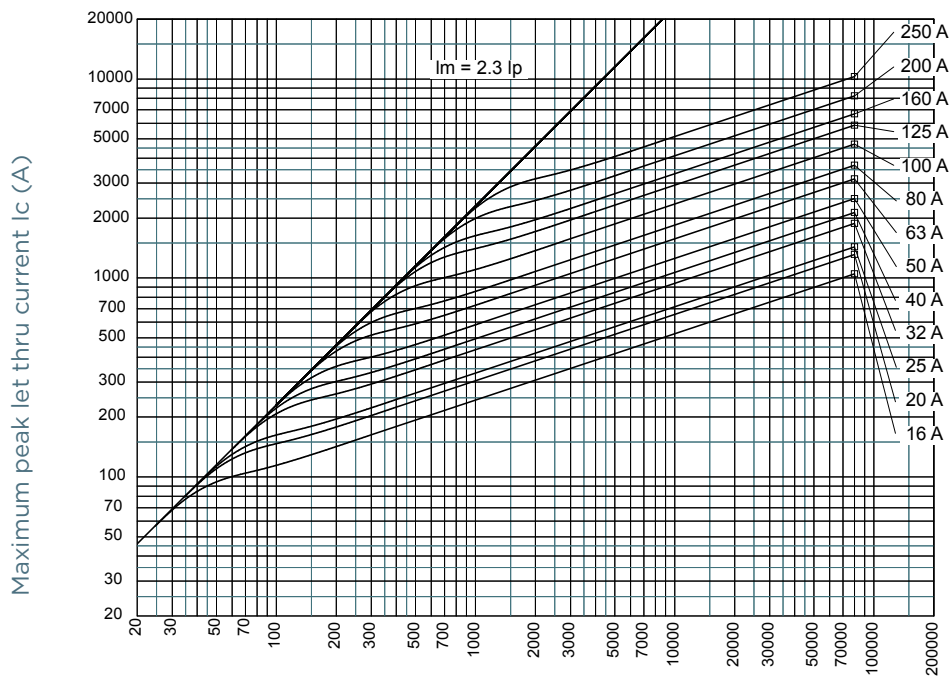
TIME CURRENT CHARACTERISTIC CURVES

Size 3



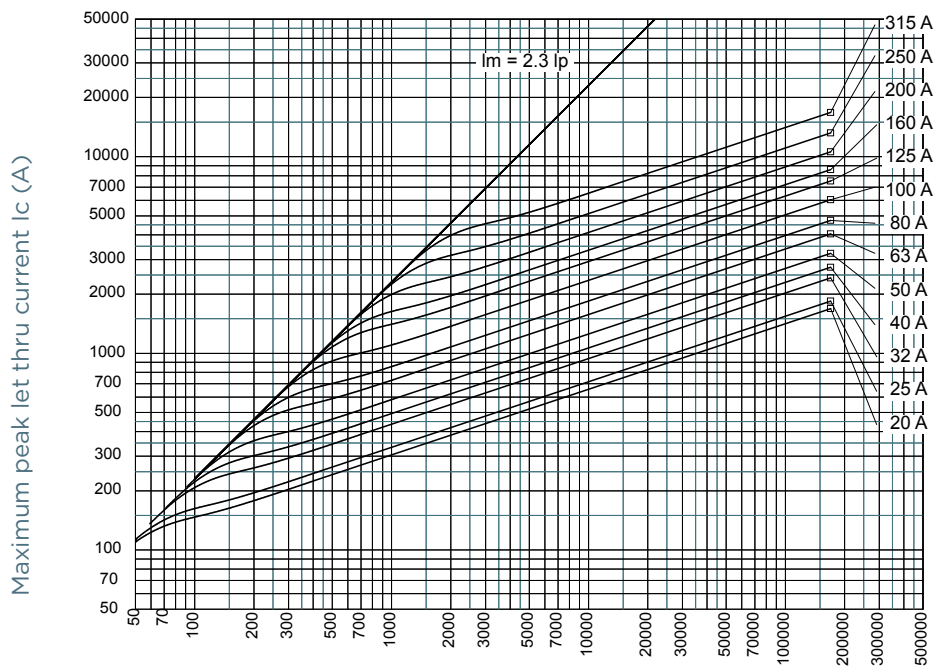
CUT-OFF CURRENT CHARACTERISTIC

Size 000



50 Hz RMS symmetrical prospective current I_p (A)

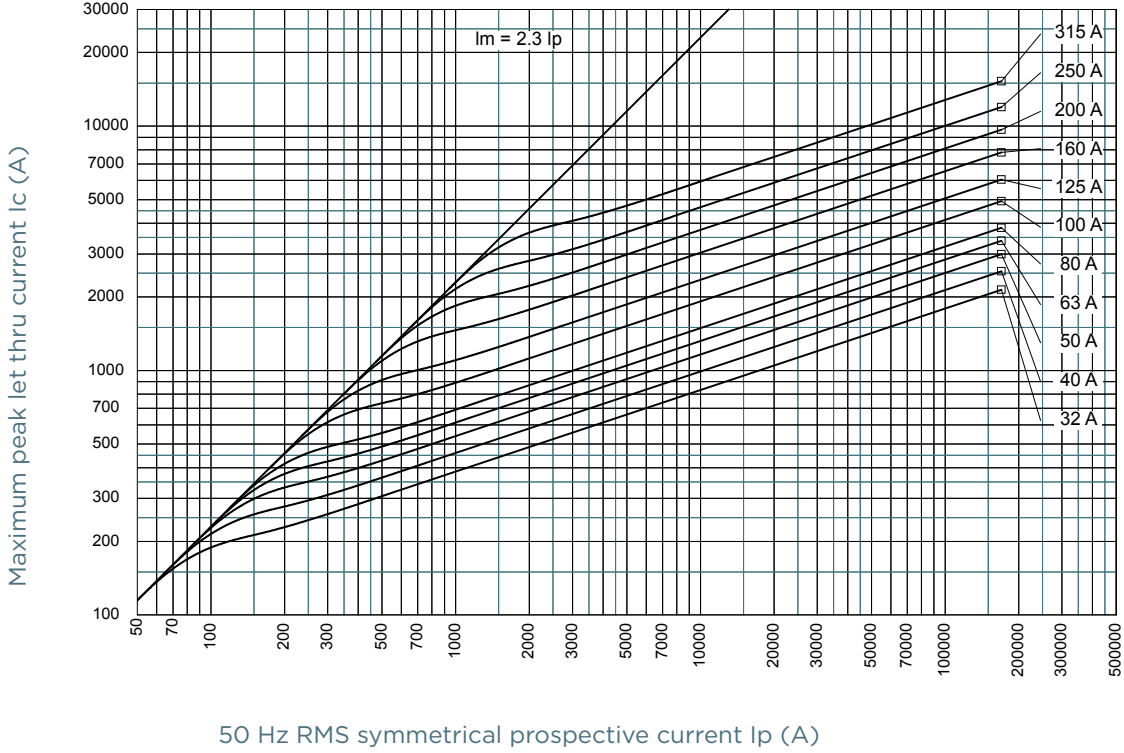
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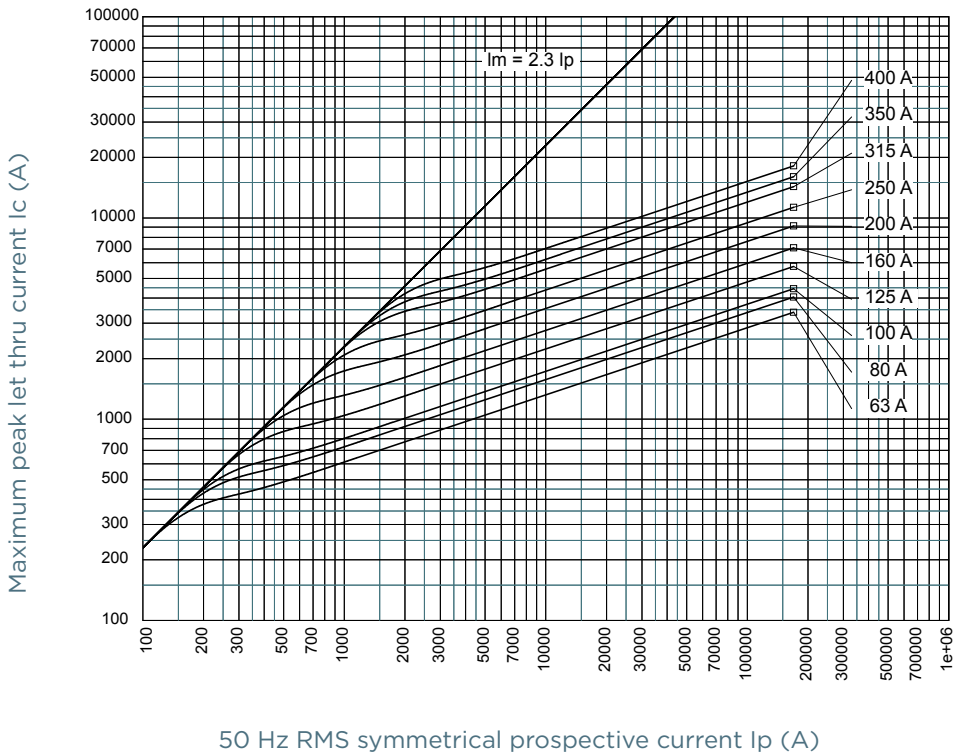
50 Hz RMS symmetrical prospective current I_p (A)

CUT-OFF CURRENT CHARACTERISTIC

Size 0



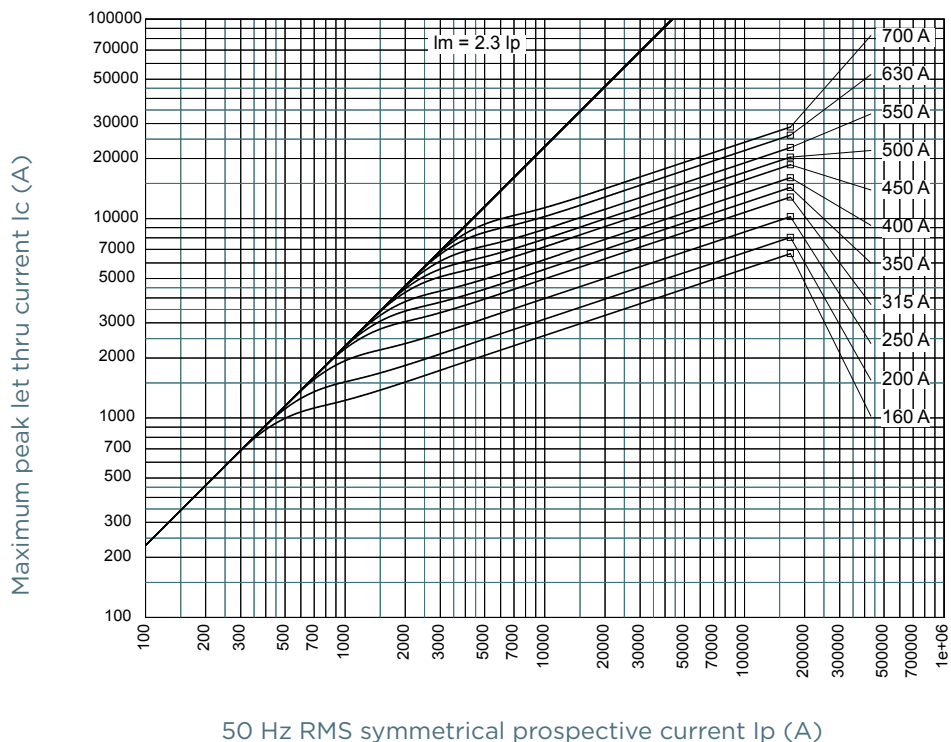
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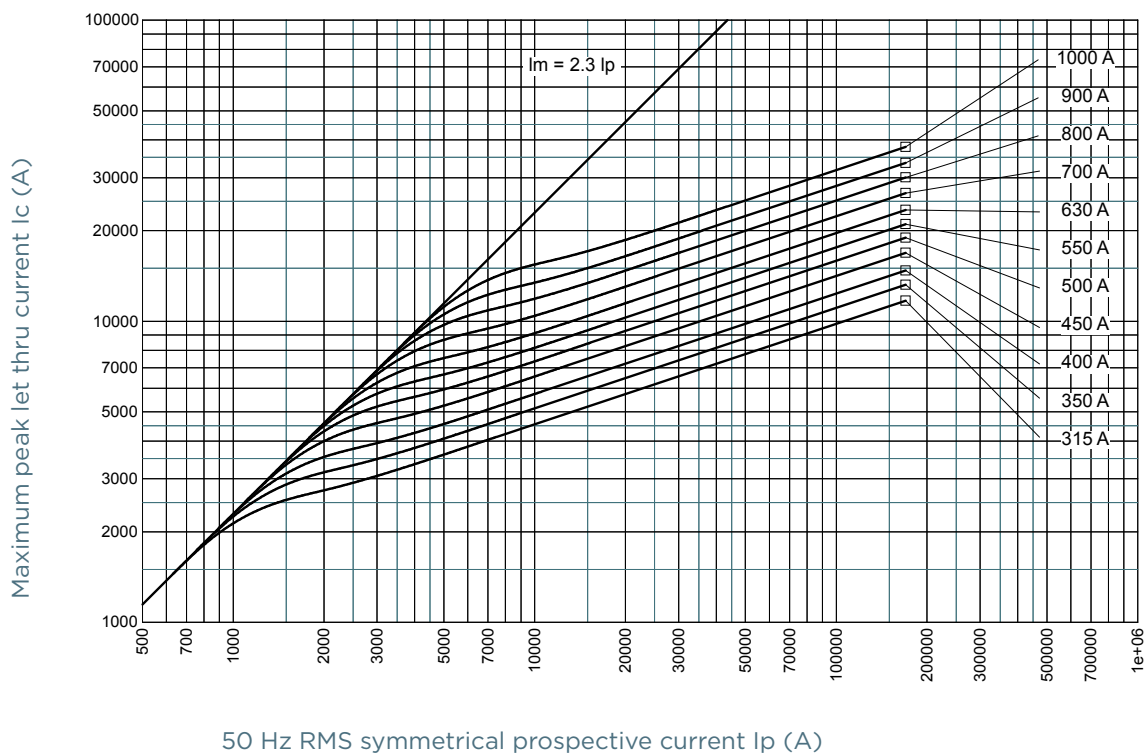
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CUT-OFF CURRENT CHARACTERISTIC

Size 2

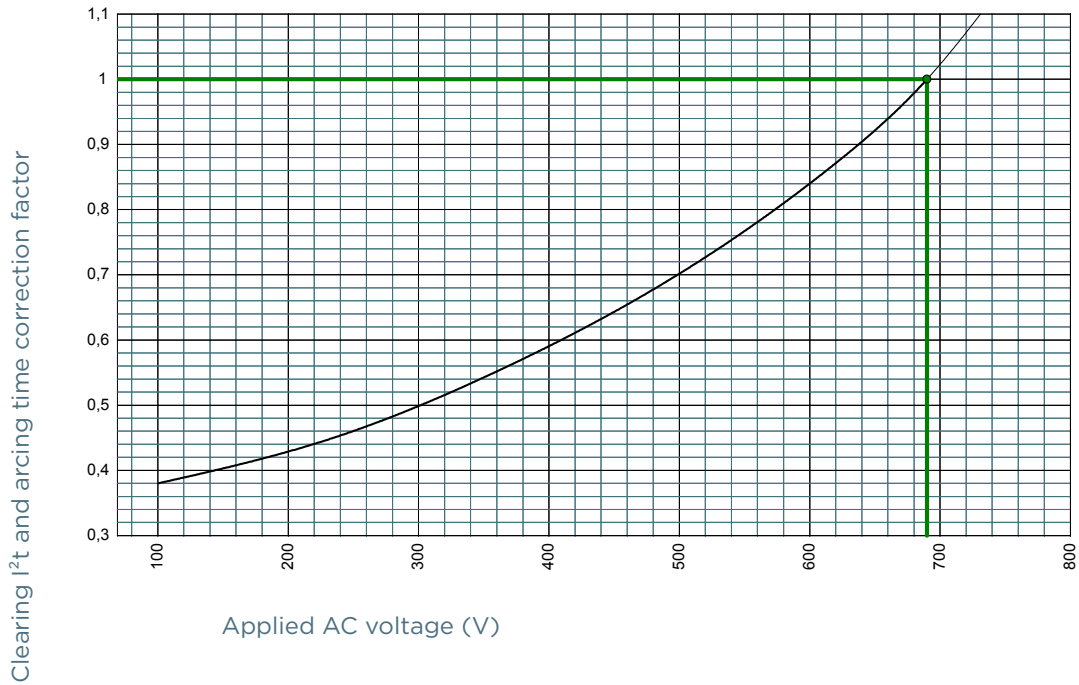


Size 3

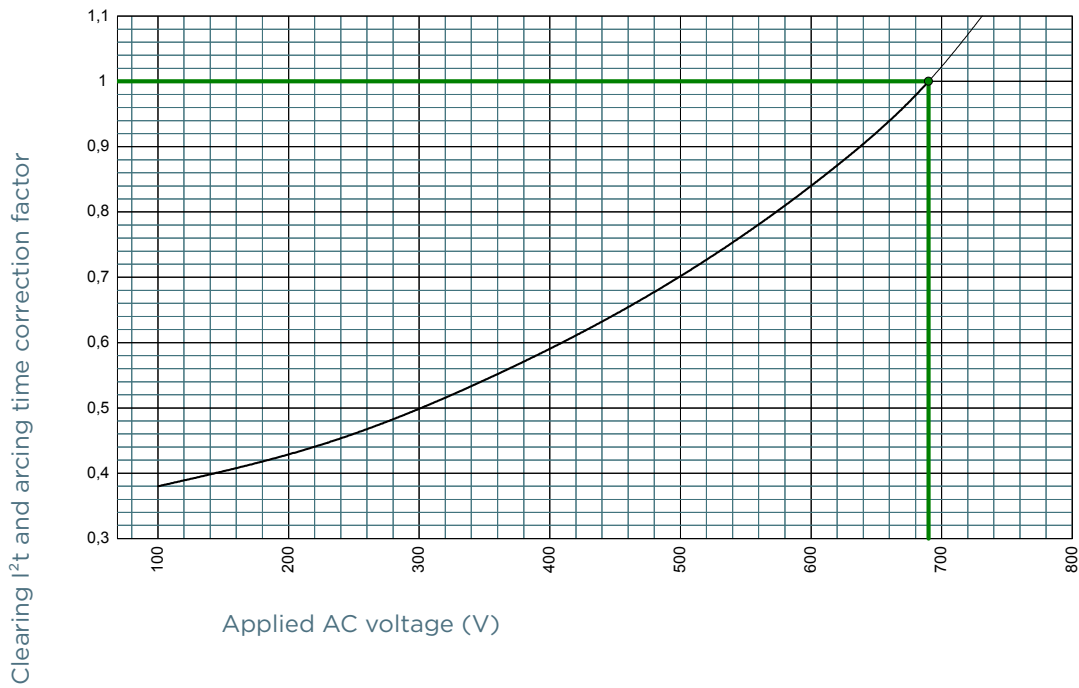


I²T MULTIPLIER COEFFICIENT

Size 000

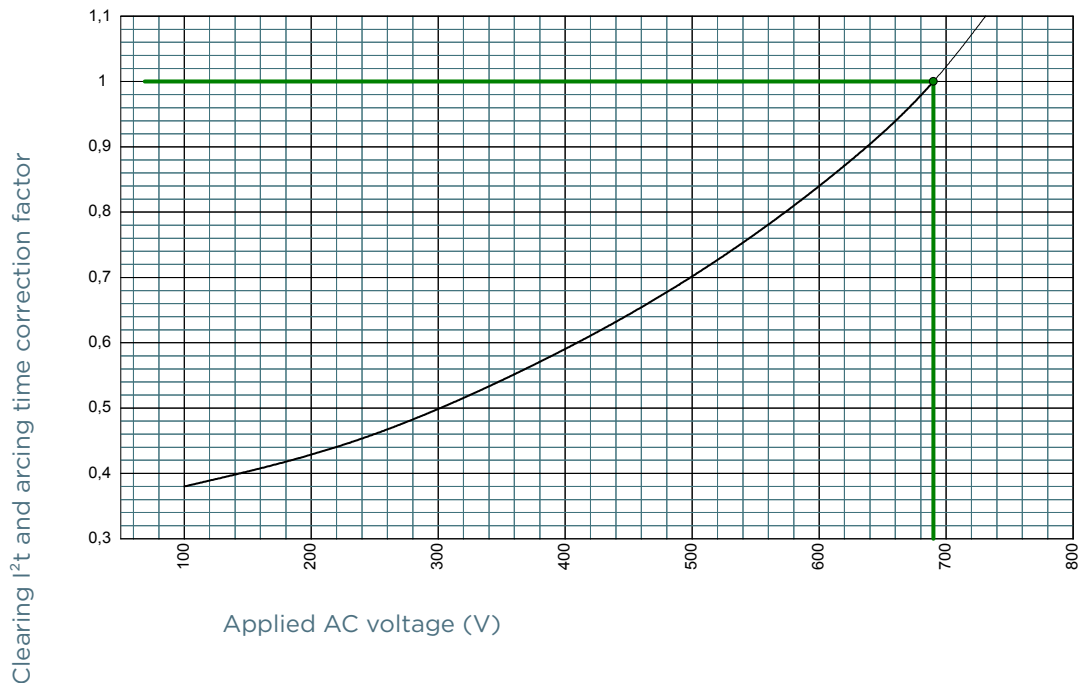


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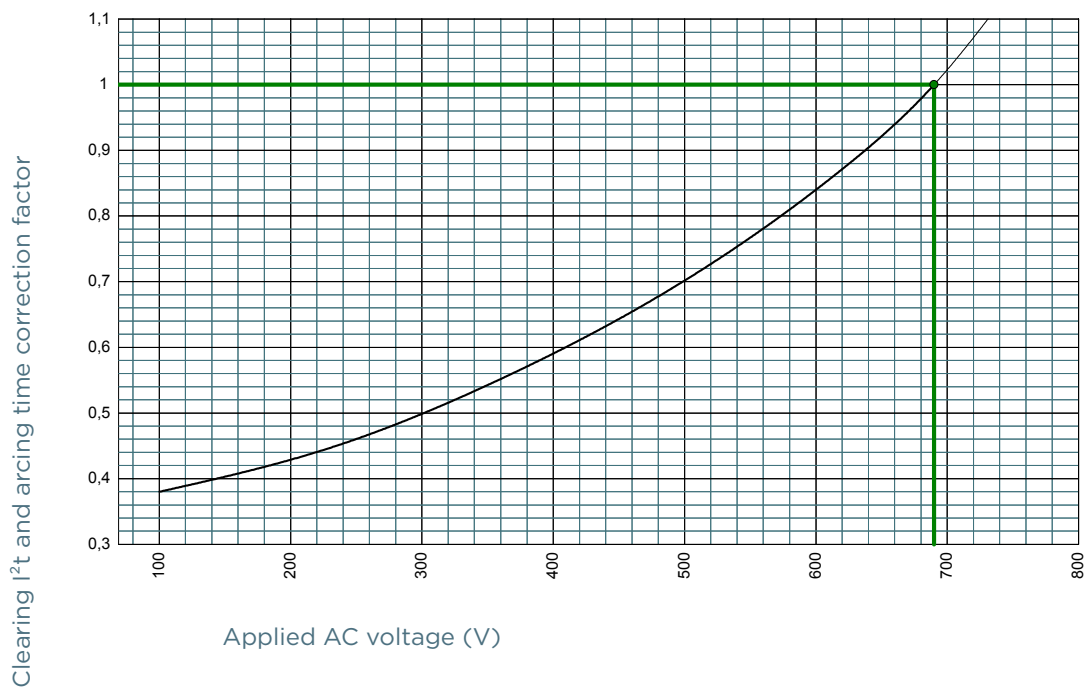


I²T MULTIPLIER COEFFICIENT

Size 0

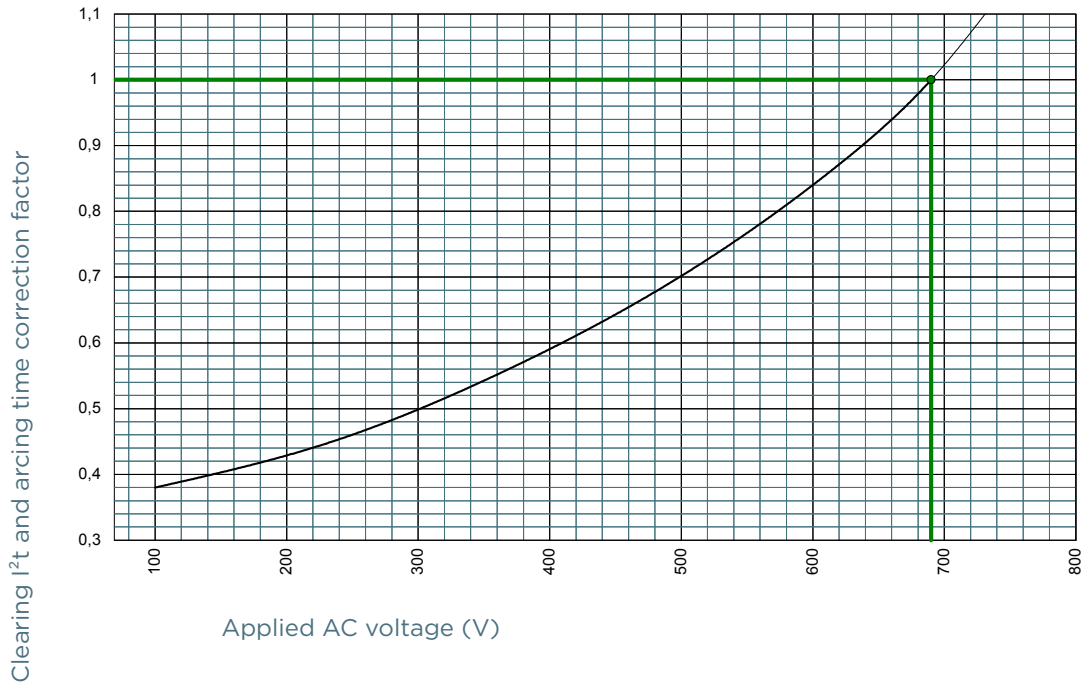


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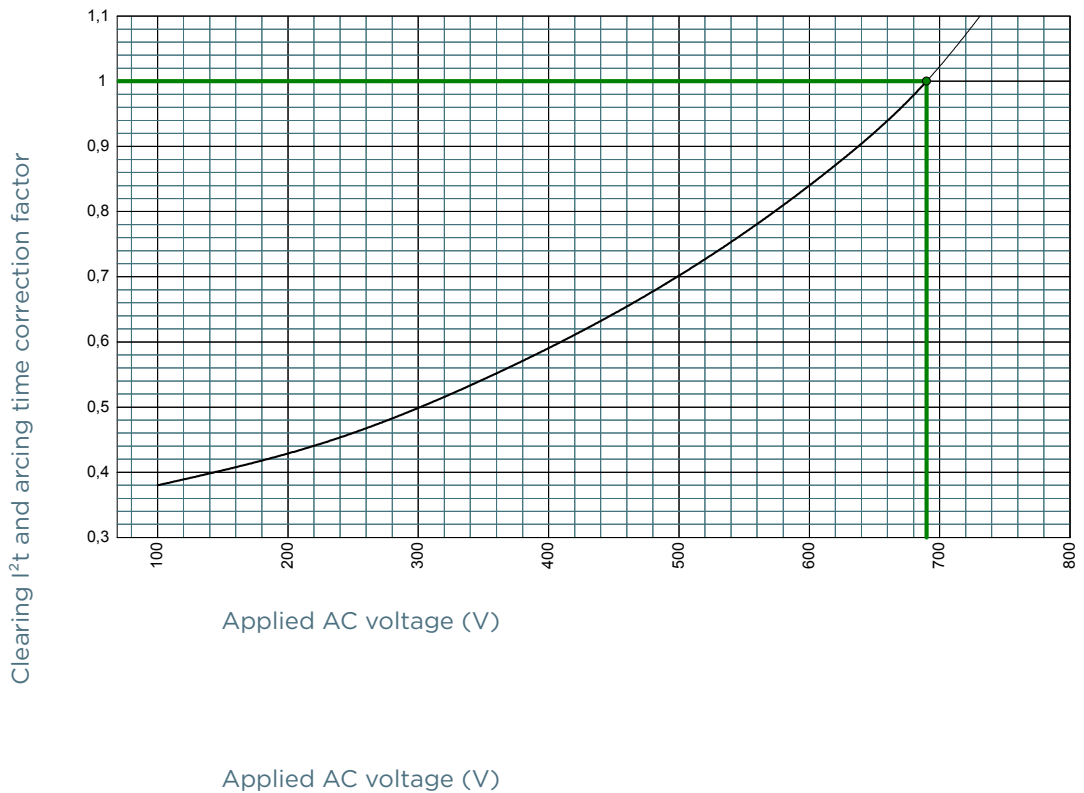


I²T MULTIPLIER COEFFICIENT

Size 2



Size 3

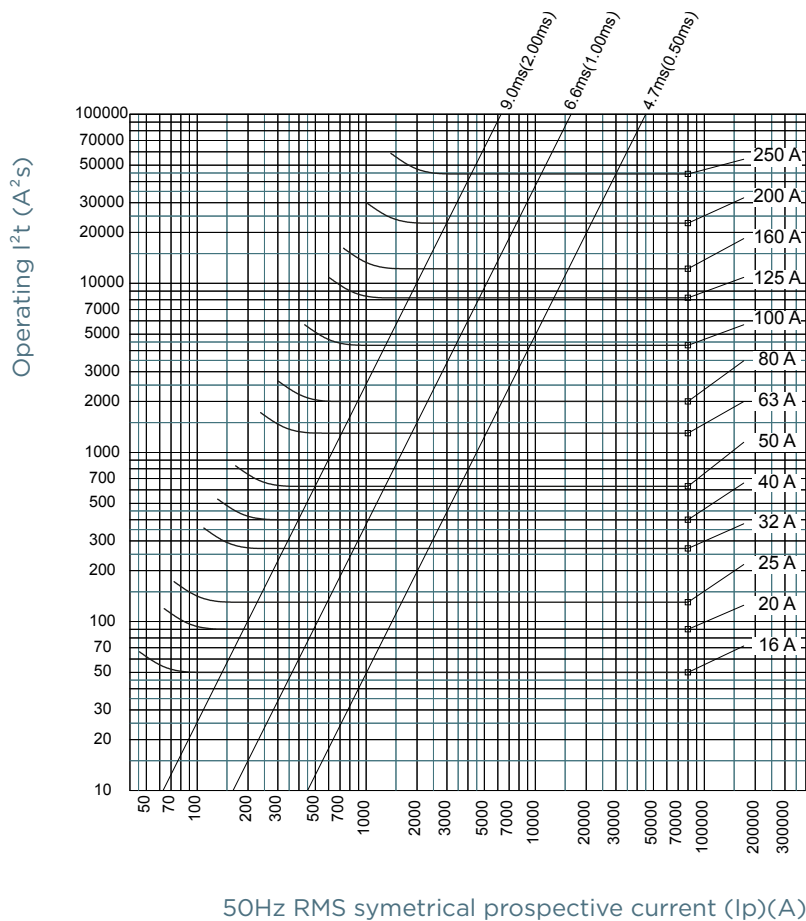


Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

Size 000



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

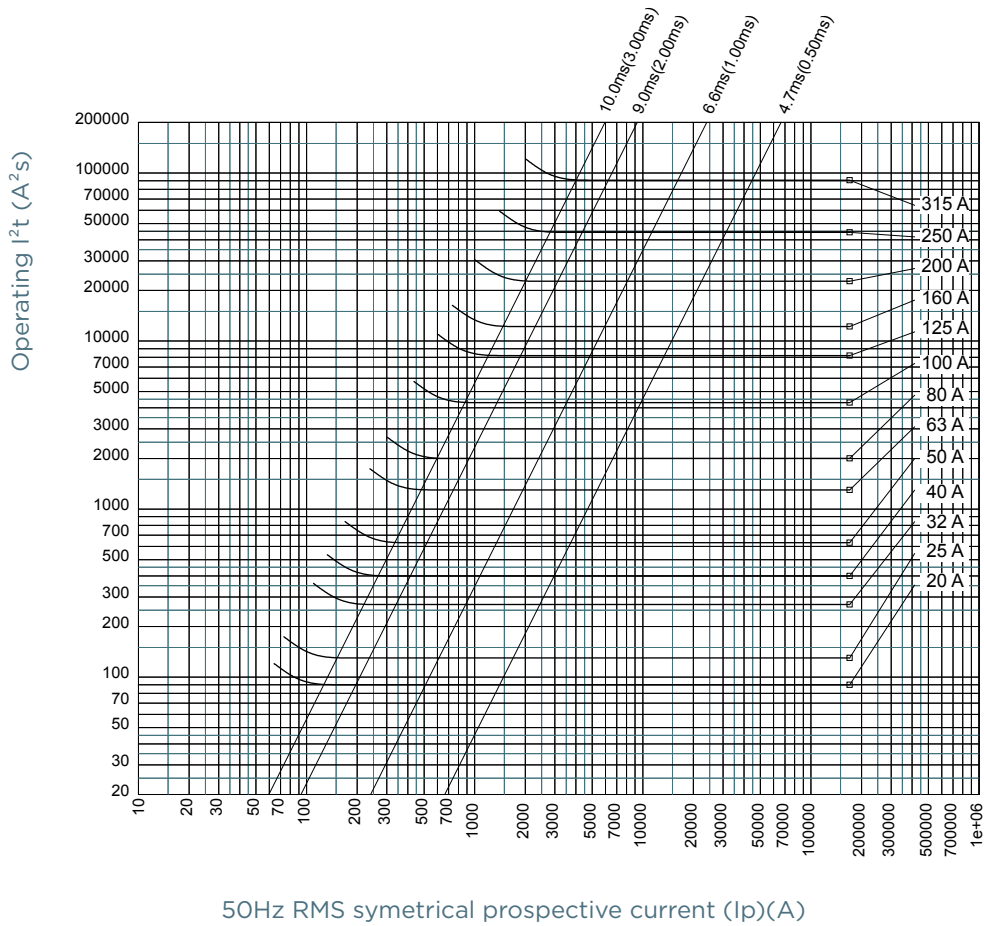
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

Size 00



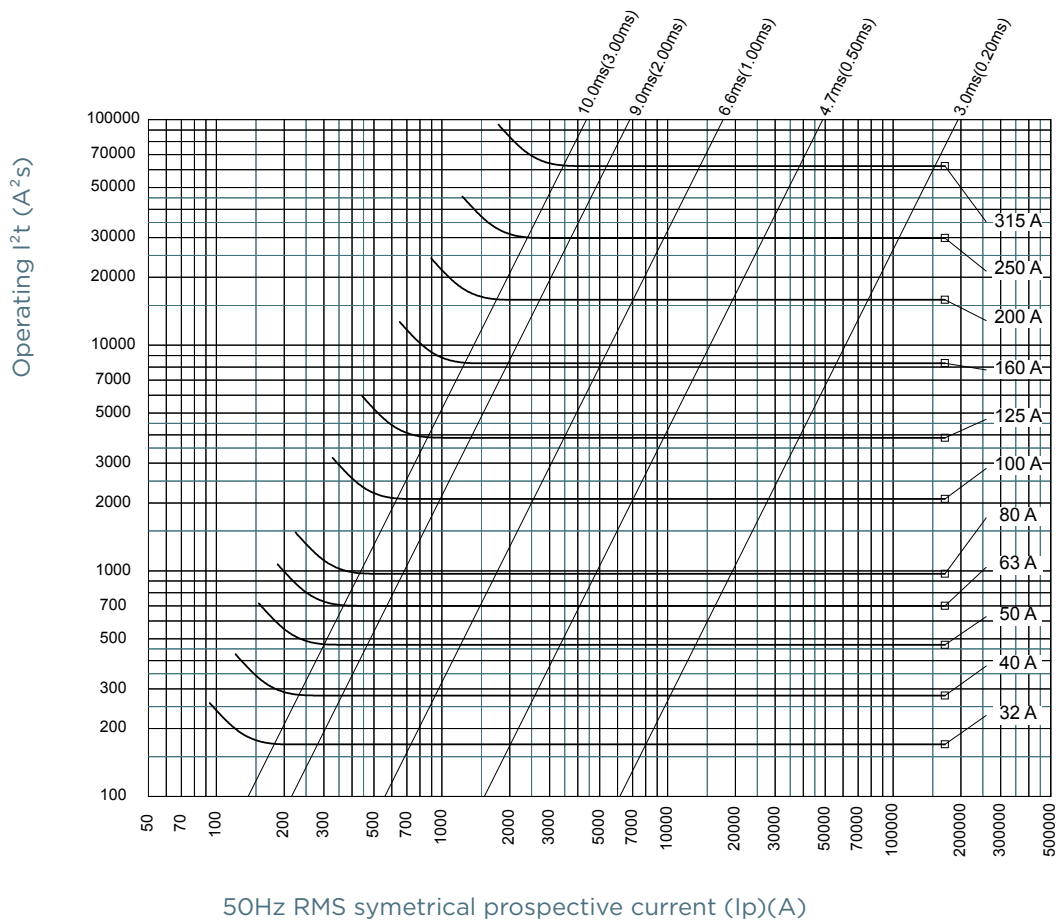
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

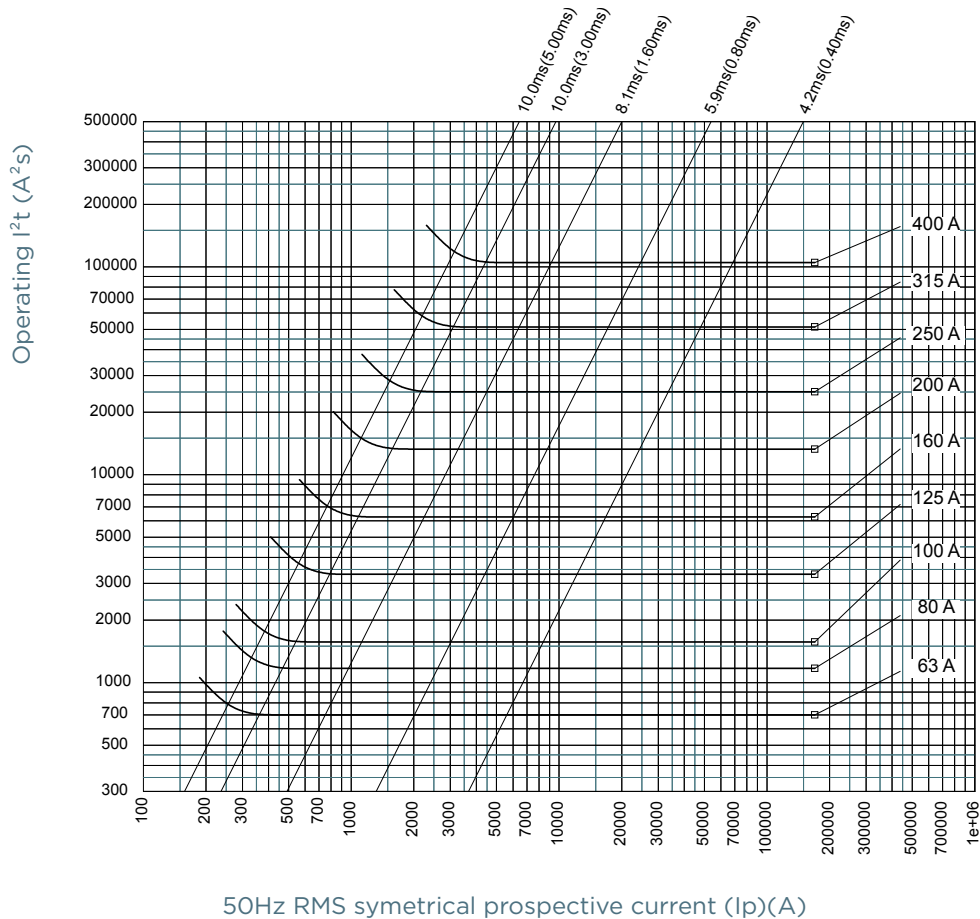
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CHARACTERISTICS TOTAL I²T CURVE

Size 1

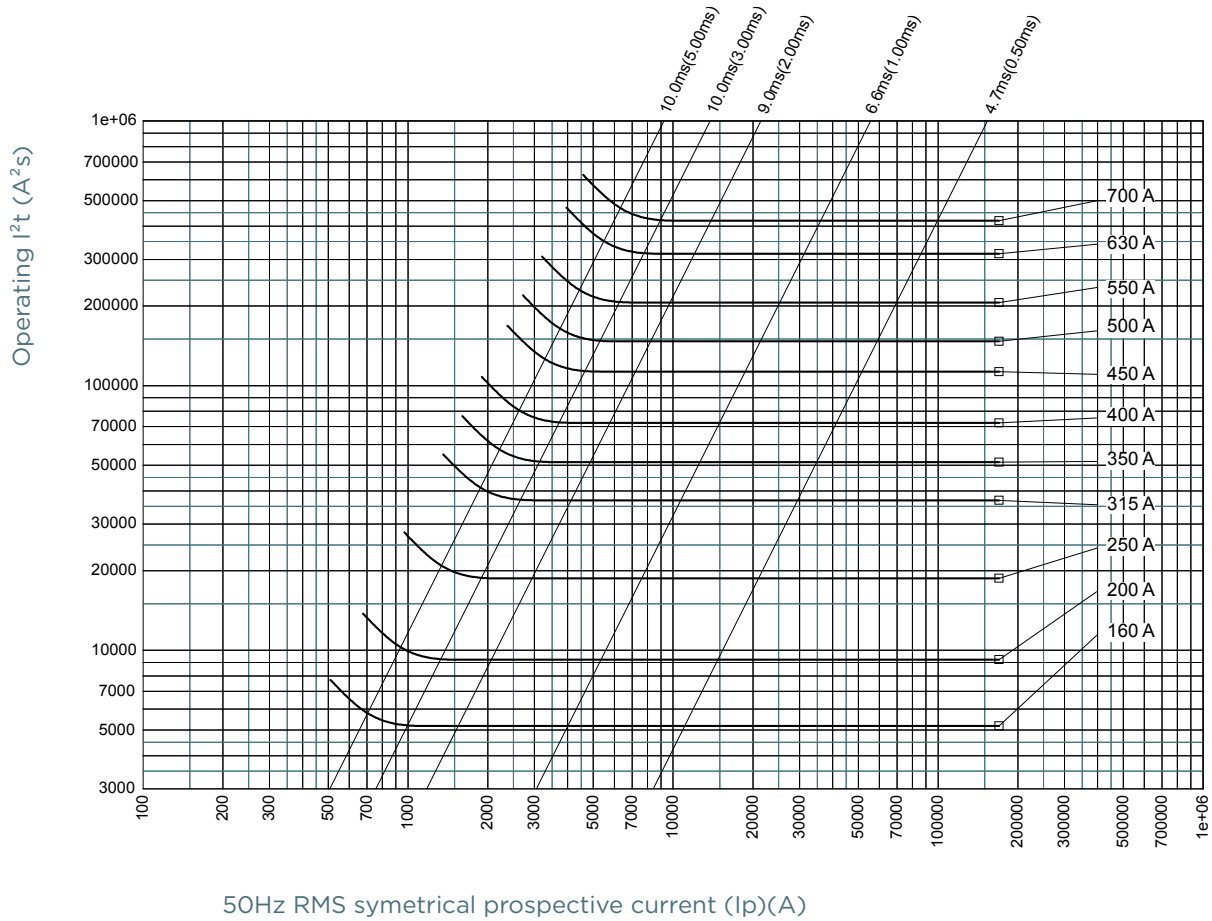


Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

Size 2



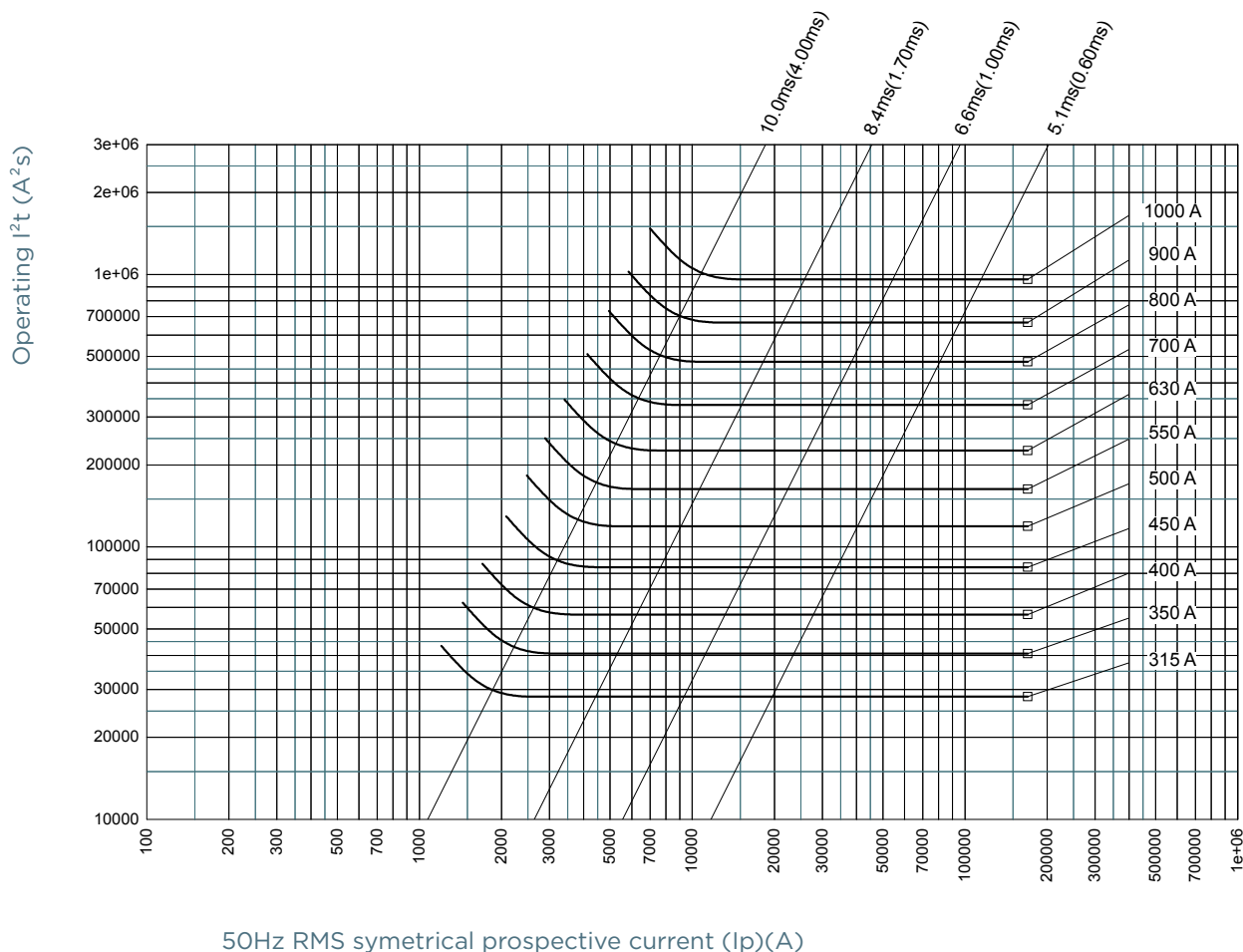
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

CHARACTERISTICS TOTAL I²T CURVE

Size 3



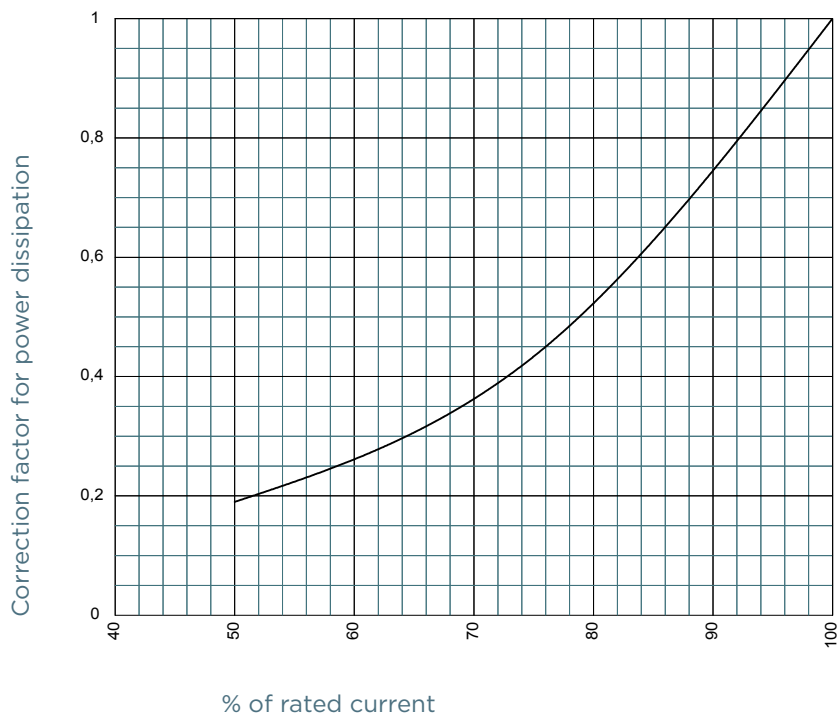
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

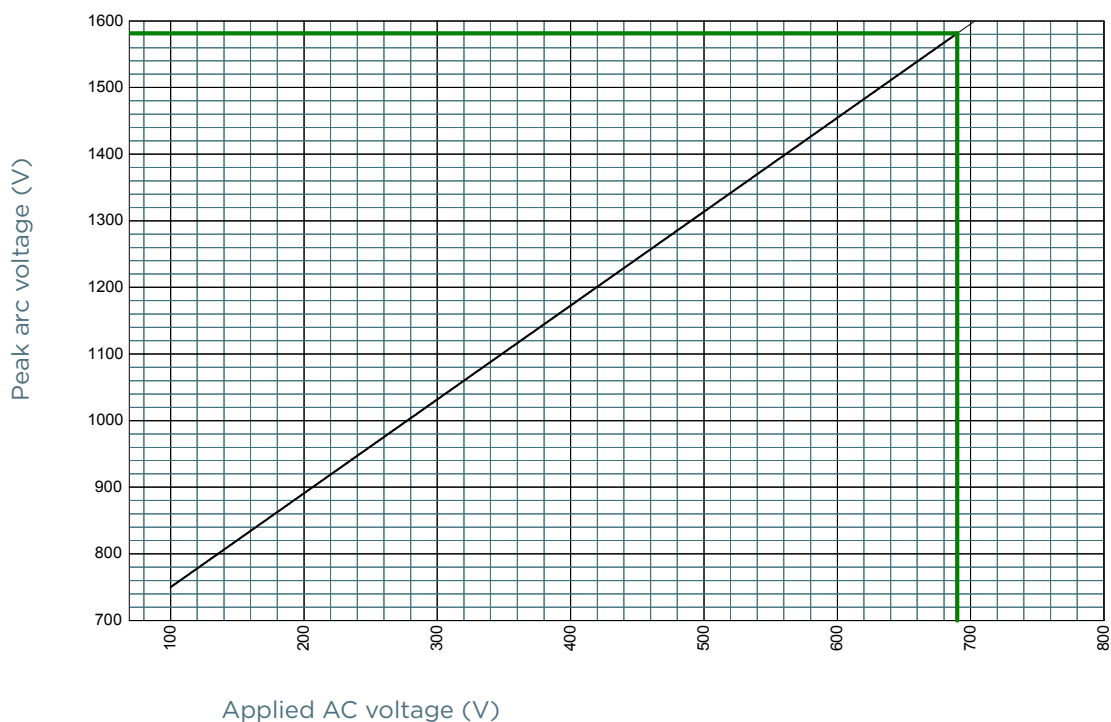
POWER DISSIPATION

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



PEAK ARC VOLTAGE

Size 000

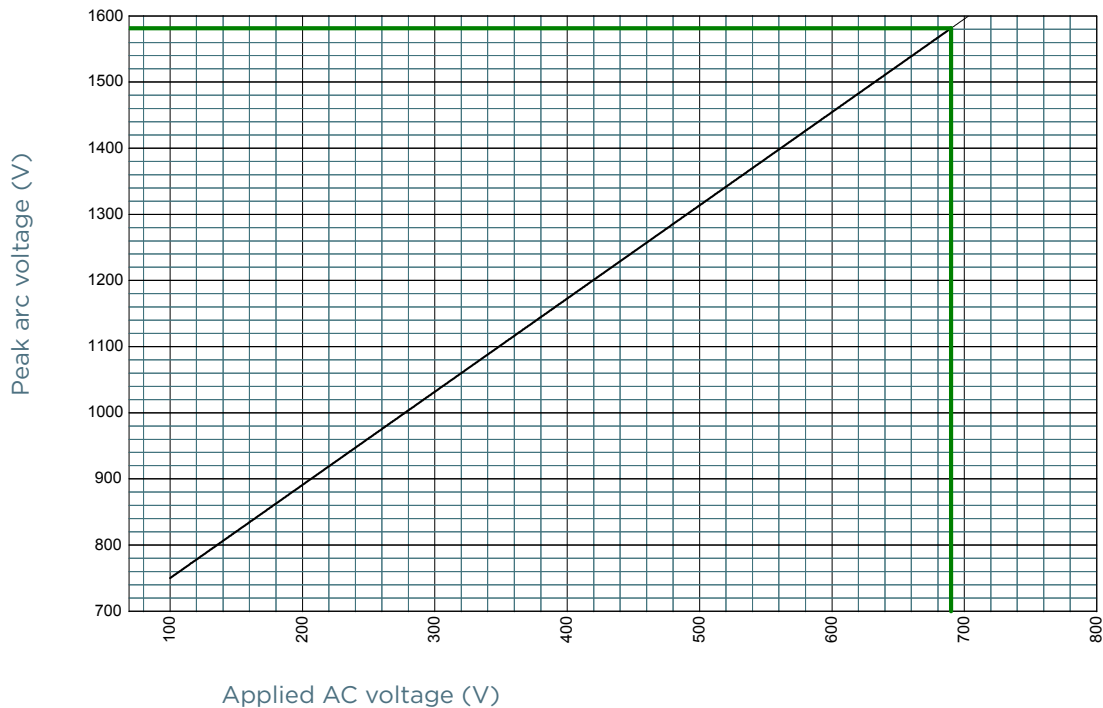


Protistor® size NH 000, 00, 0, 1, 2, 3 aR

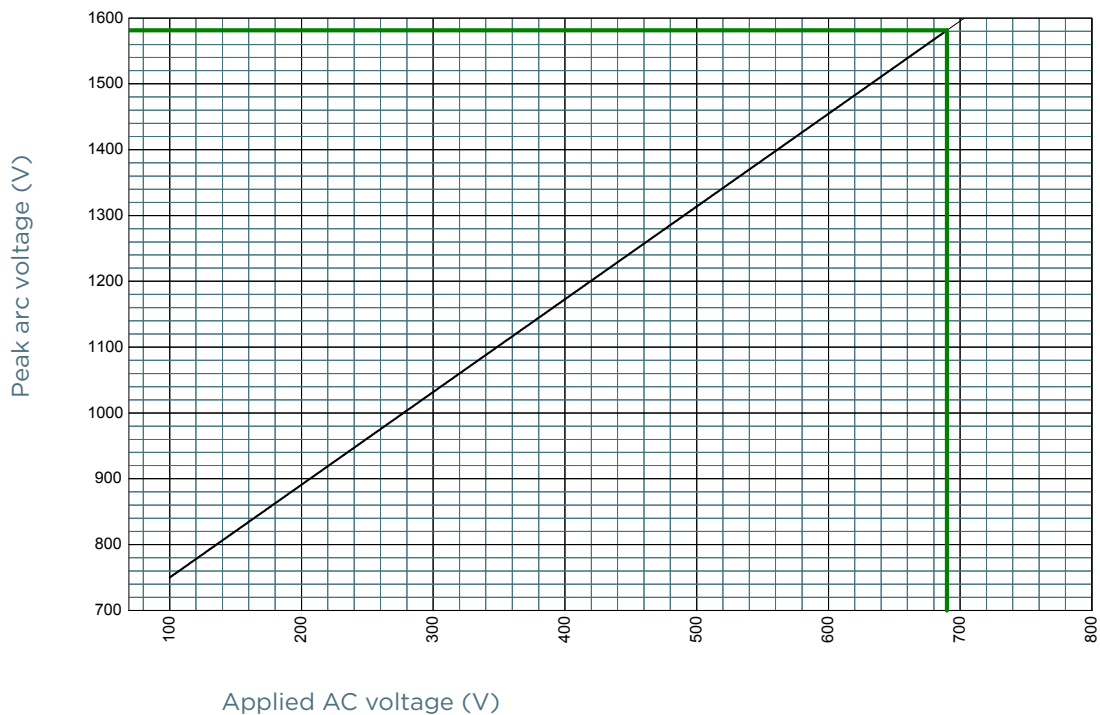
690VAC (IEC) / 700VAC (UL)

PEAK ARC VOLTAGE

Size 00



Size 0



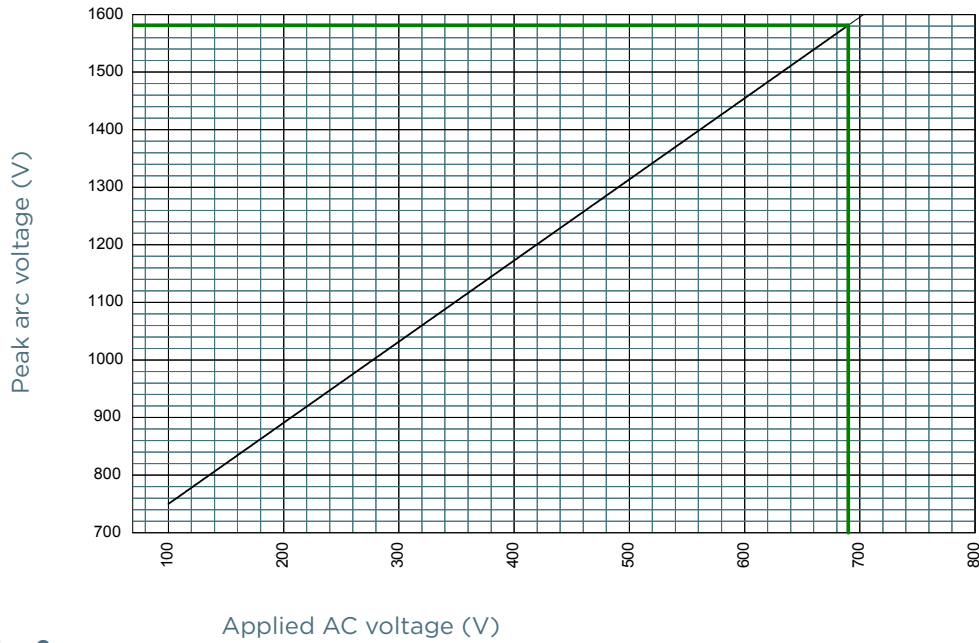
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

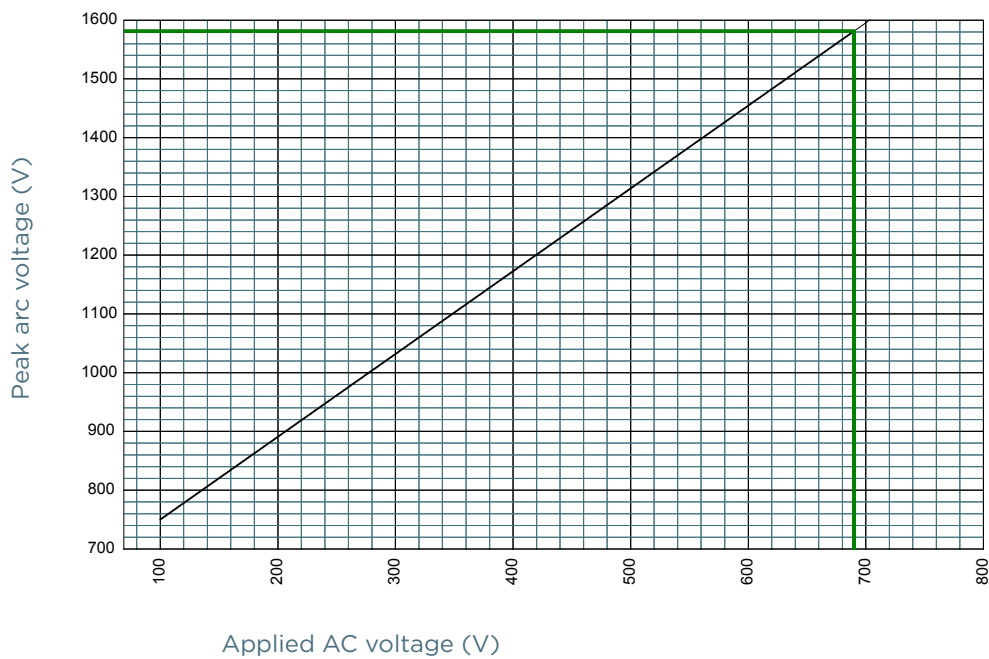
690VAC (IEC) / 700VAC (UL)

PEAK ARC VOLTAGE

Size 1



Size 2



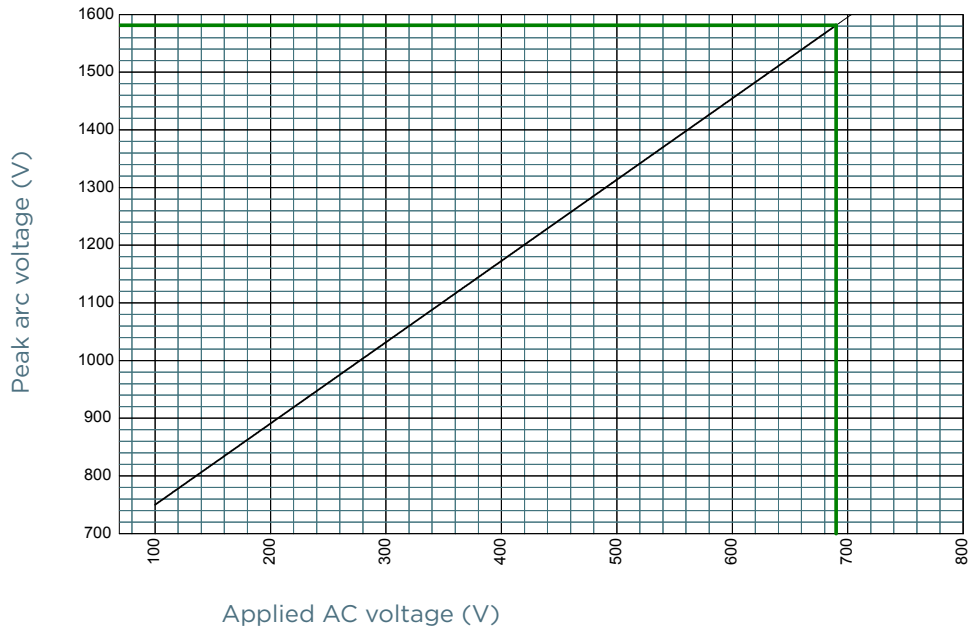
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

PEAK ARC VOLTAGE

Size 3



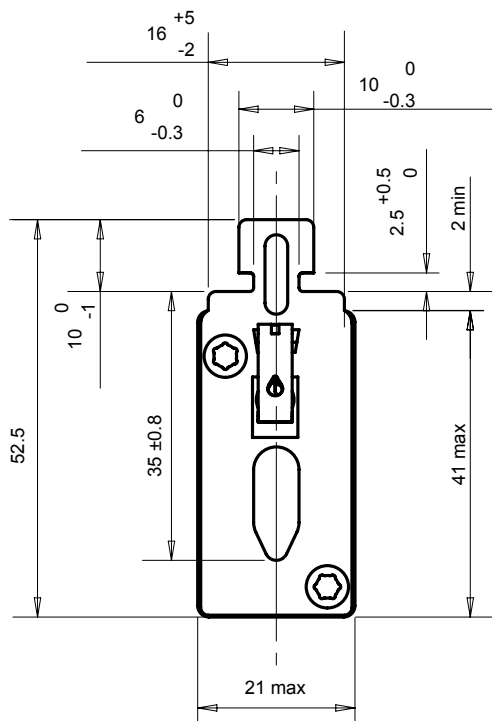
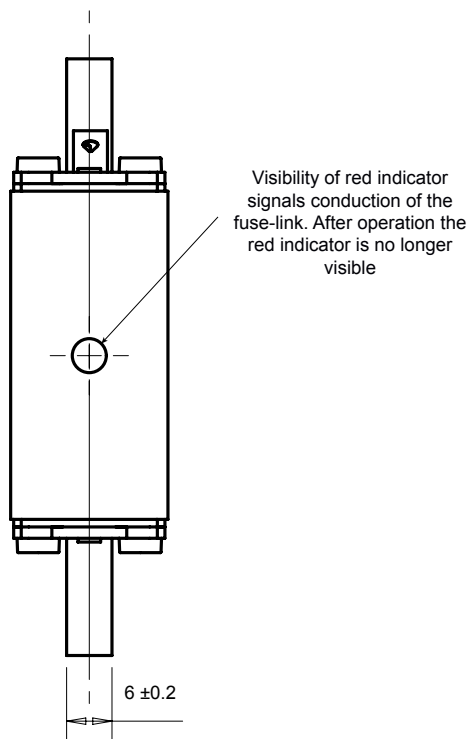
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

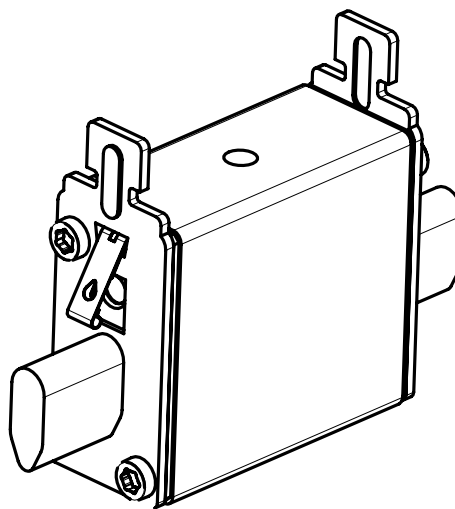
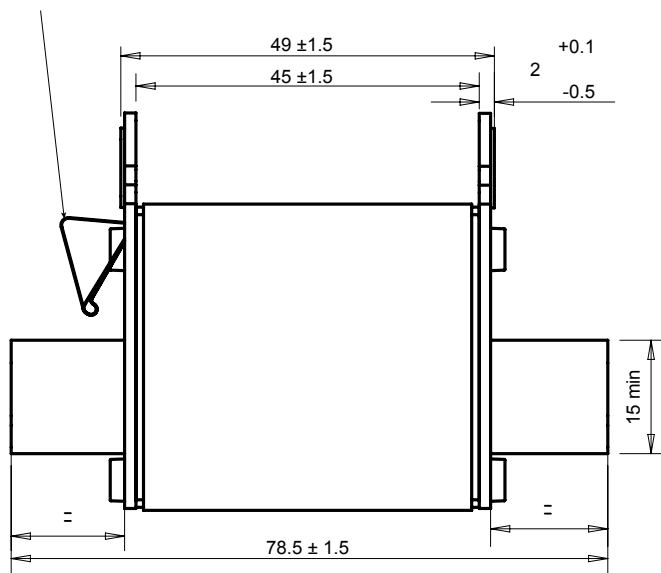
690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 000 aR



Indicator lever is visible after operation of fuse



Dimensions in mm

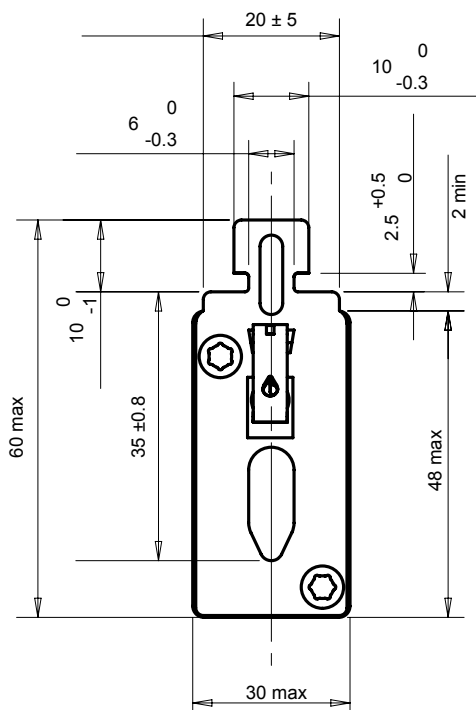
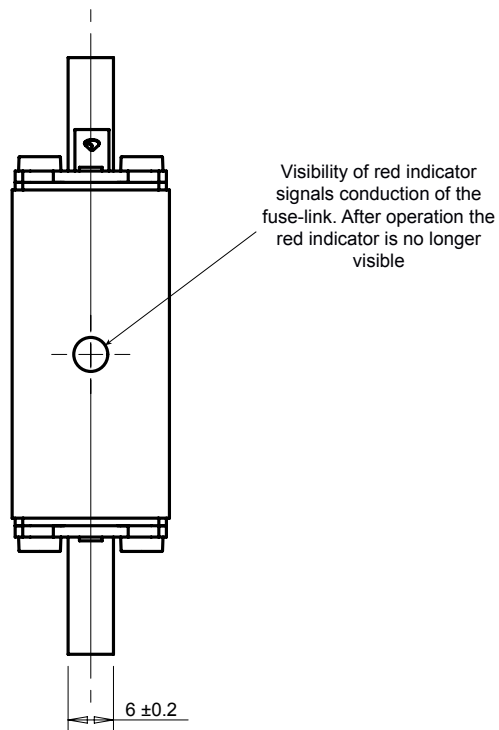
MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

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

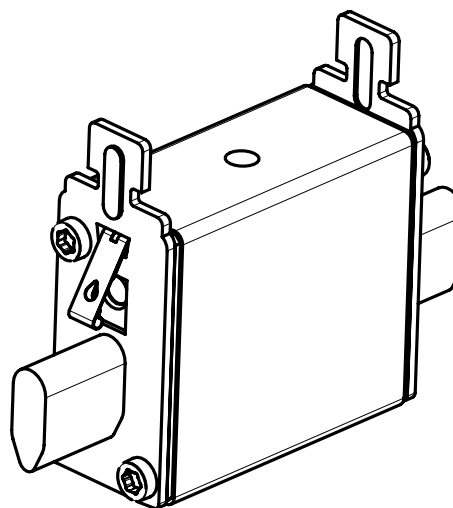
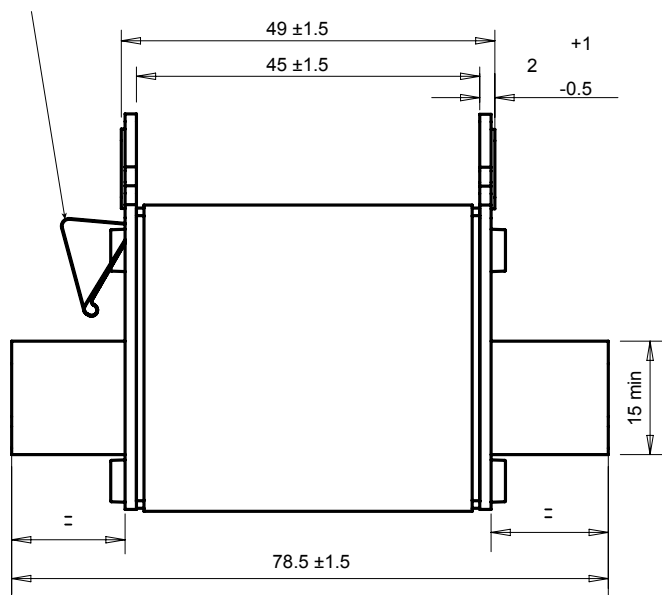
690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 00 aR



Indicator lever is visible after operation of fuse



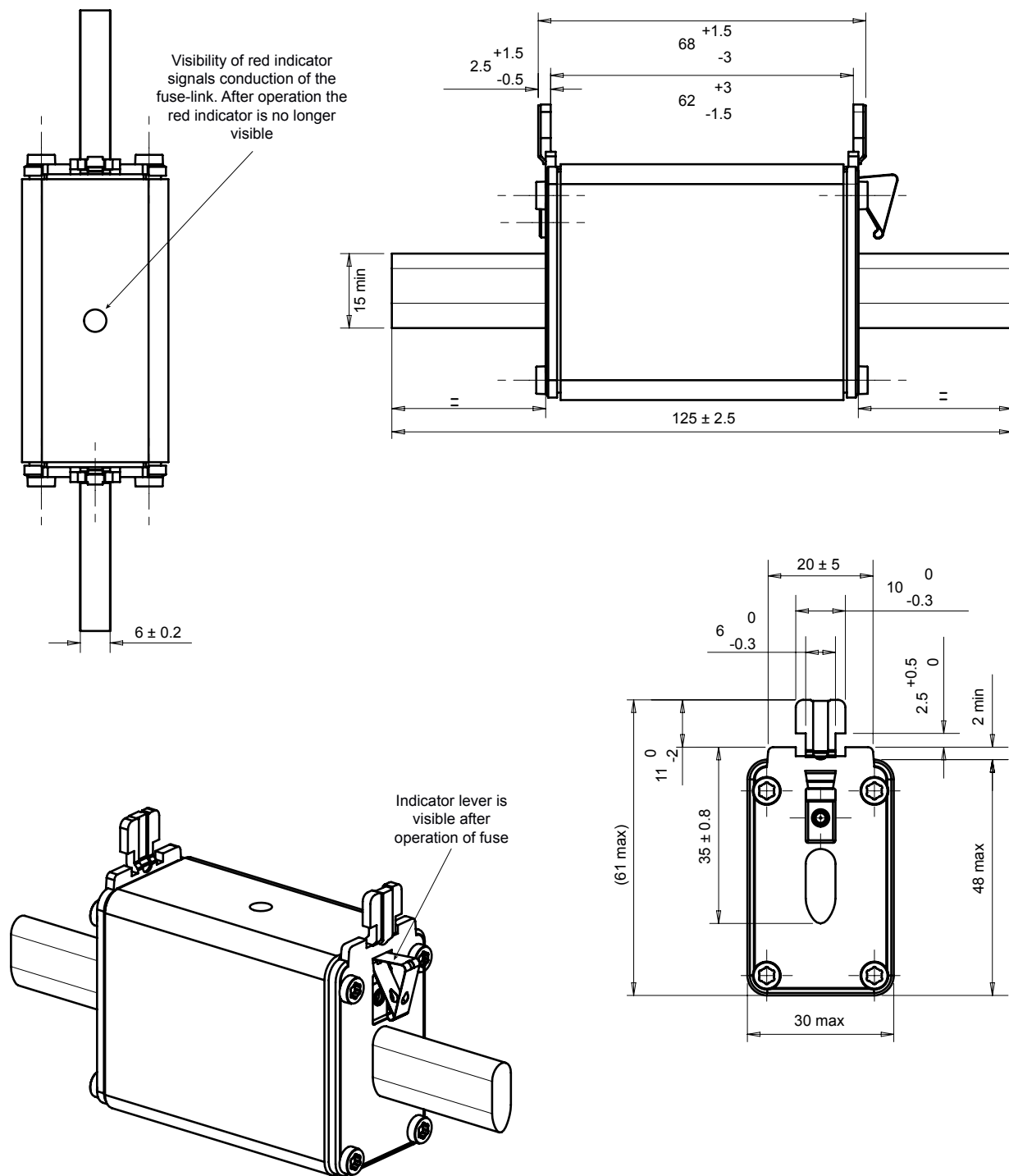
Dimensions in mm

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

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 0 aR



Dimensions in mm

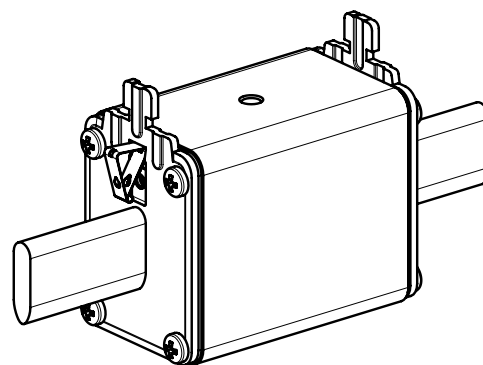
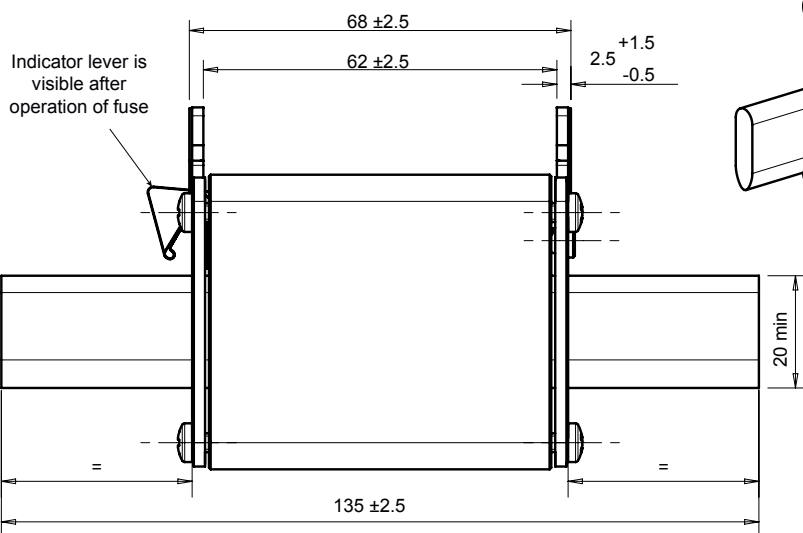
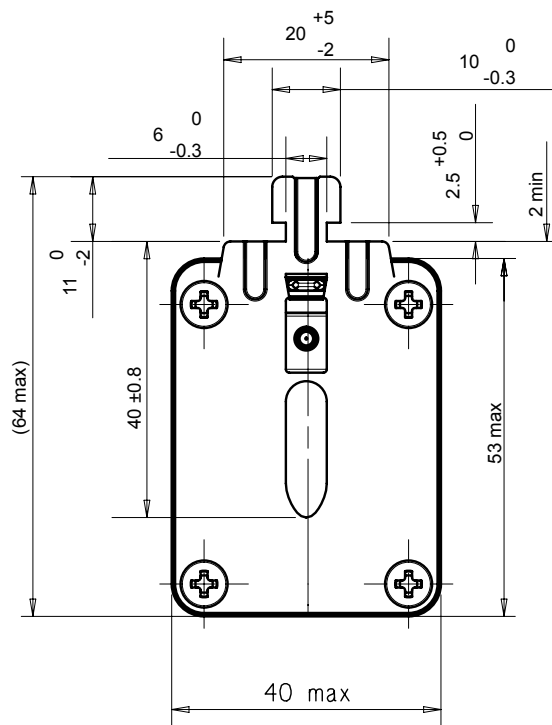
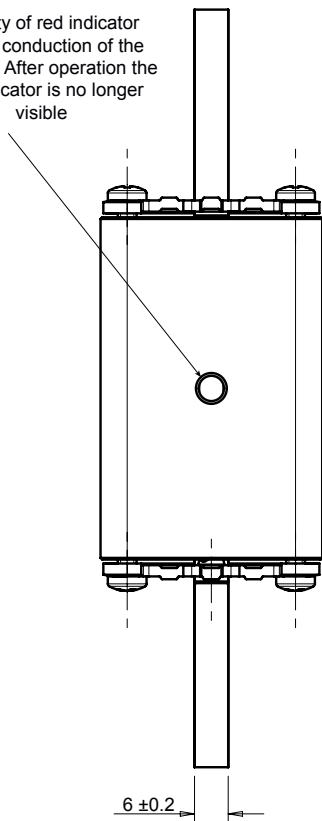
Protistor® size NH 000, 00, 0, 1, 2, 3 aR

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

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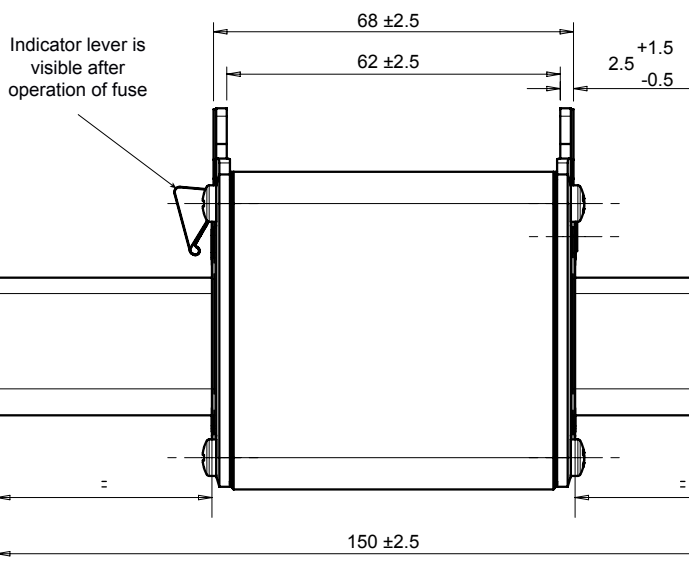
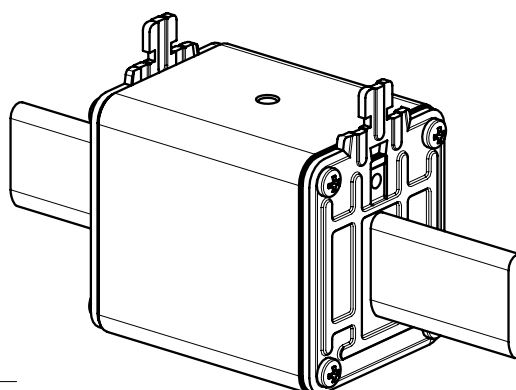
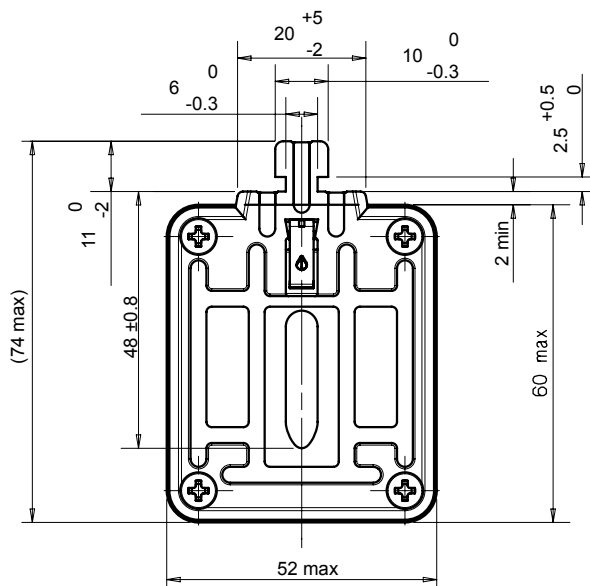
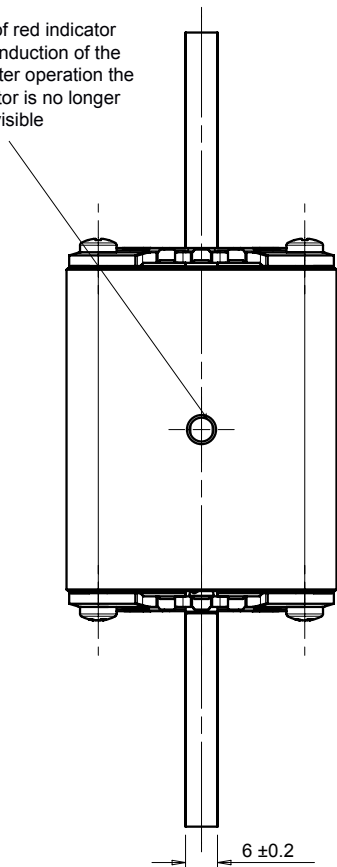
Protistor® size NH 000, 00, 0, 1, 2, 3 aR

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

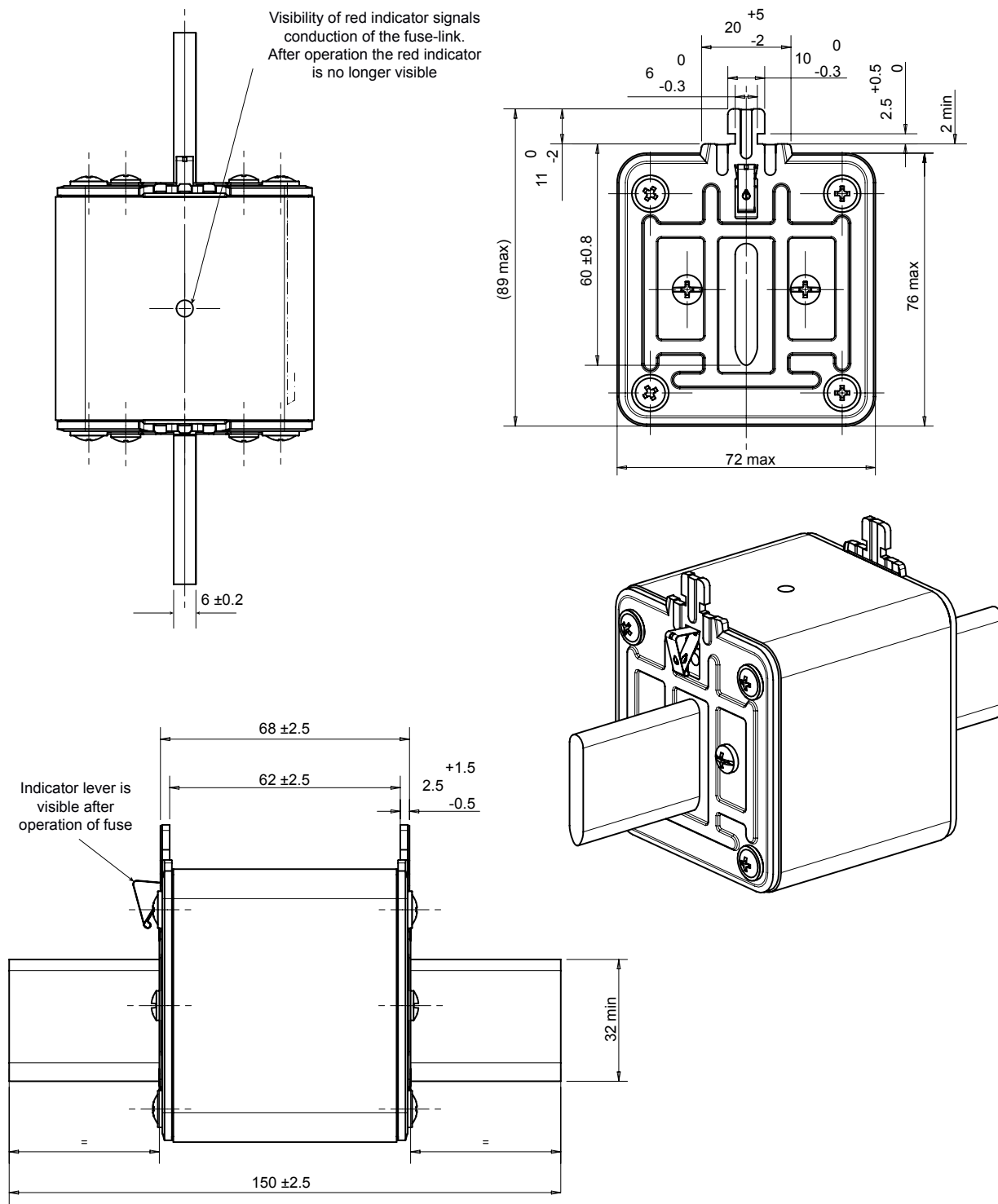
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Protistor® size NH 000, 00, 0, 1, 2, 3 aR

690VAC (IEC) / 700VAC (UL)

DIMENSIONS

NH size 3 aR



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