

Protistor® size NH 000, 00, 1, 2, 3 gS

690VAC

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

Rated Voltage	690/700VAC
Ampere Range (A)	16 ... 630 A
Size per Standard	NH 000, 00, 1, 2, 3
Speed/Characteristic	gS
I.R. AC (IEC)	160 kA

FEATURES & BENEFITS

- Multiple body sizes
- gS Class according to IEC 60269-4
- Low I^2t for improved semiconductor protection
- Fast acting
- Highly current limiting
- Excellent cycling capability
- Reduced power dissipation
- No derating in standard NH fusegear
- High withstanding against inrush current and overloads

APPLICATIONS

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

STANDARDS

- IEC 60269-4 Compliance
- UL/CSA Recognized Component
- CCC GB 1359.4



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PRODUCT RANGE



NH000GS69V25PV

Size 000 gS 690VAC

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (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
NH000GS69V16PV	N322035	690 V	700 V	16 A	9 A ² s	45 A ² s	160 kA	5 W	3	0.13 kg
NH000GS69V20PV	Q322037	690 V	700 V	20 A	10 A ² s	54 A ² s	160 kA	6 W	3	0.13 kg
NH000GS69V25PV	S322039	690 V	700 V	25 A	18 A ² s	96 A ² s	160 kA	7 W	3	0.13 kg
NH000GS69V32PV	X322043	690 V	700 V	32 A	39 A ² s	218 A ² s	160 kA	8 W	3	0.13 kg
NH000GS69V40PV	B322047	690 V	700 V	40 A	69 A ² s	386 A ² s	160 kA	9 W	3	0.13 kg
NH000GS69V50PV	F322051	690 V	700 V	50 A	136 A ² s	764 A ² s	160 kA	10 W	3	0.13 kg
NH000GS69V63PV	K322055	690 V	700 V	63 A	275 A ² s	1545 A ² s	160 kA	11 W	3	0.13 kg
NH000GS69V80PV	P322059	690 V	700 V	80 A	543 A ² s	3055 A ² s	160 kA	13 W	3	0.13 kg
NH000GS69V100PV	T322063	690 V	700 V	100 A	1063 A ² s	5982 A ² s	160 kA	14 W	3	0.13 kg



NH00GS69V125PV

Size 00 gS 690VAC

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (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
NH00GS69V125PV	E322165	690 V	700 V	125 A	2170 A ² s	10850 A ² s	160 kA	16 W	3	0.2 kg
NH00GS69V160PV	J322169	690 V	700 V	160 A	4270 A ² s	21340 A ² s	160 kA	19 W	3	0.2 kg



NH1GS69V125PV

Size 1 gS 690VAC

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (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
NH1GS69V100PV	V322363	690 V	700 V	100 A	965 A ² s	4820 A ² s	160 kA	19 W	3	0.43 kg
NH1GS69V125PV	X322365	690 V	700 V	125 A	1705 A ² s	8550 A ² s	160 kA	21 W	3	0.43 kg
NH1GS69V160PV	B322369	690 V	700 V	160 A	3860 A ² s	19000 A ² s	160 kA	23 W	3	0.43 kg
NH1GS69V200PV	D322371	690 V	700 V	200 A	7560 A ² s	38000 A ² s	160 kA	26 W	3	0.43 kg
NH1GS69V250PV	H322375	690 V	700 V	250 A	15420 A ² s	77150 A ² s	160 kA	29 W	3	0.43 kg
NH1GS69V280PV	L302897	690 V	700 V	280 A	18665 A ² s	93000 A ² s	160 kA	33 W	3	0.43 kg

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PRODUCT RANGE



NH2GS69V250PV

Size 2 gS 690VAC

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (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
NH2GS69V160PV	K322469	690 V	700 V	160 A	3460 A²s	17500 A²s	160 kA	28 W	3	0.64 kg
NH2GS69V200PV	M322471	690 V	700 V	200 A	6870 A²s	34000 A²s	160 kA	30 W	3	0.64 kg
NH2GS69V250PV	R322475	690 V	700 V	250 A	12485 A²s	62000 A²s	160 kA	33 W	3	0.64 kg
NH2GS69V315PV	W322479	690 V	700 V	315 A	27945 A²s	140000 A²s	160 kA	36 W	3	0.64 kg
NH2GS69V350PV	X322480	690 V	700 V	350 A	38310 A²s	191000 A²s	160 kA	38 W	3	0.64 kg
NH2GS69V400PV	A322483	690 V	700 V	400 A	54320 A²s	271000 A²s	160 kA	41 W	3	0.64 kg
NH2GS69V450PV	C322485	690 V	700 V	450 A	81125 A²s	405000 A²s	160 kA	43 W	3	0.64 kg



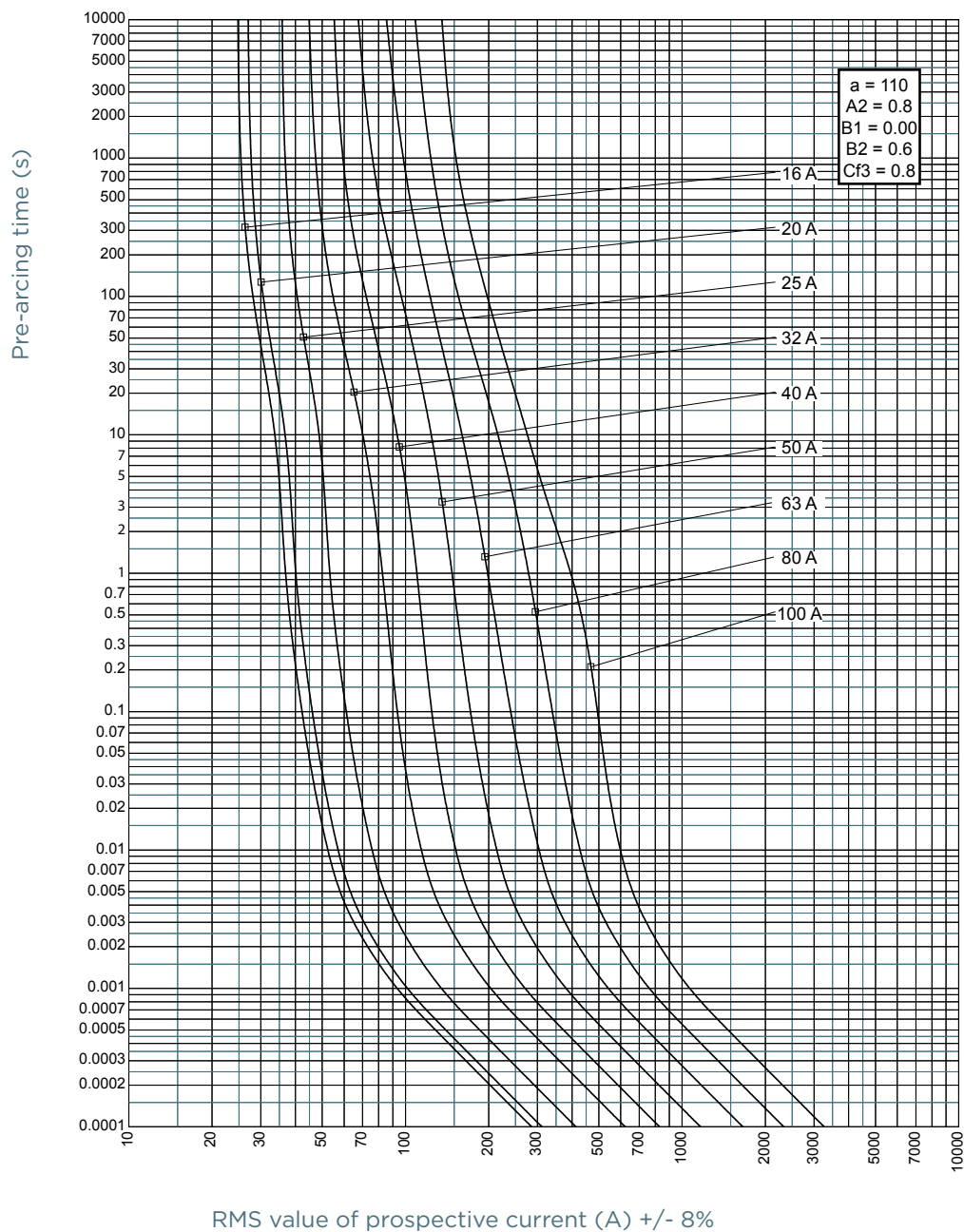
NH3GS69V315PV

Size 3 gS 690VAC

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (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
NH3GS69V250PV	R322590	690 V	700 V	250 A	9690 A²s	48000 A²s	160 kA	39 W	1	1.05 kg
NH3GS69V315PV	E322579	690 V	700 V	315 A	19525 A²s	97000 A²s	160 kA	42 W	1	1.05 kg
NH3GS69V350PV	F322580	690 V	700 V	350 A	28135 A²s	140000 A²s	160 kA	44 W	1	1.05 kg
NH3GS69V400PV	J322583	690 V	700 V	400 A	42050 A²s	210000 A²s	160 kA	47 W	1	1.05 kg
NH3GS69V450PV	L322585	690 V	700 V	450 A	58675 A²s	293000 A²s	160 kA	50 W	1	1.05 kg
NH3GS69V500PV	N322587	690 V	700 V	500 A	87030 A²s	435100 A²s	160 kA	52 W	1	1.05 kg
NH3GS69V550PV	P322588	690 V	700 V	550 A	111810 A²s	559000 A²s	160 kA	56 W	1	1.05 kg
NH3GS69V630PV	Q322589	690 V	700 V	630 A	149950 A²s	749000 A²s	160 kA	63 W	1	1.05 kg

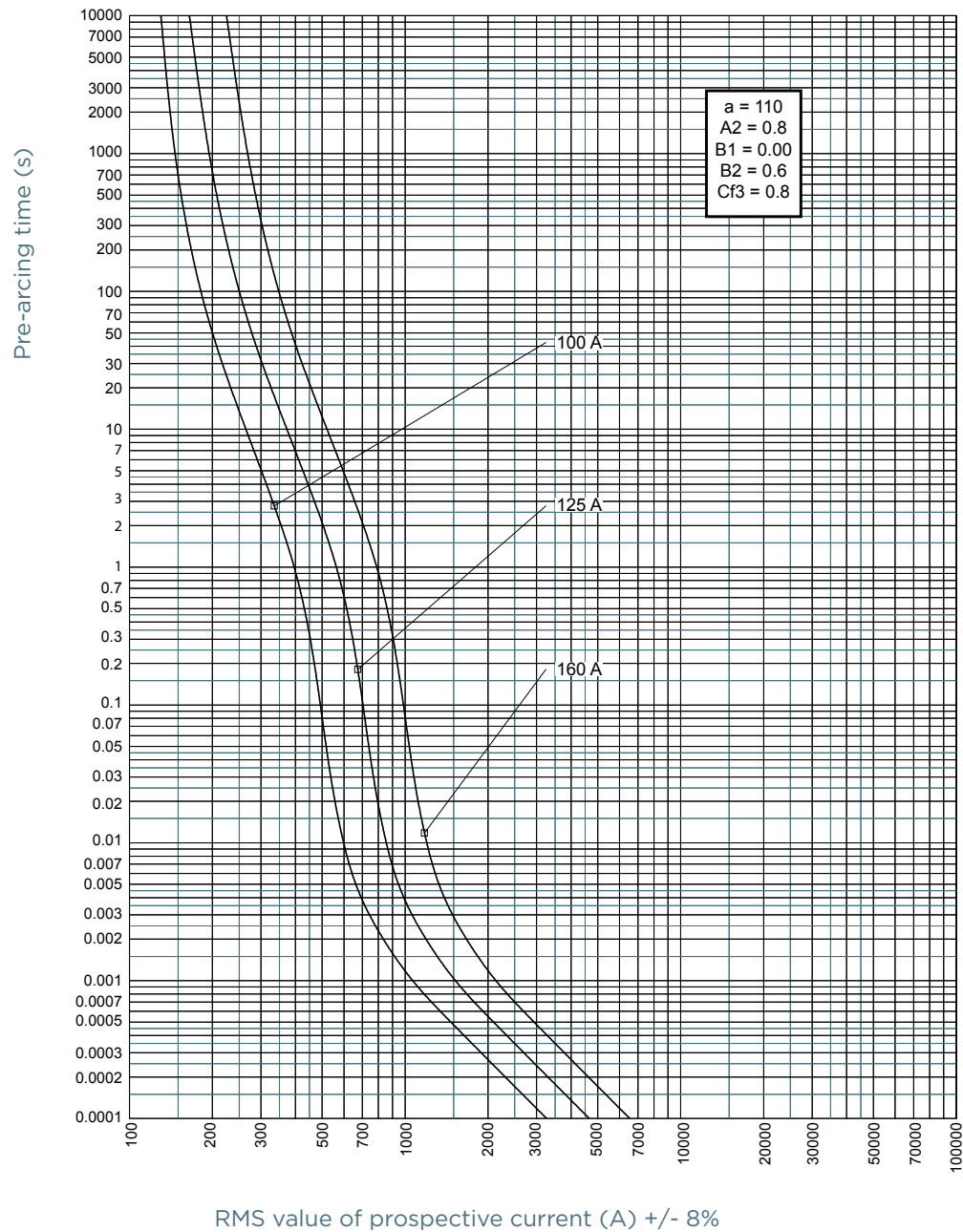
TIME CURRENT CHARACTERISTIC CURVES

Size 000



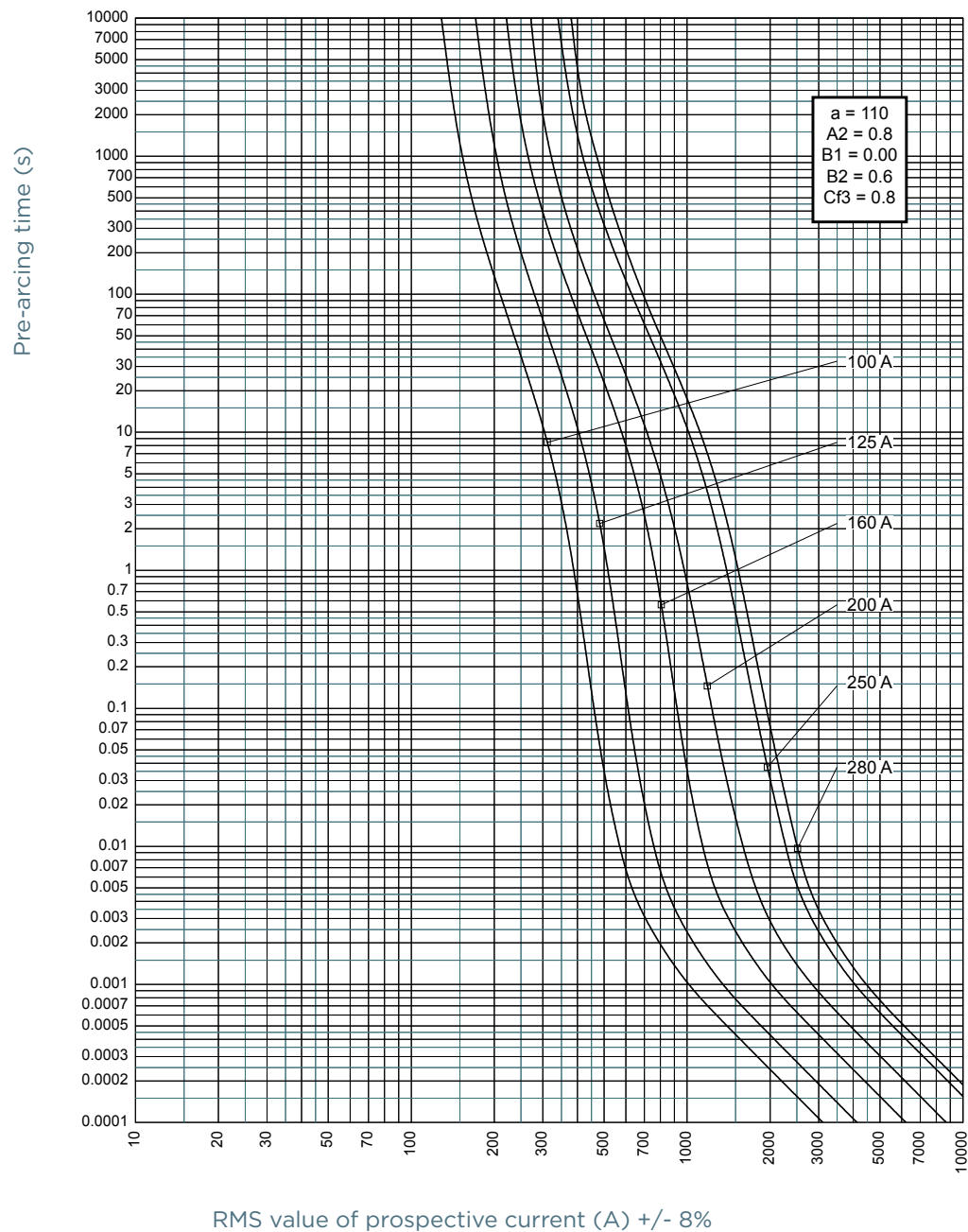
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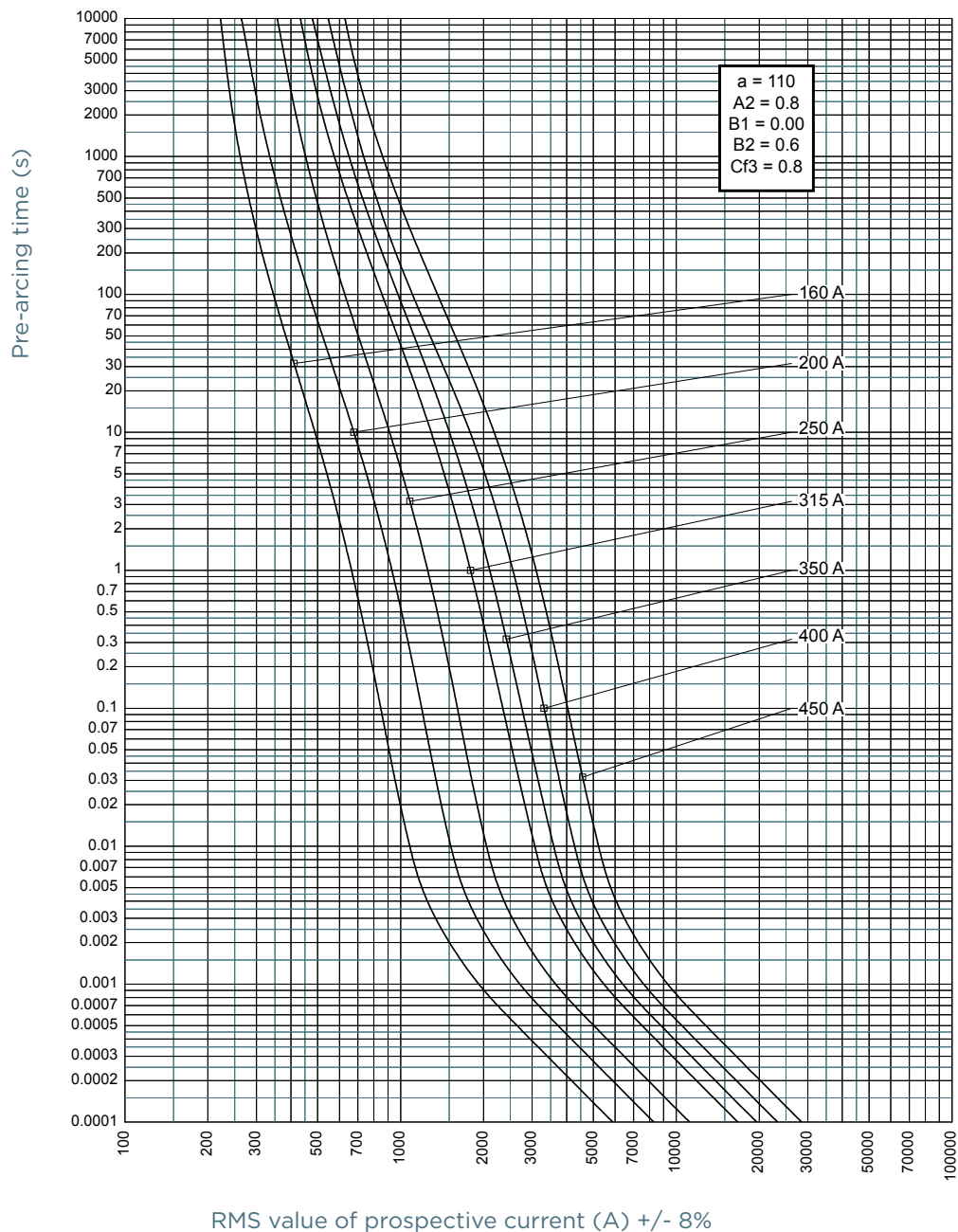
TIME CURRENT CHARACTERISTIC CURVES

Size 1



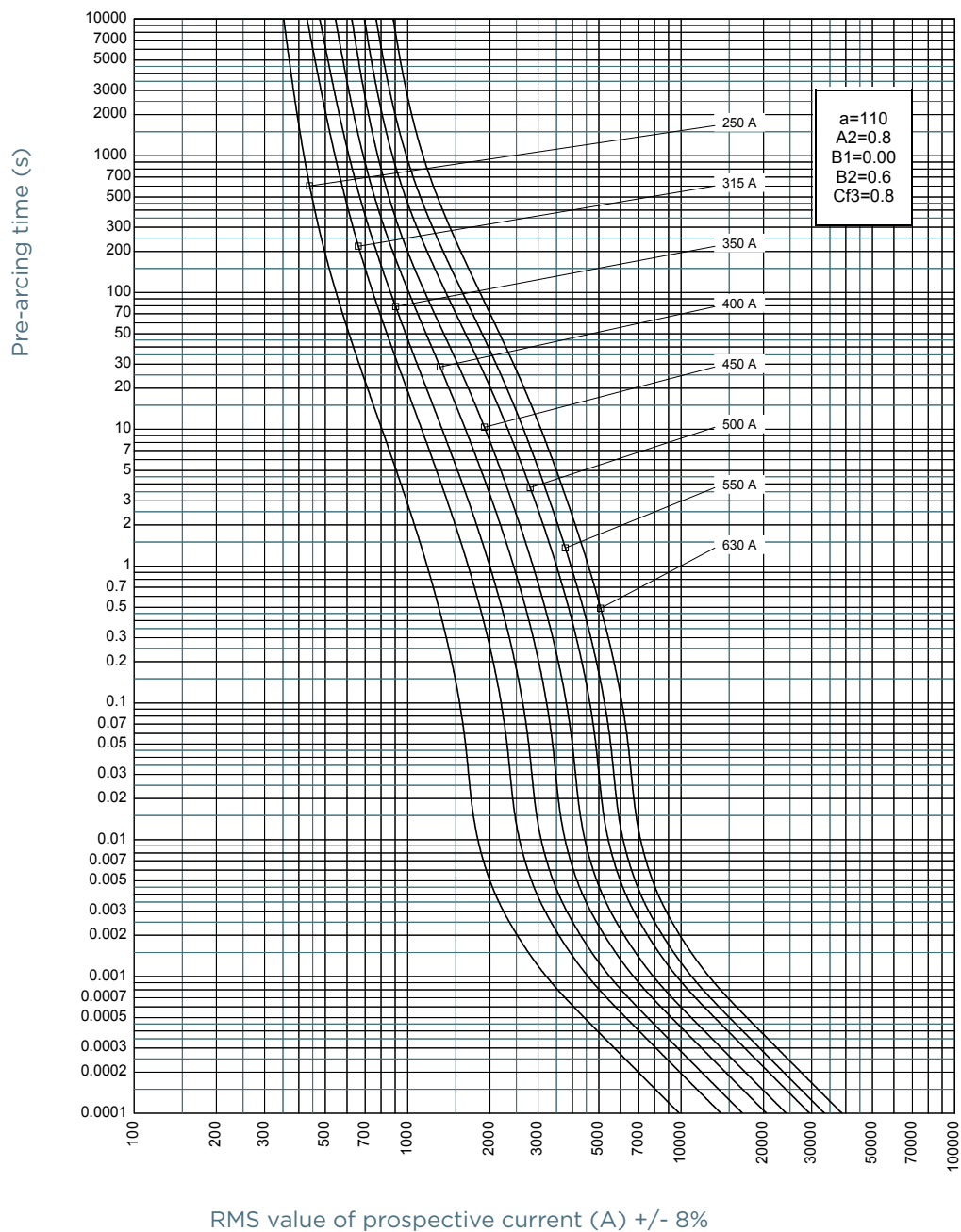
TIME CURRENT CHARACTERISTIC CURVES

Size 2



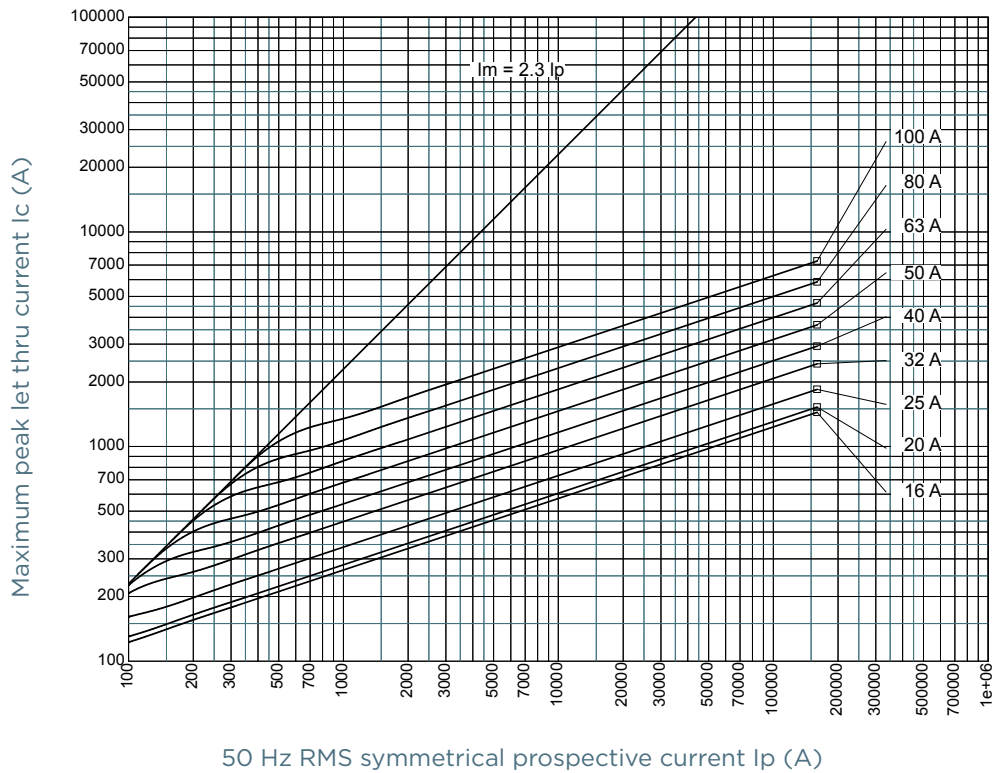
TIME CURRENT CHARACTERISTIC CURVES

Size 3

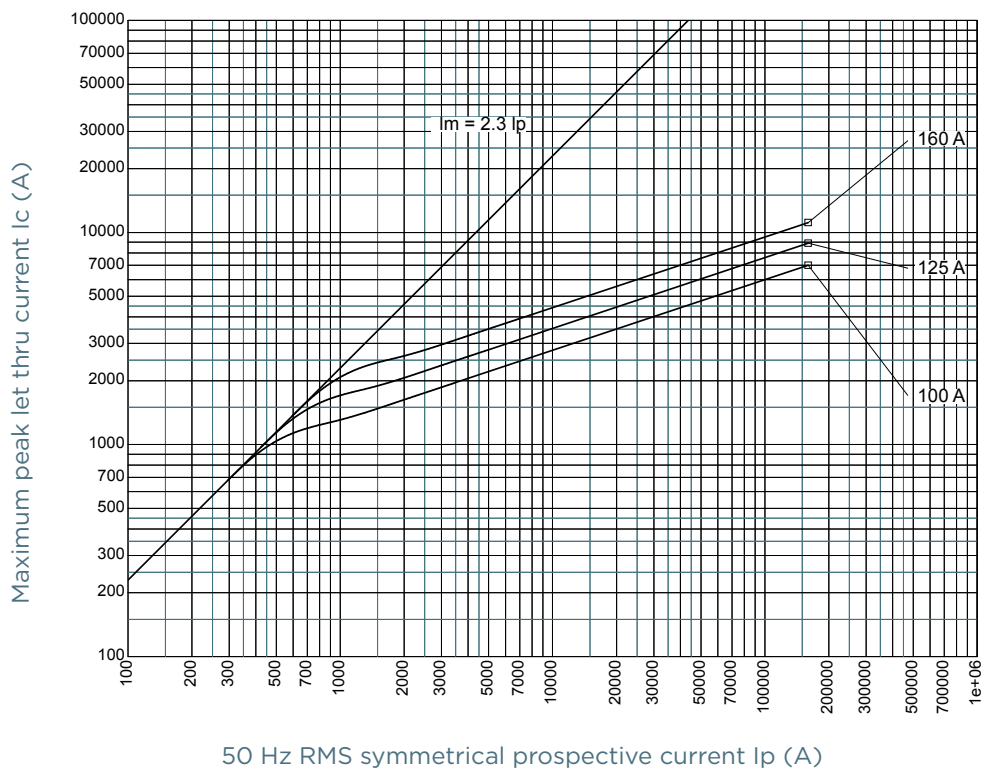


CUT-OFF CURRENT CHARACTERISTIC

Size 000

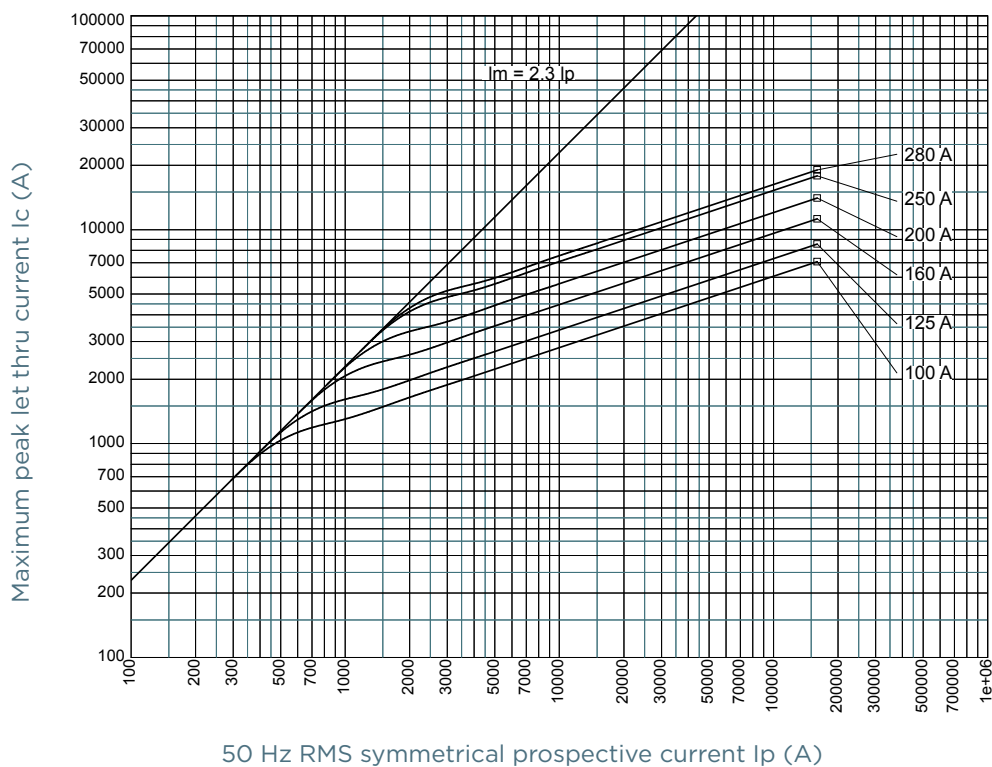


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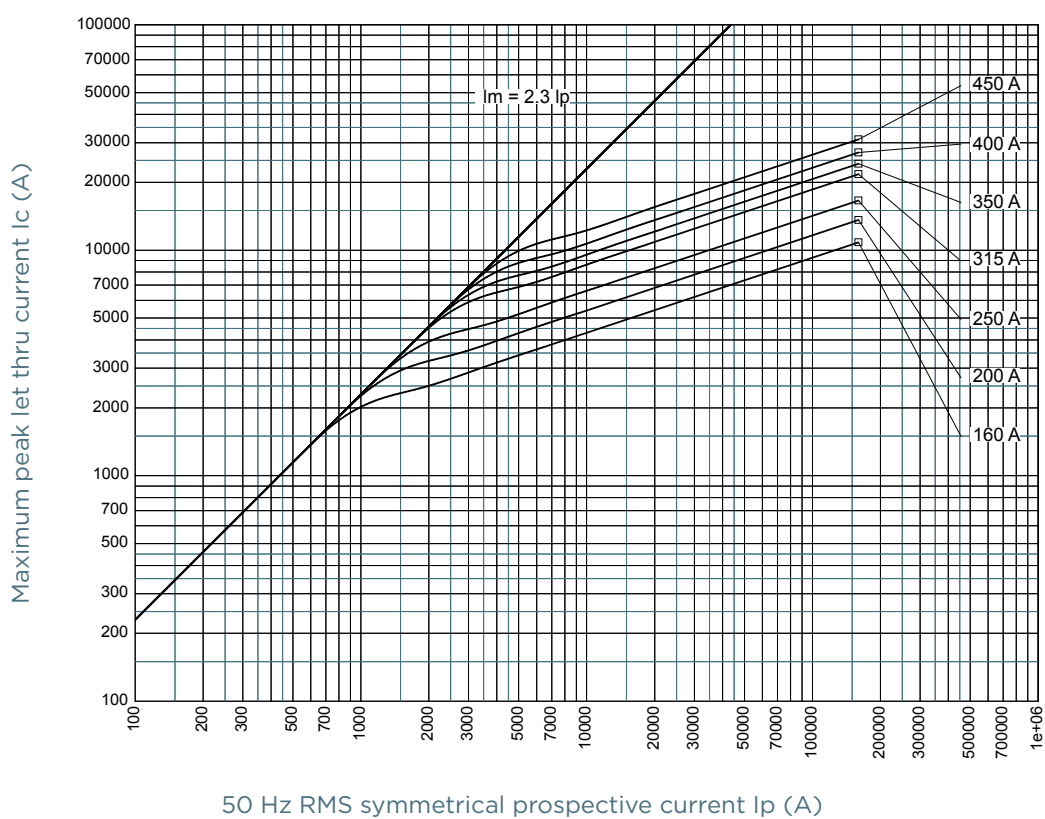


CUT-OFF CURRENT CHARACTERISTIC

Size 1

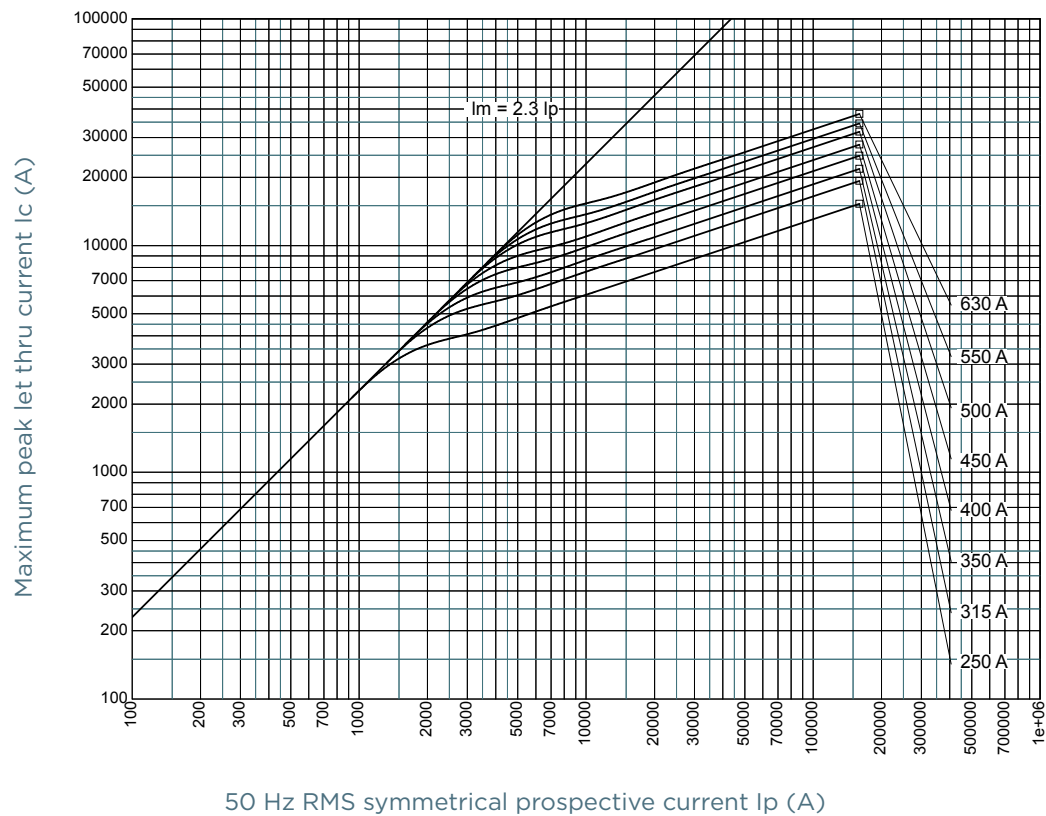


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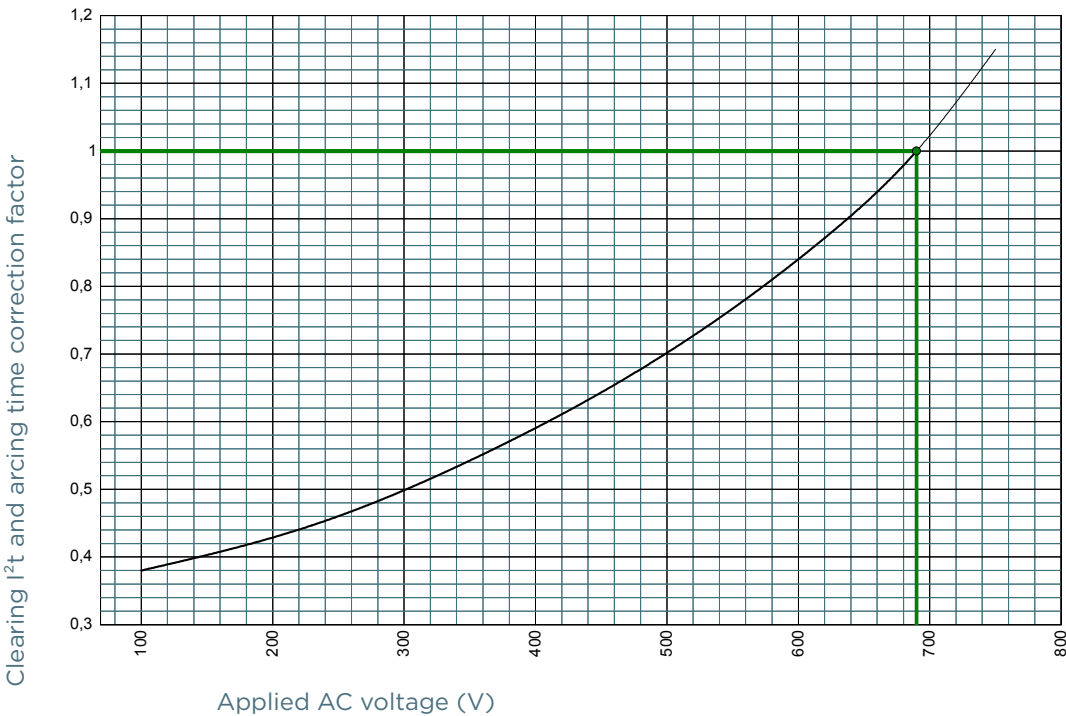
CUT-OFF CURRENT CHARACTERISTIC

Size 3



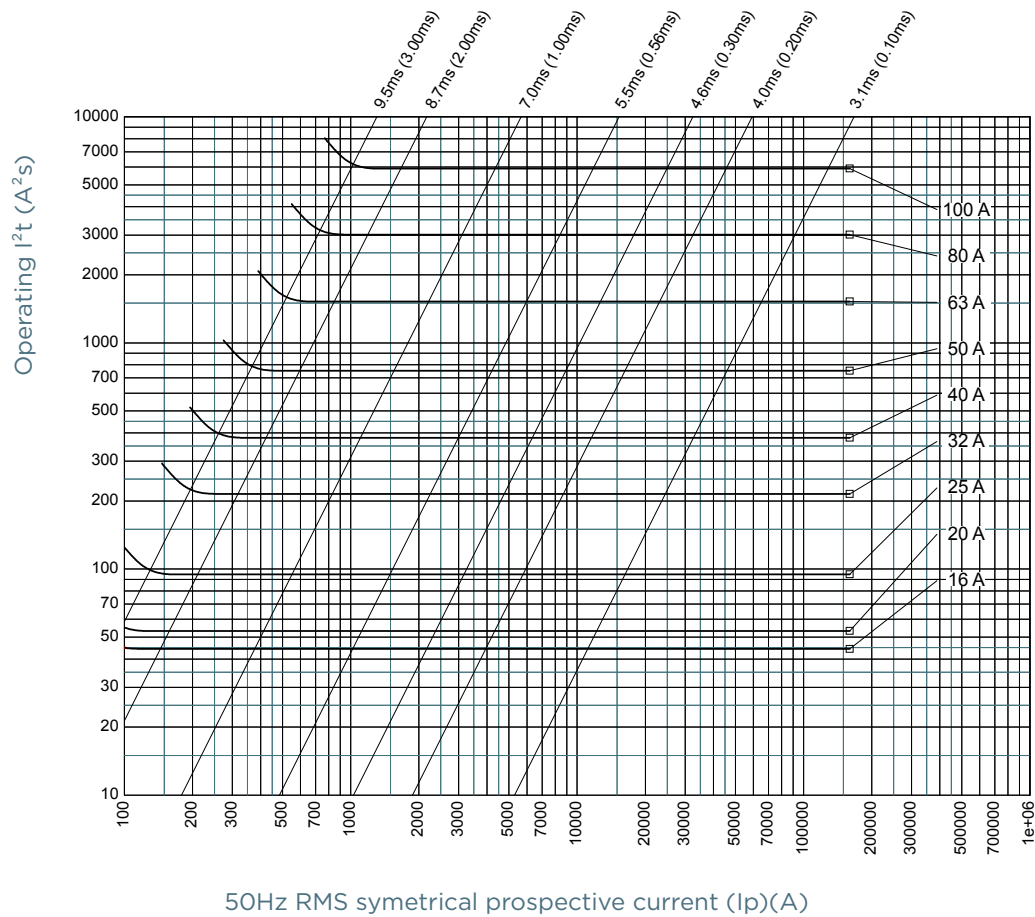
I²T MULTIPLIER COEFFICIENT

Sizes 000, 00, 1, 2, 3



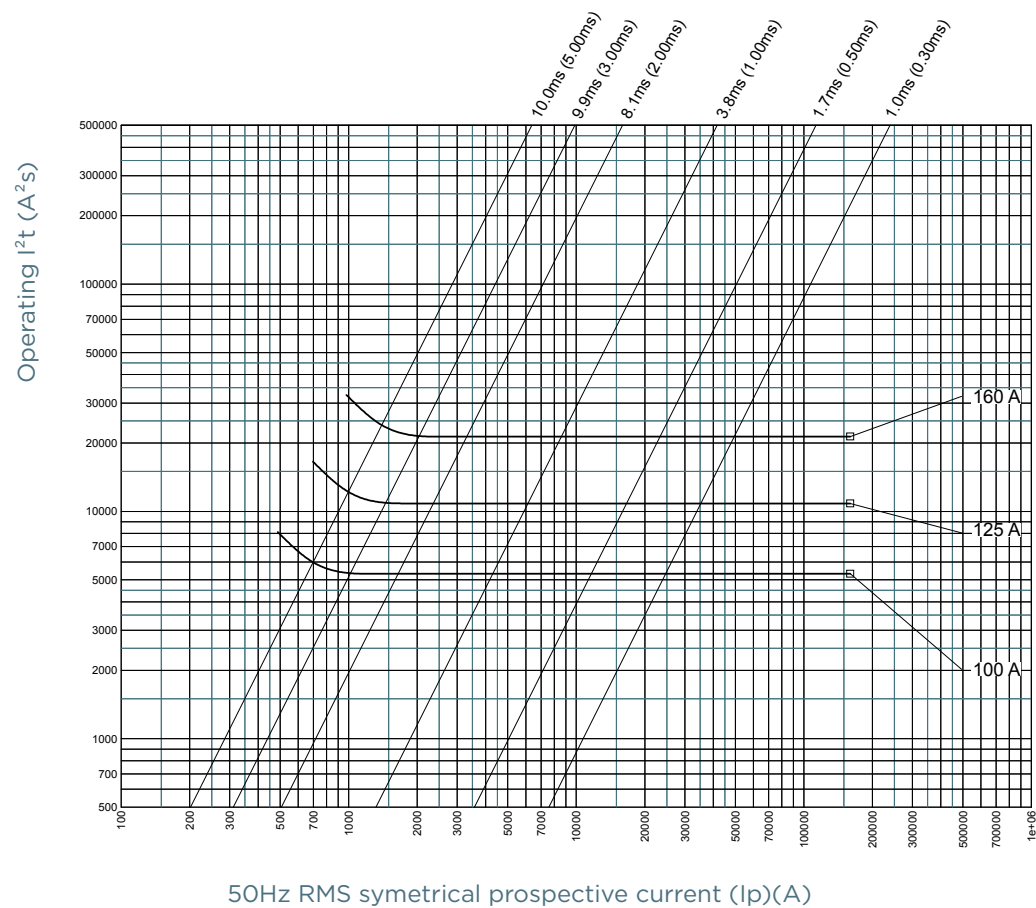
CHARACTERISTICS TOTAL I²t CURVE

Size 000



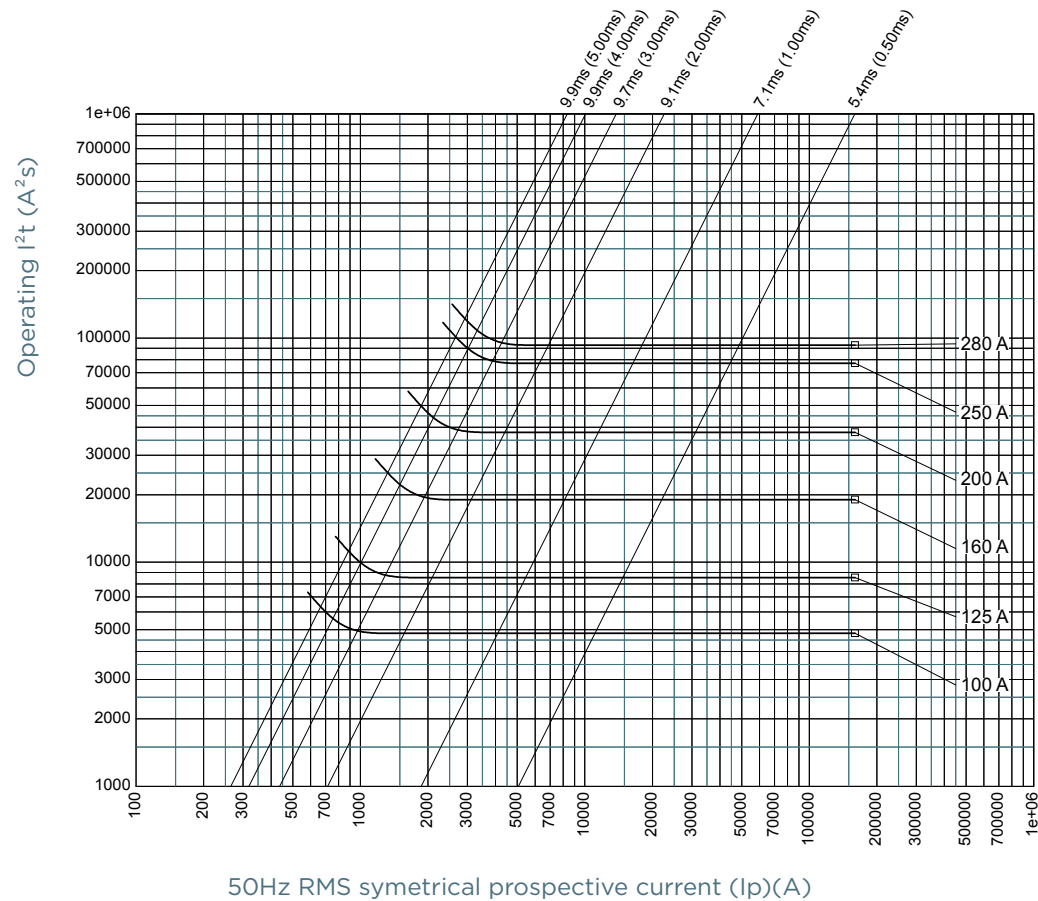
CHARACTERISTICS TOTAL I²T CURVE

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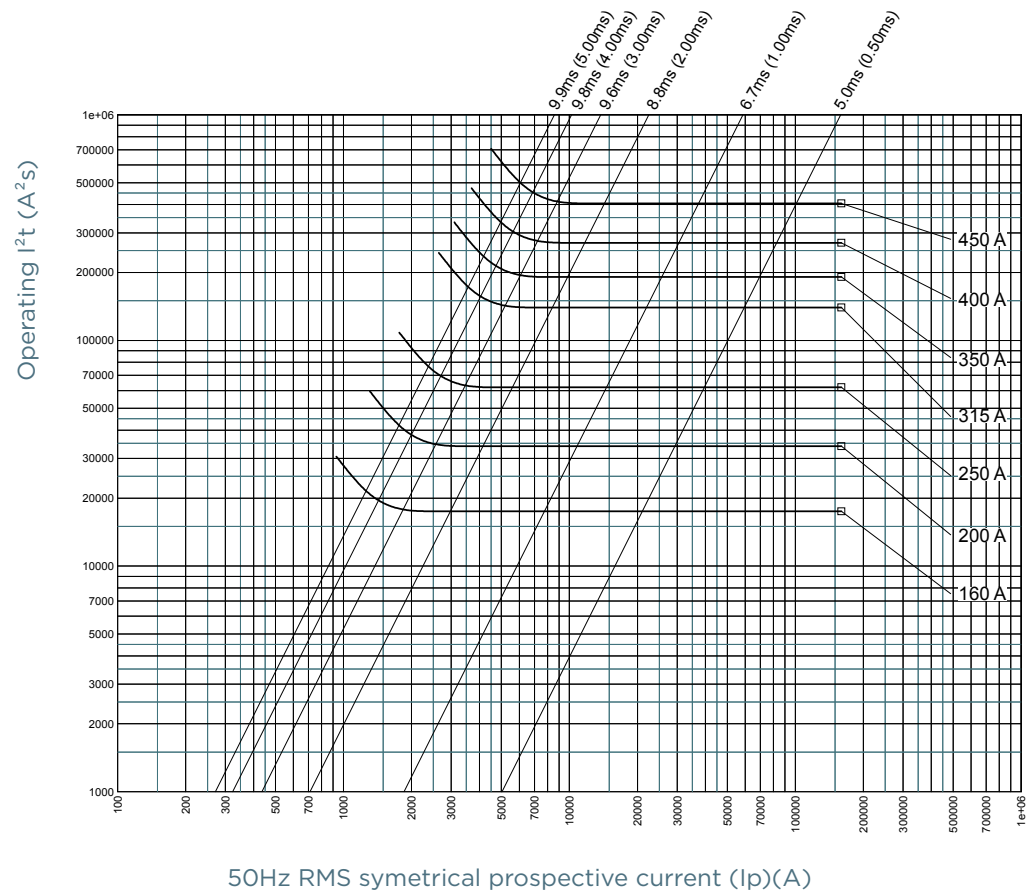
CHARACTERISTICS TOTAL I²T CURVE

Size 1



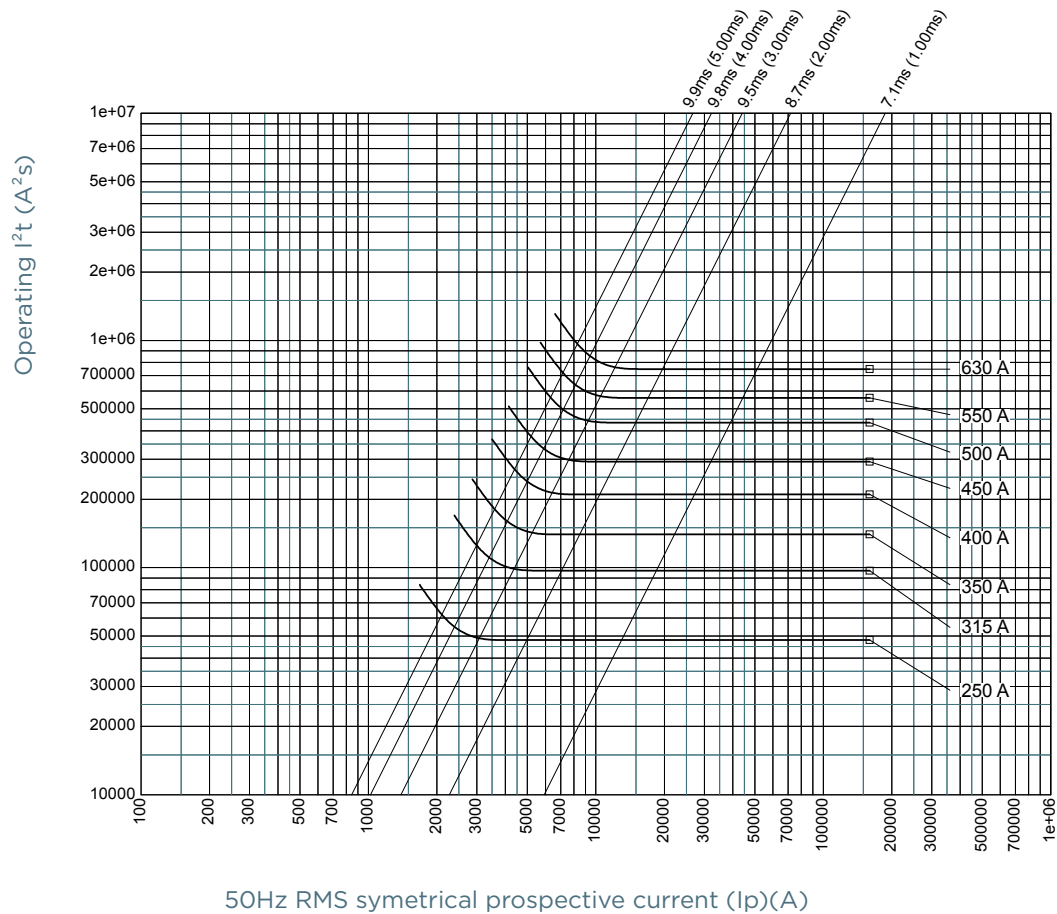
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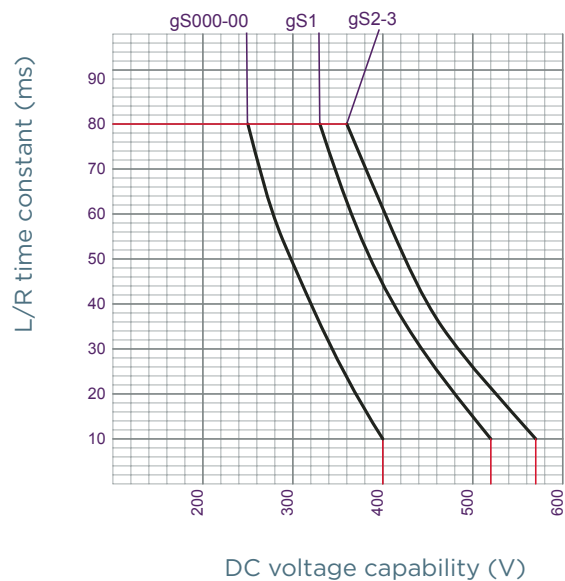


CHARACTERISTICS TOTAL I²T CURVE

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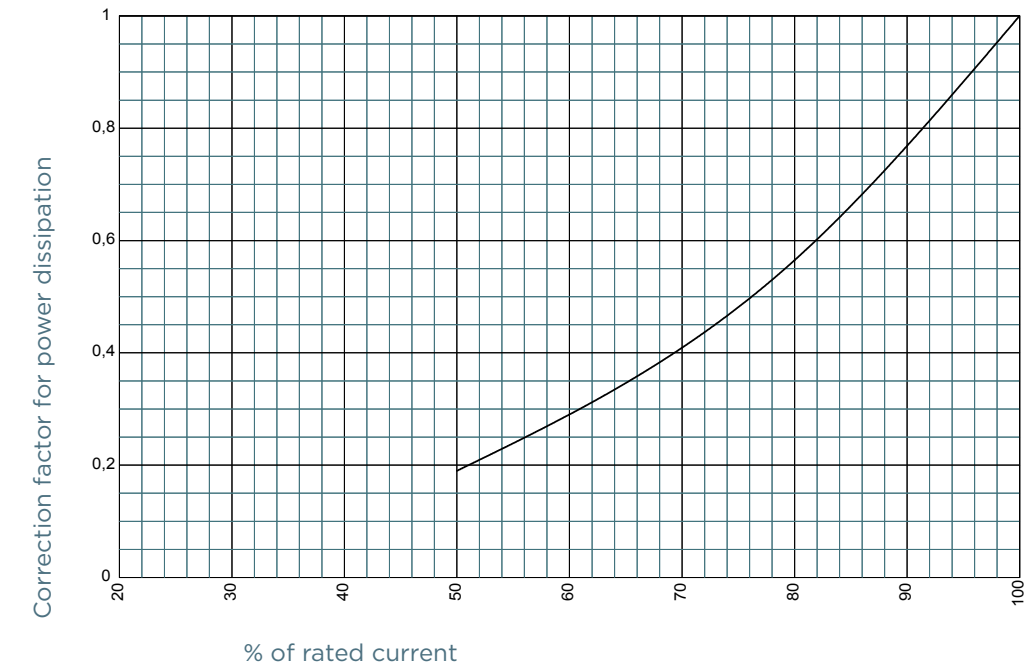


L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY



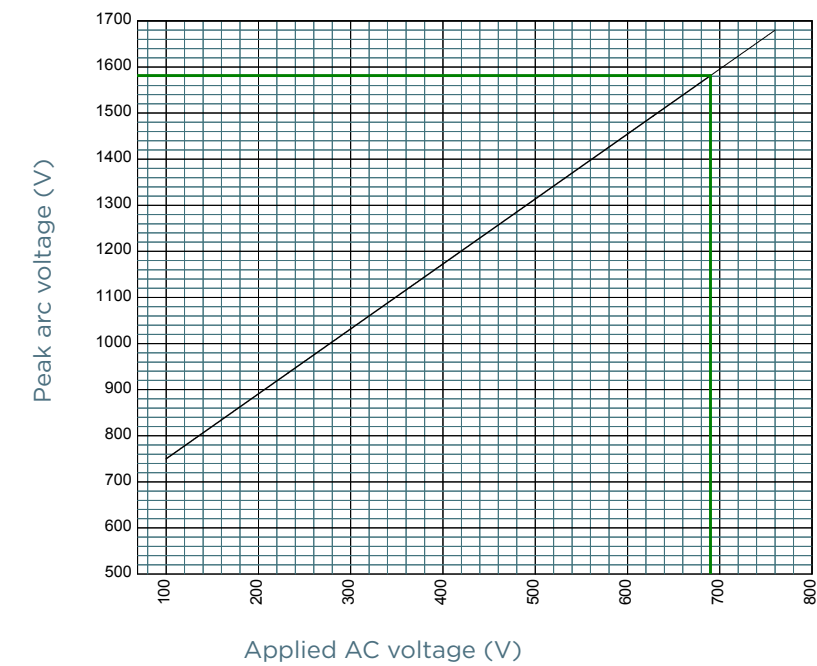
POWER DISSIPATION

Sizes 000, 00, 1, 2, 3



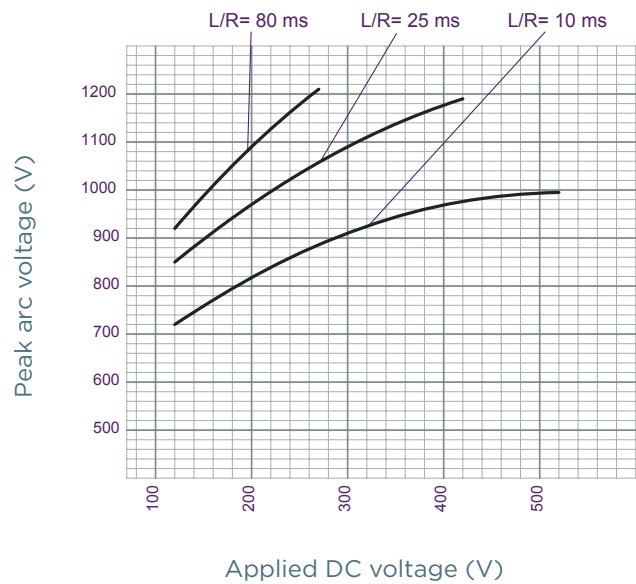
PEAK ARC VOLTAGE

Sizes 000, 00, 1, 2, 3 VAC



PEAK ARC VOLTAGE

Sizes 000, 00, 1, 2, 3 VDC

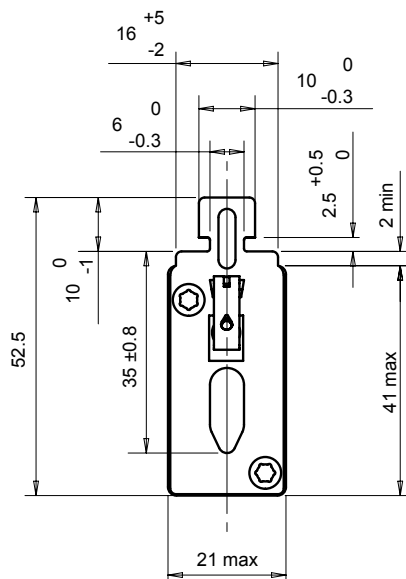
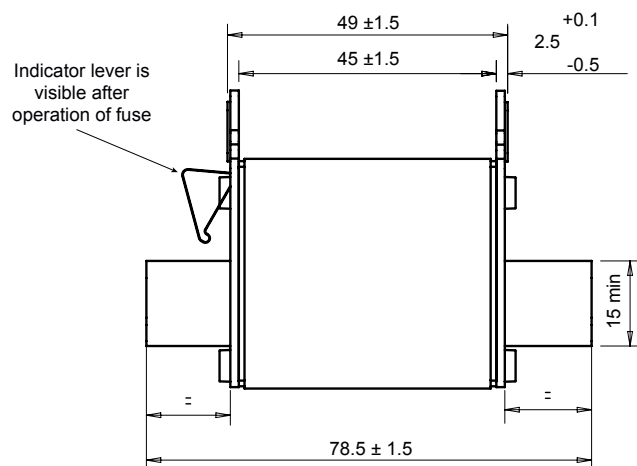


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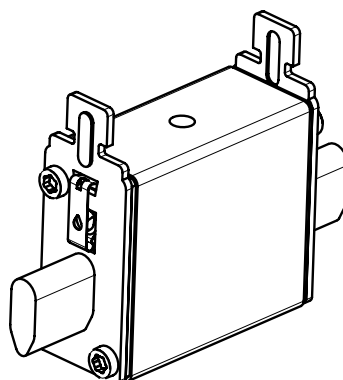
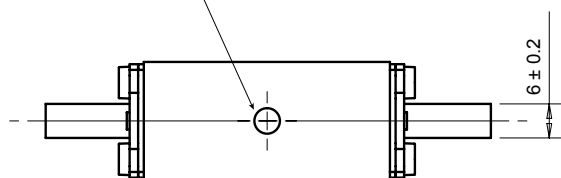
690VAC

DIMENSIONS

Size 000



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



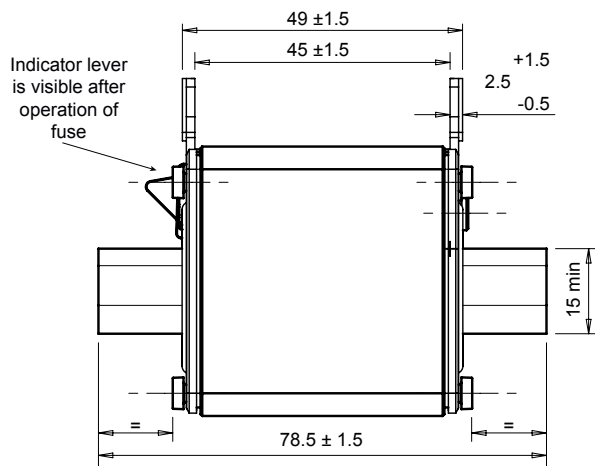
Dimensions in mm

Protistor® size NH 000, 00, 1, 2, 3 gS

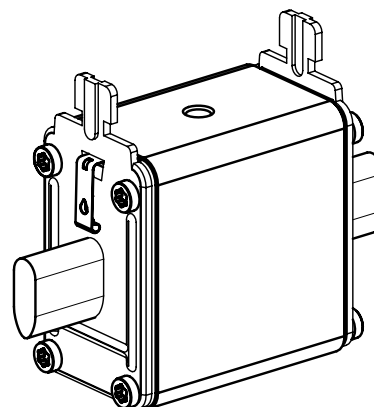
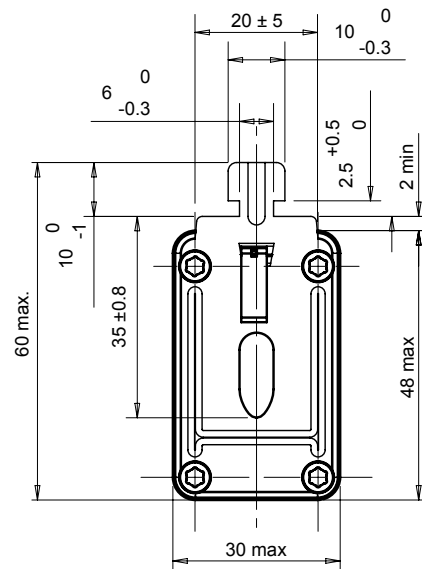
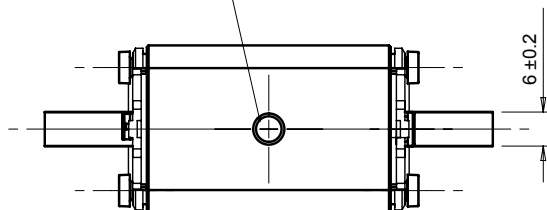
690VAC

DIMENSIONS

Size 00



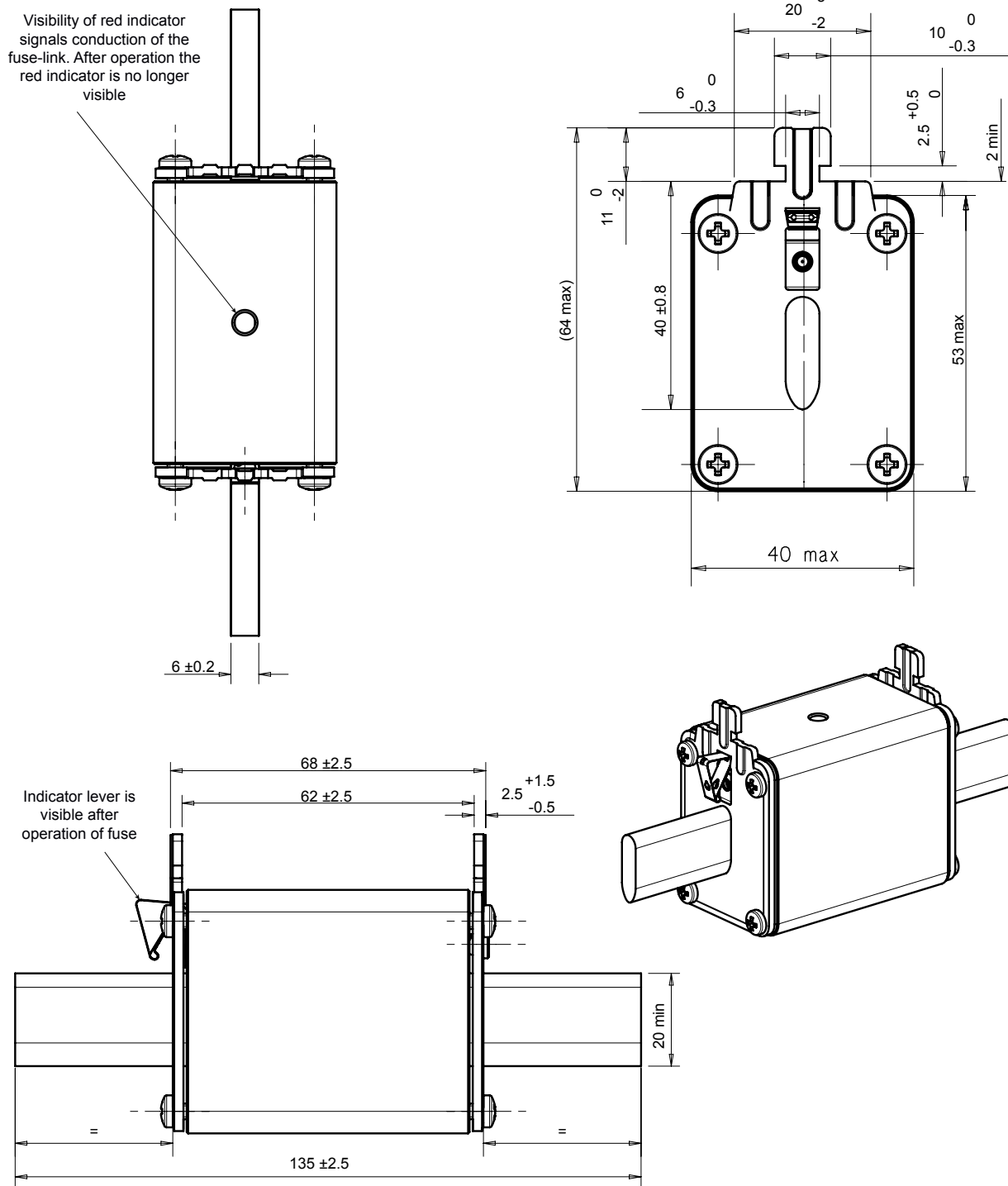
Visibility of red indicator signals conduction of the fuse-link.
After operation the red indicator is no longer visible



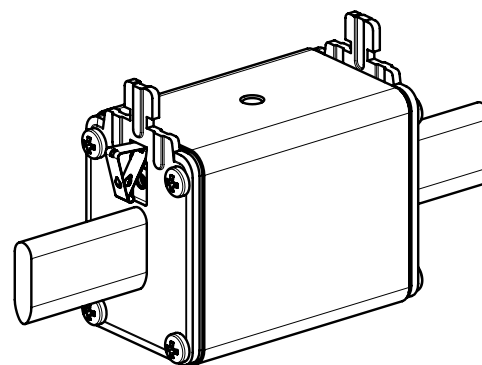
Dimensions in mm

DIMENSIONS

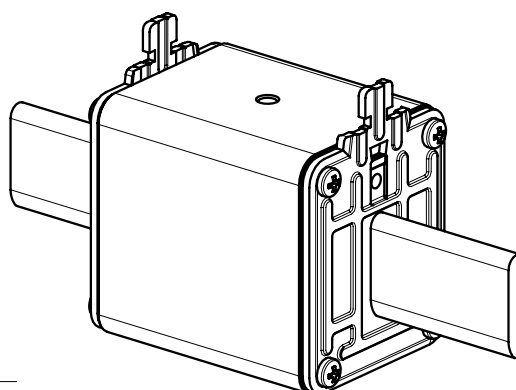
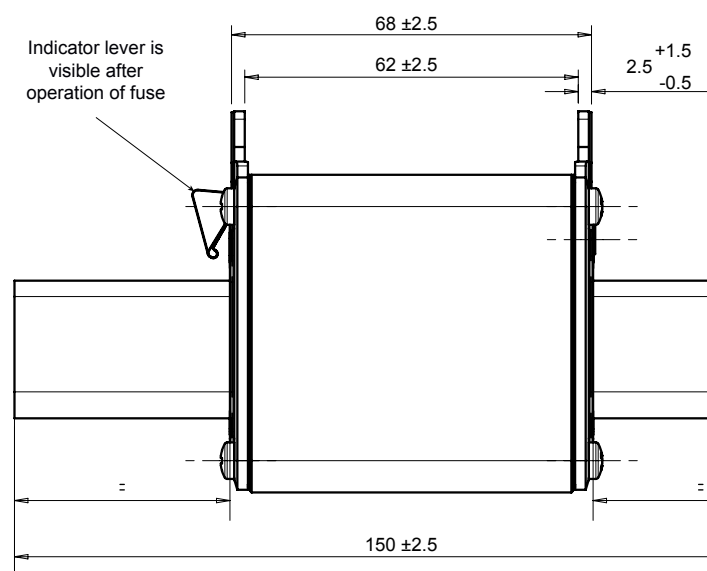
Size 1



Dimensions in mm



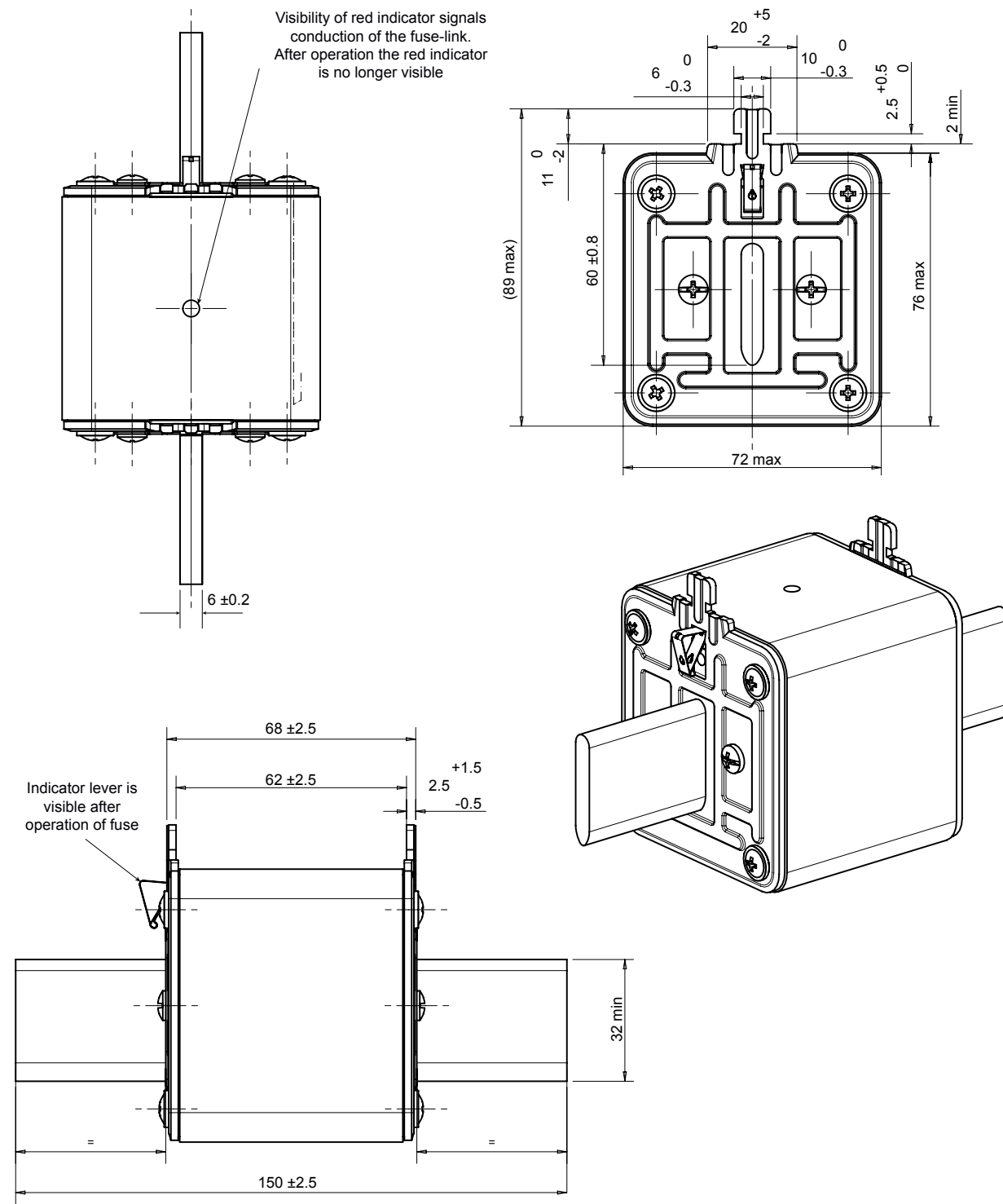
Size 2



Semiconductor Protection Fuses / DS-PFSN03GS-19_0717_EN

DIMENSIONS

Size 3



Dimensions in mm