

# HelioProtection® NH fuse-links 800VAC

NH gR 800VAC

## SPECIAL PURPOSE FUSES

## PHOTOVOLTAIC FUSES



Mersen NH fuse-links 800VAC were engineered and designed specifically for photovoltaic systems. gR types are full range breaking capacity fuse-links and are used to protect cables and equipment. They can interrupt any surge, from the lowest fusing up to their breaking capacity, and so can be used alone as protection. They are the perfect solution of protection when used with DC/800VAC Solar inverters.

This fuse range is offered along with Mersen 800VAC Fuse-switch-disconnectors, for a complete fuse-system protection.

## TECHNICAL DATA OVERVIEW

Voltage AC	800 VAC
Ampere Range (A)	50 ... 250 A
Size per Standard	NH1 and NH2
Speed/Characteristic	gR
I.R. AC (IEC)	90 kA

## FEATURES & BENEFITS

- Low fault current interrupting capability
- Temperature cycle withstand capability
- Durable construction for enhanced system longevity
- High efficiency with low power losses
- Available in two versions: Plain Blade & Direct Mounting

## APPLICATIONS

- General purpose cable and line protection at 800VAC
- Solar installation AC combiner box

## STANDARDS

- IEC 60269-4
- RoHS compliance
- UL Recognized components: UL 248-13, UL 248-1



# HelioProtection® NH fuse-links 800VAC

## NH gR 800VAC

### PRODUCT RANGE

#### NH gR 800VAC Plain Blade



NH1GR80V125



NH2GR80V250

Catalog number	Item number	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Power dissipation at $I_n$	Power dissipation at $0.7 \times I_n$	Width	Package	Weight
NH1GR80V50	R1069101	50 A	0.65 kA <sup>2</sup> s	7.76 kA <sup>2</sup> s	11 W	4.6 W	39.5 mm	3	0.4 kg
NH1GR80V63	S1069102	63 A	1.46 kA <sup>2</sup> s	14.95 kA <sup>2</sup> s	13 W	5.4 W	39.5 mm	3	0.4 kg
NH1GR80V80	T1069103	80 A	2.59 kA <sup>2</sup> s	24.3 kA <sup>2</sup> s	15 W	6.1 W	39.5 mm	3	0.4 kg
NH1GR80V100	V1069104	100 A	4.61 kA <sup>2</sup> s	39.2 kA <sup>2</sup> s	17 W	7.2 W	39.5 mm	3	0.4 kg
NH1GR80V125	X1069106	125 A	10.37 kA <sup>2</sup> s	79.1 kA <sup>2</sup> s	18 W	7.4 W	39.5 mm	3	0.4 kg
NH1GR80V160	Y1069107	160 A	20 kA <sup>2</sup> s	134.5 kA <sup>2</sup> s	23 W	9.6 W	39.5 mm	3	0.4 kg
NH2GR80V200	Z1069108	200 A	64.8 kA <sup>2</sup> s	234 kA <sup>2</sup> s	27 W	11.3 W	51 mm	3	0.7 kg
NH2GR80V250	A1069109	250 A	36.45 kA <sup>2</sup> s	400 kA <sup>2</sup> s	31 W	12.9 W	51 mm	3	0.7 kg

#### NH gR 800VAC Direct mounting



NH1GR80V125B



NH2GR80V250B

Catalog number	Item number	Rated current $I_n$	Pre-arcing $I^2t$	Clearing $I^2t$ at Rated Voltage	Power dissipation at $I_n$	Power dissipation at $0.7 \times I_n$	Width	Package	Weight
NH1GR80V50B	H1069093	50 A	0.65 kA <sup>2</sup> s	7.76 kA <sup>2</sup> s	11 W	4.6 W	39.5 mm	3	0.3 kg
NH1GR80V63B	J1069094	63 A	1.46 kA <sup>2</sup> s	14.95 kA <sup>2</sup> s	13 W	5.4 W	39.5 mm	3	0.3 kg
NH1GR80V80B	K1069095	80 A	2.59 kA <sup>2</sup> s	24.3 kA <sup>2</sup> s	15 W	6.1 W	39.5 mm	3	0.3 kg
NH1GR80V100B	L1069096	100 A	4.61 kA <sup>2</sup> s	39.2 kA <sup>2</sup> s	17 W	7.2 W	39.5 mm	3	0.3 kg
NH1GR80V125B	M1069097	125 A	10.37 kA <sup>2</sup> s	79.1 kA <sup>2</sup> s	18 W	7.4 W	39.5 mm	3	0.3 kg
NH1GR80V160B	N1069098	160 A	20 kA <sup>2</sup> s	134.5 kA <sup>2</sup> s	23 W	9.6 W	39.5 mm	3	0.3 kg
NH2GR80V200B	P1069099	200 A	64.8 kA <sup>2</sup> s	234 kA <sup>2</sup> s	27 W	11.3 W	51 mm	3	0.6 kg
NH2GR80V250B	Q1069100	250 A	36.45 kA <sup>2</sup> s	400 kA <sup>2</sup> s	31 W	12.9 W	51 mm	3	0.6 kg

#### NH Fuse handle for NH fuse links size 00-4



NHHANDLE

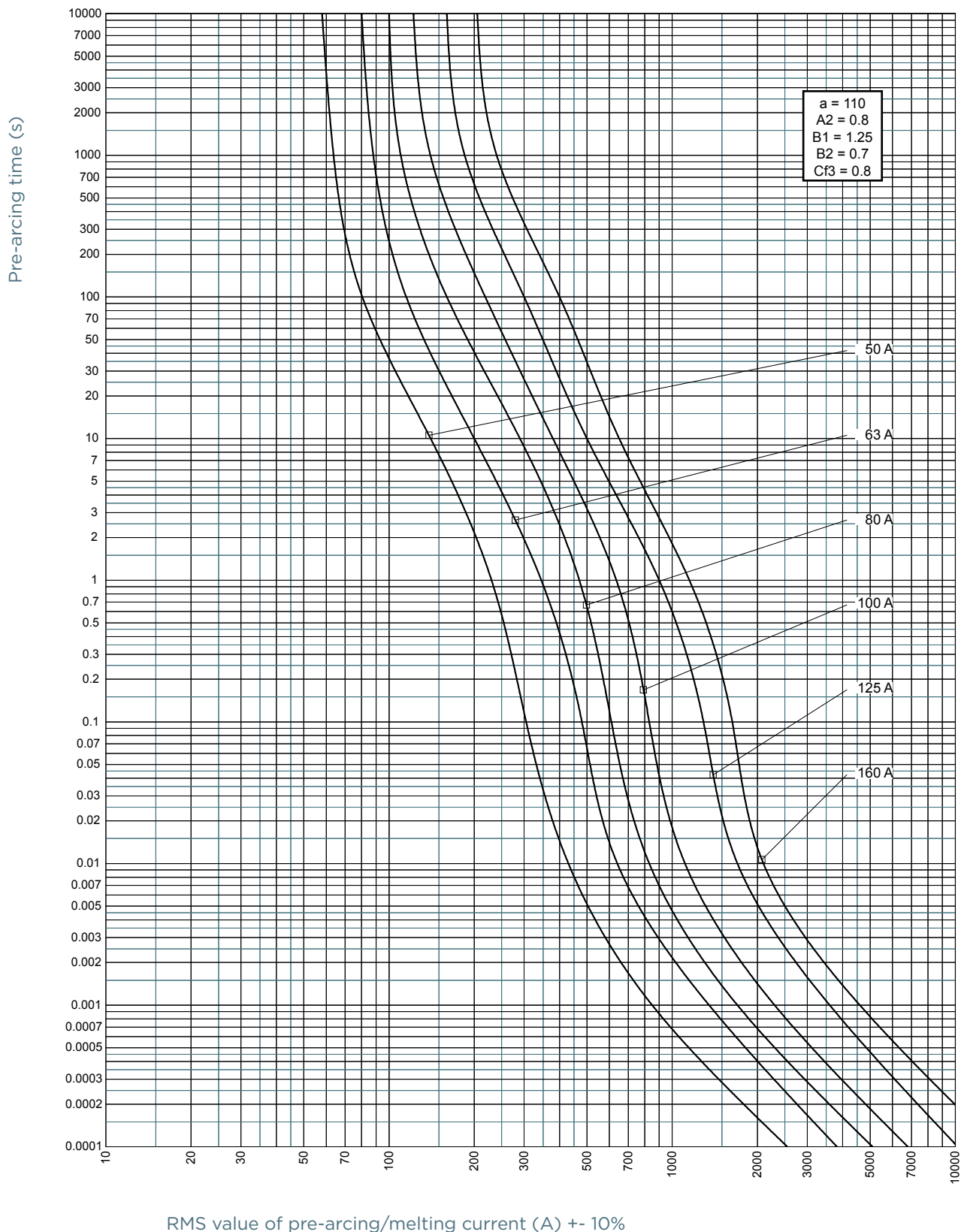
Catalog number	Item number	Size	Design	Package	Weight
NHHANDLE	P215592	00 to 4	without arm protection to DIN VDE 0636-2, DIN VDE 608-4	5	0.28 kg
08024.000000	X216105	00 to 4	with fire proof arm protection to DIN VDE 0636-2, DIN VDE 608-4	1	0.54 kg



08024.000000

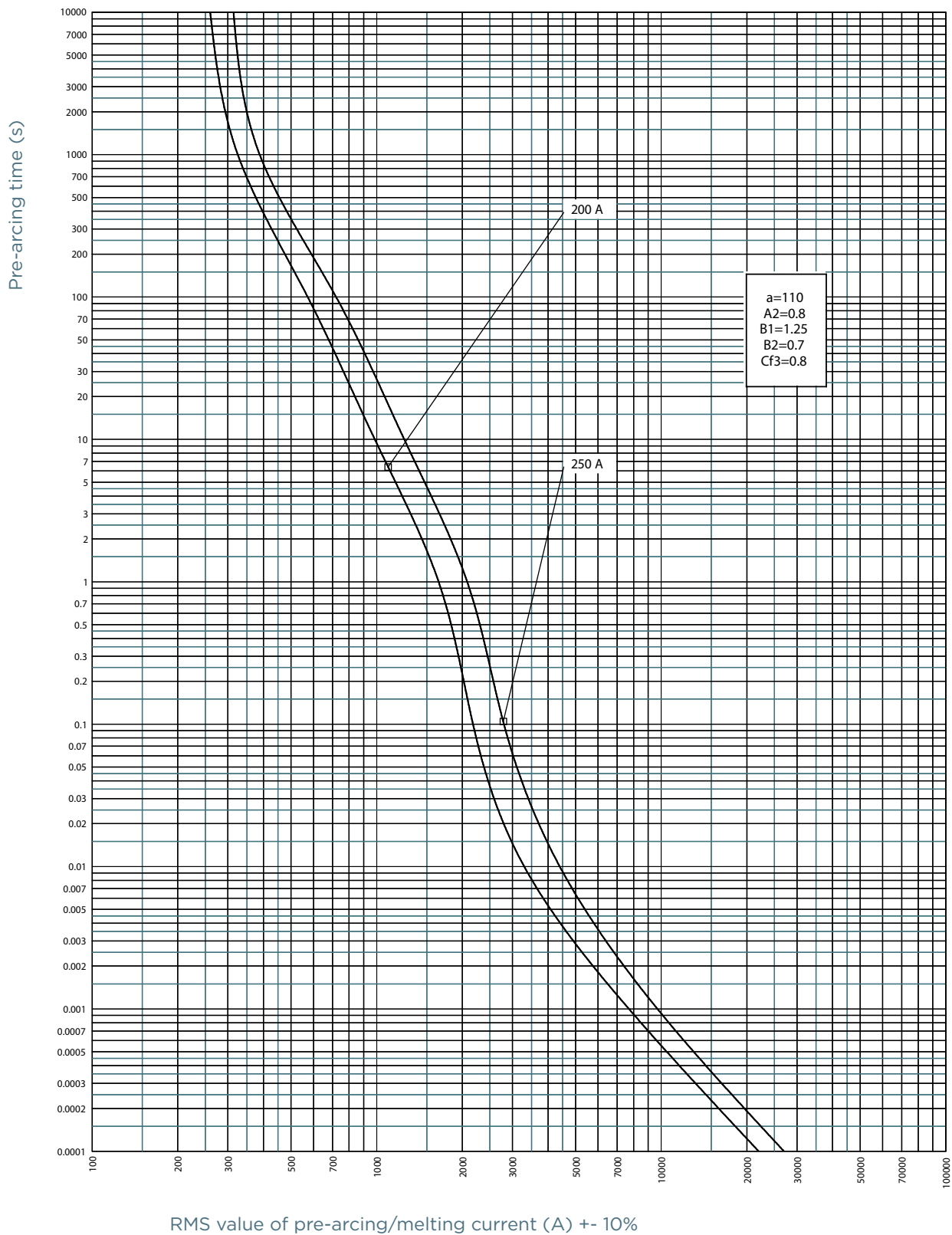
## TIME CURRENT CHARACTERISTIC CURVES

### Special purpose gR fuse link NH1 800V 50-160A



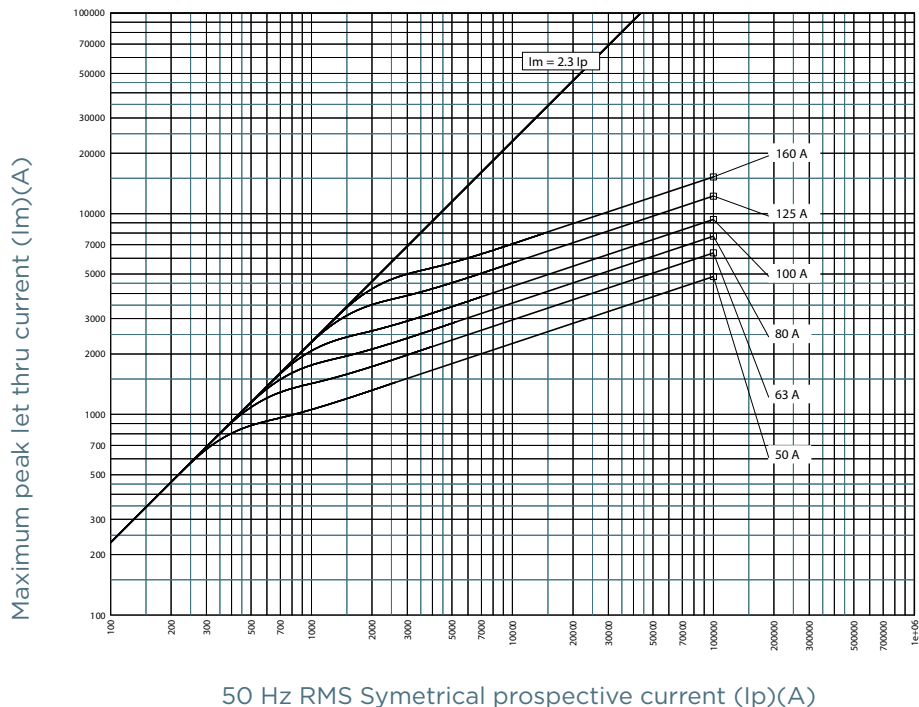
## TIME CURRENT CHARACTERISTIC CURVES

### Special purpose gR fuse link NH2 800V 200-250A

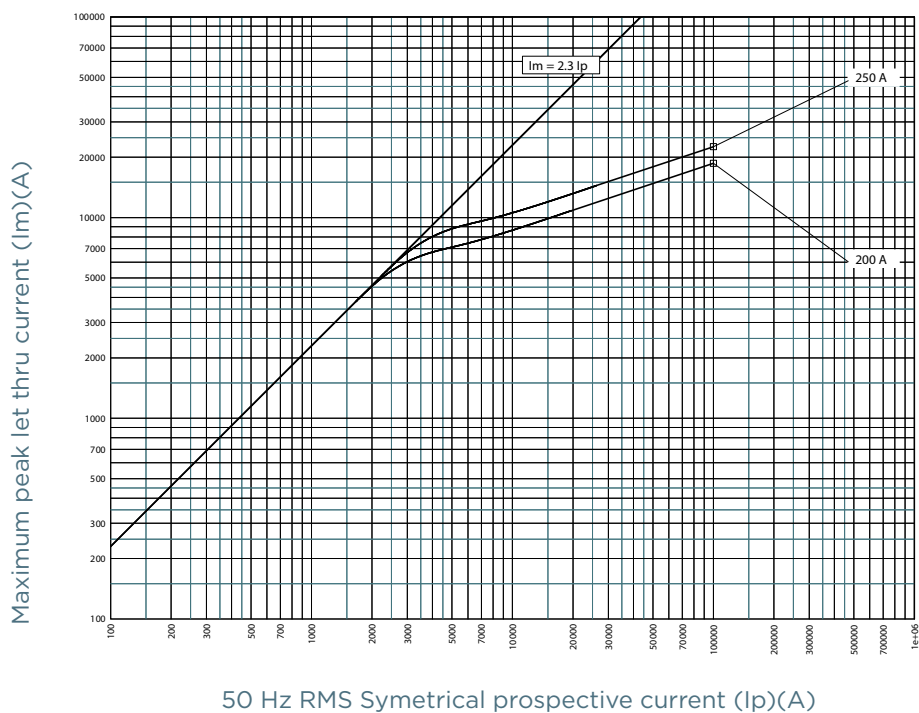


## CUT-OFF CURRENT CHARACTERISTIC

### Cut-off current characteristic NH1

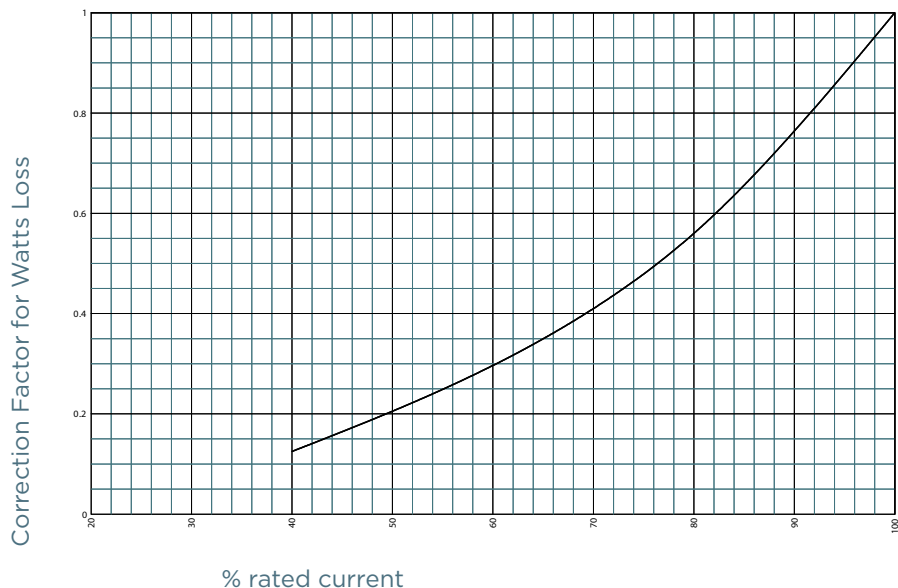


### Cut-off current characteristic NH2

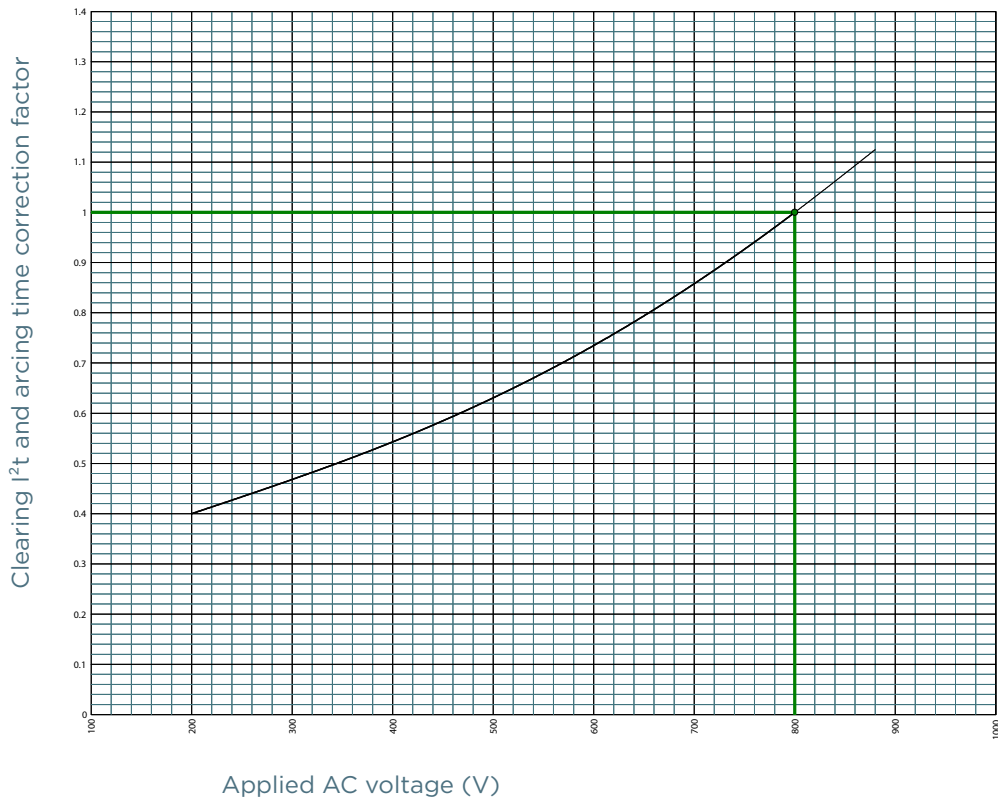


## CORRECTION FACTOR

### Watts Loss vs % rated Current

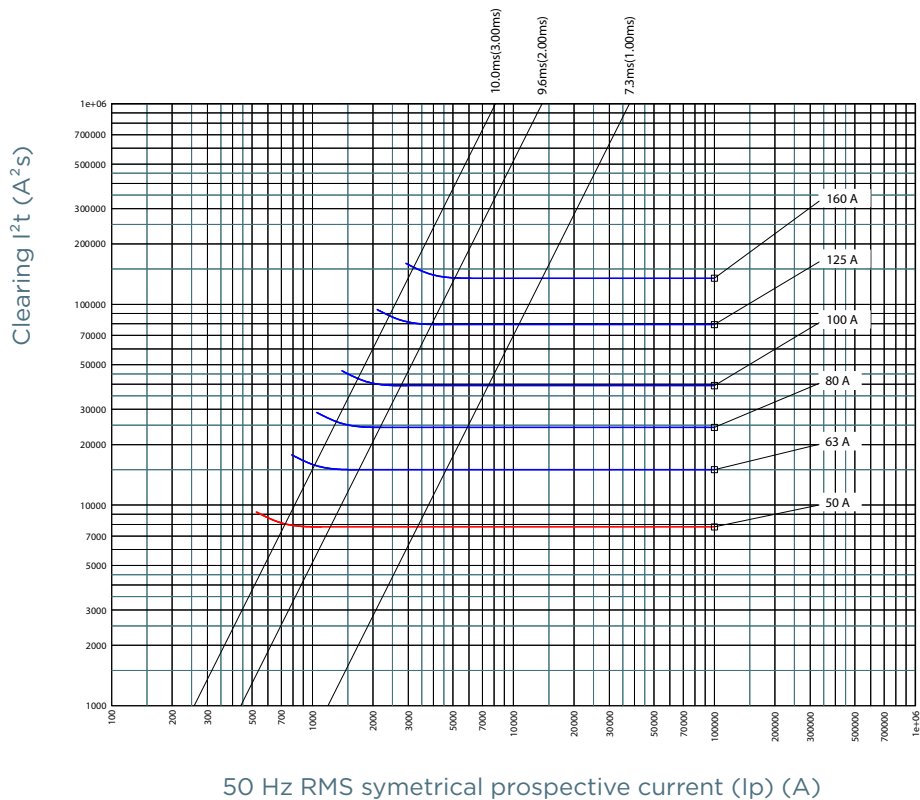


## I<sup>2</sup>T MULTIPLIER COEFFICIENT



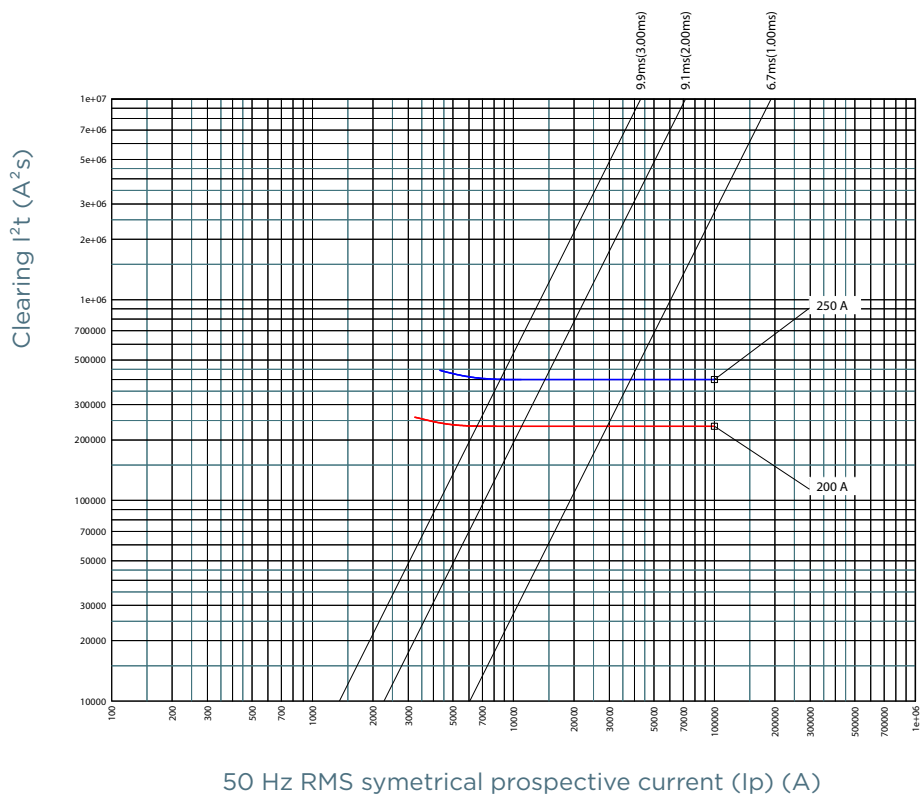
## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

### Characteristics total I<sup>2</sup>t NH1



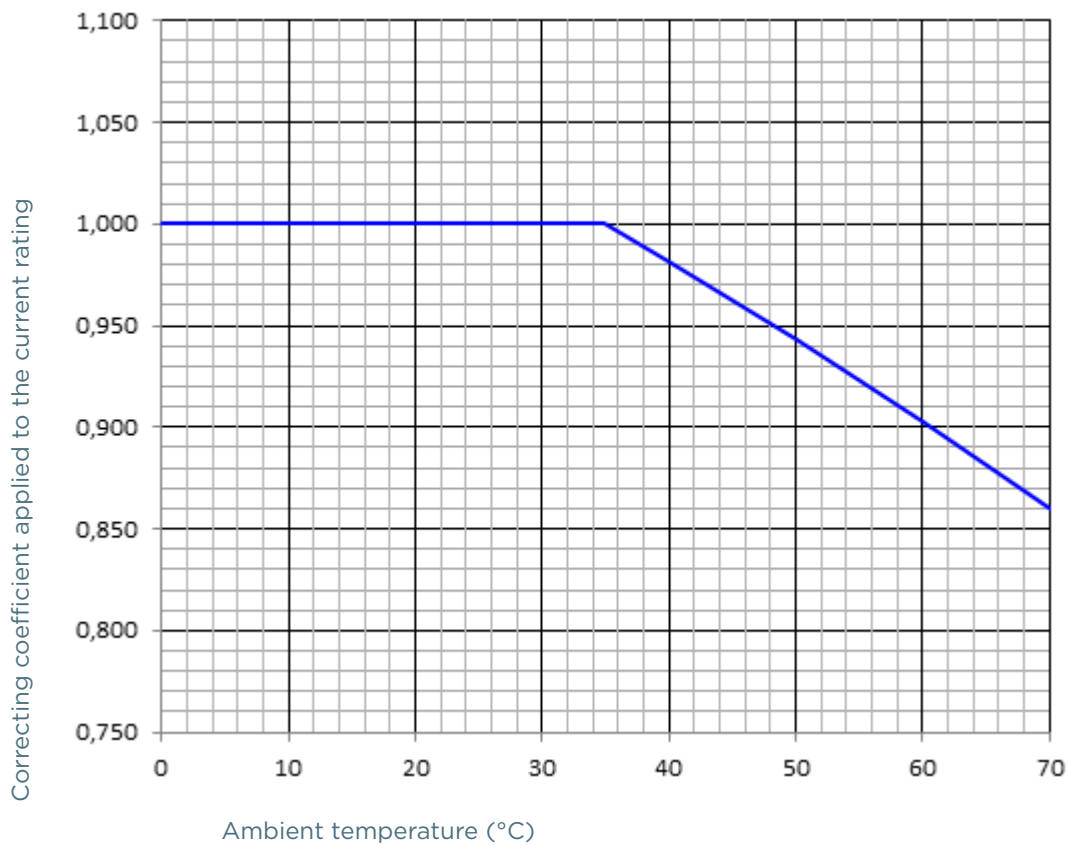
## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

### Characteristics total I<sup>2</sup>t NH2





### TEMPERATURE DERATING

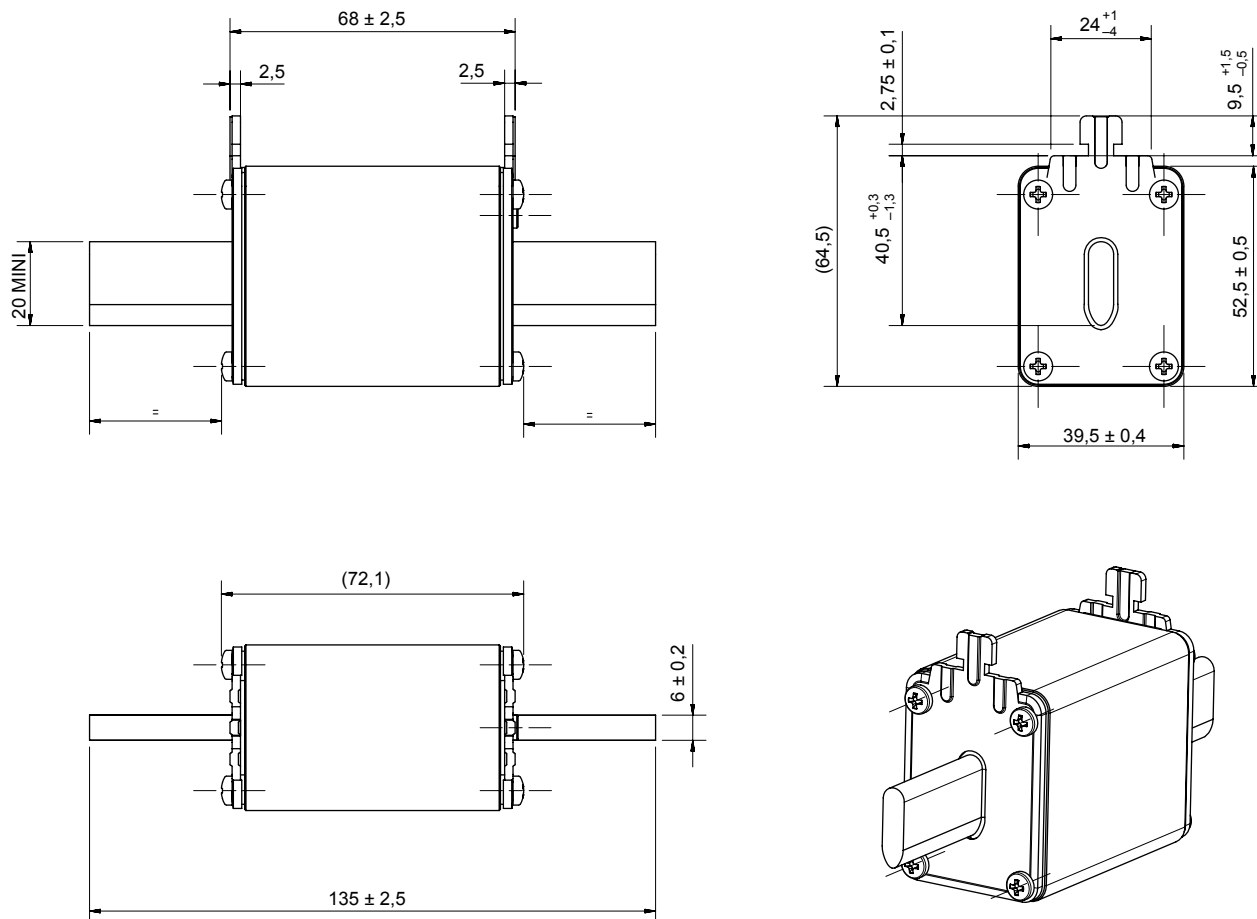


# HelioProtection® NH fuse-links 800VAC

NH gR 800VAC

## DIMENSIONS

### NH Size 1 Plain Blade



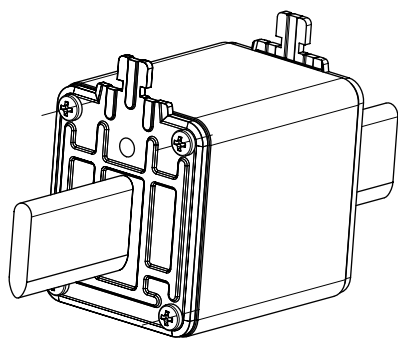
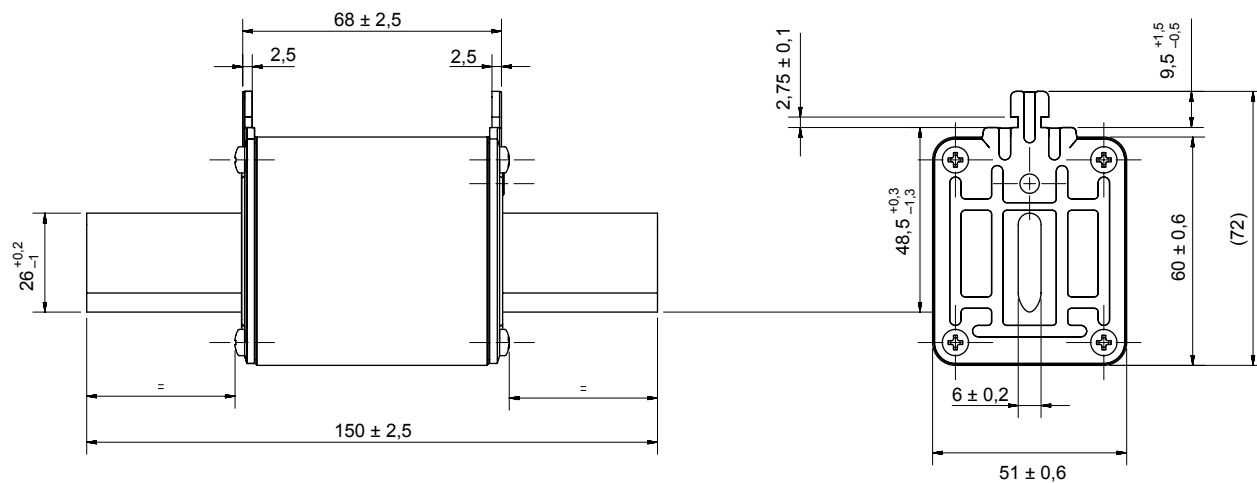
Dimensions in mm

# HelioProtection® NH fuse-links 800VAC

NH gR 800VAC

## DIMENSIONS

### NH Size 2 Plain Blade



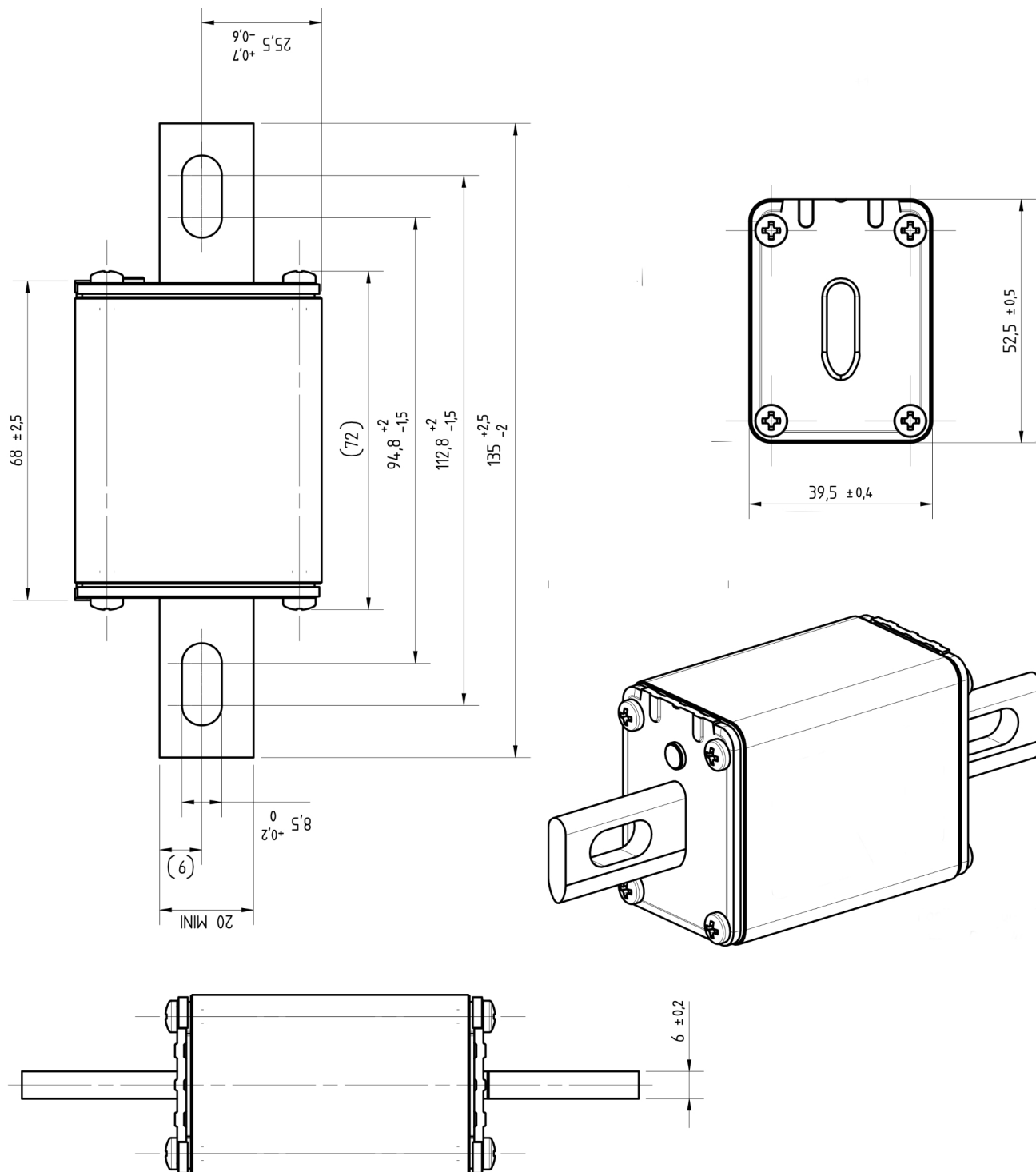
Dimensions in mm

# HelioProtection® NH fuse-links 800VAC

## NH gR 800VAC

### DIMENSIONS

#### NH Size 1 direct mounting



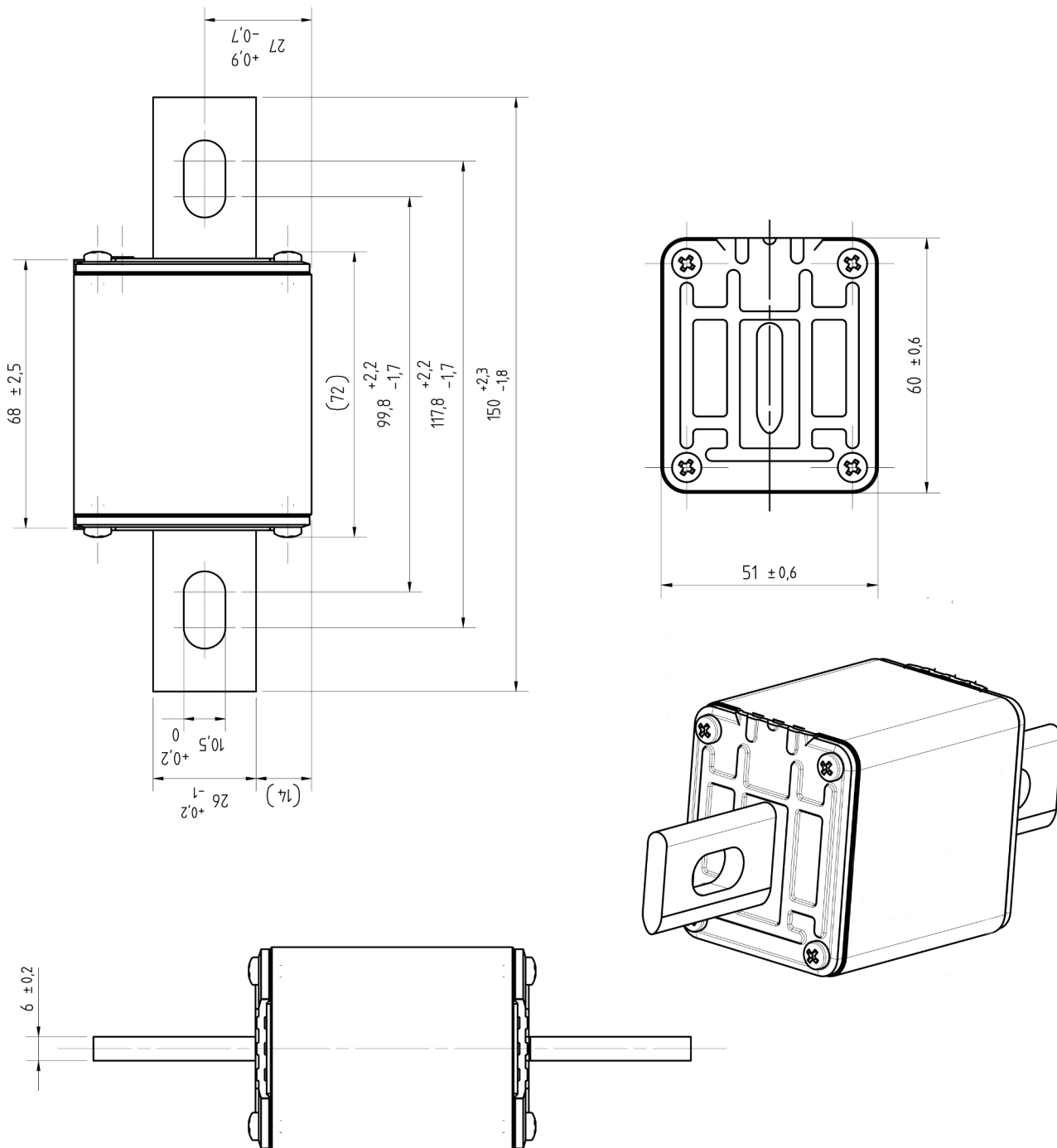
Dimensions in mm

# HelioProtection® NH fuse-links 800VAC

NH gR 800VAC

## DIMENSIONS

### NH Size 2 direct mounting



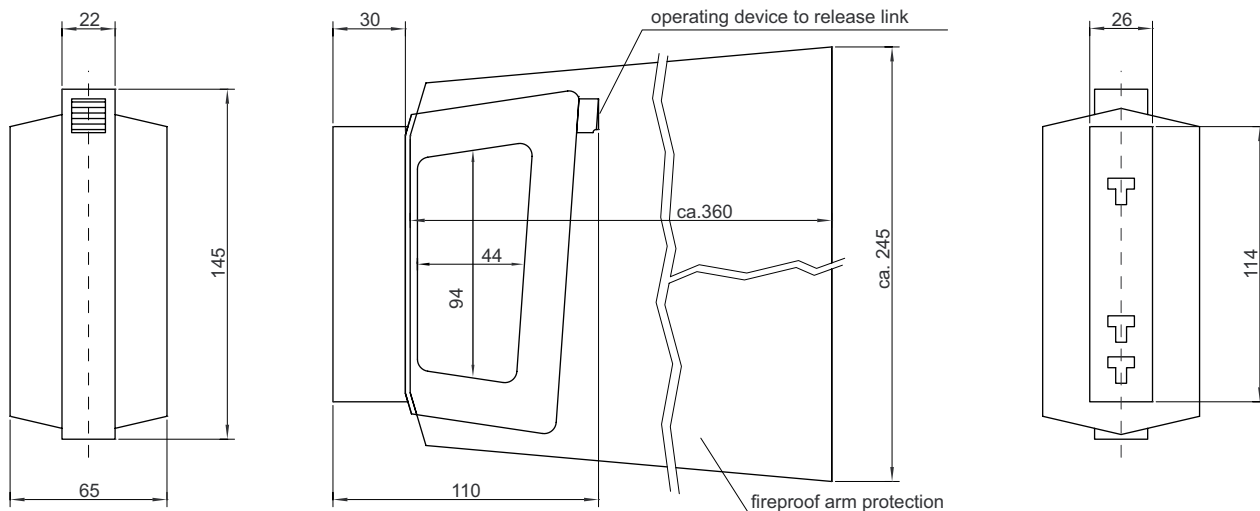
Dimensions in mm

# HelioProtection® NH fuse-links 800VAC

NH gR 800VAC

## DIMENSIONS

### NH fuse-handle for NH fuse-links size 00 to 4



Dimensions in mm

Dimensions in mm   Dimensions in mm   Dimensions in mm   Dimensions in mm