

HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

SPECIAL PURPOSE FUSES

PHOTOVOLTAIC FUSES



Mersen HP10NH photovoltaic (PV) fuse series was engineered and designed specifically for the protection of photovoltaic systems. Helio-Protection® HP10NH fuse links are designed for the protection of cables in a PV group of chains when a short circuit occurs in a panel (main fuse category). This HelioProtection® main fuse range enlarges our PV fuse links offering on a size having a worldwide acceptance. They are of the gPV type and comply with both IEC 60269-6 and UL 2579 PV standards.

They are also available with bolted type blades for direct mounting.

TECHNICAL DATA OVERVIEW

Voltage DC	1000 VDC
Ampere Range (A)	50 ... 250 A
Size per Standard	NH1 and NH2
Speed/Characteristic	gPV
I.R. DC (UL)	50 kA (L/R = 1ms)

FEATURES & BENEFITS

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

APPLICATIONS

- All photovoltaic applications
- Inverter DC input protection
- Re-combiner applications (sub combiner, array combiner, master combiner)

STANDARDS

- IEC 60269-6
- UL 2579
- RoHS compliance



PRODUCT RANGE



HP10NH1GPV125

NH fuse links gPV 1000VDC Plain Blade size 1

Catalog number	Item number	Rated current I_n	Power dissipation at $0.7 \times I_n$	Power dissipation at I_n	Width	Package	Weight
HP10NH1GPV50	Z1028283	50 A	4.6 W	11 W	39.5 mm	3	0.3 kg
HP10NH1GPV63	A1028284	63 A	5.4 W	13 W	39.5 mm	3	0.3 kg
HP10NH1GPV80	B1028285	80 A	6.1 W	15 W	39.5 mm	3	0.3 kg
HP10NH1GPV100	C1028286	100 A	7.2 W	17 W	39.5 mm	3	0.3 kg
HP10NH1GPV125	D1028287	125 A	7.4 W	18 W	39.5 mm	3	0.3 kg
HP10NH1GPV160	E1028288	160 A	9.6 W	23 W	39.5 mm	3	0.3 kg

NH fuse links gPV 1000VDC Direct Mounting size 1

Catalog number	Item number	Rated current I_n	Power dissipation at $0.7 \times I_n$	Power dissipation at I_n	Width	Package	Weight
HP10NH1GPV50B	B1048663	50 A	4.6 W	11 W	39.5 mm	3	0.4 kg
HP10NH1GPV63B	C1048664	63 A	5.4 W	13 W	39.5 mm	3	0.4 kg
HP10NH1GPV80B	D1048665	80 A	6.1 W	15 W	39.5 mm	3	0.4 kg
HP10NH1GPV100B	E1048666	100 A	7.2 W	17 W	39.5 mm	3	0.4 kg
HP10NH1GPV125B	F1048667	125 A	7.4 W	18 W	39.5 mm	3	0.4 kg
HP10NH1GPV160B	G1048668	160 A	9.6 W	23 W	39.5 mm	3	0.4 kg



HP10NH2GPV250

NH fuse-links gPV 1000VDC Plain Blade size 2

Catalog number	Item number	Rated current I_n	Power dissipation at $0.7 \times I_n$	Power dissipation at I_n	Width	Package	Weight
HP10NH2GPV250	Y1037620	250 A	12.9 W	31 W	51 mm	3	0.6 kg
HP10NH2GPV200	X1037619	200 A	11.3 W	27 W	51 mm	3	0.6 kg



HP10NH2GPV200B

NH fuse-links gPV 1000VDC Direct Mounting size 2

Catalog number	Item number	Rated current I_n	Power dissipation at $0.7 \times I_n$	Power dissipation at I_n	Width	Package	Weight
HP10NH2GPV200B	H1048669	200 A	11.3 W	27 W	51 mm	3	0.63 kg
HP10NH2GPV250B	J1048670	250 A	12.9 W	31 W	51 mm	3	0.63 kg



HPBB11PPRFS

NH fuse-bases for NH fuse-links gPV 1000VDC, size 1, 250A, single pole

Catalog number	Item number	Power acceptance	Rated impulse withstand voltage U_{imp}	Cable termination	Design	Package	Weight
HPBB11PPRFS	K1032916	32 W	8 kV	M10 terminal screw M = 27-32Nm	with touch protection, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 1	3	0.71 kg
HPBB11PPR	A1030607	32 W	8 kV	M10 terminal screw M = 27-32Nm	open design, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 1	3	0.44 kg



HPBB11PPR

PRODUCT RANGE



HPBB21PPR



HPBB21PPRFS



NHHANDLE



08024.000000

NH fuse-bases for NH fuse-links gPV 1000VDC, size 2, 315A, single pole

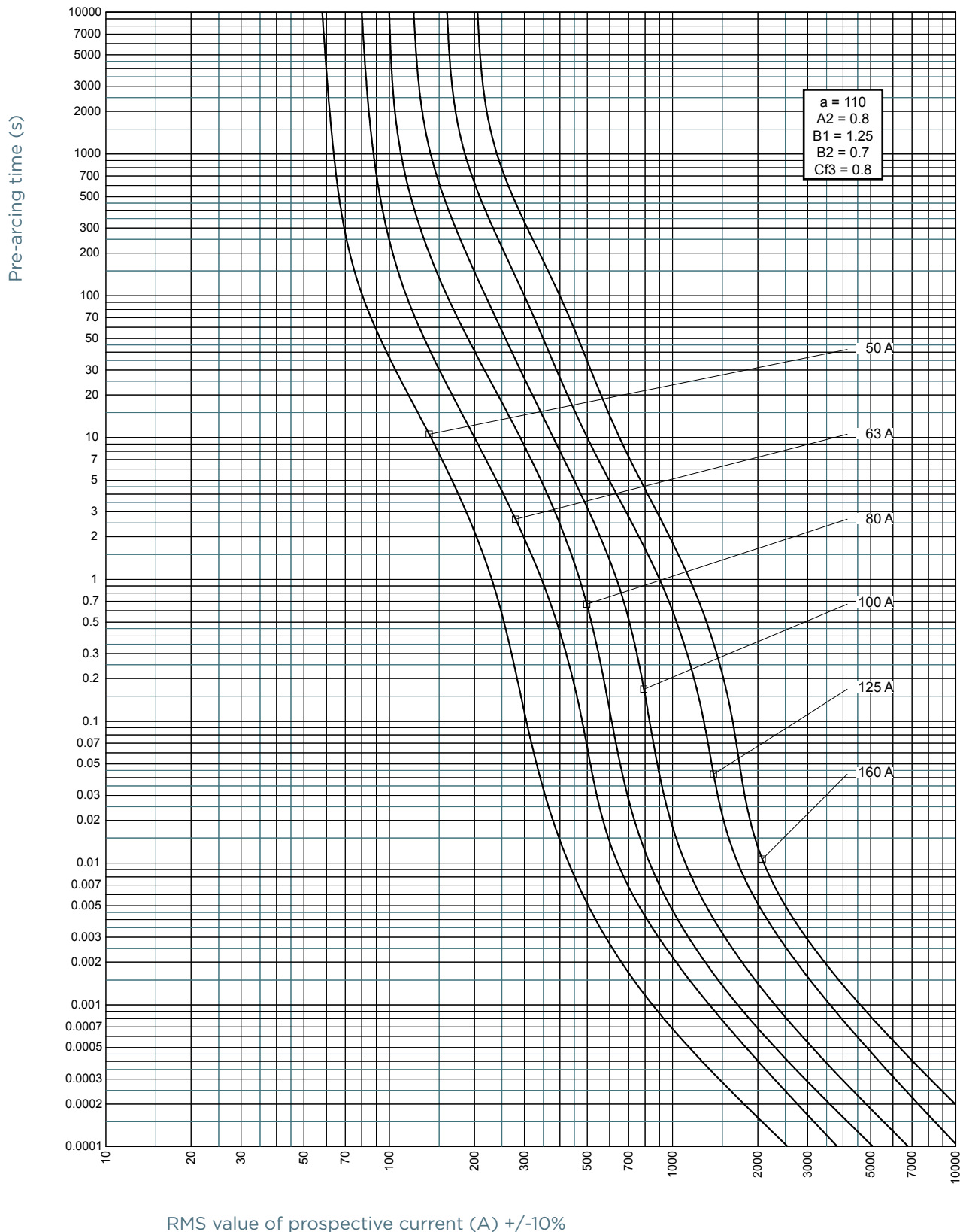
Catalog number	Item number	Power acceptance	Rated impulse withstand voltage U_{imp}	Cable termination	Design	Package	Weight
HPBB21PPR	C1037509	45 W	8 kV	%sM10 terminal screw M = 27-32Nm	open design, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 1 and 2	3	0.54 kg
HPBB21PPRFS	D1037510	45 W	8 kV	M10 terminal screw M = 27-32Nm	with touch protection, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 2	3	0.81 kg

NH Fuse handle for NH fuse links size 00-4

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	5/25	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

TIME CURRENT CHARACTERISTIC CURVES

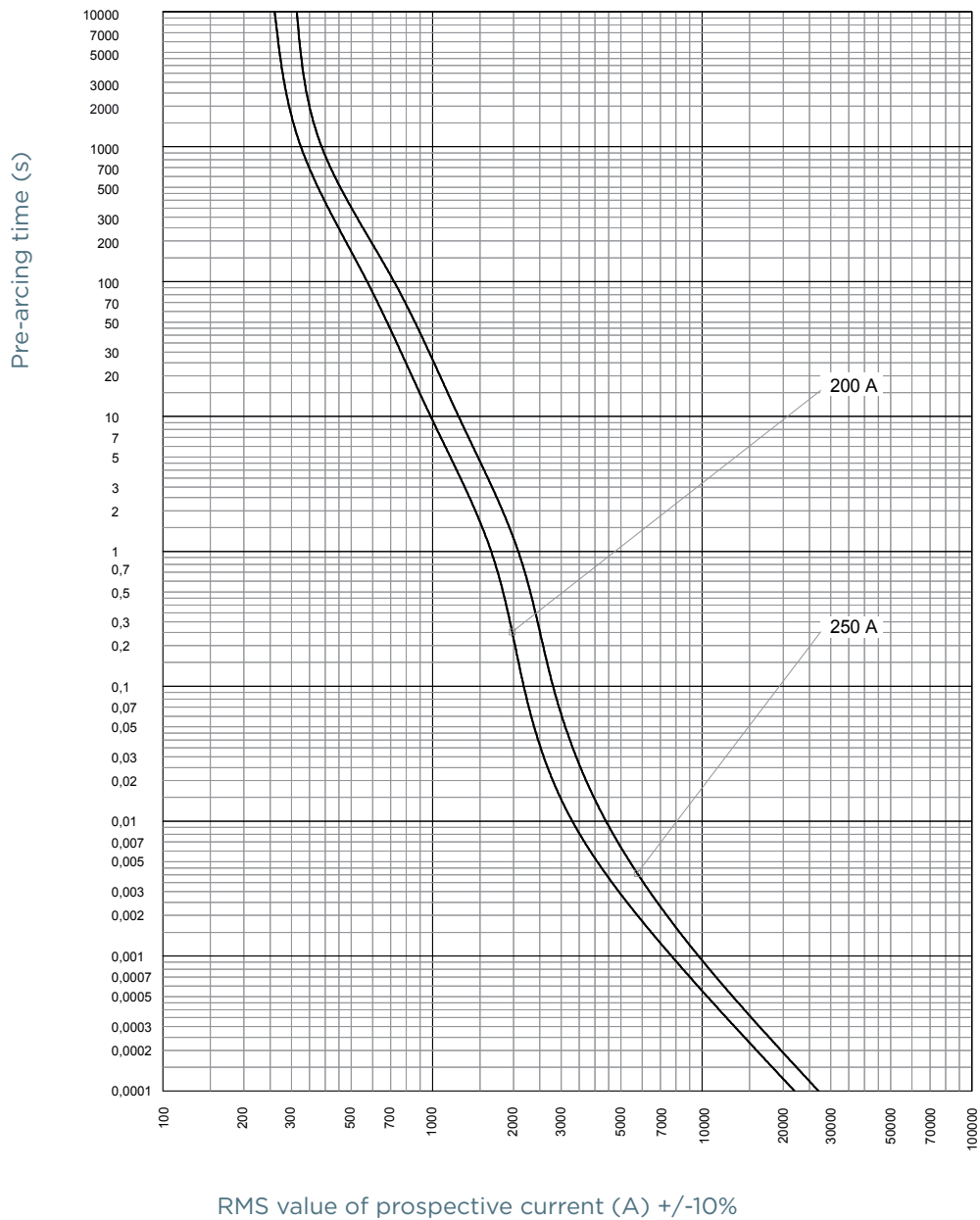
Special purpose gPV fuse link size NH1 1000V 50-160A



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

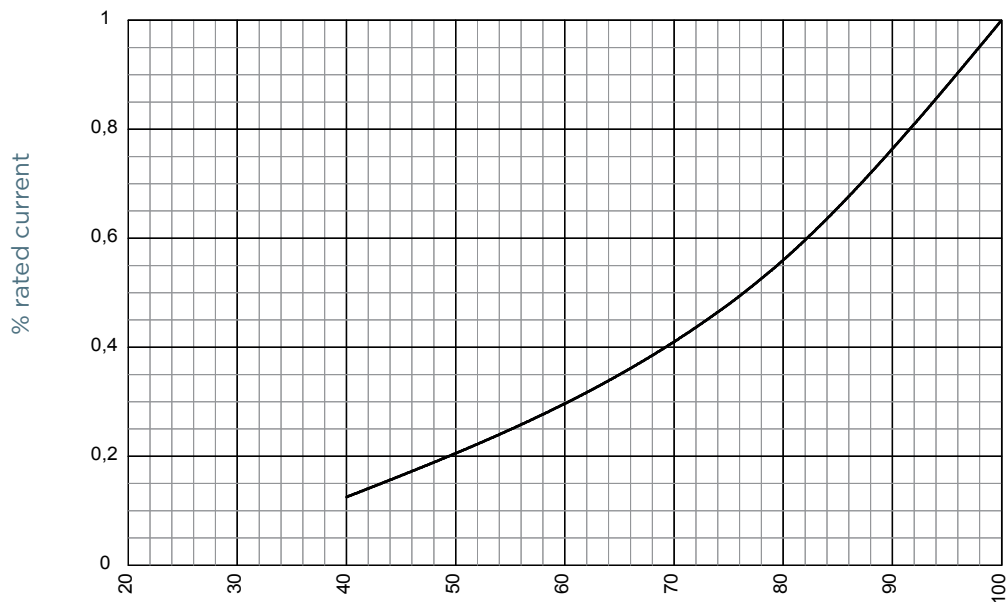
TIME CURRENT CHARACTERISTIC CURVES

Special purpose gPV fuse link size NH2 1000V 200-250A



CORRECTION FACTOR

Rated power dissipation at rated current fuse-link gPV NH1 1000V 125-160A



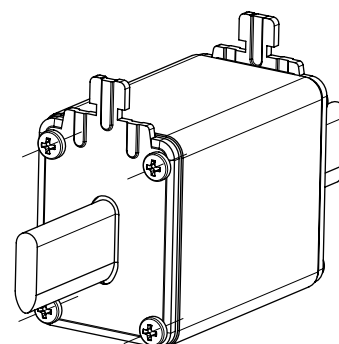
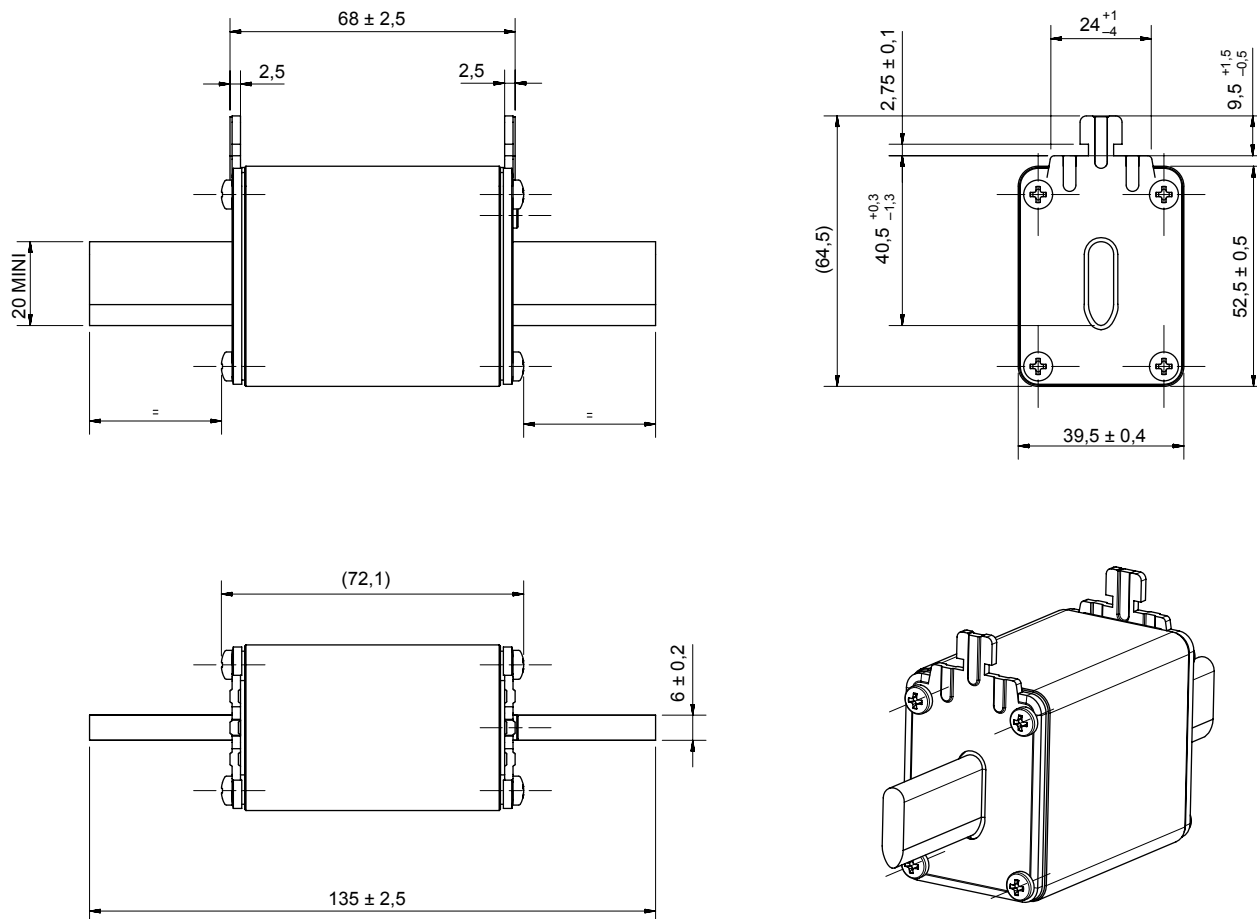
Correction factor for power dissipation

HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

DIMENSIONS

Special purpose gPV fuse link size NH1 Plain Blade without trip indicator

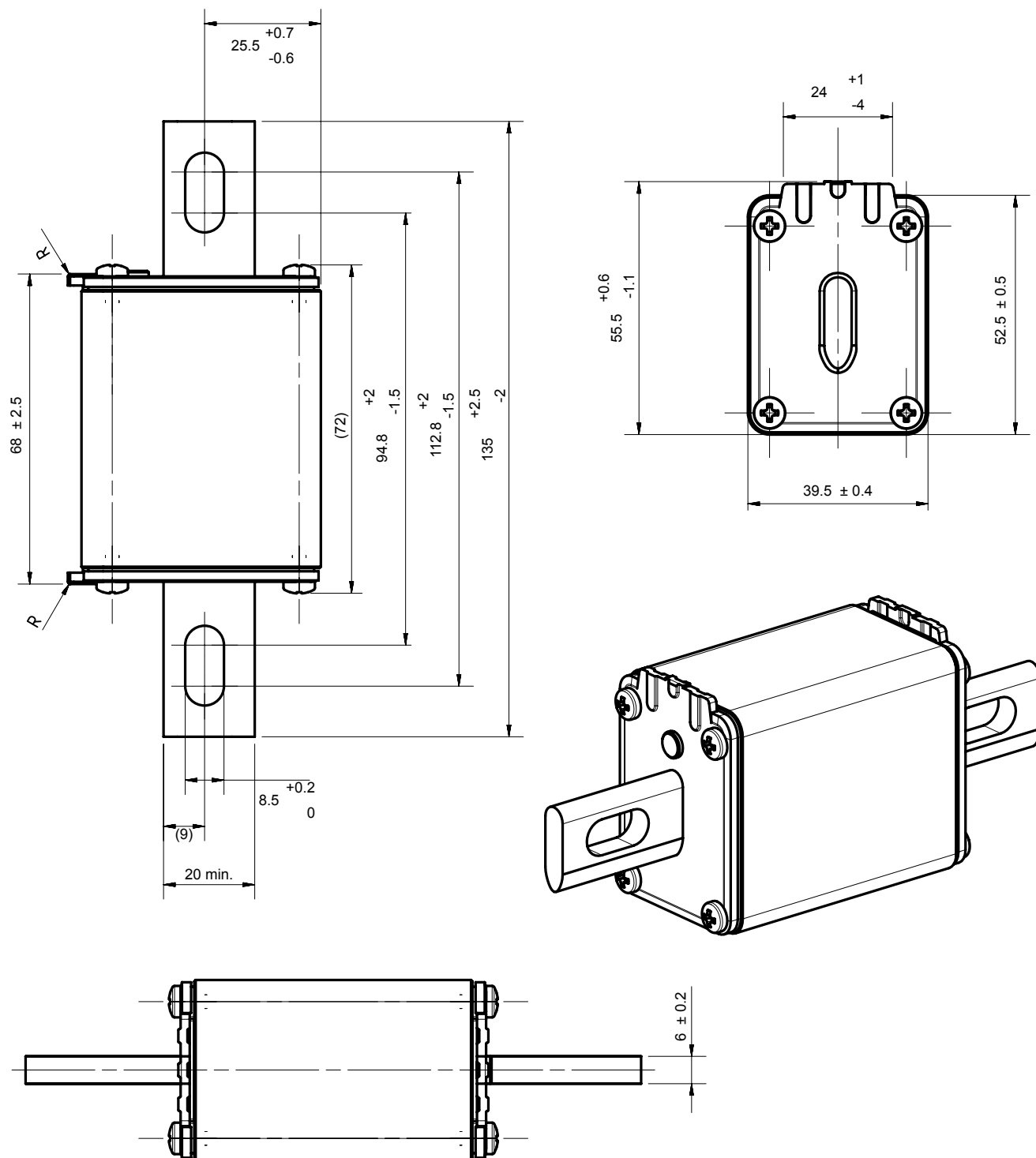


A	B
$100^{+2,0}_{-1,5}$	$100 \pm 1,0$

Dimensions in mm

DIMENSIONS

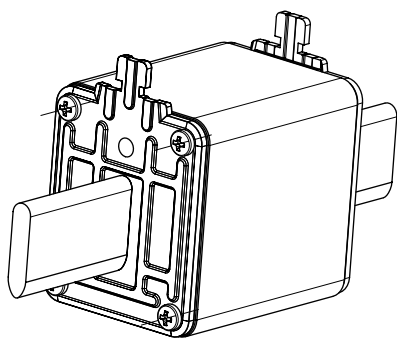
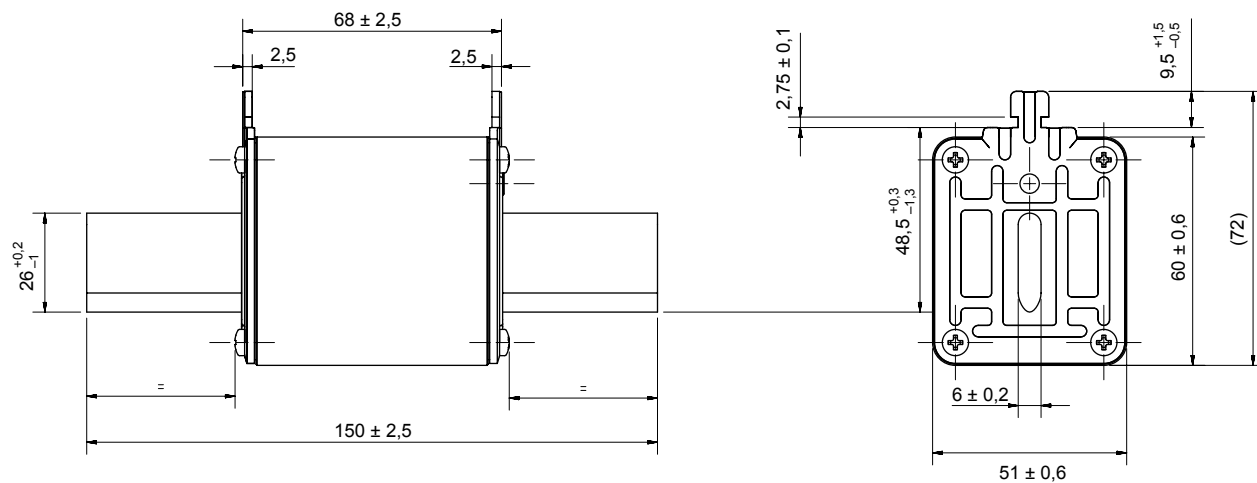
Special purpose gPV fuse link size NH1 Direct Mounting without trip indicator and without lugs



Dimensions in mm

DIMENSIONS

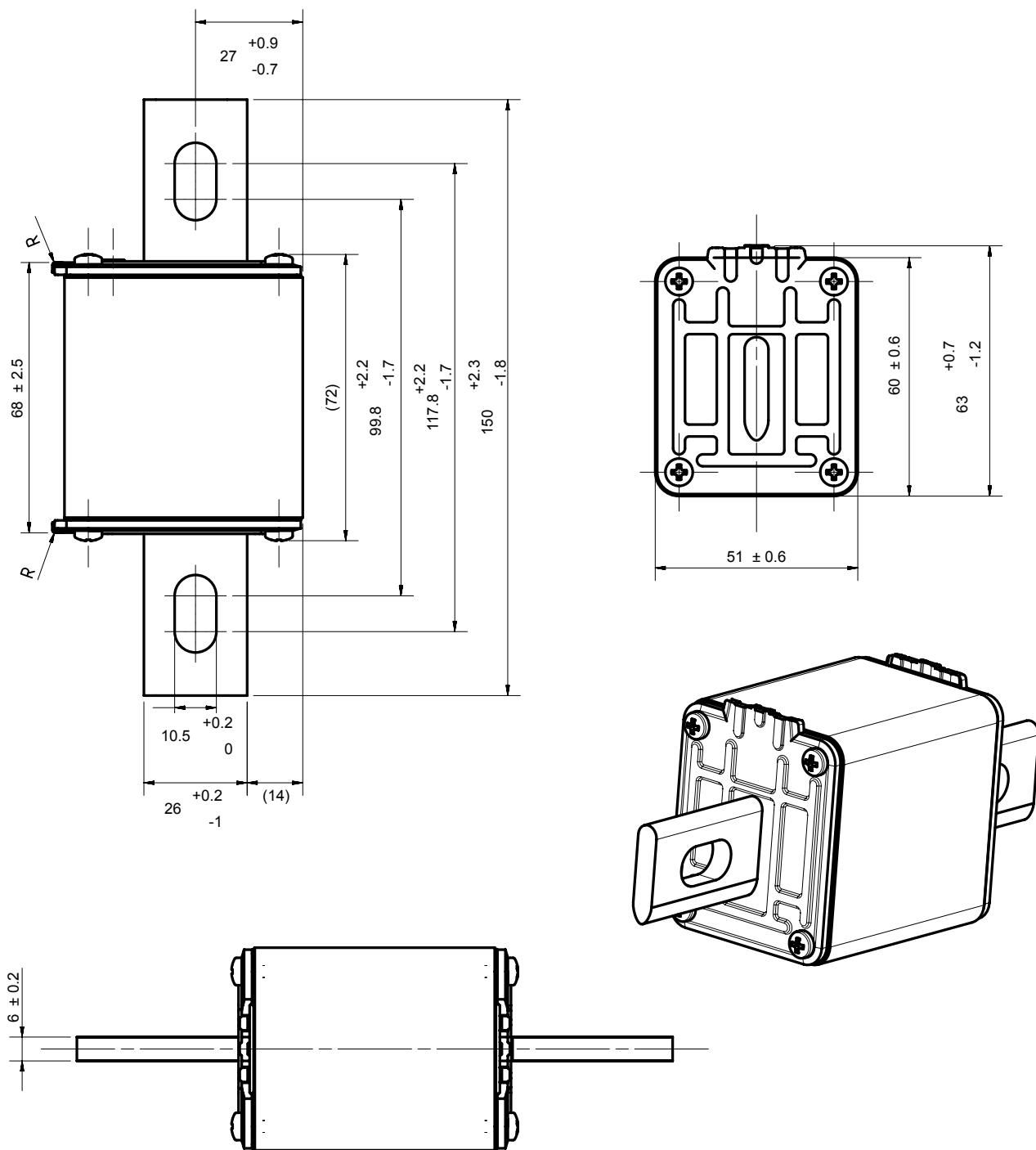
Special purpose gPV fuse link size NH2 Plain Blade without trip indicator



Dimensions in mm

DIMENSIONS

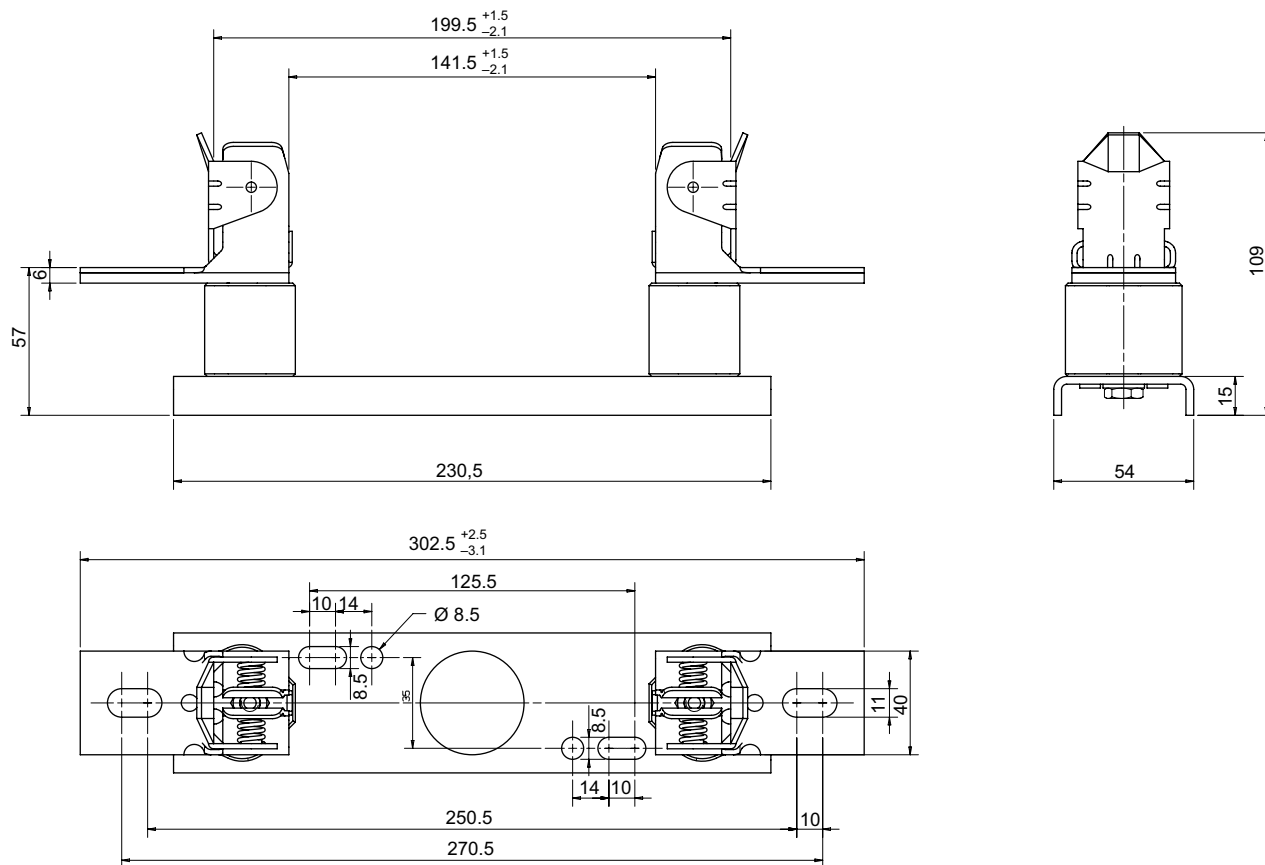
Special purpose gPV fuse link size NH2 Direct Mounting without trip indicator and without lugs



Dimensions in mm

DIMENSIONS

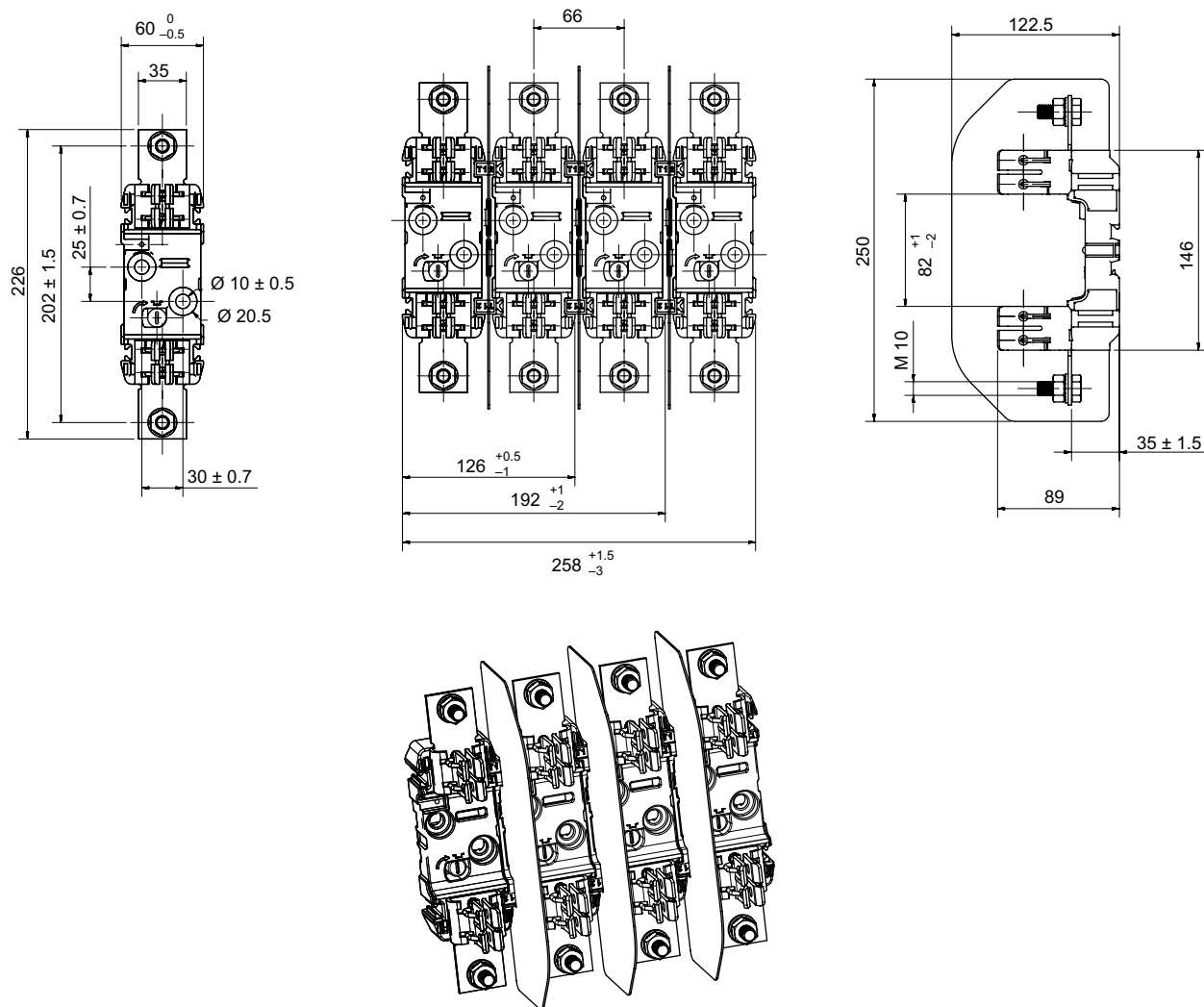
NH fuse-base for NH fuse-links gPV, size 1, type PP, open design



Dimensions in mm

DIMENSIONS

NH fuse-base for NH fuse-links gPV, size 2, type PP, open design



For multi-pole applications:

In case of installation of multi-pole units without phase barriers,

a distance of 8 mm must be considered between the live (current carrying) parts of the fuses (single units).

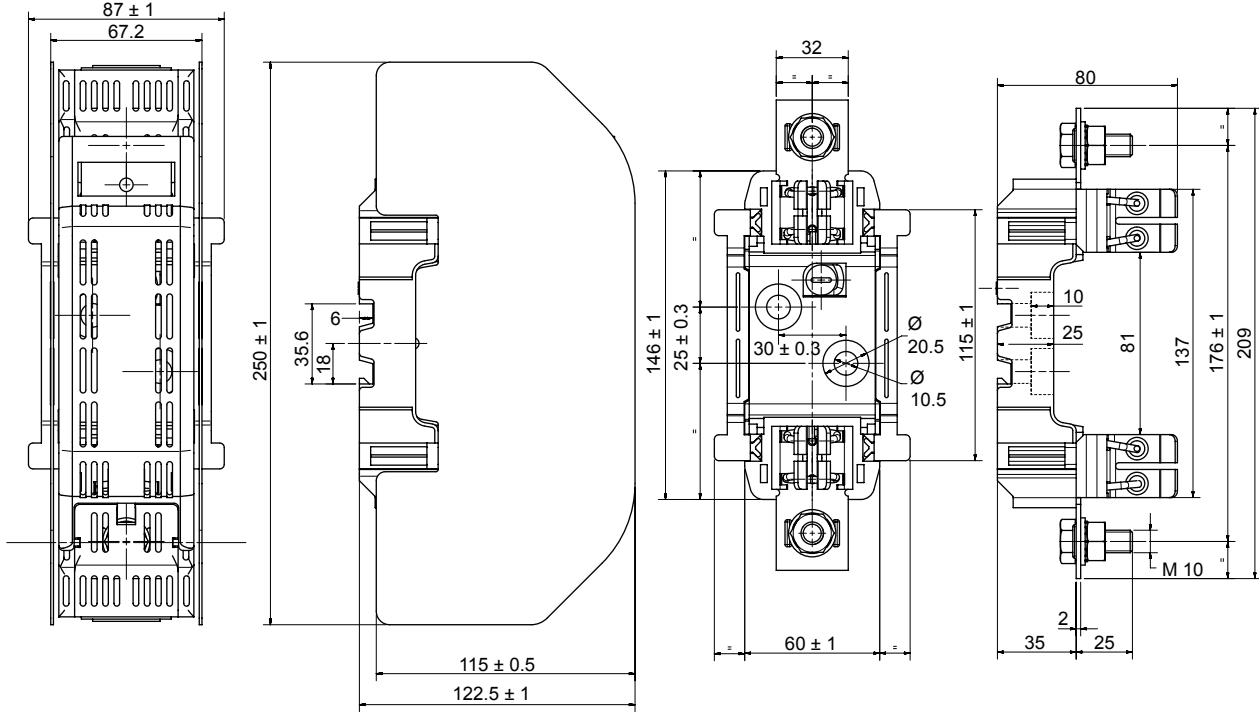
Dimensions in mm

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Photovoltaic fuse-links gPV 1000VDC

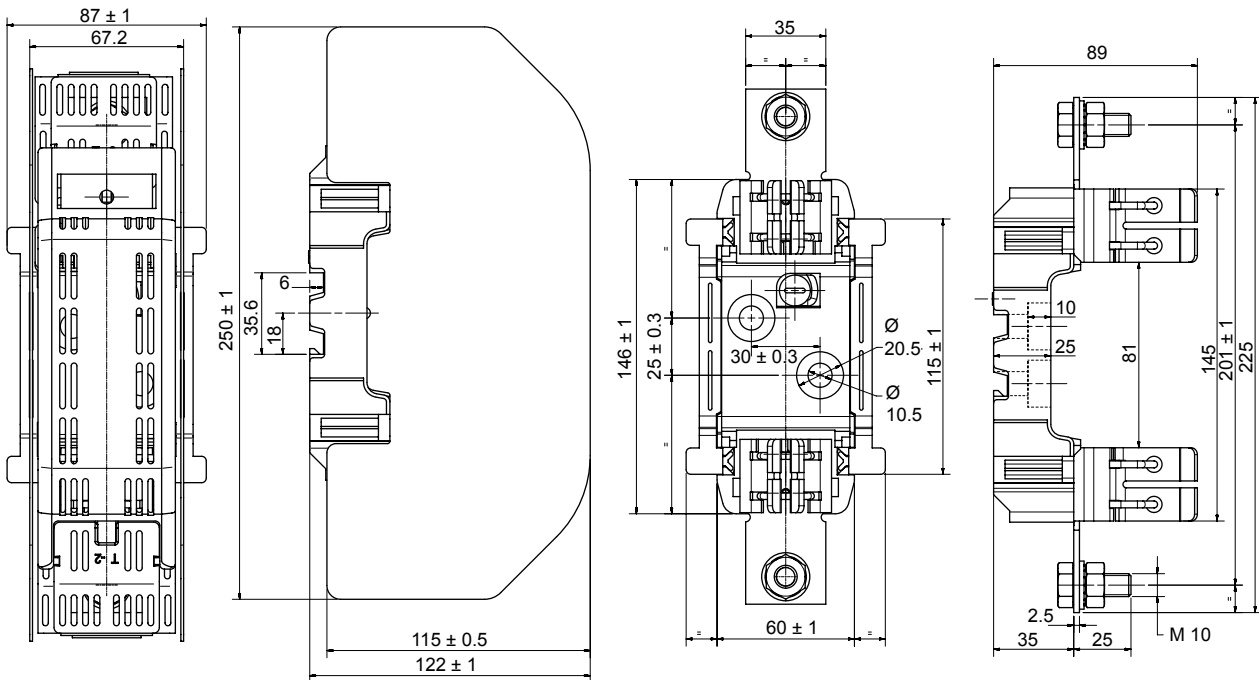
DIMENSIONS

NH fuse-base for NH fuse-links gPV, size 1, type PP, with touch protection



Dimensions in mm

NH fuse-base for NH fuse-links gPV, size 2, type PP, with touch protection



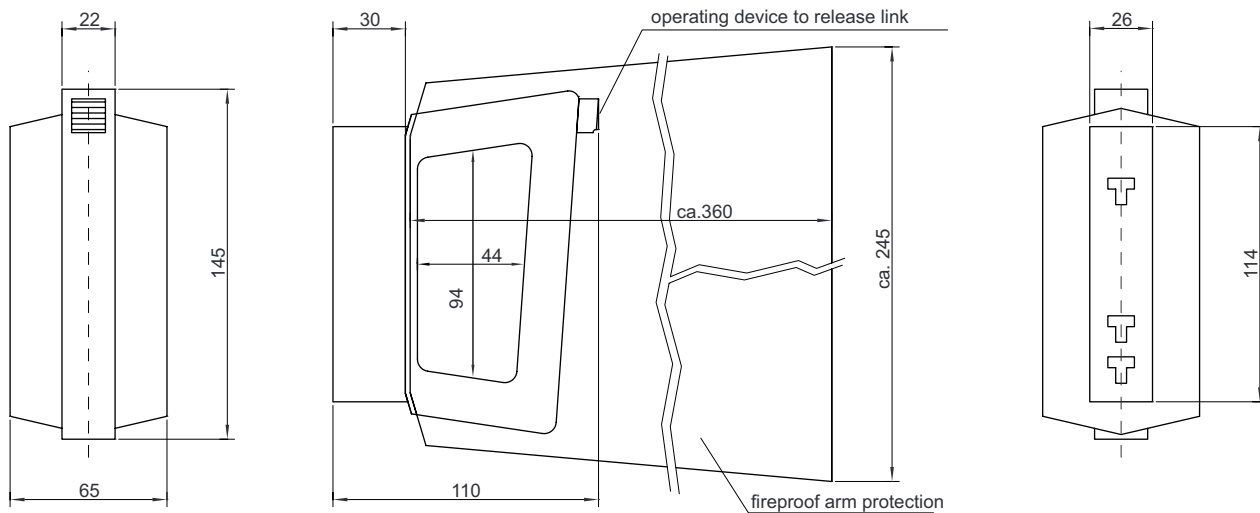
Dimensions in mm

HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

DIMENSIONS

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



Dimensions in mm