

HelioProtection® HP12NHXL

Photovoltaic fuse-links gPV 1250VDC

SPECIAL PURPOSE FUSES

PHOTOVOLTAIC FUSES



Mersen HP12NH photovoltaic (PV) fuse series was engineered and designed specifically for the protection of photovoltaic systems. Helio-Protection® HP12NH 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	1250 VDC
Ampere Range (A)	125 ... 400 A
Speed/Characteristic	gPV
I.R. DC	50 kA (L/R = 1ms)
Product Size	NH1XL, NH2XL, NH3L

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
- 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



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PRODUCT RANGE



HP12NH1XLGPV160

NH fuse links gPV 1250VDC Plain Blade size 1XL

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Weight	Package
HP12NH1XLGPV125	G1039744	125 A	11.5 W	29 W	0.435 kg	1
HP12NH1XLGPV160	H1039745	160 A	14.5 W	36 W	0.698 kg	1

NH fuse links gPV 1250VDC Direct Mounting size 1XL

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Package
HP12NH1LGPV125B	K1048671	125 A	11.5 W	29 W	1
HP12NH1LGPV160B	L1048672	160 A	14.5 W	36 W	1



HP12NH2XLGPV200

NH fuse links gPV 1250VDC Plain Blade size 2XL

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Weight	Package
HP12NH2XLGPV200	J1039746	200 A	16 W	40 W	1.054 kg	1
HP12NH2XLGPV250	K1039747	250 A	18 W	44 W	1.054 kg	1

NH fuse links gPV 1250VDC Direct Mounting size 2XL

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Package
HP12NH2LGPV200B	M1048673	200 A	16 W	40 W	1
HP12NH2LGPV250B	N1048674	250 A	18 W	44 W	1

NH fuse-links gPV 1250VDC Pain Blades size 3L

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Weight	Package
HP12NH3LGPV250	Z1033389	250 A	29 W	73 W	1.66 kg	1
HP12NH3LGPV315	A1033390	315 A	18 W	46 W	1.66 kg	1
HP12NH3LGPV350	B1033391	350 A	22 W	53 W	1.66 kg	1
HP12NH3LGPV400	C1033392	400 A	23 W	55 W	1.66 kg	1

NH fuse-links gPV 1250VDC Direct Mounting size 3L

Catalog number	Reference number	Rated current I _n	Power dissipation at 0.7xI _n	Power dissipation at I _n	Weight	Package
HP12NH3LGPV250B	P1048675	250 A	29 W	73 W	1.66 kg	1
HP12NH3LGPV315B	Q1048676	315 A	18 W	46 W	1.66 kg	1
HP12NH3LGPV350B	R1048677	350 A	22 W	53 W	1.66 kg	1
HP12NH3LGPV400B	S1048678	400 A	23 W	55 W	1.66 kg	1

PRODUCT RANGE



SP36121



SP36122-123

Open fuse-bases for NH fuse-links gPV HP12NHXL, single pole, 1500VDC, SCCR 50kA

Catalog number	Reference number	Rated current I _n	Power acceptance	Rated impulse withstand voltage U _{imp}	Design	Weight	Package
SP36121	B1026353	250 A	59 W	8 kV	open design, screw mounting, for NH fuse-links NH1XL and gPV fuse-link size 121 with blade contacts	1.34 kg	1
SP36122-123	P1025054	630 A	95 W	8 kV	open design, screw mounting, for NH fuse-links NH2XL and NH3L and gPV fuse-link size 122-123 with blade contacts	1.39 kg	1



HPBB1XL1PPFS



HPBB2XL3L1PPFS



HPBB2XL3L1PBFS

Fuse-bases with touch protection for NH fuse-links gPV HP12NHXL, single pole, 1500VDC, SCCR 15kA

Catalog number	Reference number	Rated current I _n	Power acceptance	Rated impulse withstand voltage U _{imp}	Cable termination	Design	Weight	Package
HPBB1XL1PPFS	Y1039598	250 A	40 W	8 kV	M10 terminal screws M = 30Nm for cable lugs 150mm ²	with touch protection, screw mounting (M10, M = 8-10Nm), for NH fuse-links NH1XL (can accept Mersen gPV fuse-links size 121 and NH2XL rated 250A with derating)	0.58 kg	3
HPBB2XL3L1PPFS	Z1039599	500 A	70 W	8 kV	M12 terminal screws M = 30Nm for cable lugs 300mm ²	with touch protection, screw mounting (M10, M = 8-10Nm), for NH fuse-links NH2XL and NH3L	1.1033 kg	3
HPBB2XL3L1PBFS	A1039600	500 A	70 W	8 kV	M12 terminal screws M = 30Nm for cable lugs 300mm ²	with touch protection screw mounting (M10, M = 8-10Nm), and busbar output (1x40x10 or 2x40x10) for NH fuse-links NH2XL and NH3L (can accept NH3L fuse-links up to 630 A with derating)	1.1333 kg	3

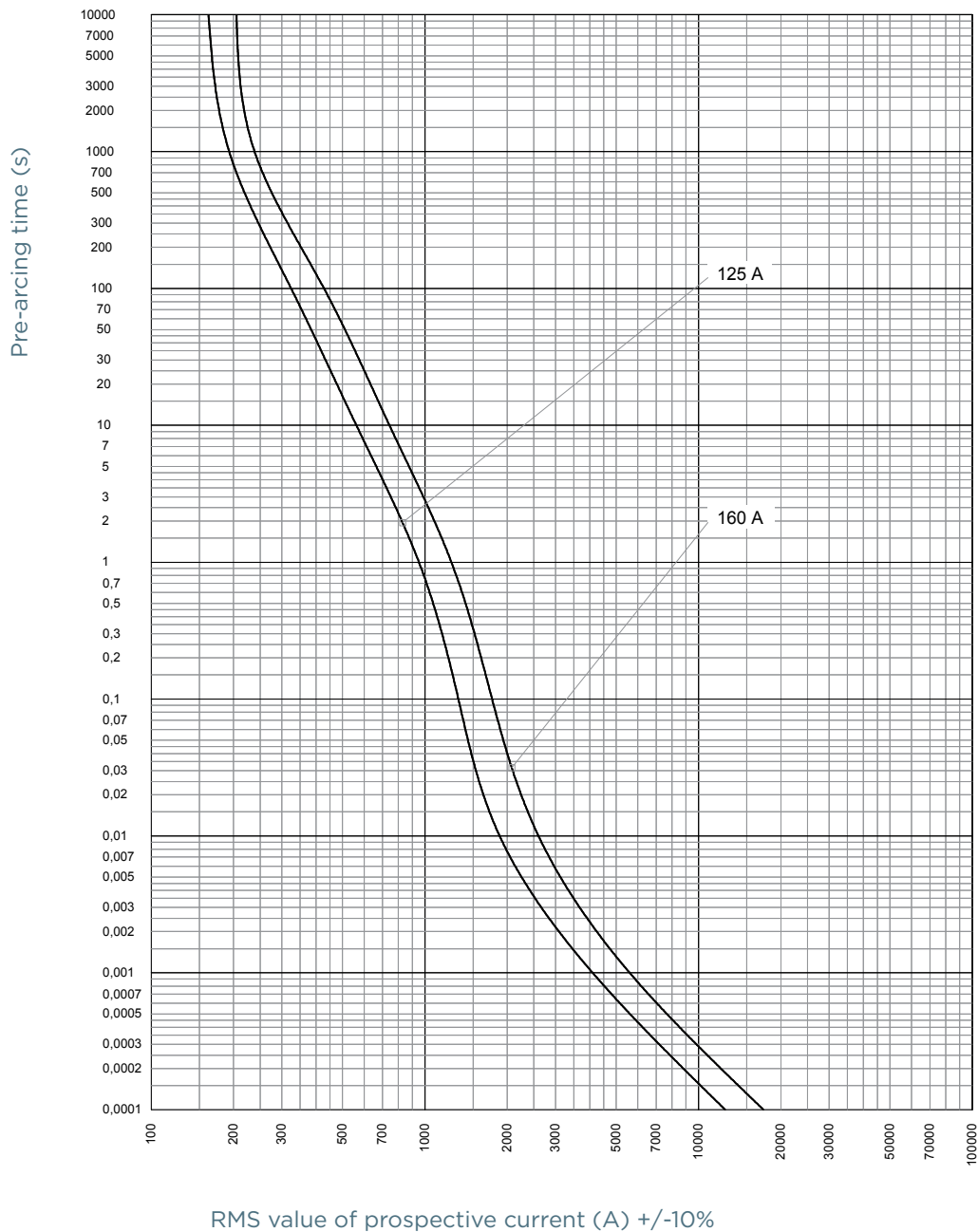
NH Fuse handle for NH fuse links size 1XL, 2XL and 3L

Catalog number	Reference number	Design	Weight	Package
POIGNEPM12	Y210402	without arm protection	0.435 kg	1

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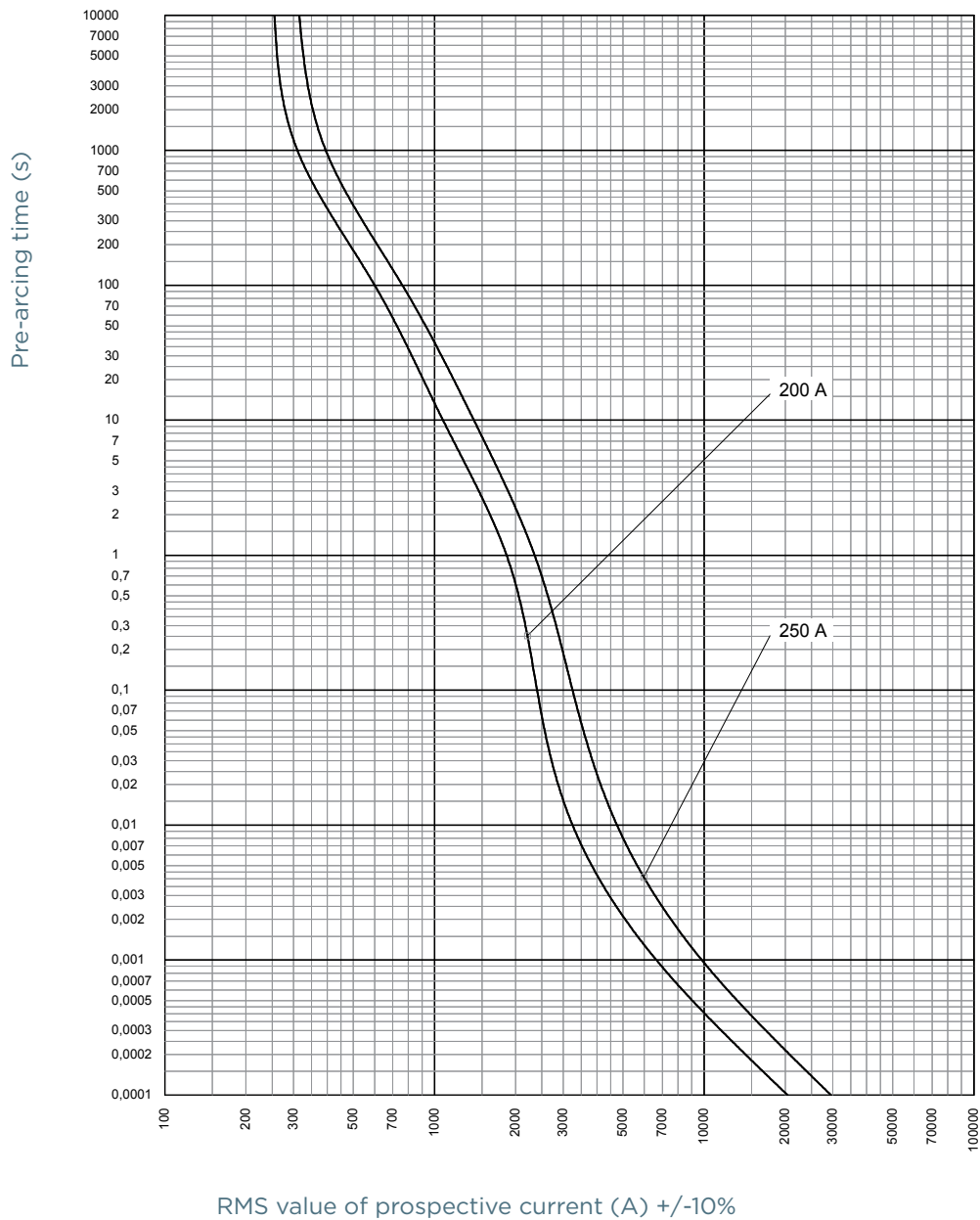
TIME CURRENT CHARACTERISTIC CURVES

Special purpose gPV fuse link size 1XL 1250V 125-160A



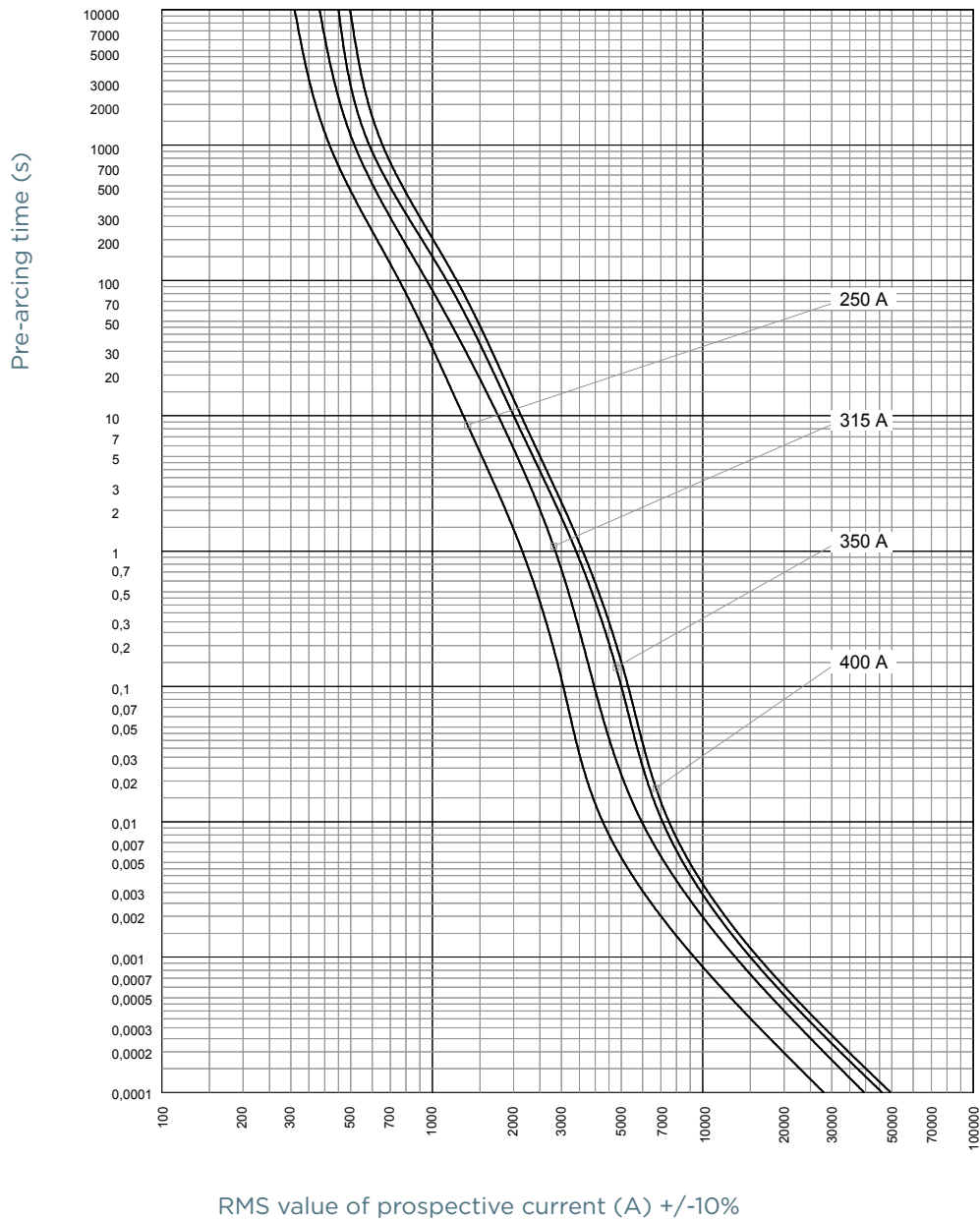
TIME CURRENT CHARACTERISTIC CURVES

Special purpose gPV fuse link size 2XL 1250V 200-250A



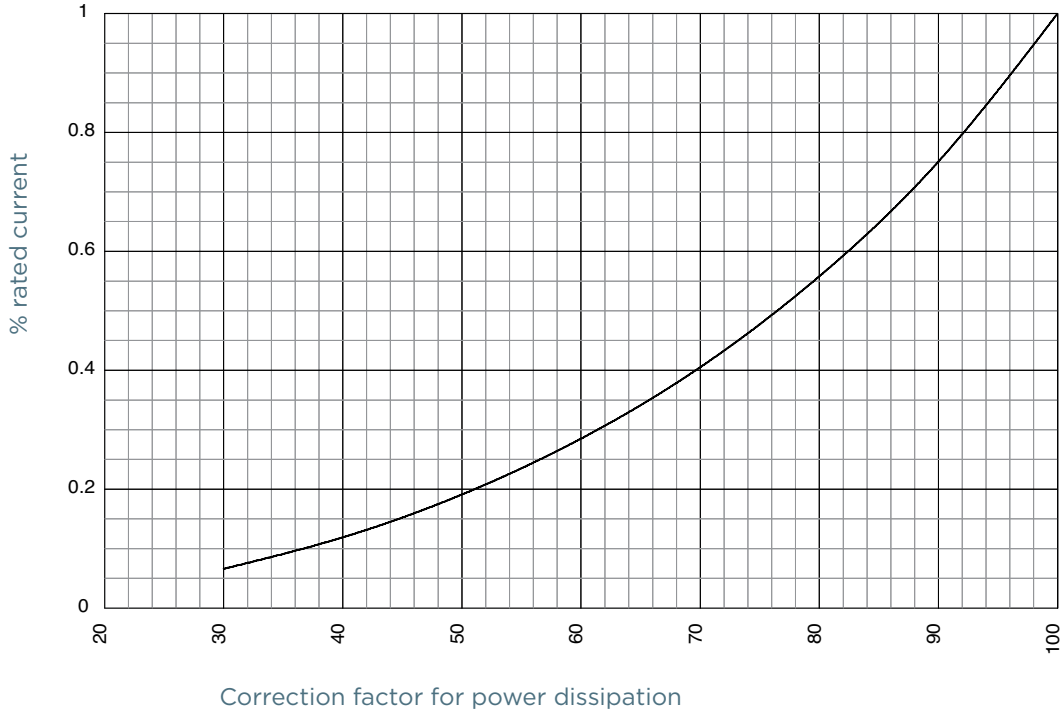
TIME CURRENT CHARACTERISTIC CURVES

Special purpose gPV fuse link size 3L 1250V 250-400A



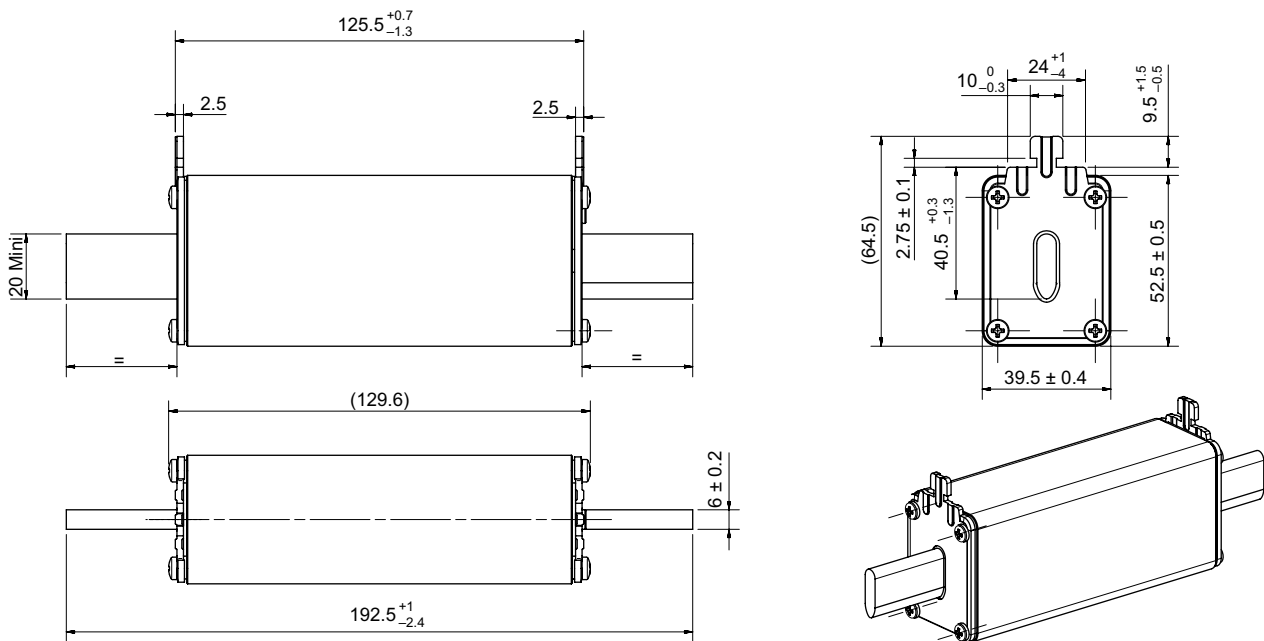
CORRECTION FACTOR

Rated power dissipation at rated current fuse-link gPV 1XL 1250V 125-160A



DIMENSIONS

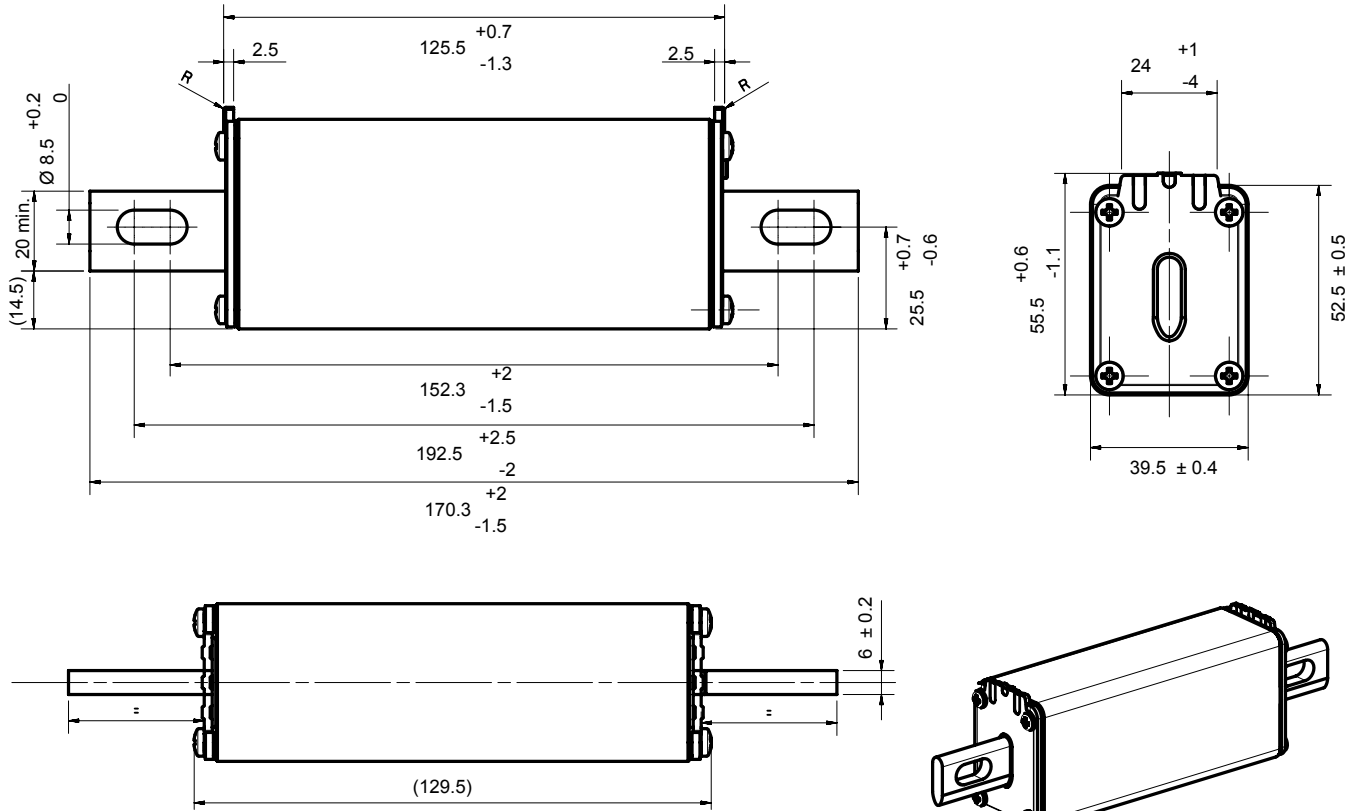
Special purpose gPV fuse-link Plain Blade size 1XL



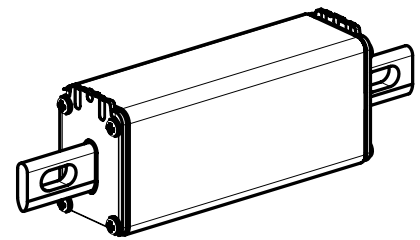
Dimensions in mm

DIMENSIONS

Special purpose gPV fuse-link size 1XL Direct Mounting without trip indicator and without lugs

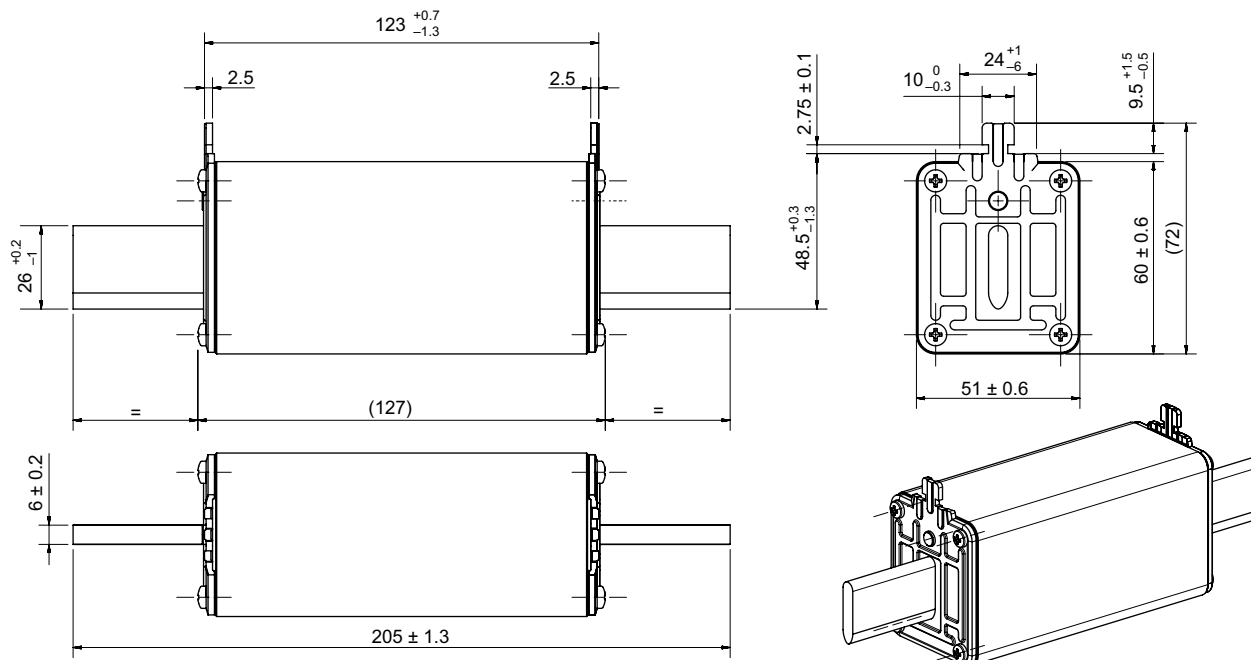


Dimensions in mm



DIMENSIONS

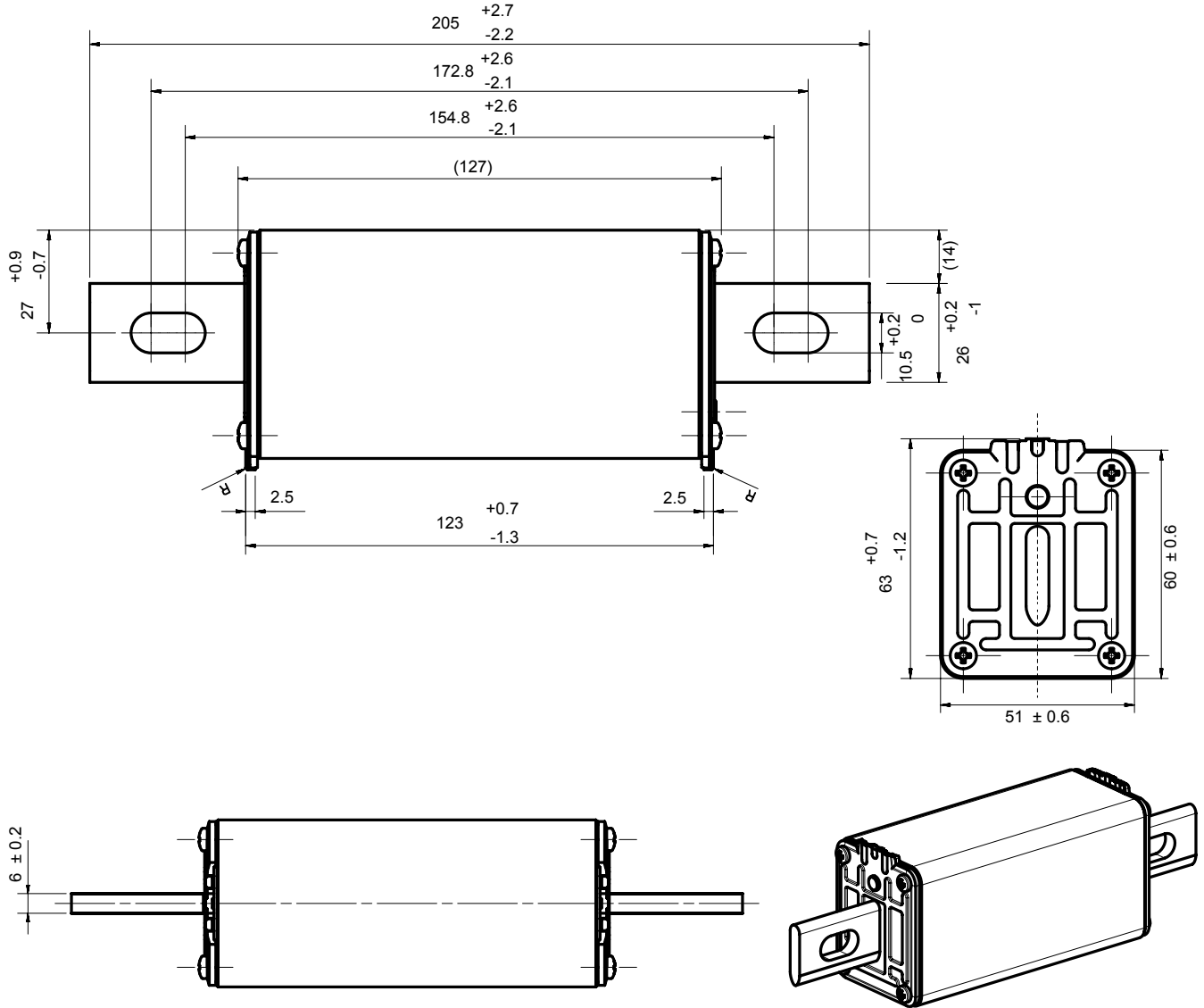
Special purpose gPV fuse-link Plain Blade size 2XL



Dimensions in mm

DIMENSIONS

Special purpose gPV fuse-link size 2XL Direct Mounting without trip indicator and without lugs



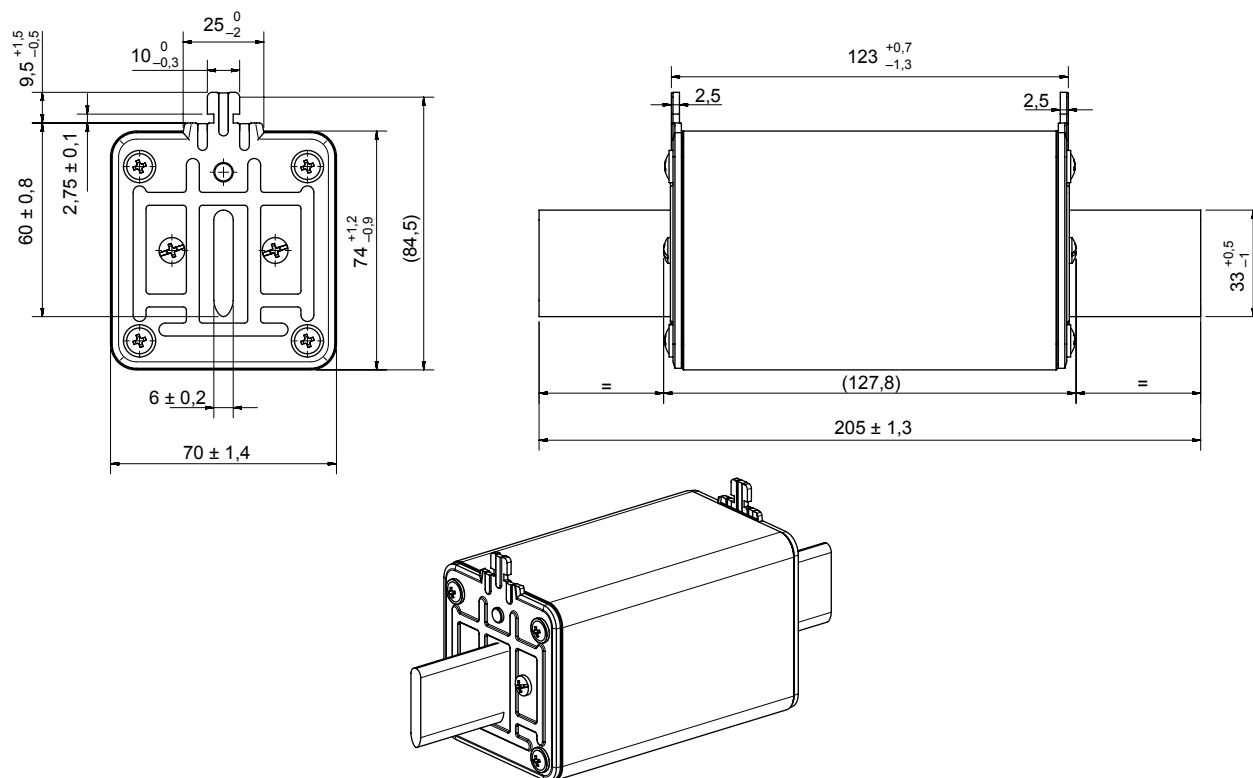
Dimensions in mm

HelioProtection® HP12NHXL

Photovoltaic fuse-links gPV 1250VDC

DIMENSIONS

Special purpose gPV fuse link Plain Blade size 3L



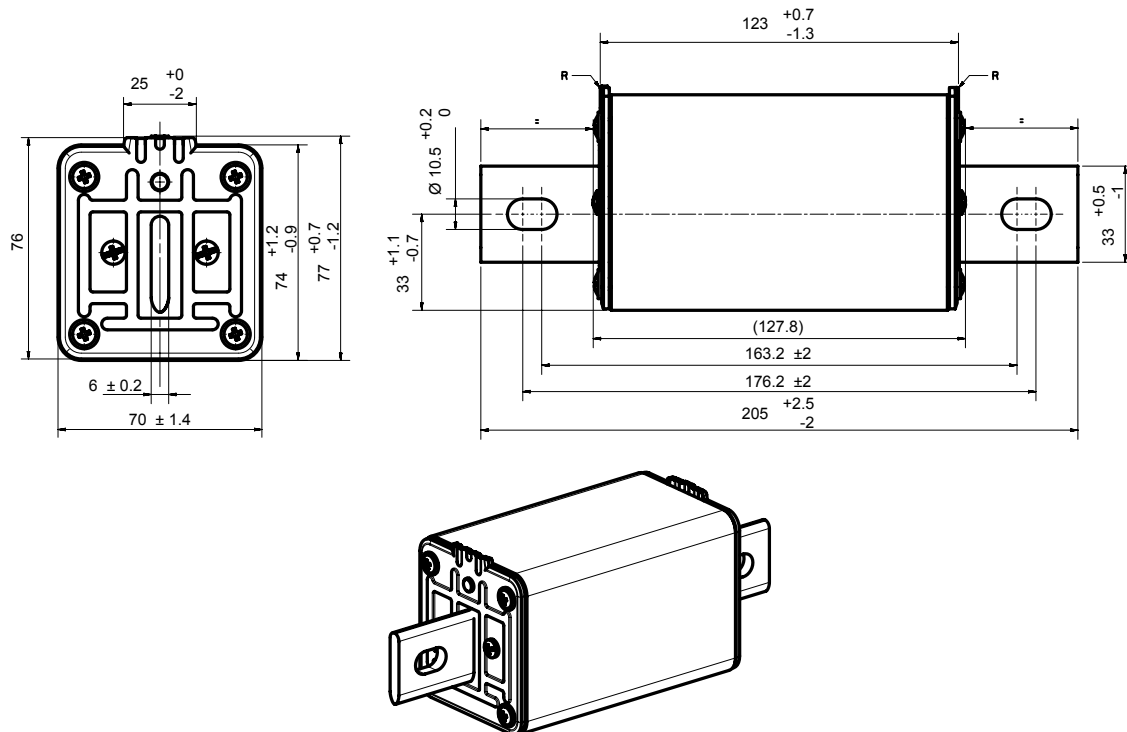
Dimensions in mm

HelioProtection® HP12NHXL

Photovoltaic fuse-links gPV 1250VDC

DIMENSIONS

Special purpose gPV fuse link size 3L Direct Mounting without trip indicator and without lugs



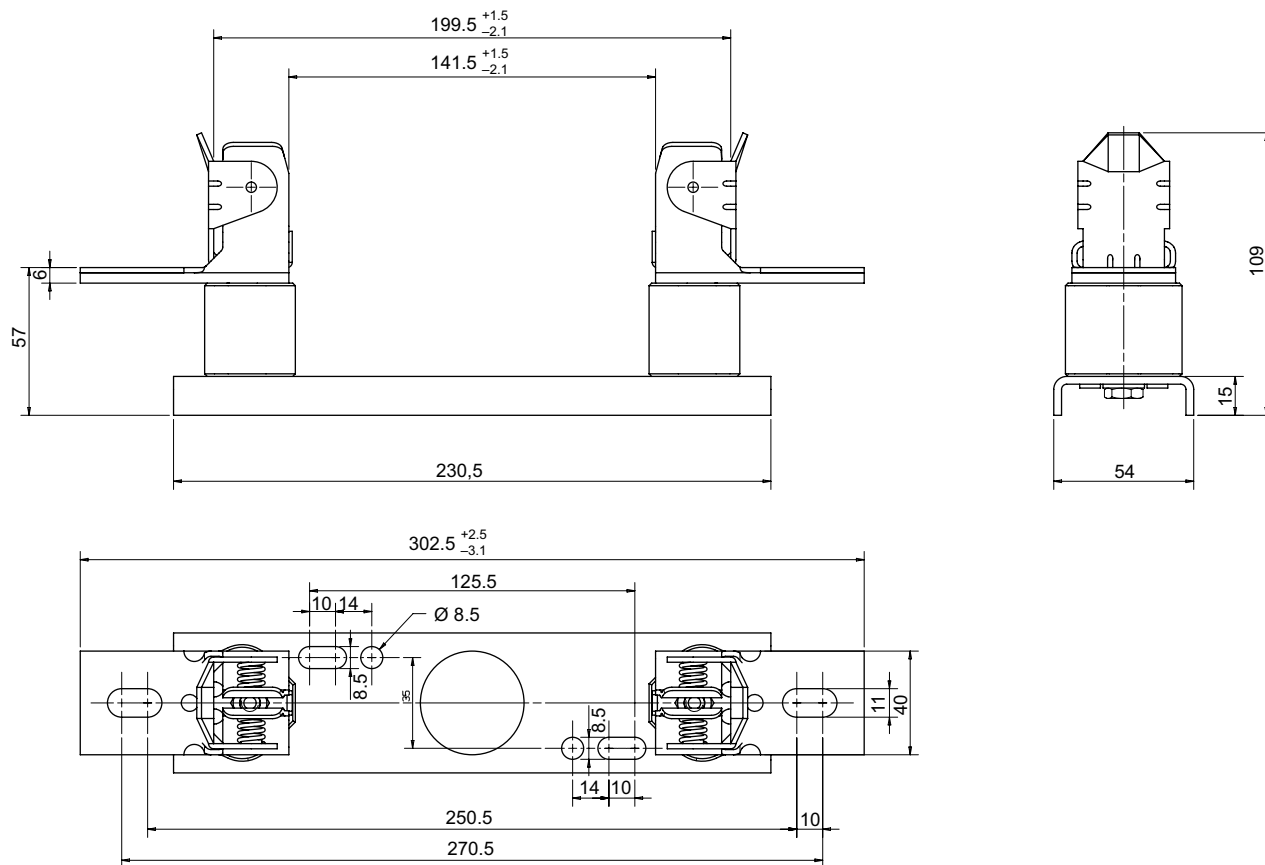
Dimensions in mm

HelioProtection® HP12NHXL

Photovoltaic fuse-links gPV 1250VDC

DIMENSIONS

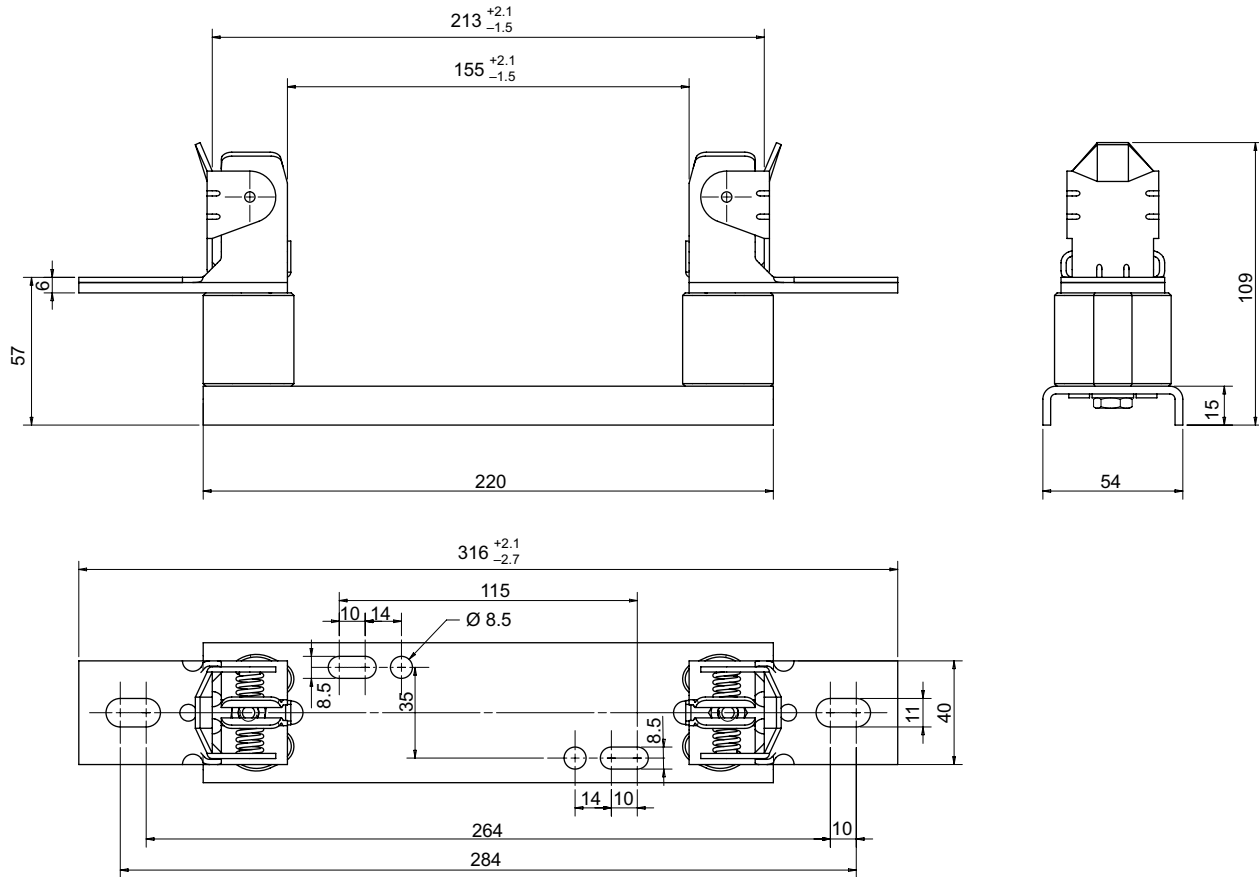
NH fuse-base for NH fuse-links gPV size 2XL, open design



Dimensions in mm

DIMENSIONS

NH fuse-base for NH fuse-links gPV sizes 2XL and 3L, 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).

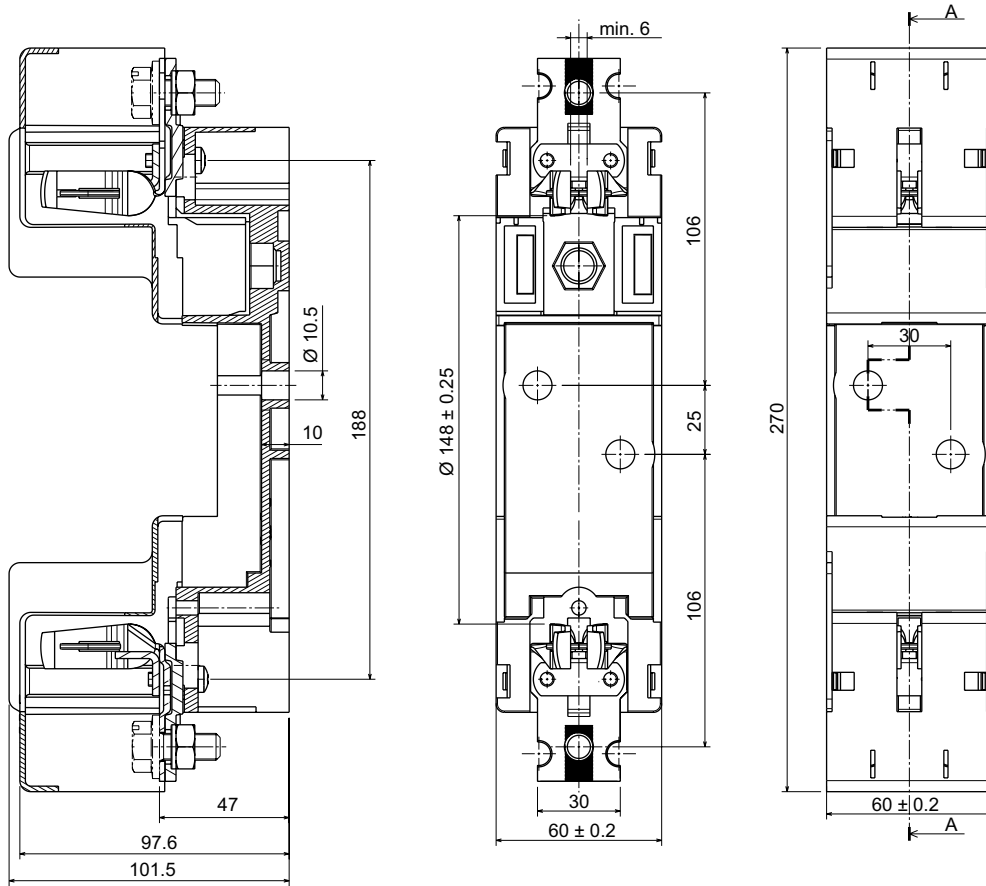
Dimensions in mm

HelioProtection® HP12NHXL

Photovoltaic fuse-links gPV 1250VDC

DIMENSIONS

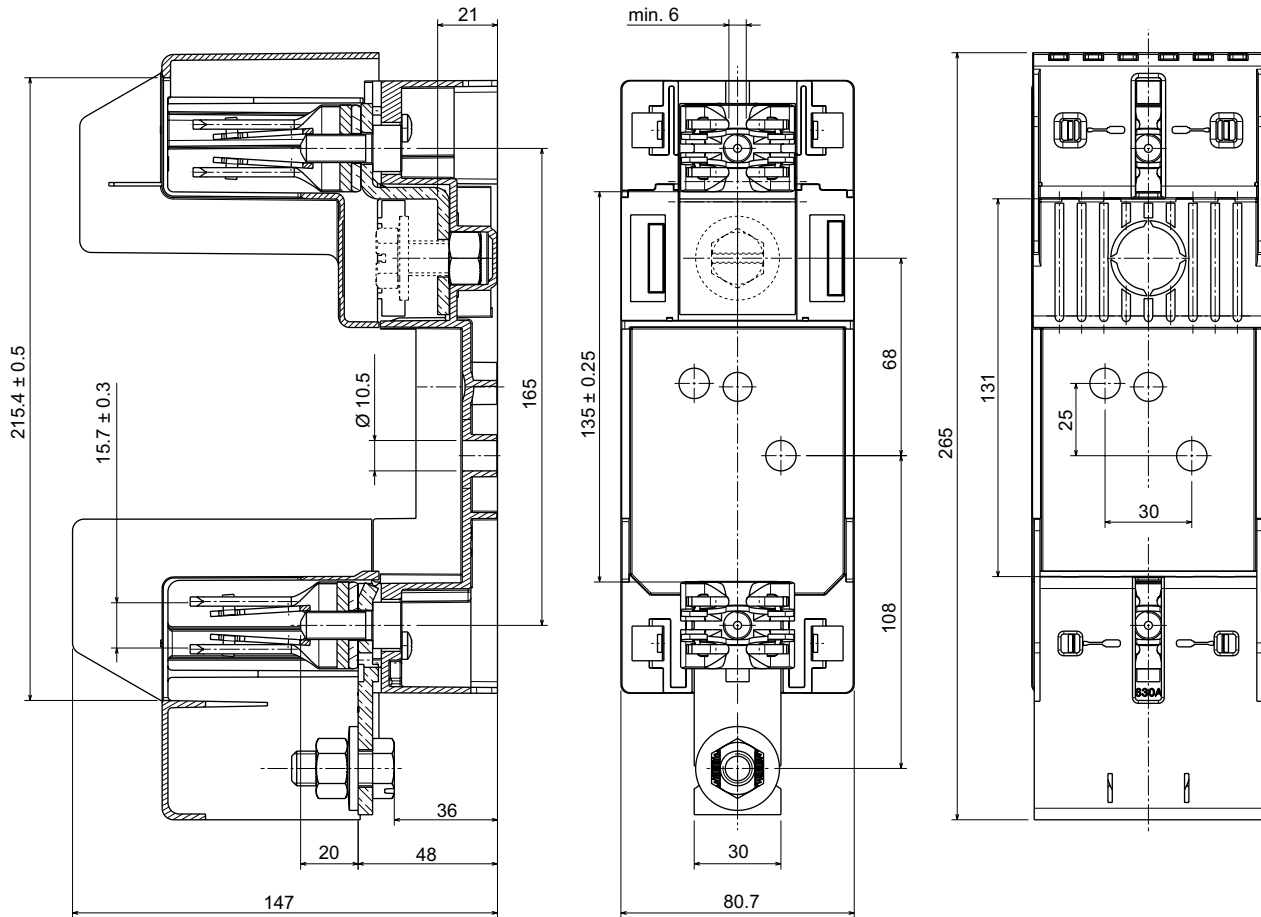
NH fuse-base for NH fuse-links gPV size 1XL, with touch protection



Dimensions in mm

DIMENSIONS

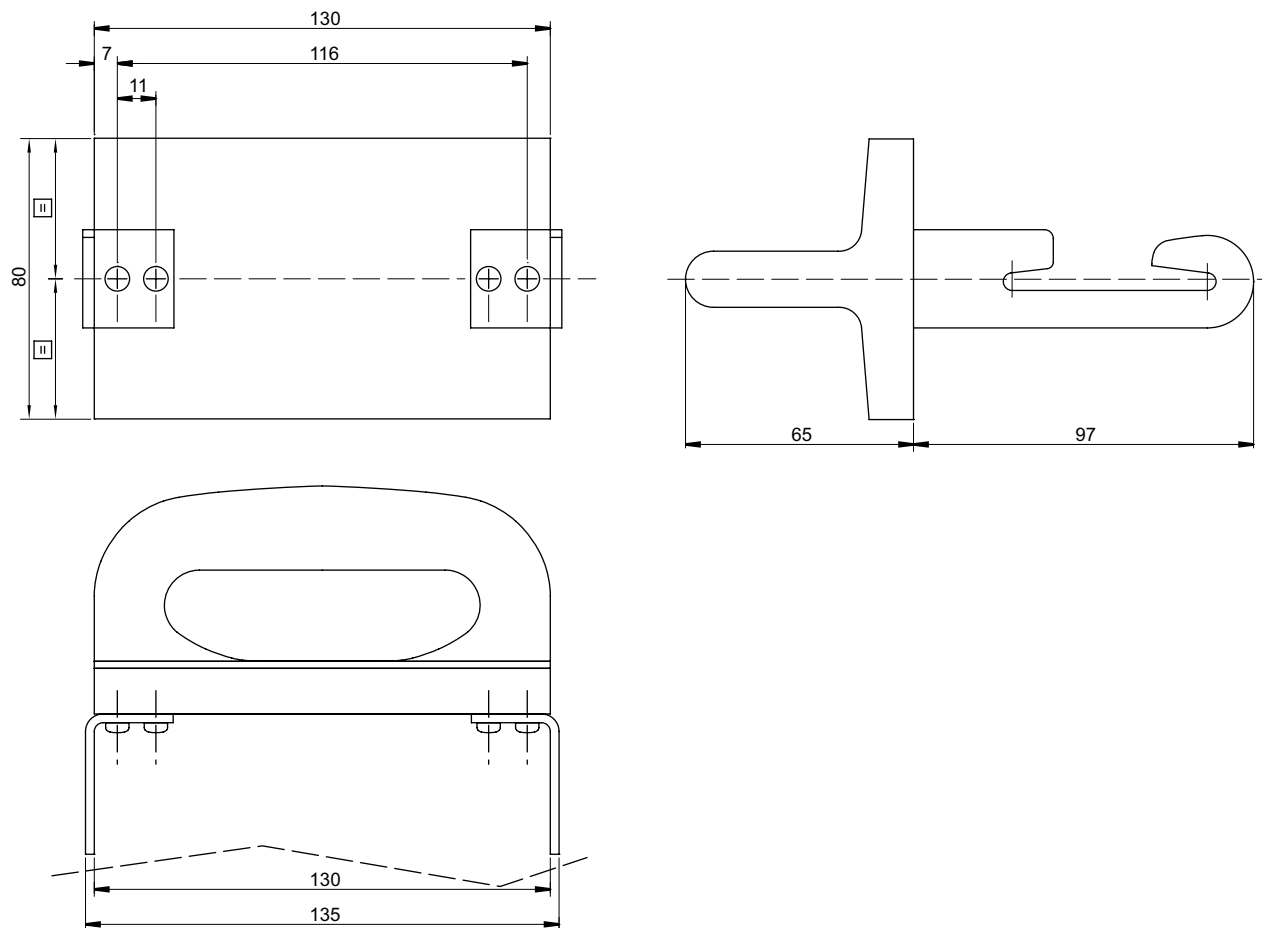
NH fuse base for sizes 2XL and 3L with touch protection and busbar output



Dimensions in mm

DIMENSIONS

NH fuse-handle for NH fus-links size 1XL 2XL and 3L



Dimensions in mm