

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



HP10NH1GPV160B

### NH fuse links gPV 1000VDC Direct Mounting size 1

Catalog number	Item number	Rated current $I_n$	Power dissipation at $I_n$	Power dissipation at $0.7 \times I_n$	Width	Package	Weight
HP10NH1GPV50B	B1048663	50 A	11 W	4.6 W	39.5 mm	3	0.4 kg
HP10NH1GPV63B	C1048664	63 A	13 W	5.4 W	39.5 mm	3	0.4 kg
HP10NH1GPV80B	D1048665	80 A	15 W	6.1 W	39.5 mm	3	0.4 kg
HP10NH1GPV100B	E1048666	100 A	17 W	7.2 W	39.5 mm	3	0.4 kg
HP10NH1GPV125B	F1048667	125 A	18 W	7.4 W	39.5 mm	3	0.4 kg
HP10NH1GPV160B	G1048668	160 A	23 W	9.6 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 $I_n$	Power dissipation at $0.7 \times I_n$	Width	Package	Weight
HP10NH2GPV200	X1037619	200 A	27 W	11.3 W	51 mm	3	0.6 kg
HP10NH2GPV250	Y1037620	250 A	31 W	12.9 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 $I_n$	Power dissipation at $0.7 \times I_n$	Width	Package	Weight
HP10NH2GPV200B	H1048669	200 A	27 W	11.3 W	51 mm	3	0.63 kg
HP10NH2GPV250B	J1048670	250 A	31 W	12.9 W	51 mm	3	0.63 kg



HPBB1PPR

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

Catalog number	Item number	Power acceptance	Rated impulse withstand voltage $U_{imp}$	Design	Cable termination	Package	Weight
HPBB1PPR	A1030607	32 W	8 kV	open design, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 1	M10 terminal screw M = 27-32Nm	3	0.44 kg
HPBB1PPRFS	K1032916	32 W	8 kV	with touch protection, for DIN-rail or screw mounting (M8/M10, M = 14/17 Nm), for NH fuse links size 1	M10 terminal screw M = 27-32Nm	3	0.71 kg



HPBB1PPRFS

## PRODUCT RANGE



HPBB21PPR



HPBB21PPRFS

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

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



NHHANDLE

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

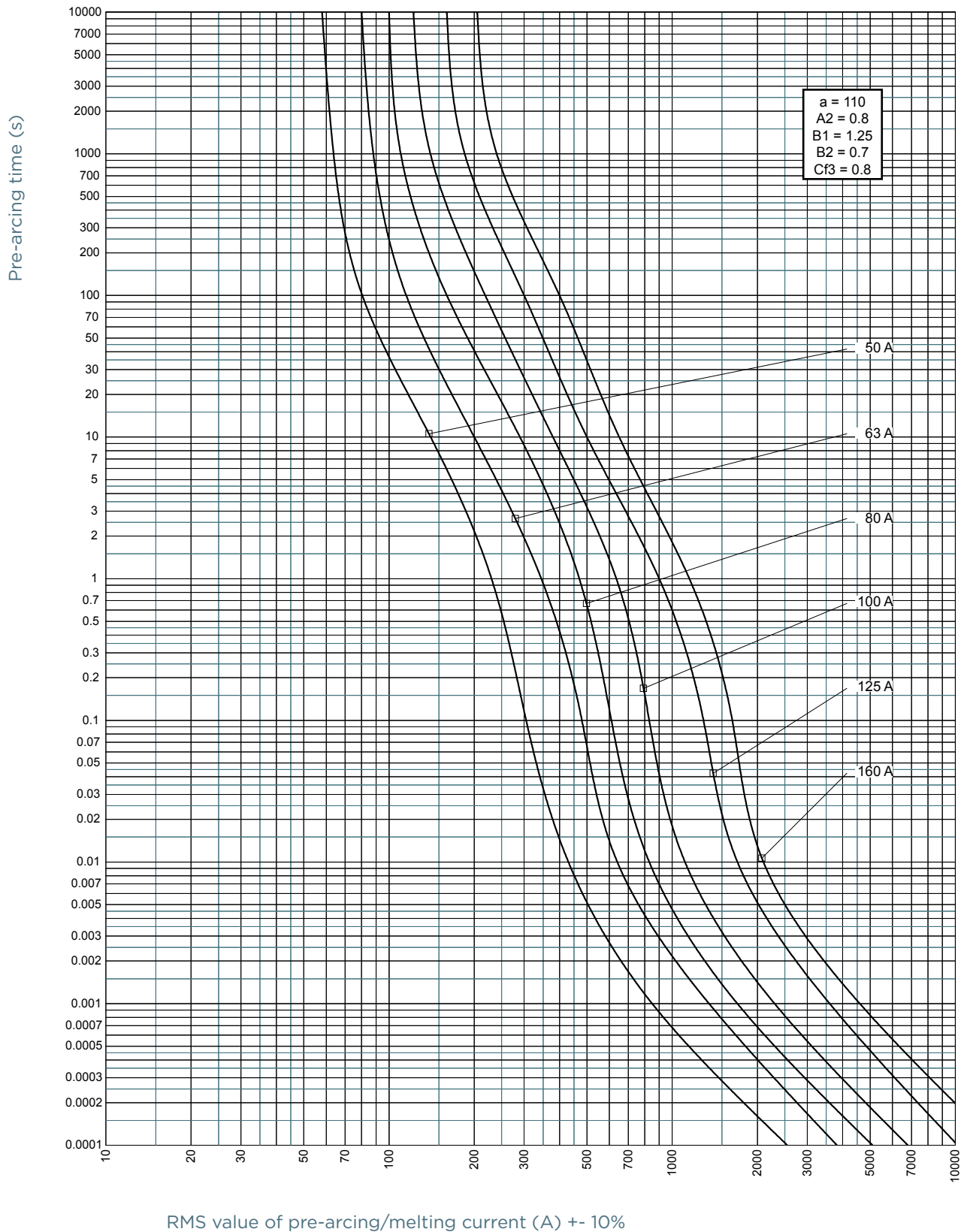
Catalog number	Item number	Size	Design	Package	Weight
NHHANDLE	P215592	00 to 4	without arm protection to DIN VDE 0636-2, DIN VDE 608-4	5/25	0.28 kg
08024.000000	X216105	00 to 4	with fire proof arm protection to DIN VDE 0636-2, DIN VDE 608-4	1	0.54 kg



08024.000000

## TIME CURRENT CHARACTERISTIC CURVES

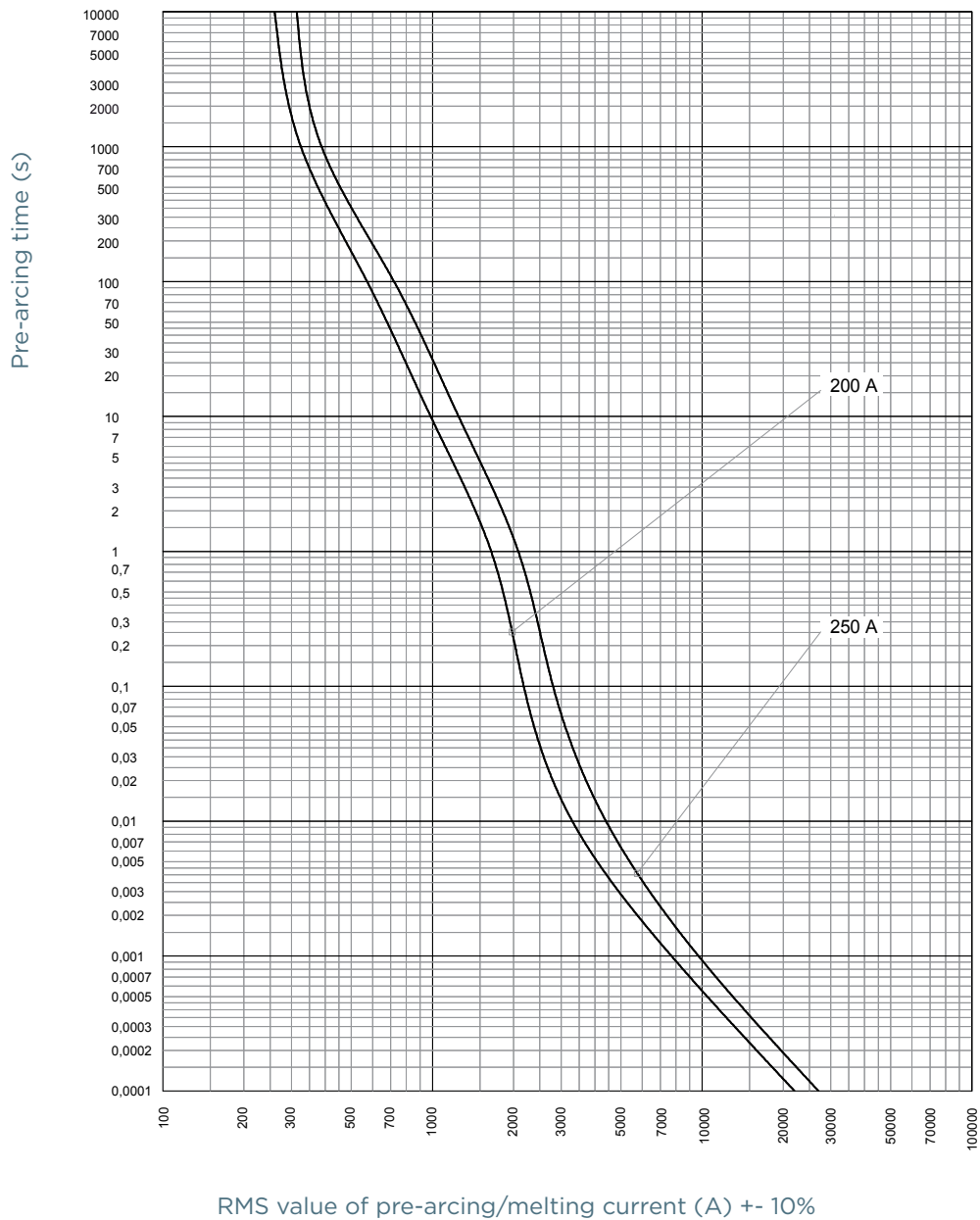
Special purpose gPV fuse link size NH1 1000V 50-160A



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

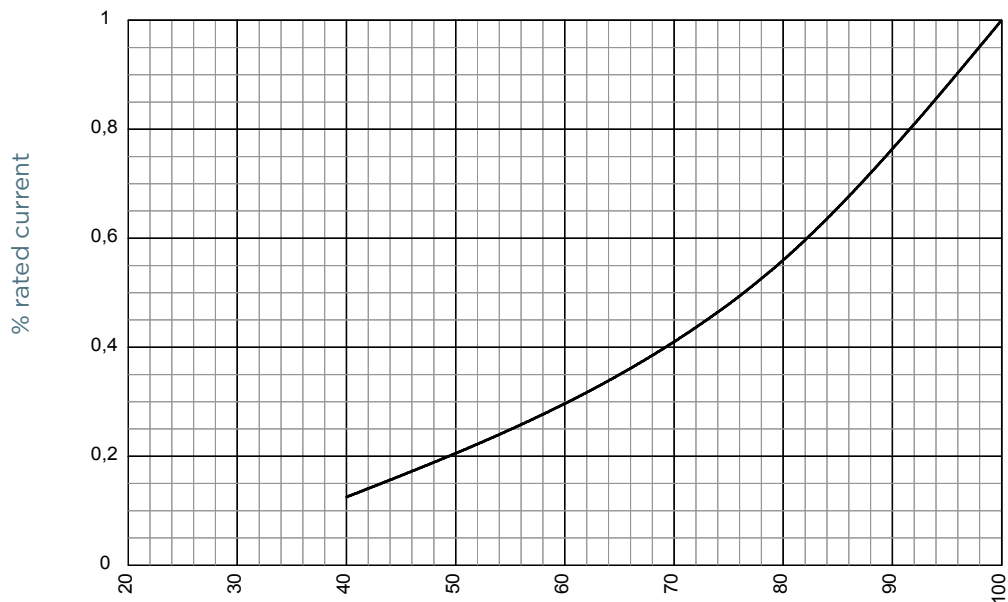
## TIME CURRENT CHARACTERISTIC CURVES

### 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



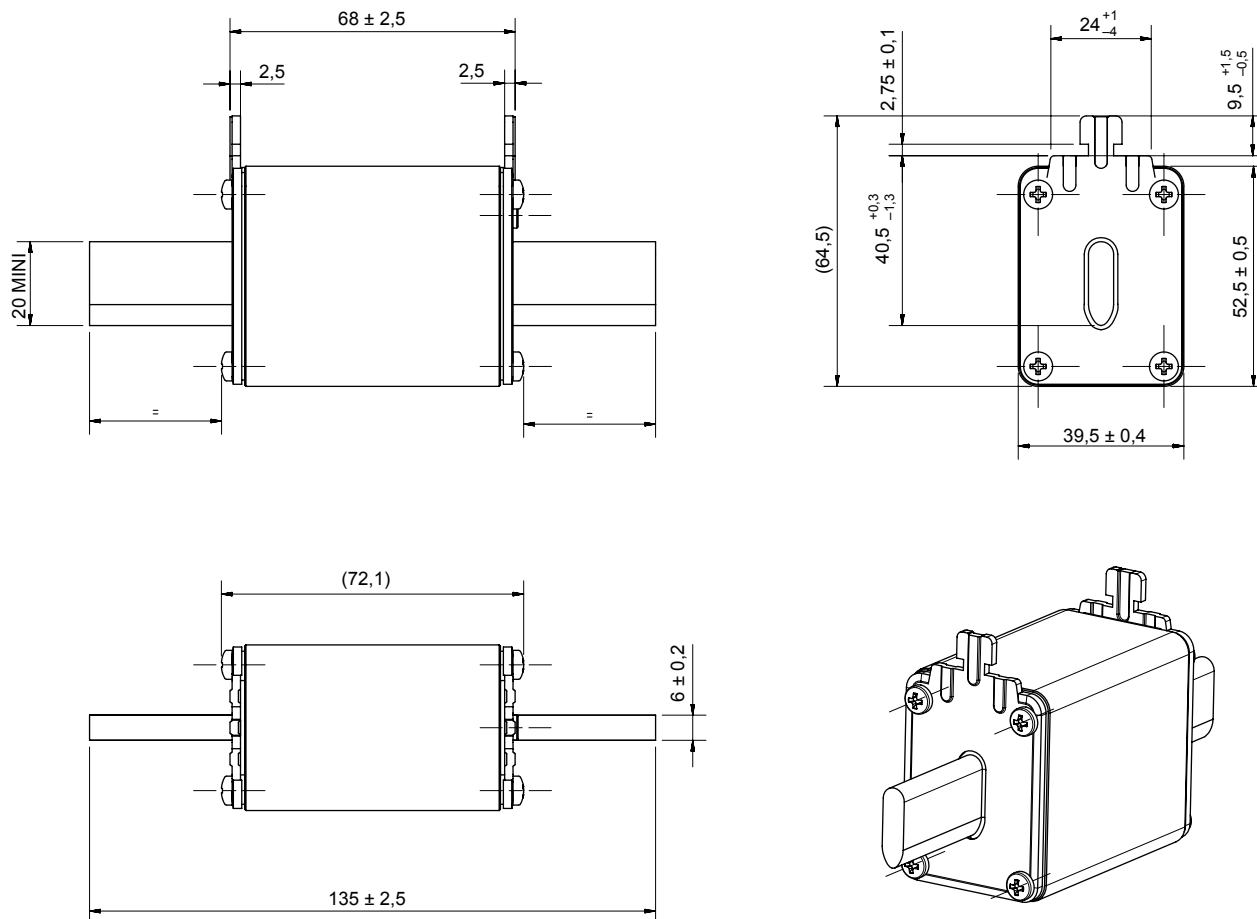
Correction factor for power dissipation

# HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

## DIMENSIONS

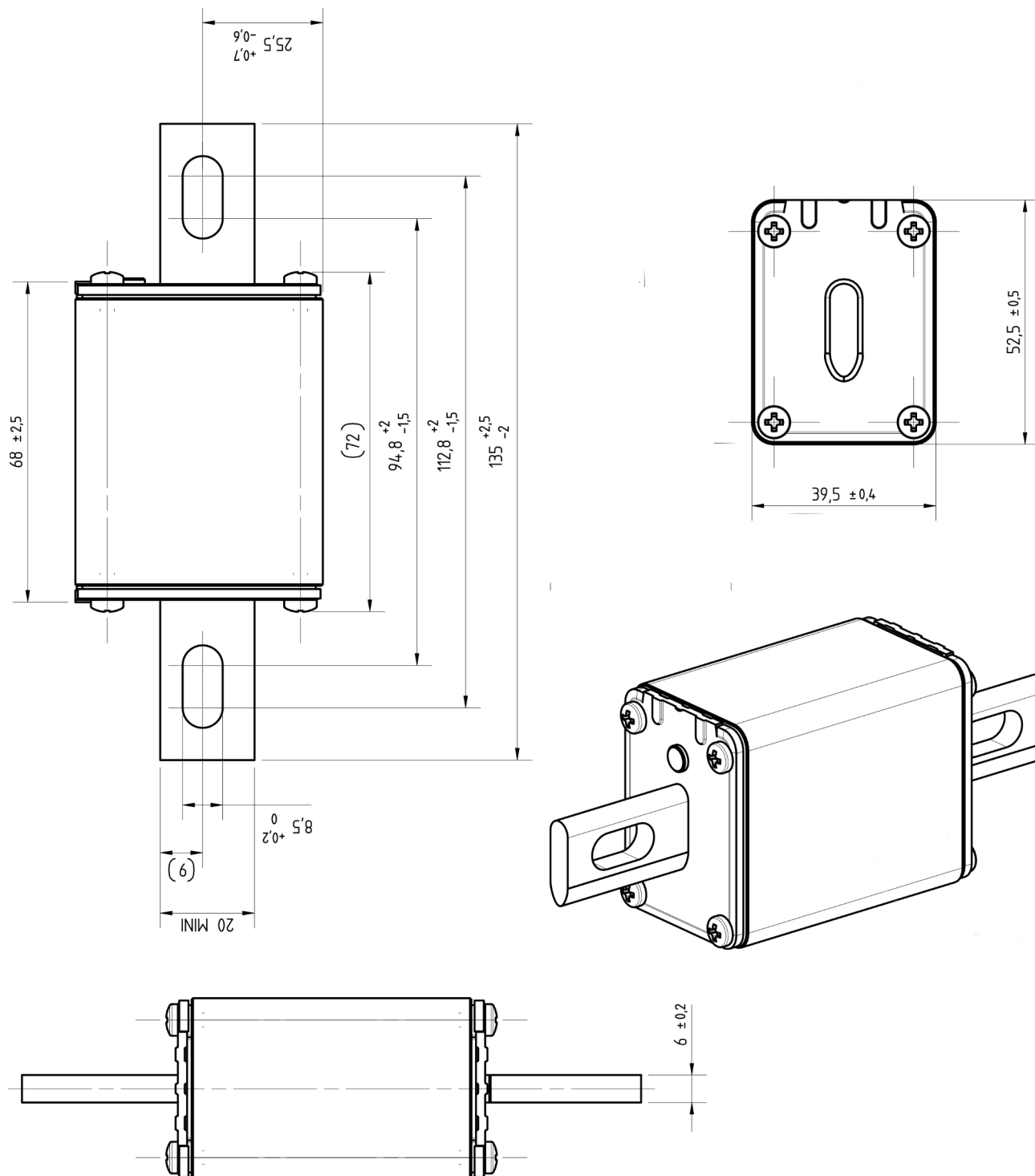
### Special purpose gPV fuse link size NH1 Plain Blade without trip indicator



Dimensions in mm

## DIMENSIONS

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

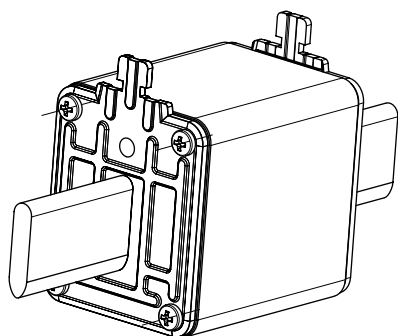
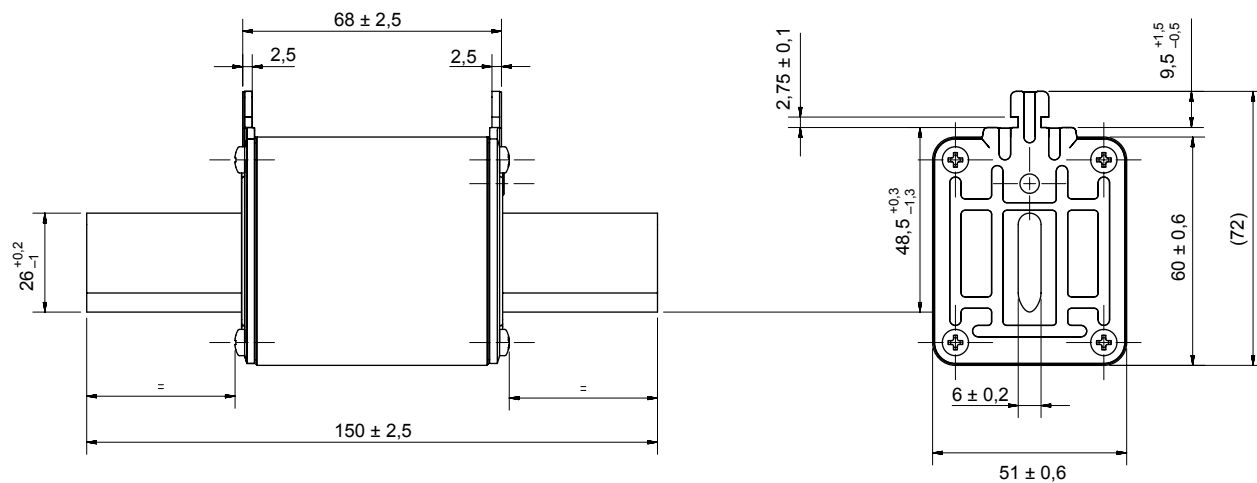


Dimensions in mm



## DIMENSIONS

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

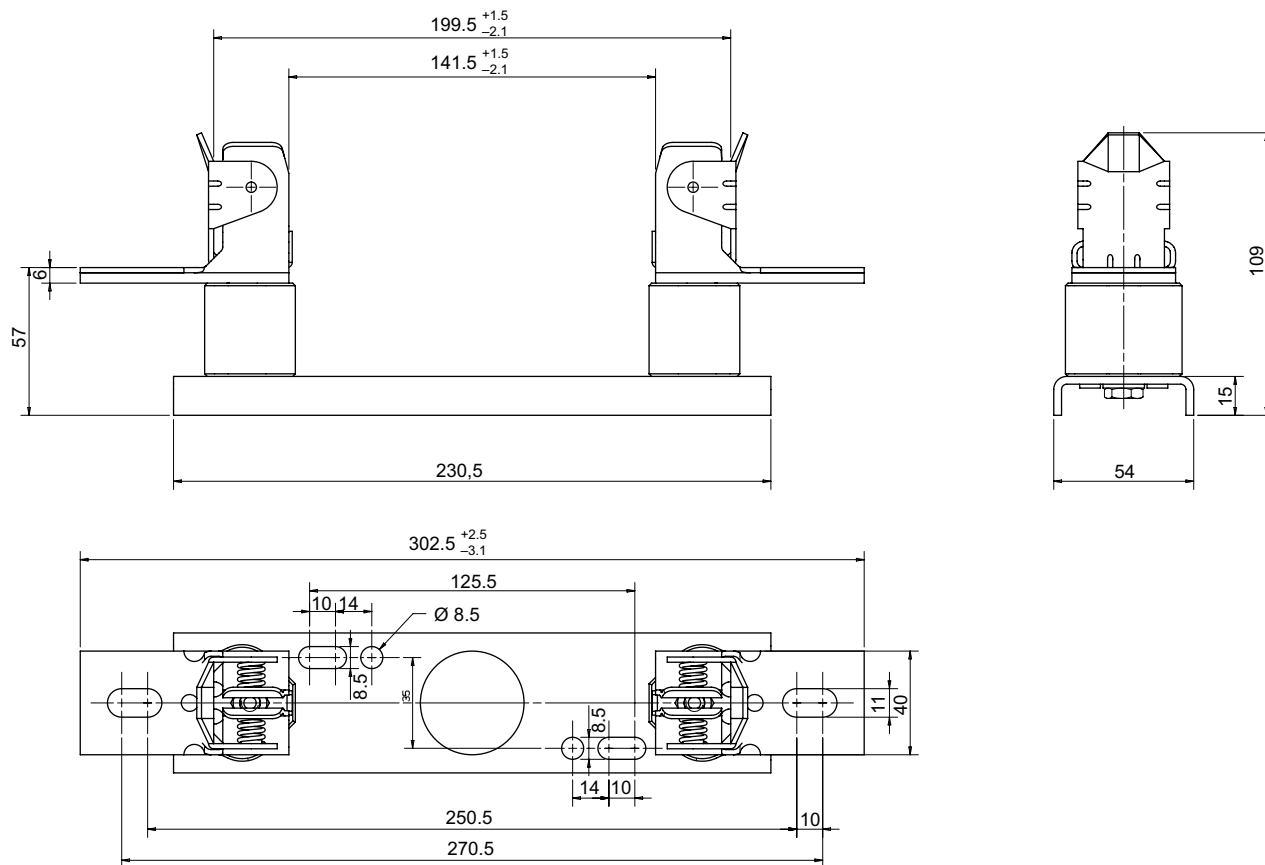


Dimensions in mm



## DIMENSIONS

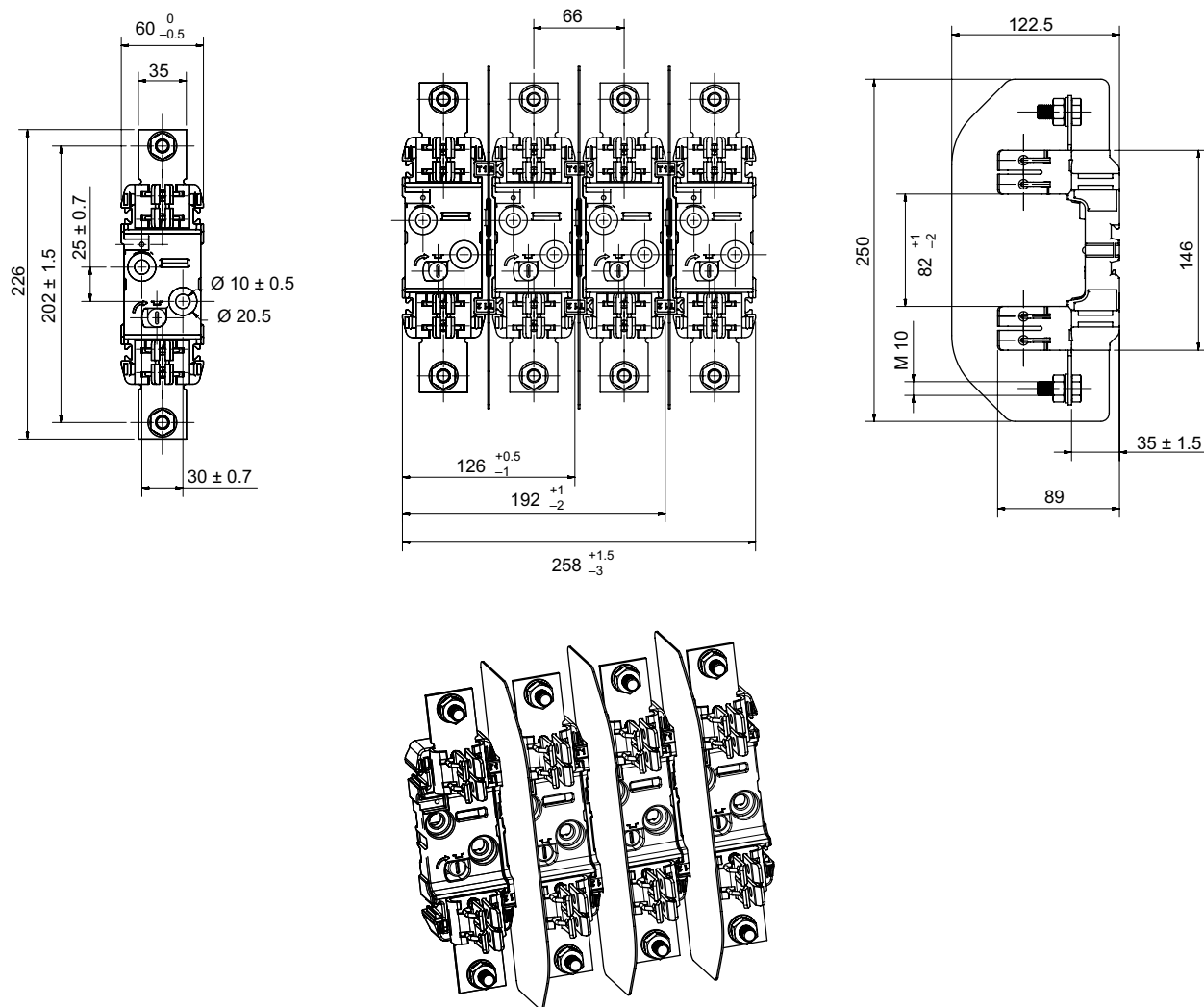
NH fuse-base for NH fuse-links gPV, size 1, type PP, open design



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).

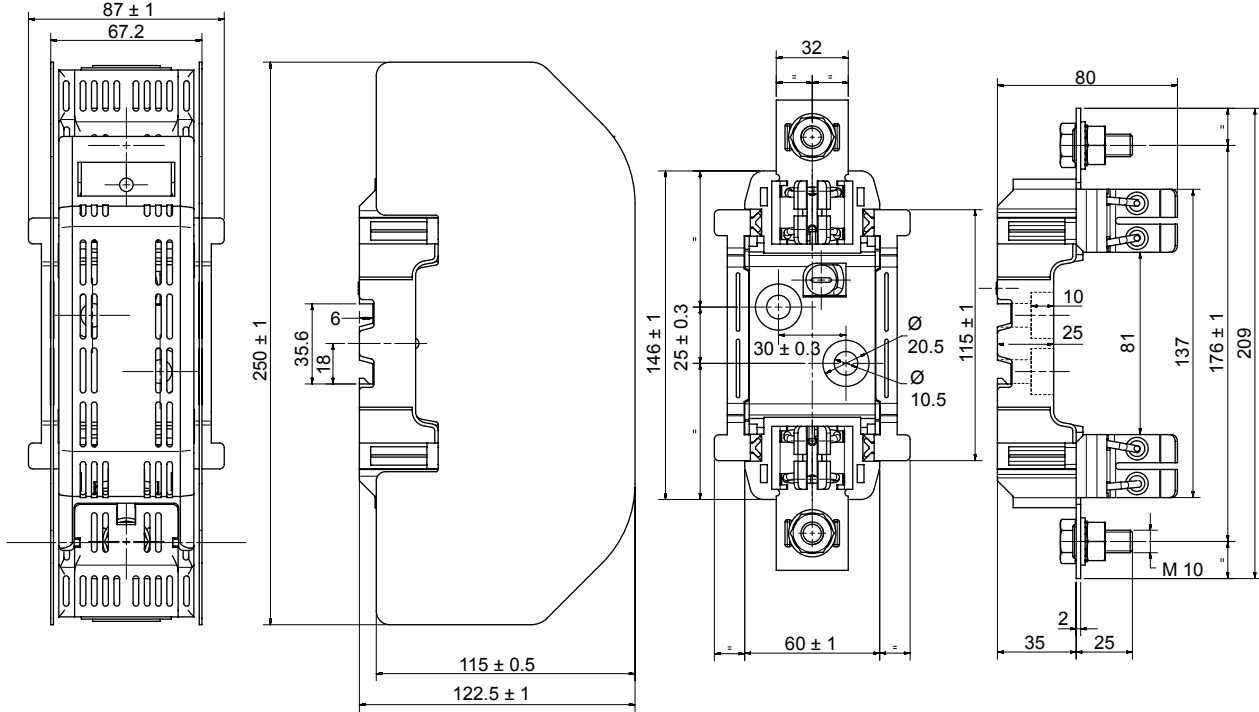
Dimensions in mm

# HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

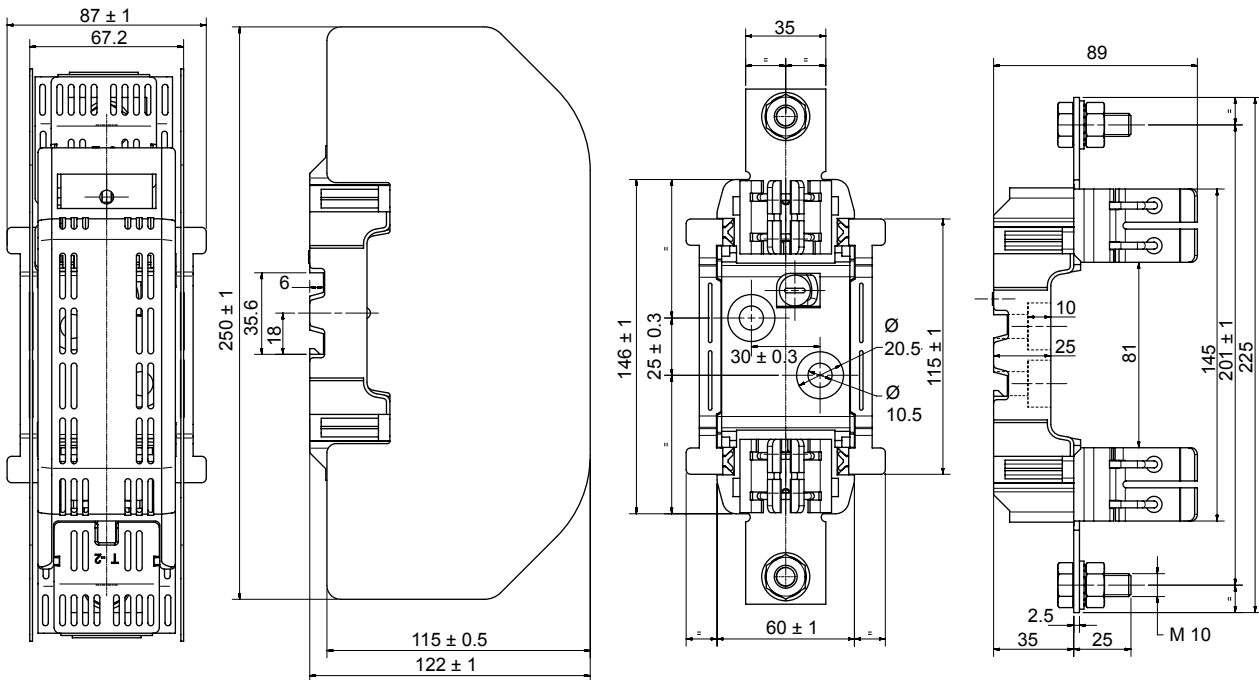
## DIMENSIONS

### 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



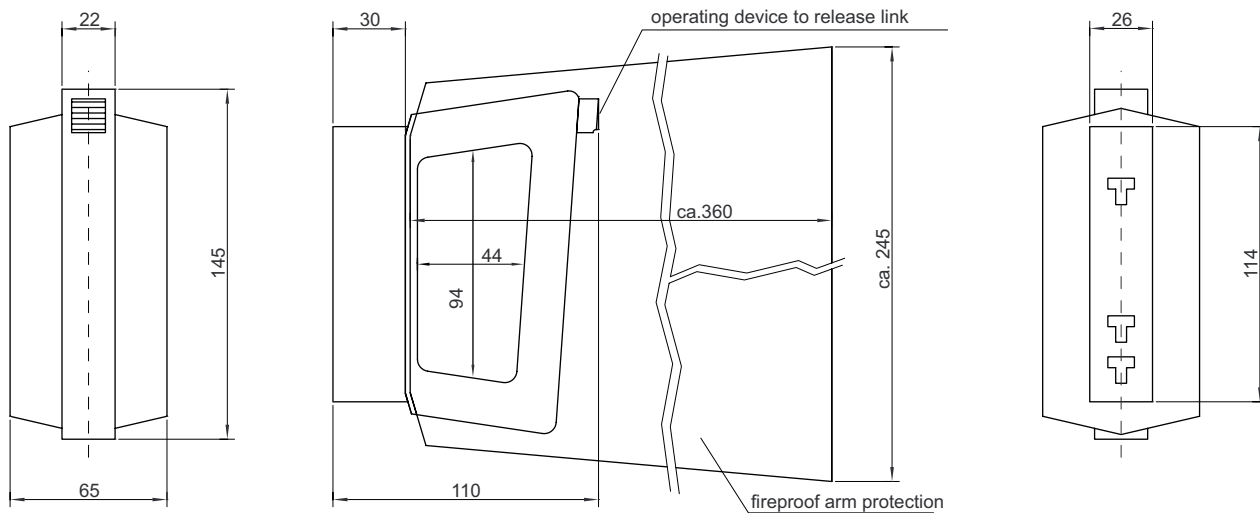
Dimensions in mm

# HelioProtection® HP10NH

Photovoltaic fuse-links gPV 1000VDC

## DIMENSIONS

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



Dimensions in mm