HELIOPROTECTION®

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MERSEN Expertise, our source of energy

HelioProtection HP6M

PRODUCT RANGE

Photovoltaic fuse-links gPV 600VDC

DC10HEL12C8

Minimum Breaking Capacity = 1.35In
Maximum Breaking Capacity = 10kA

Catalog Number	Item Number	Rated Voltage DC (IEC)	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP6M1	L1018565	600	1 A	0.14	0.19	0.31	10
HP6M2	M1018566	600	2 A	0.19	0.26	0.43	
HP6M3	N1018567	600	3 A	0.64	0.85	1.4	
HP6M4	Q1018569	600	4 A	0.58	0.77	1.3	
HP6M5	R1018570	600	5 A	0.65	0.87	1.4	
HP6M6	S1018571	600	6 A	0.69	0.92	1.5	
HP6M7	T1018572	600	7 A	-	-	-	
HP6M8	V1018573	600	8 A	0.92	1.23	2.0	
HP6M10	X1018575	600	10 A	0.96	1.28	2.1	
HP6M12	Y1018576	600	12 A	1.12	1.49	2.5	
HP6M15	Z1018577	600	15 A	0.99	1.32	2.2	
HP6M20	A1018578	600	20 A	1.25	1.67	2.8	
HP6M25	K1018610	600	25 A	1.38	1.84	3.1	
HP6M30	L1018611	600	30 A	1.5	2.0	3.3	

Fuse holders

Catalog Number	Item Number	Nb of poles	Nb of modules (17.5mm)	Indicator	Package
US101HEL	D1009979	1	1	No	12
US101IHEL	Q1009461	1	1	Yes	12
USGM1HEL	P1022294	1	1	No	12
USGM1IHEL	N1022293	1	1	Yes	12

HelioProtection® Fuse-links gPV

HP10M – 1 000 VDC

HP10M15

Minimum Breaking Capacity = 1.35In
Maximum Breaking Capacity = 10kA

Catalog Number	Item Number	Rated Voltage DC (IEC)	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP10M1	B1018579	1000	1 A	0.125	0.175	0.250	10
HP10M2	C1018580	1000	2 A	0.160	0.250	0.320	
HP10M3	D1018581	1000	3 A	0.66	0.87	1.36	
HP10M4	E1018582	1000	4 A	0.69	0.8	1.25	
HP10M5	F1018583	1000	5 A	0.59	0.73	1.12	
HP10M6	G1018584	1000	6 A	0.42	0.67	1.05	
HP10M7	H1018585	1000	7 A	0.40	0.64	1.0	
HP10M8	J1018586	1000	8 A	0.77	0.88	1.48	
HP10M10	L1018588	1000	10 A	0.67	0.90	1.5	
HP10M12	M1018589	1000	12 A	0.72	1.0	1.8	
HP10M15	N1018590	1000	15 A	0.9	1.3	2.2	
HP10M20	P1018591	1000	20 A	1.1	1.5	2.8	
HP10M25	D1023825	1000	25 A	1.3	1.8	3.0	
HP10M30	E1023826	1000	30 A	1.5	1.9	3.7	
HP10M32	H1062170	1000	32 A	1.7	2.3	4.2	

Fuse holders

Catalog Number	Item Number	Nb of poles	Nb of modules (17.5mm)	Indicator	Package
US101HEL	D1009979	1	1	No	12
US101IHEL	Q1009461	1	1	Yes	12
USGM1HEL	P1022294	1	1	No	12
USGM1IHEL	N1022293	1	1	Yes	12

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HelioProtection® Fuse-links gPV

PRODUCT RANGE

Dual HP10M – 1 000VDC ferrule

Catalog Number	Item Number	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP10M36	-	36 A				
HP10M45	-	45 A				
HP10M60	-	60 A				

Minimum breaking capacity: 1.35xIn
Maximum breaking capacity: 50kA

HelioProtection® Fuse-links gPV

Dual HP10M – 1 000VDC with Crimp Cap

Catalog Number	Item Number	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP10M36CC	-	36 A				
HP10M45CC	-	45 A				
HP10M60CC	-	60 A				

Minimum breaking capacity: 1.35xIn
Maximum breaking capacity: 50kA

HelioProtection® Fuse-links gPV

HP10M – 1 000VDC with Crimp Cap

HP10M30CC

Catalog Number	Item Number	Rated Voltage DC (IEC)	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Interrupting Rating (kA)	Size (mm)
HP10M1CC	F1061616	1000	1 A	0.14	0.19	0.27	50	10 x 65
HP10M2CC	G1061617		2 A	0.17	0.27	0.35		
HP10M3CC	H1061618		3 A	0.72	0.95	1.49		
HP10M3-1/2CC	J1061619		3.5 A	0.74	0.92	1.43		
HP10M4CC	K1061620		4 A	0.76	0.88	1.38		
HP10M5CC	L1061621		5 A	0.65	0.80	1.23		
HP10M6CC	J1061527		6 A	0.46	0.74	1.15		
HP10M7CC	K1061528		7 A	0.44	0.70	1.1		
HP10M8CC	L1061529		8 A	0.85	0.97	1.63		
HP10M10CC	M1061530		10 A	0.74	0.99	1.65		
HP10M12CC	N1061531		12 A	0.79	1.1	1.98		
HP10M15CC	P1061532		15 A	0.99	1.43	2.42		
HP10M20CC	Q1061533		20 A	1.21	1.65	3.08		
HP10M25CC	R1061534		25 A	1.43	1.98	3.3		
HP10M30CC	S1061535		30 A	1.65	2.09	4.07		
HP10M32CC	T1061536		32 A	1.70	2.30	4.20		

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HelioProtection® Modulostar®

PRODUCT RANGE

Modular Fuseholders for gPV fuses-links HP6M and HP10M

CUS101HEL

Fuse-holders US10HEL for cylindrical fuse-links gPV 600VDC and 1000VDC

Catalog Number	Item Number	Nb of poles	Voltage rating	Ampere rating	Nb of modules (17.5mm)	Indicator	Package
CUS101HEL	K1062724	1	1000VDC	32A	1	Without Ind.	12
CUS101IHEL	X1062758	1	1000VDC	32A	1	With Ind.	12

Fuse-clips for cylindrical fuse-links gPV 600VDC and 1000VDC

Catalog Number	Item Number	Designation	Weight (g)	Package
MR10CIRESSORT	Y098507	MR 10 CI + RESSORT	4.5	200

HelioProtection® USGM1HEL

UltraSafe™ Fuseholders

USGM1HEL

Fuse-holders USGM1HEL for cylindrical fuse-links gPV 600VDC and 1000VDC

Fuse Type	Catalog Number	Item Number	No. of Poles	Voltage Rating	Ampere Rating	Visual Indication	Package
Photovoltaic	USGM1HEL	P1022294	1	1000VDC	30	No	12
	USGM1IHEL	N1022293				Yes	12

HelioProtection® Fuse-links gPV

DC10HEL - 1200VDC Midget (10x85mm)

DC10HEL12C8

HelioProtection® DC10HEL Photovoltaic fuse-links gPV 1200VDC

Catalog number	Item Number	Size (mm)	Maximum operating voltage for L/R ≤ 0,5ms	Rated Current	Operation	Breaking Capacity @ Un	Power losses End contacts 0.7In (Watts)	Power losses End contacts 0.8In (Watts)	Package
DC10HEL12C8	D1014188	D10xL85	1200V	8 A	gPV type	10 kA	1,3	1,7	45
DC10HEL12C10	T1012017			10 A			1,3	1,7	45
DC10HEL12C12,5	X1008754			12,5 A			1,3	1,9	45
DC10HEL12C16	Y1008755			16 A			1,5	2,1	45
DC10HEL12C20	Z1008756			20 A			1,8	2,5	45
DC10HEL9C25	A1008757		900V	25 A			2,2	3	45

HelioProtection® Fuse-links gPV

HP15M - 1500VDC Midget (10x85mm)

HP15M30

HelioProtection® HP15M Photovoltaic fuse-links gPV 1500VDC

Catalog number	Item Number	Rated Current I_n	Power Dissipation at 0.7xIn (Watts)	Power Dissipation at 0.8xIn (Watts)	Power Dissipation at 1.0xIn (Watts)	Package
HP15M4	F1059569	4 A	0.79	1.09	1.85	5
HP15M5	X1055053	5 A	0.84	1.16	1.97	5
HP15M6	Q1053667	6 A	0.97	1.37	2.42	5
HP15M7	R1053668	7 A	0.97	1.37	2.43	5
HP15M8	S1053669	8 A	1.04	1.50	2.60	5
HP15M10	T1053670	10 A	1.23	1.77	3.09	5
HP15M12	V1053671	12 A	1.15	1.70	2.89	5
HP15M15	W1053672	15 A	1.39	1.91	3.48	5
HP15M20	X1053673	20 A	1.71	2.47	4.28	5
HP15M25	Y1053674	25 A	2.13	3.08	5.35	5
HP15M30	Z1053675	30 A	2.56	3.61	6.40	5
HP15M32	G1059570	32 A	2.73	3.85	6.82	5

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HelioProtection® Fuse-links gPV

PRODUCT RANGE

HP15M with crimp clamp - 1500VDC Midget (10x85mm)

HP15M5CC

Catalog number	Item Number	Rated Current I_n	Power Dissipation at 0.7xIn (Watts)	Power Dissipation at 0.8xIn (Watts)	Power Dissipation at 1.0xIn (Watts)	Package
HP15M4CC	A1061542	4 A	0.80	1.04	1.69	5
HP15M5CC	B1061543	5 A	0.92	1.27	2.16	5
HP15M6CC	D1061545	6 A	1.06	1.50	2.66	5
HP15M7CC	E1061546	7 A	1.06	1.50	2.67	5
HP15M8CC	F1061547	8 A	1.14	1.65	2.86	5
HP15M10CC	G1061548	10 A	1.35	1.94	3.34	5
HP15M12CC	H1061549	12 A	1.26	1.87	3.18	5
HP15M15CC	J1061550	15 A	1.53	2.10	3.83	5
HP15M20CC	K1061551	20 A	1.88	2.71	4.71	5
HP15M25CC	L1061552	25 A	2.34	3.39	5.88	5
HP15M30CC	M1061553	30 A	2.81	3.97	7.04	5
HP15M32CC	N1061554	32 A	3.00	4.23	7.51	5

HelioProtection® Fuse-links gPV

Dual HP15M – 1 500VDC ferrule

Catalog Number	Item Number	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP15M36	-	36 A	3.19	4.41	5.59	25
HP15M45	-	45 A	3.62	5.21	9.23	25
HP15M60	-	60 A				

Minimum breaking capacity: 1.35xIn
Maximum breaking capacity: 50kA

HelioProtection® Fuse-links gPV

Dual HP15M – 1 500VDC with Crimp Cap

Catalog Number	Item Number	Rated Current I_n	70% AMP Rating (W)	80% AMP Rating (W)	100% AMP Rating (W)	Package
HP15M36CC	-	36 A	3.19	4.41	5.59	25
HP15M45CC	-	45 A	3.62	5.21	9.23	25
HP15M60CC	-	60 A				

Minimum breaking capacity: 1.35xIn
Maximum breaking capacity: 50kA

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HelioProtection® US15M1HEL

PRODUCT RANGE

UltraSafe™ Fuseholders for gPV fuse-links HP15M

US15M1HEL

Catalog Number	Fuse Type	No. of Poles	Voltage Rating	Ampere Rating	Packaging
US15M1HEL	Photovoltaic	1	1500VDC	30	12

Helioprotection® HP15FHM32 Series

Fuseholders for gPV fuse-links HP15M

HP15FHM32A

Catalog Number	Fuse Type	No. of Poles	Voltage Rating	Ampere Rating	Packaging
HP15FHM32A	Photovoltaic	1	1500VDC	32	12
HP15FHM32B					

HelioProtection® Fuse-links

HP10NH 1000VDC

HP10NH1GPV125

Plain blade

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog number	Item Number	weight (kg)	Power dissipation at In	Power dissipation at 0,7xIn	Package
NH1	1000 VDC	50	gPV	HP10NH1GPV50	Z1028283	0.4	11	4.6	3
		63		HP10NH1GPV63	A1028284	0.4	13	5.4	3
		80		HP10NH1GPV80	B1028285	0.4	15	6.1	3
		100		HP10NH1GPV100	C1028286	0.4	17	7.2	3
		125		HP10NH1GPV125	D1028287	0.4	18	7.4	3
		160		HP10NH1GPV160	E1028288	0.4	23	9.6	3
NH2		200		HP10NH2GPV200	X1037619	0.63	29	12	3
		250		HP10NH2GPV250	Y1037620	0.63	34	14	3

HP10NH1GPV160B

Direct mounting

Size	Rated Voltage (V)	Nominal Current (A)	Class	Catalog number	Item Number	weight (kg)	Power dissipation at In	Power dissipation at 0,7xIn	Package
NH1	1000 VDC	50	gPV	HP10NH1GPV50B	B1048663	0.4	11	4.6	3
		63		HP10NH1GPV63B	C1048664	0.4	13	5.4	3
		80		HP10NH1GPV80B	D1048665	0.4	15	6.1	3
		100		HP10NH1GPV100B	E1048666	0.4	17	7.2	3
		125		HP10NH1GPV125B	F1048667	0.4	18	7.4	3
		160		HP10NH1GPV160B	G1048668	0.4	23	9.6	3
NH2		200		HP10NH2GPV200B	H1048669	0.63	29	12	3
		250		HP10NH2GPV250B	J1048670	0.63	34	14	3

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HelioProtection® Fuse-links

PRODUCT RANGE

HP12NH – 1250VDC

HP12NH2XLGPV200

Plain blade

Size	Rated Voltage (V)	Nominal Current (A)	Class	PLAIN BLADE			Power dissipation at 0,7xIn	Power dissipation at In	Package
				Catalog number	Item Number	weight (kg)			
NH1XL	1250 VDC	125	gPV	HP12NH1XLGPV125	G1039744	0.435	12	29	1
		160		HP12NH1XLGPV160	H1039745	0.698	14	34	1
NH2XL		200		HP12NH2XLGPV200	J1039746	1.054	16	42	1
		250		HP12NH2XLGPV250	K1039747	1.054	17	45	1
NH3L		250		HP12NH3LGPV250	Z1033389	1.66	18	46	1
		315		HP12NH3LGPV315	A1033390	1.66	22	53	1
		350		HP12NH3LGPV350	B1033391	1.66	23	55	1
		400		HP12NH3LGPV400	C1033392	1.66	29	73	1

Direct mounting

Size	Rated Voltage (V)	Nominal Current (A)	Class	DIRECT MOUNTING		Power dissipation at 0,7xIn	Power dissipation at In	Package
				Catalog number	Item Number			
NH1XL	1250 VDC	125	gPV	HP12NH1LGPV125B	K1048671	12	29	1
		160		HP12NH1LGPV160B	L1048672	14	34	1
NH2XL		200		HP12NH2LGPV200B	M1048673	16	42	1
		250		HP12NH2LGPV250B	N1048674	17	45	1
NH3L		250		HP12NH3LGPV250B	P1048675	18	46	1
		315		HP12NH3LGPV315B	Q1048676	22	53	1
		350		HP12NH3LGPV350B	R1048677	23	55	1
		400		HP12NH3LGPV400B	S1048678	29	73	1

Photovoltaic Fuse bases

1000VDC

Catalog Number	Item Number	Power acceptance	Rated impulse withstand voltage Uimp	Design	Package
HPBB11PPR	A1030607	32 W	8 kV	open design, for DIN-rail or screw mounting, for NH fuse links size 1	3
HPBB11PPRFS	K1032916	32 W	8 kV	with touch protection, for DIN-rail or screw mounting, for NH fuse links size 1	3

HPBB21PPR

Catalog Number	Item Number	Power acceptance	Rated impulse withstand voltage Uimp	Design	Package
HPBB21PPR	C1037509	45 W	8 kV	open design, for DIN-rail or screw mounting, for NH fuse links size 1 and 2	3
HPBB21PPRFS	D1037510	45 W	8 kV	with touch protection, for DIN-rail or screw mounting, for NH fuse links size 1 and 2	3

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HelioProtection® Fuse-links gPV

PRODUCT RANGE

HP15NH – 1500VDC

HP15NH3LGPV400

NH-fuse-links gPV 1500VDC Plain Blade

Catalog number	Item number	Size	Rated current I_n	Power dissipation at I_n	Power dissipation at 0.7xI_n	Package	Weight
HP15NH1XLGPV50	A1061266	1XL	50 A	21 W	8.6 W		0.7 kg
HP15NH1XLGPV63	Z1064508	1XL	63 A	25 W	10.2 W		0.7 kg
HP15NH1XLGPV80	A1064509	1XL	80 A	25.5 W	10.3 W		0.7 kg
HP15NH1XLGPV100	B1064510	1XL	100 A	26 W	10.5 W		0.7 kg
HP15NH1XLGPV125	C1064511	1XL	125 A	30 W	12.2 W		0.7 kg
HP15NH2XLGPV125	H1064309	2XL	125 A	33.7 W	13.6 W		1.05 kg
HP15NH2XLGPV160	J1064310	2XL	160 A	38 W	15.4 W		1.05 kg
HP15NH2XLGPV200	K1064311	2XL	200 A	48 W	19.4 W		1.05 kg
HP15NH2XLGPV250	L1064312	2XL	250 A	51.7 W	20.9 W		1.05 kg
HP15NH3LGPV160	H1037859	3L	160 A	36 W	15 W		1.69 kg
HP15NH3LGPV200	J1037860	3L	200 A	44 W	18 W		1.69 kg
HP15NH3LGPV250	K1037861	3L	250 A	50 W	20 W		1.69 kg
HP15NH3LGPV315	L1037862	3L	315 A	57 W	23 W		1.69 kg
HP15NH3LGPV350	M1037863	3L	350 A	63 W	25 W		1.69 kg
HP15NH3LGPV400	N1037864	3L	400 A	71 W	28 W		1.69 kg

HP15NH3LGPV400B

NH-fuse-links gPV 1500VDC Direct Mounting

Catalog number	Item number	Size	Rated current I_n	Power dissipation at I_n	Power dissipation at 0.7xI_n	Package	Weight
HP15NH1LGPV50B	D1065431	1XL	50 A	21 W	8.6 W	1	0.69 kg
HP15NH1LGPV63B	D1065432	1XL	63 A	25 W	10.2 W	1	0.69 kg
HP15NH1LGPV80B	E1065433	1XL	80 A	25.5 W	10.3 W	1	0.69 kg
HP15NH1LGPV100B	F1065434	1XL	100 A	26 W	10.5 W	1	0.69 kg
HP15NH1LGPV125B	G1065435	1XL	125 A	30 W	12.2 W	1	0.69 kg
HP15NH2LGPV125B	M1064313	2XL	125 A	33.7 W	13.6 W	1	1.02 kg
HP15NH2LGPV160B	N1064314	2XL	160 A	38 W	15.4 W	1	1.02 kg
HP15NH2LGPV200B	P1064315	2XL	200 A	48 W	19.4 W	1	1.02 kg
HP15NH2LGPV250B	Q1064316	2XL	250 A	51.7 W	20.9 W	1	1.02 kg
HP15NH3LGPV160B	T1048679	3L	160 A	36 W	15 W	1	1.66 kg
HP15NH3LGPV200B	V1048680	3L	200 A	44 W	18 W	1	1.66 kg
HP15NH3LGPV250B	W1048681	3L	250 A	50 W	20 W	1	1.66 kg
HP15NH3LGPV315B	X1048682	3L	315 A	57 W	23 W	1	1.66 kg
HP15NH3LGPV350B	Y1048683	3L	350 A	63 W	25 W	1	1.66 kg
HP15NH3LGPV400B	Z1048684	3L	400 A	71 W	28 W	1	1.66 kg

HP15NH3LPV350BI

NH-fuse-links gPV 1500VDC Direct Mounting size 3L with striker

Catalog number	Item number	Rated current I_n	Power dissipation at I_n	Power dissipation at 0.7xI_n	Power dissipation at 0.8 I_n	Package	Weight
HP15NH3LPV160BI	A1057218	160 A	36 W	15 W	20 W	1	1.66 kg
HP15NH3LPV200BI	B1057219	200 A	44 W	18 W	25 W	1	1.66 kg
HP15NH3LPV250BI	C1057220	250 A	50 W	20 W	28 W	1	1.66 kg
HP15NH3LPV315BI	D1057221	315 A	57 W	23 W	32 W	1	1.66 kg
HP15NH3LPV350BI	E1057222	350 A	63 W	25 W	35 W	1	1.66 kg
HP15NH3LPV400BI	F1057223	400 A	71 W	28 W	40 W	1	1.66 kg

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Microswitch

PRODUCT RANGE

1000VDC

MC3E1-5N

Microswitch for NH-fuse-link gPV 1500VDC size 3L (with striker)

Catalog number	Item number	Rated current I_n	Rated impulse withstand voltage Uimp	Indication System	Package	Weight
MC3E1-5N	D310020	5 A	20 kV	standard	3	32 g

Photovoltaic Fuse bases

PRODUCT RANGE

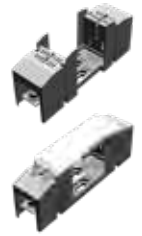
1500VDC - Protected version

HP15FHNH1XLB

COVERFHNH3L

Fuse-bases for NH gPV fuse-links, single pole, 1500VDC, 50 kA, SCCR 15kA

Catalog number	Size	Rated current I_n	Power acceptance	Rated impulse withstand voltage U_{imp}	Cable termination	Design	Package
HP15FHNH1XLA	1XL	250 A	50 W	6 kV	M10 terminal screws M = 32Nm for cable lugs 25-240 mm²	open design, screw mounting, for NH1XL fuse-links with blade contacts	-
HP15FHNH1XLB	1XL	250 A	50 W	6 kV	M10 terminal screws M = 32Nm for cable lugs 25-240 mm²	with touch-safe protection, screw mounting, for NH1XL fuse-links with blade contacts	-
HP15FHNH3LA	2XL-3L	600 A	100 W	6 kV	M12 terminal screws M = 32Nm for cable lugs 25-300 mm²	open design, screw mounting, for NH2XL and NH3L fuse-links with blade contacts	-
HP15FHNH3LB	2XL-3L	600 A	100 W	6 kV	M12 terminal screws M = 32Nm for cable lugs 25-300 mm²	with touch-safe protection, screw mounting, for NH2XL and NH3L fuse-links with blade contacts	-



COVERFHNH1XL

Cover for fuse-base with touch protection

Catalog number	Design	Package
COVERFHNH1XL	pack of 4 gripping lug covers for NH1XL fuse-base with touch protection	1
COVERFHNH3L	pack of 2 gripping lug covers for NH3L fuse-base with touch protection	1

HP6J - 600V DC Class J Photovoltaic Fuses

Catalog Number					
Frame Size 1	Frame Size 2		Frame Size 3		Frame Size 4
HP6J70	HP6J110	HP6J175	HP6J225	HP6J350	HP6J450
HP6J80	HP6J125	HP6J200	HP6J250	HP6J400	HP6J500
-	HP6J150	-	HP6J300	-	HP6J600

Volts: 600VDC
Amps: 70 to 600A
IR: 10kA I.R. DC
MBC: 1.35 x In
Photovoltaic Fuse

HP10J - 1000V DC Class J Photovoltaic Fuses

Catalog Number				
Frame Size 1		Frame Size 2		Frame Size 3
HP10J70	HP10J125	HP10J250	HP10J400	HP10J450
HP10J80	HP10J160	HP10J300	-	HP10J500
HP10J100	HP10J200	HP10J350	-	HP10J600

Volts: 1000VDC (70A to 600A), 600VAC (70A to 400A)
Amps: 70A to 600A
IR: 65kA @ 1000VDC, 200kA@ 600VAC
MBC: 1.35 x In
Photovoltaic Fuse

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

SURGE-TRAP® DC Type 1+2 YPV photovoltaic SPD

PRODUCT RANGE

STP T12 5 YPV

STPT12-5K1000V-YPVM

Catalog numbers / Reference numbers

Catalog number	Item number	System type	Ucpv [Vdc]	Iscpv [A]	IIMP (10/350) [KA]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Remote indication (M)	Cartridge Id. L
STPT12-5K1000V-YPV	83120167	“Y” PV	1060	10 000	5	40	20	≤ 4		C43
STPT12-5K1000V-YPVM	83120168	“Y” PV	1060	10 000	5	40	20	≤ 4	√	C43

Replacement cartridges

Catalog number	Item number	Network	Ucpv [Vdc]	iIMP (10/350) [KA]	Imax (8/20) [kA]	In (8/20) @Up [kA]	Up@In (8/20) [kV]	Cartridge Id.
SP12-5K1000V-PV	83120011	PV	530	5	40	20	≤ 2	C43

SURGE-TRAP® DC Type 2 YPV photovoltaic SPD

STP T2 40 YPV

STPT2-40K1500V-YPVM

Catalog numbers / Reference numbers

Catalog number	Item number	System type	Ucpv [Vdc]	Iscpv [A]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Remote indication (M)	Cartridge Id. L
Y PV. LARGE-SCALE AND ROOFTOP PV									
STPT2-40K600V-YPV	83020138	“Y” PV	660	10 000	40	20	≤2.6		C40
STPT2-40K600V-YPVM	83020139	“Y” PV	660	10 000	40	20	≤2.6	√	C40
STPT2-40K1000V-YPV	83020140	“Y” PV	1060	10 000	40	20	≤4		C41
STPT2-40K1000V-YPVM	83020141	“Y” PV	1060	10 000	40	20	≤4	√	C41
STPT2-40K1500V-YPV	83020158	"Y" PV	1500	10 000	40	15	≤5		C42
STPT2-40K1500V-YPVM	83020159	"Y" PV	1500	10 000	40	15	≤5	√	C42
U PV. SELF-CONSUMPTION									
STPT2-40K60V-2P	83020128	TNS (1Ph+N); PV	65	1000	40	20	≤0.7		Consult
STPT2-40K60V-2PM	83020129	TNS (1Ph+N); PV	65	1000	40	20	≤0.7	√	Consult
STPT2-40K75V-2P	83020130	TNS (1Ph+N); PV	80	1000	40	20	≤0.8		Consult
STPT2-40K75V-2PM	83020131	TNS (1Ph+N); PV	80	1000	40	20	≤0.8	√	Consult

Replacement cartridges

Item number	Catalog number	Network	Ucpv [Vdc]	Imax (8/20) [kA]	In (8/20) @Up [kA]	Up@In (8/20) [kV]	Cartridge Id.
83020005	SP2-40K600V-PV	PV	330	40	20	≤1.3	C40
83020006	SP2-40K1000V-PV	PV	530	40	20	≤2	C41
83020010	SP2-40K1500V-PV	PV	750	40	10	≤2,5	C42

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SURGE-TRAP® DC T2 & T1+2 MPPT photovoltaic SPD

PRODUCT RANGE

STP MPPT PV

STPT2-40K1000V-8YPVM

Catalog numbers / Reference numbers

Catalog number	Item number	System type	Ucpv [Vdc]	Iscpv [A]	IIMP (10/350) [KA]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Remote indication (M)	Cartridge Id. L
TYPE 1+2										
STPT12-5K1000V-5YPVM	83120192	3+ , 1- , 1PE	1060	10000	5	40	20	4	√	C43
STPT12-5K1000V-8YPVM	83120190	6+ , 1- , 1PE	1060	10000	5	40	20	4	√	C43
TYPE 2										
STPT2-40K1000V-5YPVM	83020188	3+ , 1- , 1PE	1060	10000	-	40	20	4	√	C02
STPT2-40K1000V-8YPVM	83020204	6+ , 1- , 1PE	1060	10000	-	40	20	4	√	C02

Replacement cartridges

Catalog number	Item number	Network	Ucpv [Vdc]	IIMP (10/350) [KA]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Cartridge Id.
SP2-40K1000V-PV	83020006	PV	530	-	40	20	≤2	C02
SP12-5K1000V-PV	83020011	PV	530	5	40	20	≤2	C43

SURGE-TRAP® plug-in surge sockets for PCB

SB-PCB

SB-PCB-1000PV-M

Catalog numbers / Reference numbers

Catalog number	Item number	Ucpv [Vdc]	Remote indication (M)	Cartridge Id. Item number	Cartridge Id. Catalog number
DC SIDE					
SB-PCB-1000PV-M	83050133	1000	√	83020006	SP2-40K1000V-PV
SB-PCB-1500PV-M	83050135	1500	√	83020010	SP2-40K1500V-PV
AC SIDE					
SB-PCB-275V-M	83050119	275	√	83020002	SP2-40K275V
SB-PCB-440V-M	83050123	320	√	83020004	SP2-40K440V
SB-PCB-750V-M	83050127	440	√	83020007	SP2-30K750V
SB-PCB-N-M	83050129	750	√	83020000	SP2-40K-N

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SURGE-TRAP® AC Type 2 photovoltaic SPD

PRODUCT RANGE

STP T2 40 3P

STPT2-40K275V-3PM

Catalog numbers / Reference numbers

Catalog number	Item number	System type	Un [VAC]	Uc [V]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Remote indication (M)	Cartridge Id. L
STPT2-40K275V-3P	83020134	TNC (3Ph)	-/400	275	40	20	≤1.3		C06
STPT2-40K275V-3PM	83020135	TNC (3Ph)	-/400	275	40	20	≤1.3	√	C06
STPT2-40K320V-3P	83020136	TNC (3Ph)	-/480	320	40	20	≤1.4		C07
STPT2-40K320V-3PM	83020137	TNC (3Ph)	-/480	320	40	20	≤1.4	√	C07
STPT2-30K750V-3P	83020102	TNC (3Ph)	-/690; -/1000	750	30	15	≤3		CO8
STPT2-30K750V-3PM	83020103	TNC (3Ph)	-/690; -/1000	750	30	15	≤3	√	CO8
STPT2-30K750V-1P	83020100	L-N (1Ph)	690	750	30	15	≤3		CO8
STPT2-30K750V-1PM	83020101	L-N (1Ph)	690	750	30	15	≤3	√	CO8

Replacement cartridges

Catalog number	Item number	Network	Un [VAC]	Uc [V]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Cartridge Id.
SP2-40K275V	83020002	L-N (1Ph)	230	275	40	20	≤1.3	C06
SP2-40K320V	83020003	L-N (1Ph)	277	320	40	20	≤1.4	C07
SP2-30K750V	83020007	L-N (1Ph)	690	750	30	15	≤3	C08

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SURGE-TRAP® AC Type 2 reinforced peak withstand photovoltaic SPD

PRODUCT RANGE

STP T2 30 3P-R

STPT2-30K850V-3P-R

Catalog numbers / Reference numbers

Catalog number	Item number	System type	UN [VAC]	UC [V]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Remote indication (M)	Upeak (l-pe) [kV]	L	PE
STPT2-30K440V-3P-R	83020177	IT	- / 400	440	30	20	5		1,6	C25	C08
STPT2-30K440V-3P-RM	83020178	IT	- / 400	440	30	20	5	√	1,6	C25	C08
STPT2-30K750V-3P-R	83020213	IT	- / 690	750	30	15	6		2,1	C08	C08
STPT2-30K750V-3P-RM	83020214	IT	- / 690	750	30	15	6	√	2,1	C08	C08
STPT2-30K850V-3P-R	83020201	IT	- / 690	850	30	15	6		2,2	C28	C28
STPT2-30K850V-3P-RM	83020202	IT	- / 690	850	30	15	6	√	2,2	C28	C28
STPT2-30K850V-1P	83020234	L-N (1Ph)	690	850	30	15	3		-	C28	-
STPT2-30K850V-1PM	83020235	L-N (1Ph)	690	850	30	15	3	√	-	C28	-

Replacement cartridges

Catalog number	Item number	Network	Un [VAC]	Uc [V]	Imax (8/20) [kA]	In (8/20) [kA]	Up@In (8/20) [kV]	Cartridge Id.
SP2-40K440V	83020004	L-N (1Ph)	400	440	40	20	≤2	C25
SP2-30K750V	83020007	L-N (1Ph)	690	750	30	15	3	C08
SP2-30K850V	83020022	L-N (1Ph)	690	850	30	15	3	C28

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

SURGE-TRAP® Signal Line photovoltaic SPD

PRODUCT RANGE

STS 485

STPT2-40K275V-3PM

STS485-5K-15V-3WI

STS485-5K-15V-3WI

Catalog numbers / Reference numbers

Catalog number	Item number	Un [V]	D1 (10/350) [kA]	Imax (8/20)	C2 (8/20)	Up@In (8/20) [V]	fg [MHz]	Protected wires	EOL Indication
STS485-7V-2W	83040111	6	2,5	10	5	10	1	2	
STS485-16V-2W	83040112	12	2,5	10	5	20	1,2	2	
STS485-27V-2W	83040113	24	2,5	10	5	40	4	2	
STS485-56V-2W	83040114	48	2,5	10	5	70	5	2	
STS485-15V-3WI	83040110	12	2,5	10	5	45	10	2+GND	√
STS485-5V-4WG	83040120	5	2,5	10	10	30	60	4+GND	

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PV-Rated Disconnect Switches

PRODUCT RANGE

IEC-Rated DC Switches

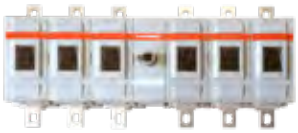
MD100E11

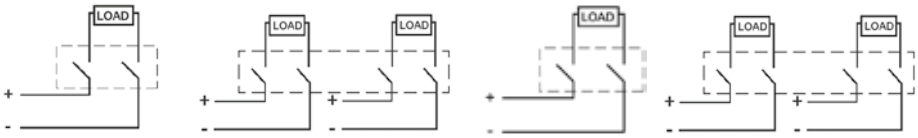
MD100E22

MD400E11

MD400E22

MD400EV12


MD315EV33



Switch Body

Ampere Rating	100	160	200	250	315	400	500
1000VDC 2-pole Configuration	MD100E11	MD160E11	MD200E11	MD250E11	MD315E11	MD400E11	MD500E11
1000VDC 2x2-pole Configuration	MD100E22	MD160E22	MD200E22	MD250E22	MD315E22	MD400E22	MD500E22
1500VDC 3-pole Configuration					MD315EV12	MD400EV12	MD500EV12
1500VDC 2x3-pole Configuration					MD315EV33	MD400EV33	MD500EV33

Handles and Shafts

HDD250

HB65

Direct Front Operation							
	HDD250	HDD250	HDD250	HDD250	HDD400	HDD400	HDD400

External Pistol Style		
NEMA Type 1, 3R, 12	HB65, HB80	HB125, HB145
NEMA Type 4, 4X	HB65X, HB80X	HB125X, HB125X

B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65

Shafts		
Shaft—SPAxxx (xxx = length in mm)	SPA130, SPA210, SPA290, SPA360, SPA430	SFB185, SFB280, SFB325, SFB395, SFB535

Accessories

OA1G01
OA1G10

OEA28

Auxiliary Contacts*							
NO Right side mounting	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10
NC left side mounting	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01
Module for SF aux. contacts	OEA28	OEA28	OEA28	OEA28	OEA28	OEA28	OEA28

*Rated 2A max continous @690VAC

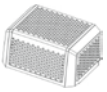
JUMP250

JC250

JUMP500

JC500

JUMP500-2


JC500-2

Short Circuit Link							
For MDxxxE22 and EV33					JUMP500-2	JUMP500-2	JUMP500-2
For MDxxxE11, E22, EV12**	JUMP250	JUMP250	JUMP250	JUMP250	JUMP500	JUMP500	JUMP500

**Shipped with one link per circuit

Terminal Shroud for Short Circuit Link							
For JUMP500-2					JC500-2	JC500-2	JC500-2
For JUMP250, JUMP500	JC250	JC250	JC250	JC250	JC500	JC500	JC500

Terminal Shrouds for Lugs							
Kit of 4 Terminal Shrouds	TS250-14	TS250-14	TS250-14	TS250-14			
1 Terminal Shroud					TDS400	TDS400	TDS400

A shorter version is available for DC Switches up to 250A. 1 piece per package: TS250S-14

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PV-Rated Disconnect Switches

PRODUCT RANGE

UL 98B Listed DC Switches

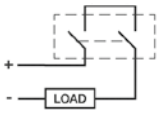
MD100U11

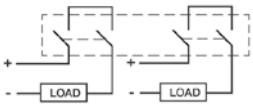
MD100U22

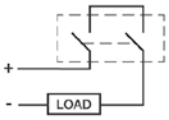
MD250UV12

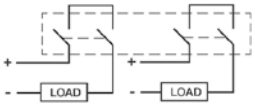
MD400U11

MD400U22









Switch Body

Ampere Rating	100	200	250	320	400
1000VDC 2-pole Configuration	MD100U11	MD200U11	MD250U11	MD320U11	MD400U11
1000VDC 2x2-pole Configuration	MD180U22	MD180U22	MD180U22	MD320U22	MD400U22
1500VDC 2-pole Configuration			MD250UV12	MD320UV12	MD400UV12

Handles and Shafts

HDD400

HB125

Direct Front Operation					
1000VDC	HDD250	HDD250	HDD250	HDD400	HDD400
1500VDC			HDD400	HDD400	HDD400

External Pistol Style		
NEMA Type 1, 3R, 12	HB65, HB80	HB125, HB145
NEMA Type 4, 4X	HB65X, HB80X	HB125X, HB145X

B=Black. Substitute 'R' for 'B' if a red handle is desired. Ex. HR65

Shafts		
Shaft—SPAxxx (xxx = length in mm), SFBxxx (xxx = length in mm)	SPA130, SPA210, SPA290, SPA360, SPA430	SFB185, SFB280, SFB325, SFB395, SFB535

Accessories

OA1G01
OA1G10

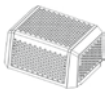
OEA28

Auxiliary Contacts*					
NO Right side mounting	OA1G10	OA1G10	OA1G10	OA1G10	OA1G10
NC left side mounting	OA3G01	OA3G01	OA3G01	OA3G01	OA3G01
Module for SF aux. contacts	OEA28	OEA28	OEA28	OEA28	OEA28

*Rated 2A max continous @690VAC

JC250

JC500


JC500-2

Terminal Shroud for Short Circuit Link					
For MDxxxU11, UV12	JC250	JC250	JC500	JC500	JC500
For MDxxxU22	JC500-2	JC500-2	JC500-2	JC500-2	JC500-2

Terminal Shroud for Lugs					
Kit of 4 Terminal Shrouds					
1 Terminal Shroud	TDS400	TDS400	TDS400	TDS400	TDS400

A shorter version is available for DC switches up to 250A. 1 piece per package: TDS250S.

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PV-Rated Disconnect Switches

UL 98B DC-rated Non-Fused switches

Part #	Description	Ref #
MD100U11	DC Switch 100A UL 2p	X1043231
MD180U22	DC Switch 180A UL 4p	Y1043232
MD200U11	DC Switch 200A UL 2p	Z1043233
MD250U11	DC Switch 250A UL 2p	A1043234
MD250U22	DC Switch 250A UL 4p	B1043235
MD320U11	DC Switch 320A UL 2p	C1043236
MD320U22	DC Switch 320A UL 4p	D1043237
MD400U11	DC Switch 400A UL 2p	E1043238
MD400U22	DC Switch 400A UL 4p	F1043239
MD250UV12	DC Switch 250A UL 1500V 3p	L1050926
MD320UV12	DC Switch 320A UL 1500V 3p	M1050927
MD400UV12	DC Switch 400A UL 1500V 3p	N1050928

IEC DC-rated Non-Fused switches

Part #	Description	Ref #
MD100E11	DC Switch 100A IEC 1000V 2p	G1043217
MD160E11	DC Switch 160A IEC 1000V 2p	H1043218
MD200E11	DC Switch 200A IEC 1000V 2p	J1043219
MD250E11	DC Switch 250A IEC 1000V 2p	K1043220
MD100E22	DC Switch 100A IEC 2x1000V 4p	L1043221
MD160E22	DC Switch 160A IEC 2x1000V 4p	M1043222
MD200E22	DC Switch 200A IEC 2x1000V 4p	N1043223
MD250E22	DC Switch 250A IEC 2x1000V 4p	P1043224
MD315E11	DC Switch 315A IEC 1000V 2p	Q1043225
MD400E11	DC Switch 400A IEC 1000V 2p	R1043226
MD500E11	DC Switch 500A IEC 1000V 2p	S1043227
MD315E22	DC Switch 315A IEC 2x1000V 4p	T1043228
MD400E22	DC Switch 400A IEC 2x1000V 4p	V1043229
MD500E22	DC Switch 500A IEC 2x1000V 4p	W1043230
MD315EV12	DC Switch 315A IEC 1500V 3p	C1050918
MD400EV12	DC Switch 400A IEC 1500V 3p	D1050919
MD500EV12	DC Switch 500A IEC 1500V 3p	E1050920
MD315EV33	DC Switch 315A IEC 2x1500V 6p	F1050921
MD400EV33	DC Switch 400A IEC 2x1500V 6p	G1050922
MD500EV33	DC Switch 500A IEC 2x1500V 6p	J1050924

Handles

Part #	Description	Ref #
HB65	Handle black65mm IP65 NEMA 3R	W1043368
HB65X	Handle black 65mm IP65 NEMA 4X	X1043369
HB95	Handle black 95mm IP65 NEMA 3R	N1043913
HB95X	Handle black 95mm IP65 NEMA 4X	P1043914
HB125	Handle black 125mm IP65 NEMA 3R	A1043372
HB125X	Handle black 125mm IP65 NEMA 4X	B1043373
HR65	Handle red 65mm IP65 NEMA 3R	G1043378
HR65X	Handle red 65mm IP65 NEMA 4X	H1043379
HR95	Handle red 95mm IP65 NEMA 3R	S1043917
HR95X	Handle red 95mm IP65 NEMA 4X	T1043918
HR125	Handle red 125mm IP65 NEMA 3R	K1043381
HR125X	Handle red125mm IP65 NEMA 4X	L1043382
HDD250	Handle direct MD100-250	G1047794
HDD400	Handle direct MD315-500	H1047795

Shafts

Part #	Description	Ref #
SFB280	Shaft SwitchFuse 12x12x280mm	F1043423
SFB325	Shaft SwitchFuse 12x12x325mm	G1043424
SFB395	Shaft SwitchFuse 12x12x395mm	H1043425
SPA130	Shaft pistol handle 6x6x130mm	V1043919
SPA210	Shaft pistol handle 6x6x210mm	P1043431
SPA290	Shaft pistol handle 6x6x290mm	Q1043432
SPA360	Shaft pistol handle 6x6x360mm	W1043920
SPA430	Shaft pistol handle 6x6x430mm	X1043921

Terminal Shrouds

Part #	Description	Ref #
TS250-14	Term.shrd 250A switch 1p L/4	A1043464
TDS400	Term.shrd MD250-500 1p L/1	A1045534
TDS250S	Term.shrd MD100-250 1p S /1	Z1045533

Jumpers

Part #	Description	Ref #
JUMP250	Jumper bar for 250A DC switch	F1043469
JUMP500	Jumper bar for 500A DC switch	G1043470
JUMP500-2	Jumper bar for 1500V E33	S1051300
JC250	Jumper cover for JUMP250	H1043471
JC500	Jumper cover for JUMP500	J1043472
JC500-2	Jumper cover for JUMP500-2	V1051302

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