

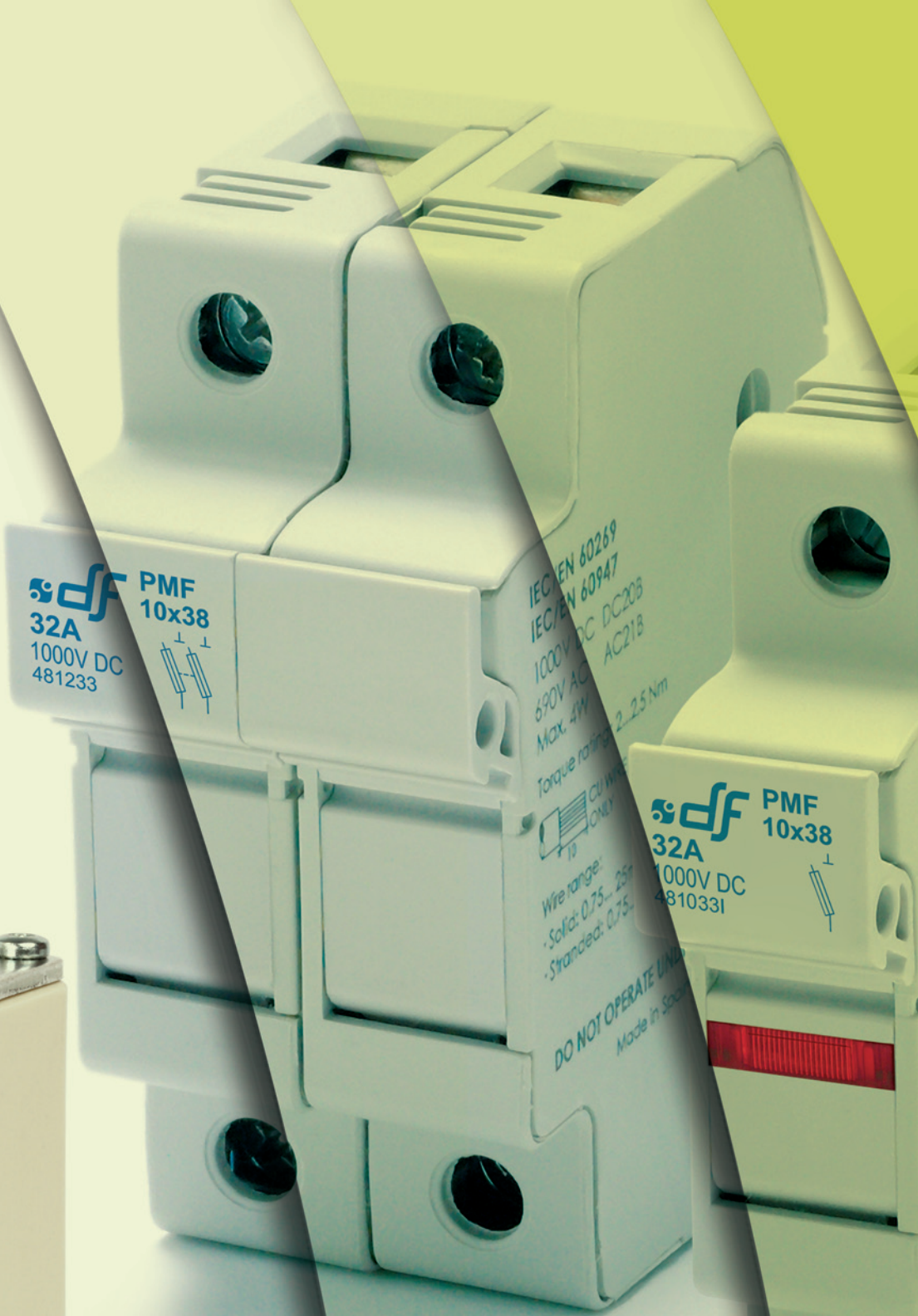


fuse-links & fuse holders

PHOTOVOLTAIC



sd
NH1 gPV
100 A
1000V DC
 $I_n = 30 \text{ kA}$
IEC 60269-6
373245
RoHS COMPLIANT
CE
Made in Spain



sd PMF
10x38
32A
1000V DC
481233

IEC/EN 60269
IEC/EN 60947
1000V DC DC208
690V AC AC218
Max. 4W
Torque rating: 2-2.5 Nm

Wire range:
- Solid: 0.75... 2.5mm²
- Stranded: 0.75... 2.5mm²

DO NOT OPERATE UNDER LOAD
Made in Spain

sd PMF
10x38
32A
1000V DC
4810331



32A
gPV
191945
CE
Made in Spain



10x38
32A
1000V DC
I_n = 30 kA
sd

PHOTOVOLTAIC

FUSE-LINKS

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FUSE HOLDERS & BASES

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IEC/EN 60269
IEC/EN 60947
1000V DC DC200
690V AC AC215
Max. 4W
Torque rating: 2.25 Nm
Cu Wire
Only
Wire range:
- Solid: 0.75...25mm² AWG 18...14
- Stranded: 0.75...16mm² AWG 18...14
DO NOT OPERATE UNDER LOAD
Made in Spain

20 A
1000 V DC
I_t = 30 KA

491635
gPV
CE

PHOTOVOLTAIC FUSE-LINKS

gPV FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS

10x38

PV fuse-links for photovoltaic installations from DF Electric have been developed to offer a compact, safety and economic protection solution in photovoltaic installations where, due to the increase of the power and technologic evolution, no-load voltages up to 1000V DC are reached. Also meet the requirements for instruments (multimeters) and traction equipment auxiliary circuits. The range comprises 10x38 fuse-links with rated currents between 4A and 20A. Rated voltage is 1000V DC (direct current). Provide protection against overloads as well as short-circuits. Made with ceramic tube with high withstand to internal pressure and thermal shock, that allows a high breaking capacity in a reduced physical space. Contacts are made of silver plated copper and melting elements are made of pure silver in order to avoid the aging and thus keep unalterable the electric characteristics. For these fuse-links we recommend the utilization of PMF 1000V fuse holders in single pole version (ref. 481033) or two-pole version (ref.481233).

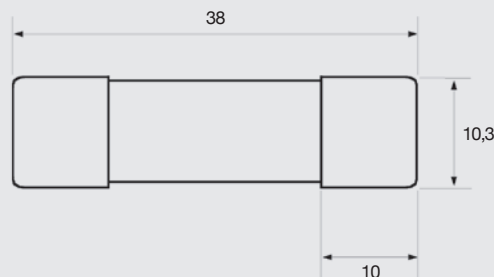
www.df-sa.es/photovoltaic/fuses/

	I_n (A)	REFERENCE	BREAKING CAPACITY (kA)	PACKING Uni./BOX
1000V DC	1	491601	30	10/100
	2	491602	30	10/100
	3	491604	30	10/100
	4	491605	30	10/100
	5	491606	30	10/100
	6	491610	30	10/100
	8	491615	30	10/100
	10	491620	30	10/100
	12	491625	30	10/100
	15	491629	30	10/100
	16	491630	30	10/100
	20	491635	30	10/100
600V DC	1	491901	30	10/100
	2	491902	30	10/100
	3	491904	30	10/100
	4	491905	30	10/100
	5	491906	30	10/100
	6	491910	30	10/100
	8	491915	30	10/100
	10	491920	30	10/100
	12	491925	30	10/100
	15	491929	30	10/100
	16	491930	30	10/100
	20	491935	30	10/100
25	491940	30	10/100	
30	491944	30	10/100	
32	491945	30	10/100	



gPV FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS DIMENSIONS

10x38



PHOTOVOLTAIC FUSE-LINKS

gpV FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS

NH1 NH1 gpV 1000V DC fuse-links for photovoltaic installations have been developed to offer a compact, safety and economic protection solution in second level panels of photovoltaic installations. The range comprises NH1 fuse-links with rated currents between 25A and 100A. Rated voltage is 1000V DC (direct current). They provide protection against overloads as well as short-circuits (gpV class according to IEC 60269 Standard, with a minimum fusing current of $1,35 \cdot I_n$. Made with ceramic body with high withstand to internal pressure and thermal shock. Contacts are made of silver plated copper and melting elements are made of pure silver in order to avoid the aging and thus keep unalterable the electric characteristics. For these fuse-links we recommend the utilization of 1000V NH ST fuse bases.

www.df-sa.es/photovoltaic/fuses/

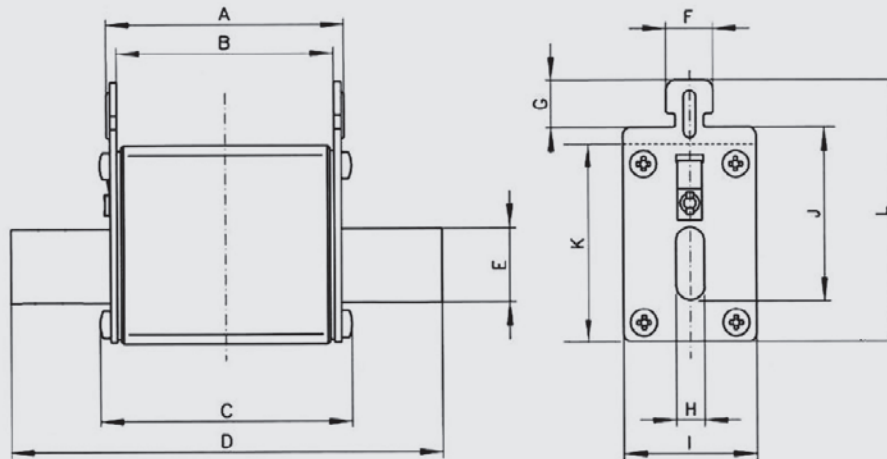
	I_n (A)	REFERENCE	BREAKING CAPACITY (kA)	PACKING Uni./BOX
1000V DC	25	373210	30	3/30
	32	373215	30	3/30
	40	373225	30	3/30
	50	373230	30	3/30
	63	373235	30	3/30
	80	373240	30	3/30
	100	373245	30	3/30



373245

TECHNICAL gpV FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS DIMENSIONS

NH1



SIZE	A	B	C	D	E	F	G	H	I	J	K	L
NH1	68	62	71,5	135	20	10	9,5	6	39	40	52	64

STANDARDS
IEC 60269-1
IEC 60269-6

APPROVALS
Cd-Pb FREE
RoHS compliant



TECHNICAL
t-I CHARACTERISTICS

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COMPATIBLE
NH FUSE BASES FOR PHOTOVOLTAIC APPLICATIONS

PAGE 07

PHOTOVOLTAIC FUSE HOLDERS

PMF 1000V DC 10x38 FUSE HOLDERS FOR PHOTOVOLTAIC APPLICATIONS

The first feature that PV Modular fuse holders offers, is the 1000V DC rated voltages. They have been developed to offer a compact, safety and economic protection solution in photovoltaic installations where due to the increase of the power and technologic evolution, no-load voltages above 800V DC can be achieved. Modular fuse holders for 10x38 gPV fuses according IEC/EN 60269 standard. Compact design, with reduced distances. Manufactured with a high quality materials: Silver plated copper contacts and plastic materials with high temperature resistance and selfextinguishable. All the materials are according to the European Directive 2002/95/EC RoHS (Restriction of the use of certain hazardous substances in electrical material).

www.df-sa.es/photovoltaic/fuseholders/

WITHOUT INDICATOR

POLES	MODULES	REFERENCE	DESCRIPTION	I _n (A)	U (V DC)	PACKING Uni./BOX
1	1	481033	SINGLE-POLE	32	1000	12/192
2	2	481233	TWO-POLES	32	1000	6/96



481233

WITH INDICATOR

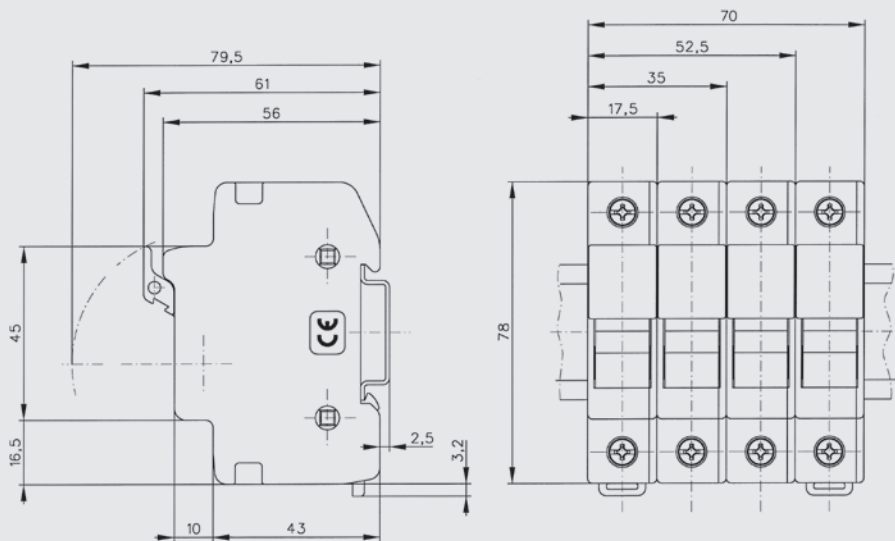
1	1	481033 I	SINGLE-POLE	32	1000	12/192
2	2	481233 I	TWO-POLES	32	1000	6/96



481033 I

TECHNICAL PV FUSE HOLDERS FOR PHOTOVOLTAIC APPLICATIONS DIMENSIONS

10x38



STANDARDS
IEC 60269-1
IEC 60269-2
IEC 60947-3
EN 60269-1
EN 60269-2
EN 60947-3

APPROVALS
RoHS
compliant

COMPATIBLE
gPV FUSE-LINKS FOR
PHOTOVOLTAIC
APPLICATIONS

PAGE 04

PHOTOVOLTAIC FUSE BASES

ST NH FUSE BASES FOR PHOTOVOLTAIC APPLICATIONS

ST
1000V
DC

Fuse bases for NH fuse-links. Manufactured with a high quality materials. Silver plated copper contacts. Plastic materials with high temperature resistance and self-extinguishable. All the materials are according to the European Directive 2002/95/EC RoHS. For DIN rail mounting or with screw fixing. Single-phase type. Connection by screws. Contacts with double spring in order to obtain an optimum operation. Wide range of accessories that enables IP20 protection index: contact covers, fuse link covers and partition walls. Multi-pole units can be made with connection accessories. Manufactured according IEC, VDE and DIN standards.

www.df-sa.es/photovoltaic/fusebases/

DESCRIPTION	REFERENCE	U (V DC)	PACKING
SINGLE POLE			
DIN RAIL-SCREW FIXING / SCREW CONNECTION	354170	1000	3

NH1
250A

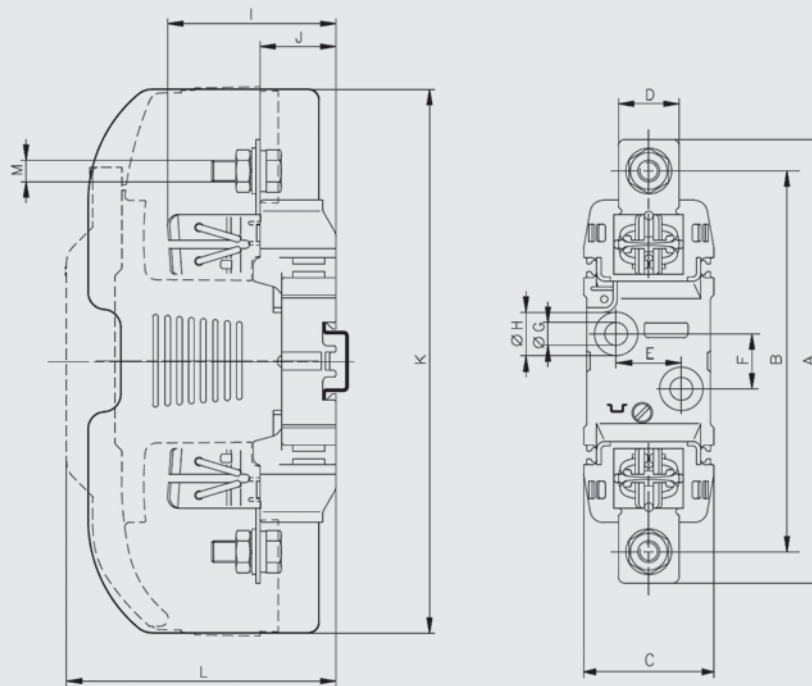


ST NH FUSE BASES FOR PHOTOVOLTAIC APPLICATIONS

TECHNICAL
ST
1000V
DC

DIMENSIONS

NH1
250A



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M
NH1	200	175	60	28	30	25	10,5	20,5	77,5	35	250	123	M10

STANDARDS
IEC 60269-1
IEC 60269-2
IEC 60269-2-1
EN 60269-1
EN 60269-2

STANDARDS
VDE 0636
DIN 43620

APPROVALS
RoHS
compliant

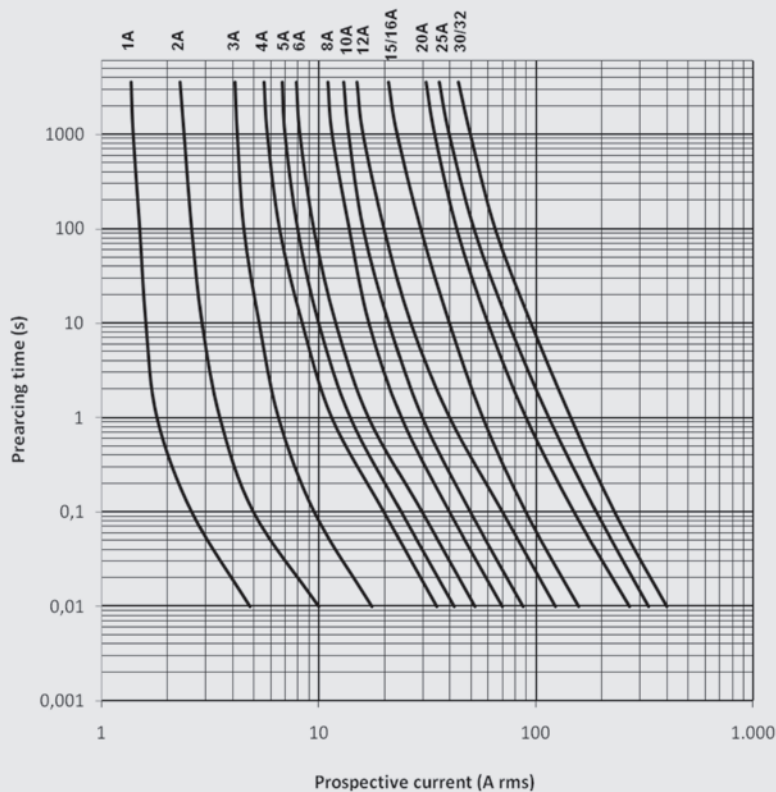
COMPATIBLE
gPV NH1 FUSE-LINKS
FOR PHOTOVOLTAIC
APPLICATIONS
PAGE 05

PHOTOVOLTAIC FUSE-LINKS



TECHNICAL
gPV
10x38

FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS t-I CHARACTERISTICS & POWER DISSIPATION

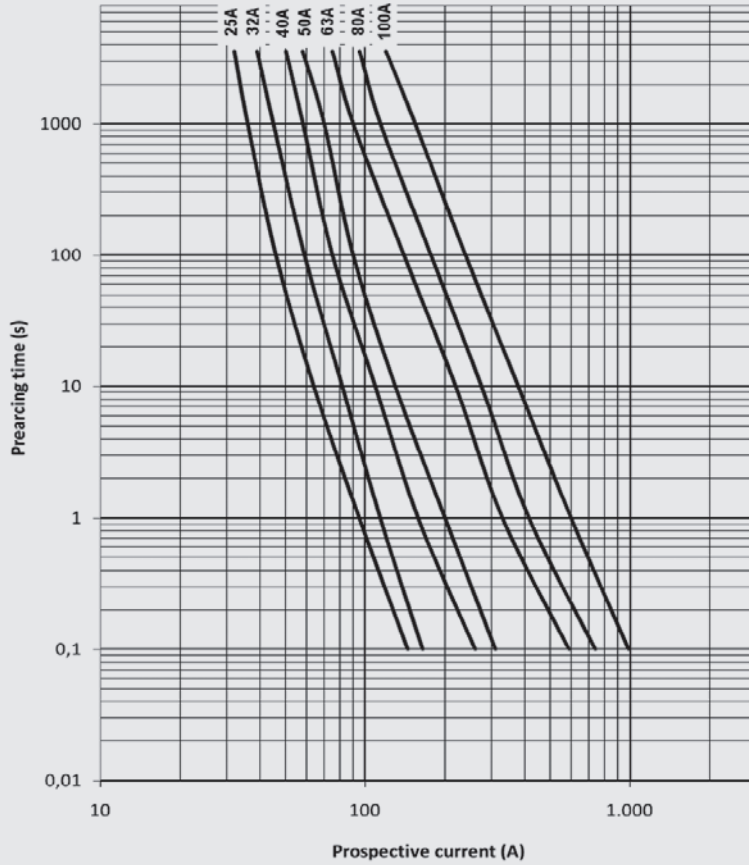


RATED CURRENT (A)	REFERENCE		POWER DISSIPATION (W @ 0.7 In)		POWER DISSIPATION (W @ In)		PREARcing I ² t (A ² s)		OPERATING I ² t (A ² s)	
	1000V DC	600V DC	1000V DC	600V DC	1000V DC	600V DC	1000V DC	600V DC	1000V DC	600V DC
1	491601	491901	0,31	0,31	0,76	0,76	0,35	0,35	1,3	0,8
2	491602	491902	0,62	0,62	1,54	1,54	1,78	1,78	6,5	3,9
3	491604	491904	0,54	0,54	1,35	1,35	9,0	9,0	33	19,6
4	491605	491905	0,73	0,73	1,84	1,84	3,0	3,0	11	6,6
5	491606	491906	0,93	0,93	2,22	2,22	4,4	4,4	13	9,6
6	491610	491910	0,96	0,96	2,40	2,40	8,5	8,5	32	18,8
8	491615	491915	1,02	1,02	2,55	2,55	25	25	93	55,0
10	491620	491920	1,03	1,03	2,58	2,58	11	11	52	27,9
12	491625	491925	1,04	1,04	2,60	2,60	25	25	116	62,8
15	491629	491929	1,07	1,07	2,44	2,44	25	25	116	82,8
16	491630	491930	1,08	1,08	2,70	2,70	33	33	152	82,8
20	491635	491935	1,16	1,16	2,90	2,90	85	85	390	212
25	-	491940	-	1,10	-	2,74	-	280	-	460
30	-	491944	-	1,70	-	4,00	-	400	-	650
32	-	491945	-	1,76	-	4,40	-	400	-	650

PHOTOVOLTAIC FUSE-LINKS

TECHNICAL **gPV** FUSE-LINKS FOR PHOTOVOLTAIC APPLICATIONS
t-I CHARACTERISTICS & POWER DISSIPATION

NH1



RATED CURRENT (A)	REFERENCE	POWER DISSIPATION (W @ 0,7In)	POWER DISSIPATION (W @ In)	PREARcing I ² t (A ² s)	OPERATING I ² t (A ² s)
	1000V DC	1000V DC	1000V DC	1000V DC	1000V DC
25	373210	5,2	12,5	62	94
32	373215	6,3	15,5	122	184
40	373225	6,7	16,6	302	454
50	373230	7,5	18	562	844
63	373235	8,2	20	1210	1815
80	373240	10	27	2250	3375
100	373245	11	28	4000	6000



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