Semiconductor & Special Protection

Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Data Sheet

The 690/700V Protistor® fuse-links provide maximum flexibility in equipment design and ultimate protection for today's power conversion equipment. These NH style fuse-links are defined as per DIN 43620/00 for a worldwide acceptance into NH modular system fuse-holders, fuse switch disconnectors for direct installation.

The Protistor® have been engineered to provide state-of-the-art protection for semiconductors: diodes, thyristors, GTO's and IGBT devices. Fuses are assembled with pure silver, die-cut elements embedded in solidified sand, which helps control arcing characteristics for a lower I^2t and high interrupting rating level. All contact surfaces are silver plated and all hardware is non-magnetic.

Each fuse-link can be equipped with a low voltage trip-indicator which can operate a field mountable microswitch.

Benefits

Ultra fast acting

Current limiting

Very low I^2t for improved semiconductor protection

Superior cycling capability

Multiple body sizes

aR Class according to VDE 636-23 and IEC 60269-4

Applications

Protection of inverters, UPS systems, motor drives and similar 700V or less equipment.

Ratings

690VAC IEC 60269-4

700VAC UL Recognized

Approvals

UL/CSA Recognized Component

AC: UL Guide No. E76491

IEC 60269-4 Compliance

RoHS Compliant

Related products

Monitoring: MS 4L 2-5 Microswitches

Neutral bars: 1 by size from 00 to 3

Extraction puller: NHHANDLE

Packaging: 3 pieces

Contact : ts.sbm@mersen.com or +33 4 26 29 29 29
www.ferrazshawmut.mersen.com

Semiconductor & Special Protection

Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 000

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
000	700	690	16	URD	NH000UD69V16PV	P320035
000	700	690	20	URD	NH000UD69V20PV	R320037
000	700	690	25	URD	NH000UD69V25PV	T320039
000	700	690	32	URD	NH000UD69V32PV	Y320043
000	700	690	40	URD	NH000UD69V40PV	C320047
000	700	690	50	URD	NH000UD69V50PV	G320051
000	700	690	63	URD	NH000UD69V63PV	L320055
000	700	690	80	URD	NH000UD69V80PV	Q320059
000	700	690	100	URD	NH000UD69V100PV	V320063
000	700	690	125	URD	NH000UD69V125PV	X320065
000	700	690	160	URD	NH000UD69V160PV	B320069
000	700	690	200	URD	NH000UD69V200PV	D320071
000	700	690	250	URD	NH000UD69V250PV	H320075
000	550	500	315	URD	NH000UD50V315PV	M320079

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
000	700	690	16	80	10	48	1
000	700	690	20	80	15	90	1.5
000	700	690	25	80	22	130	2
000	700	690	32	80	45	270	2.5
000	700	690	40	80	69	400	4
000	700	690	50	80	107	630	5
000	700	690	63	80	220	1300	6
000	700	690	80	80	350	2000	8
000	700	690	100	80	720	4300	9.5
000	700	690	125	80	1400	8200	10.5
000	700	690	160	80	2100	12200	15
000	700	690	200	80	3900	22700	18
000	700	690	250	80	7600	44400	22
000	550	500	315	???	15400	90700	30

Product weight: 135g max.
Packaging: 3 pieces

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Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 00

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
00	700	690	20	URD	NH00UD69V20PV	A320137
00	700	690	25	URD	NH00UD69V25PV	C320139
00	700	690	32	URD	NH00UD69V32PV	G320143
00	700	690	40	URD	NH00UD69V40PV	L320147
00	700	690	50	URD	NH00UD69V50PV	Q320151
00	700	690	63	URD	NH00UD69V63PV	V320155
00	700	690	80	URD	NH00UD69V80PV	Z320159
00	700	690	100	URD	NH00UD69V100PV	D320163
00	700	690	125	URD	NH00UD69V125PV	F320165
00	700	690	160	URD	NH00UD69V160PV	K320169
00	700	690	200	URD	NH00UD69V200PV	M320171
00	700	690	250	URD	NH00UD69V250PV	R320175
00	700	690	315	URD	NH00UD69V315PV	W320179

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
00	700	690	20	170	15	90	1.5
00	700	690	25	170	22	130	2
00	700	690	32	170	45	270	2.5
00	700	690	40	170	69	400	4
00	700	690	50	170	110	630	5
00	700	690	63	170	220	1300	6
00	700	690	80	170	350	2000	8
00	700	690	100	170	720	4300	8.5
00	700	690	125	170	1390	8200	10
00	700	690	160	170	2100	12200	14
00	700	690	200	170	3900	22700	17
00	700	690	250	170	7600	44400	20
00	700	690	315	170	15400	90700	29

Product weight: 200g max.
Packaging: 3 pieces

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Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 0

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
0	700	690	32	URD	NH0UD69V32PV	Q320243
0	700	690	40	URD	NH0UD69V40PV	V320247
0	700	690	50	URD	NH0UD69V50PV	Z320251
0	700	690	63	URD	NH0UD69V63PV	D320255
0	700	690	80	URD	NH0UD69V80PV	H320259
0	700	690	100	URD	NH0UD69V100PV	M320263
0	700	690	125	URD	NH0UD69V125PV	P320265
0	700	690	160	URD	NH0UD69V160PV	T320269
0	700	690	200	URD	NH0UD69V200PV	W320271
0	700	690	250	URD	NH0UD69V250PV	A320275
0	700	690	315	URD	NH0UD69V315PV	E320279

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
0	700	690	32	170	32	170	9.5
0	700	690	40	170	53	280	10
0	700	690	50	170	87	470	10.5
0	700	690	63	170	130	700	11.5
0	700	690	80	170	180	970	12.5
0	700	690	100	170	390	2080	15
0	700	690	125	170	720	3890	18
0	700	690	160	170	1550	8320	22
0	700	690	200	170	2950	15900	27
0	700	690	250	170	5560	29900	33
0	700	690	315	170	11600	62300	40

Product weight: 250g max.
Packaging: 3 pieces

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Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 1

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
1	700	690	63	URD	NH1UD69V63PV	M320355
1	700	690	80	URD	NH1UD69V80PV	K320399
1	700	690	100	URD	NH1UD69V100PV	W320363
1	700	690	125	URD	NH1UD69V125PV	Y320365
1	700	690	160	URD	NH1UD69V160PV	C320369
1	700	690	200	URD	NH1UD69V200PV	E320371
1	700	690	250	URD	NH1UD69V250PV	J320375
1	700	690	315	URD	NH1UD69V315PV	N320379
1	700	690	350	URD	NH1UD69V350PV	P320380
1	700	690	400	URD	NH1UD69V400PV	S320383

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
1	700	690	63	170	130	700	18
1	700	690	80	170	220	1170	21.5
1	700	690	100	170	290	1570	23
1	700	690	125	170	620	3320	26
1	700	690	160	170	1170	6270	29
1	700	690	200	170	2470	13300	33
1	700	690	250	170	4670	25100	37
1	700	690	315	170	9570	51400	42
1	700	690	350	170	13400	72300	44
1	700	690	400	170	19500	105000	48

Product weight: 430g max.
Packaging: 3 pieces

Semiconductor & Special Protection

Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 2

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
2	700	690	160	URD	NH2UD69V160PV	L320469
2	700	690	200	URD	NH2UD69V200PV	N320471
2	700	690	250	URD	NH2UD69V250PV	S320475
2	700	690	315	URD	NH2UD69V315PV	X320479
2	700	690	350	URD	NH2UD69V350PV	Y320480
2	700	690	400	URD	NH2UD69V400PV	B320483
2	700	690	450	URD	NH2UD69V450PV	D320485
2	700	690	500	URD	NH2UD69V500PV	F320487
2	700	690	550	URD	NH2UD69V550PV	G320488
2	700	690	630	URD	NH2UD69V630PV	H320489
2	700	690	700	URD	NH2UD69V700PV	J320490

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
2	700	690	160	170	960	5180	38
2	700	690	200	170	1710	9220	42
2	700	690	250	170	3480	18700	46.5
2	700	690	315	170	6860	36900	54
2	700	690	350	170	9570	51400	58
2	700	690	400	170	13400	72300	62.5
2	700	690	450	170	21000	113000	69
2	700	690	500	170	27400	147000	73
2	700	690	550	170	38300	206000	78
2	700	690	630	170	58700	315000	85
2	700	690	700	170	78100	420000	87

Product weight: 600g max.
Packaging: 3 pieces

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Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Size 3

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Class	Catalog Number	Reference Number
3	700	690	315	URD	NH3UD69V315PV	F320579
3	700	690	350	URD	NH3UD69V350PV	G320580
3	700	690	400	URD	NH3UD69V400PV	K320583
3	700	690	450	URD	NH3UD69V450PV	M320585
3	700	690	500	URD	NH3UD69V500PV	P320587
3	700	690	550	URD	NH3UD69V550PV	Q320588
3	700	690	630	URD	NH3UD69V630PV	R320589
3	700	690	700	URD	NH3UD69V700PV	S320590
3	700	690	800	URD	NH3UD69V800PV	T320591
3	700	690	900	URD	NH3UD69V900PV	V320592
3	700	690	1000	URD	NH3UD69V1000PV	W320593

Size	Rated Voltage UL (V)	Rated Voltage IEC (V)	Nominal Current (A)	Breaking Capacity @ Rated Voltage (kA)	Pre-arcing I²t (A²s)	Clearing I²t @ Rated Voltage (A²s)	Watts Loss @ 100% In (W)
3	700	690	315	170	5251	28200	57
3	700	690	350	170	7562	40600	58
3	700	690	400	170	10500	56500	65.5
3	700	690	450	170	15700	84300	70
3	700	690	500	170	22200	119000	75
3	700	690	550	170	30200	163000	80
3	700	690	630	170	42000	226000	89
3	700	690	700	170	61700	332000	100
3	700	690	800	170	88900	478000	112
3	700	690	900	170	123900	666000	125
3	700	690	1000	170	178400	959000	140

Product weight: 750g max.
Packaging: 3 pieces

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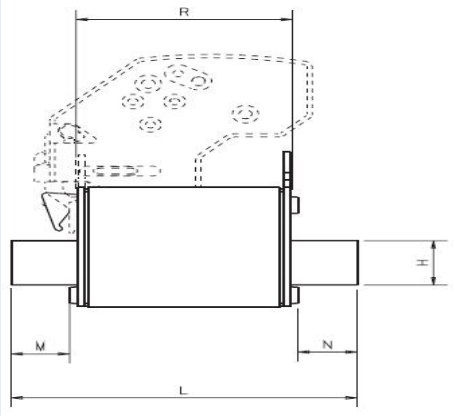
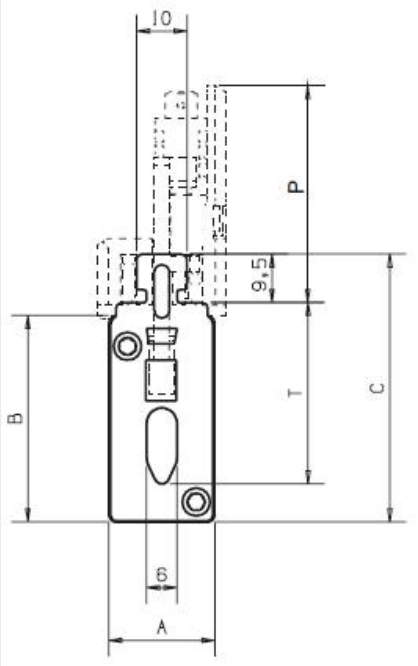
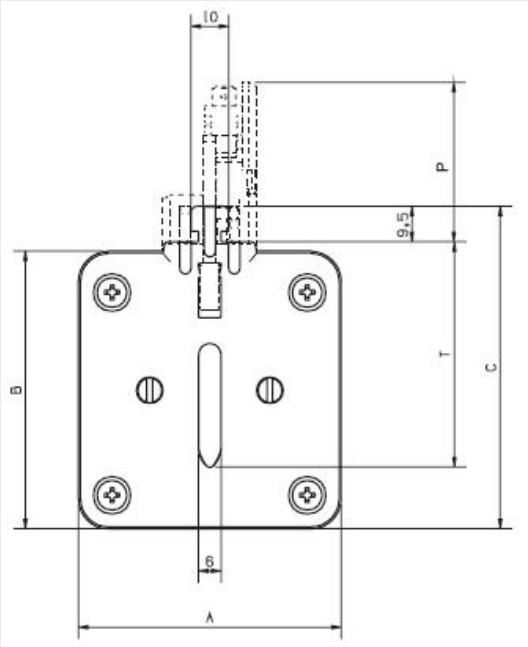
Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Dimensions mm (inches)

Size	A	B	C	H	L	M	N	P	R	T
000	20.8 (0.82")	40.5 (1.59")	52.5 (2.07")	15 (0.59")	79 (3.11")	13.5 (0.53")	13.5 (0.53")	43.4 (1.71")	49.5 (1.95")	35 (1.38")
00	29.5 (1.16")	47.5 (1.87")	59.5 (2.34")	15 (0.59")	79 (3.11")	13.1 (0.52")	13.1 (0.52")	43.4 (1.71")	50 (1.97")	35 (1.38")
0	29.5 (1.16")	47.5 (1.87")	59.5 (2.34")	15 (0.59")	125 (4.92")	29.1 (1.15")	29.1 (1.15")	43.4 (1.71")	66 (2.60")	35 (1.38")
1	39.5 (1.56")	52.5 (2.07")	64.5 (2.54")	20 (0.79")	135 (5.32")	32.1 (1.26")	32.1 (1.26")	43.4 (1.71")	68 (2.68")	40 (1.57")
2	51 (2.01")	60 (2.36")	72 (2.85")	26 (1.02")	150 (5.91")	38.85 (1.53")	38.85 (1.53")	43.4 (1.71")	68 (2.68")	48 (1.89")
3	70 (2.76")	74 (2.91")	86 (3.39")	33 (1.30")	150 (5.91")	38.85 (1.53")	38.85 (1.53")	43.4 (1.71")	68 (2.68")	60 (2.36")







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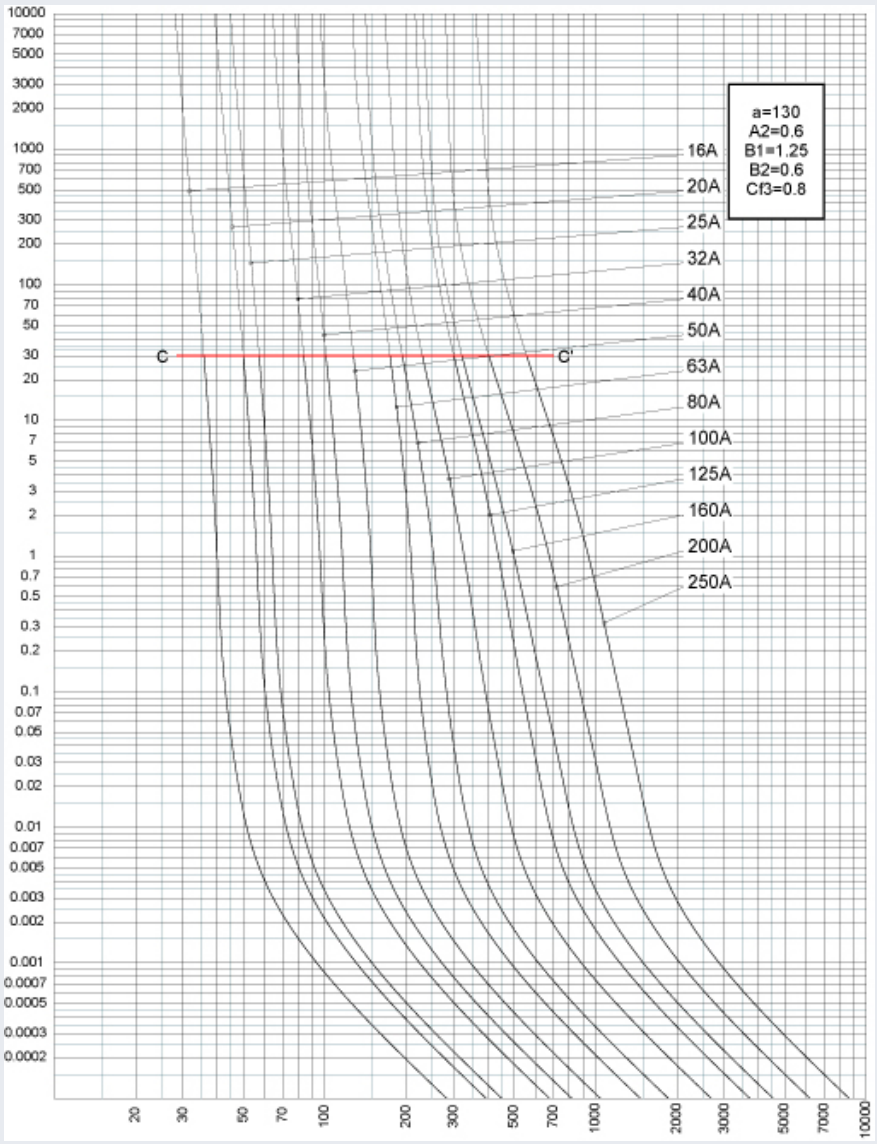
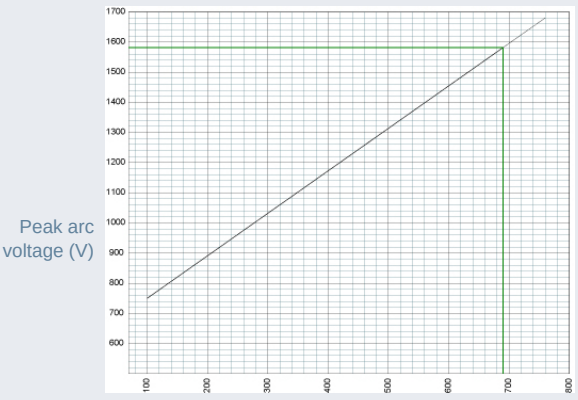
Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 000



Peak arc voltage
Size 000



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Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 000

fichier n'existe pas

Clearing I²t and arcing time correction factor

Applied AC voltage (V)

Peak let thru characteristics
Size 000

fichier n'existe pas

Maximum peak let thru current (A)

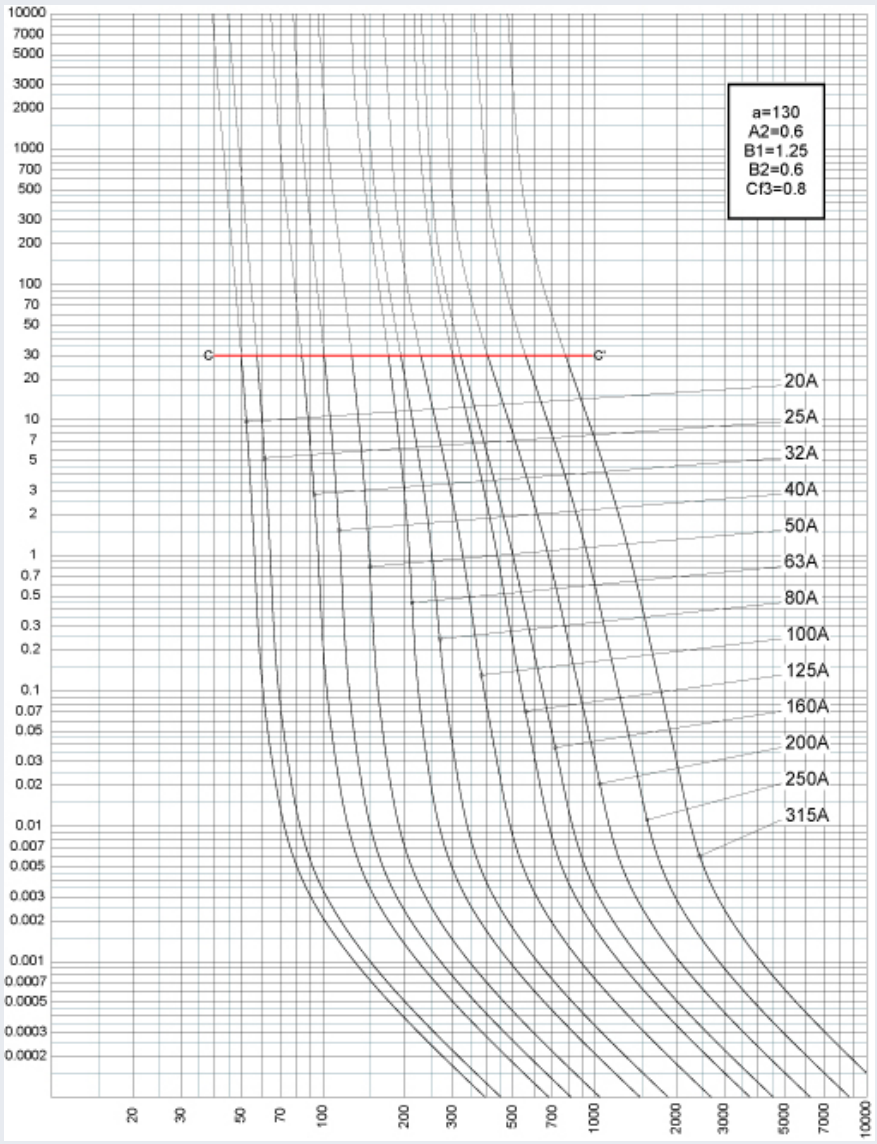
50 Hz rms symetrical prospective current (Ip) (A)

Semiconductor & Special Protection

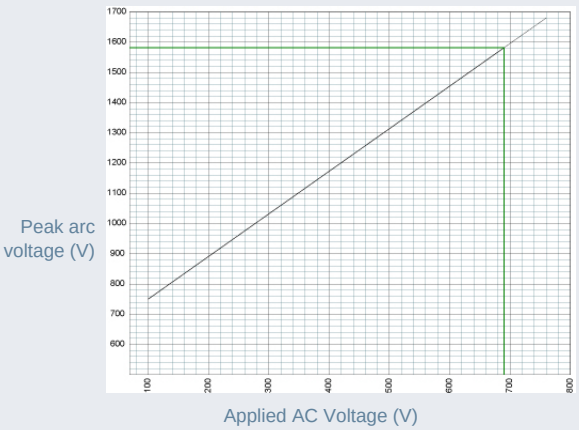
Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 00



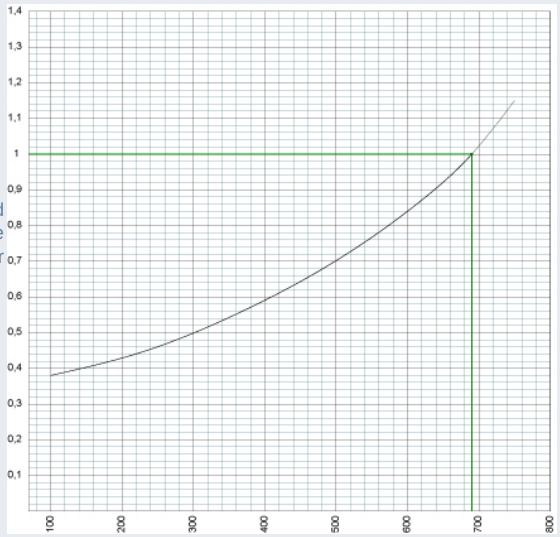
Peak arc voltage
Size 00



Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 00



Peak let thru characteristics
Size 00

fichier n'existe pas

Maximum peak let thru current (A)

50 Hz rms symetrical prospective current (Ip) (A)

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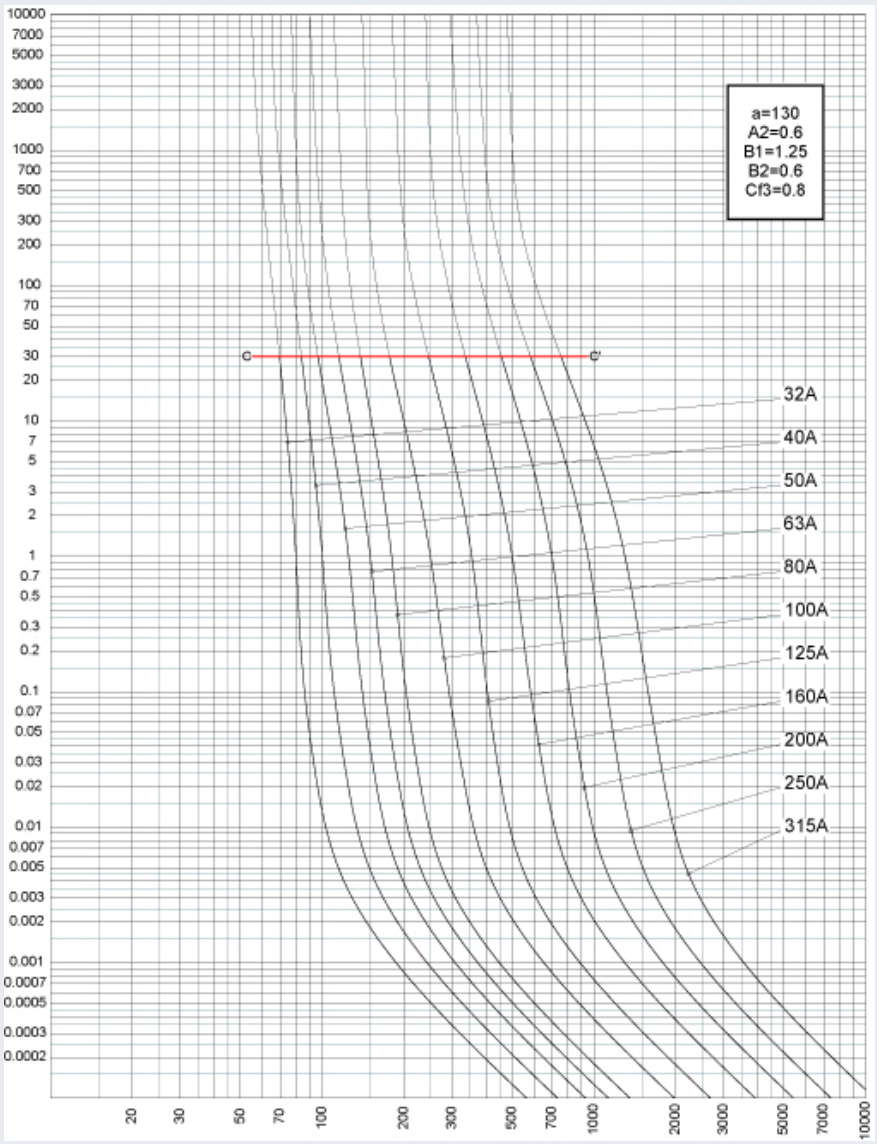
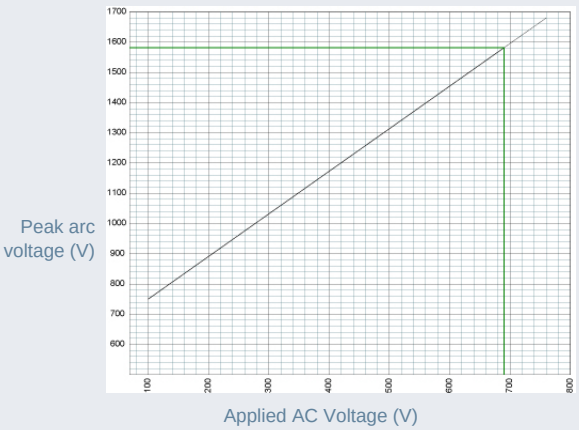
Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 0



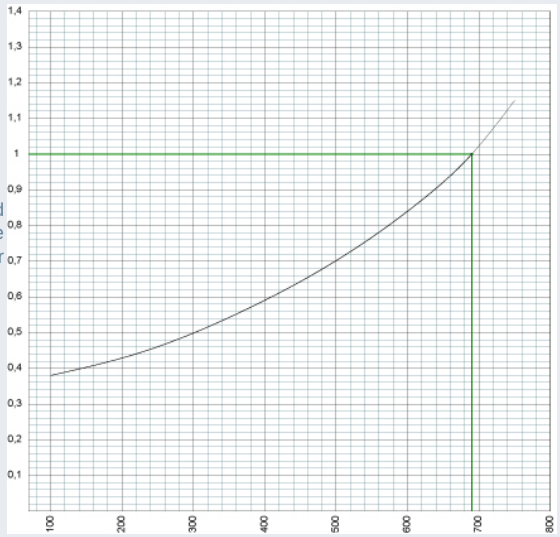
Peak arc voltage
Size 0



Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 0



Peak let thru characteristics
Size 0

fichier n'existe pas

Maximum peak let thru current (A)

50 Hz rms symetrical prospective current (Ip) (A)

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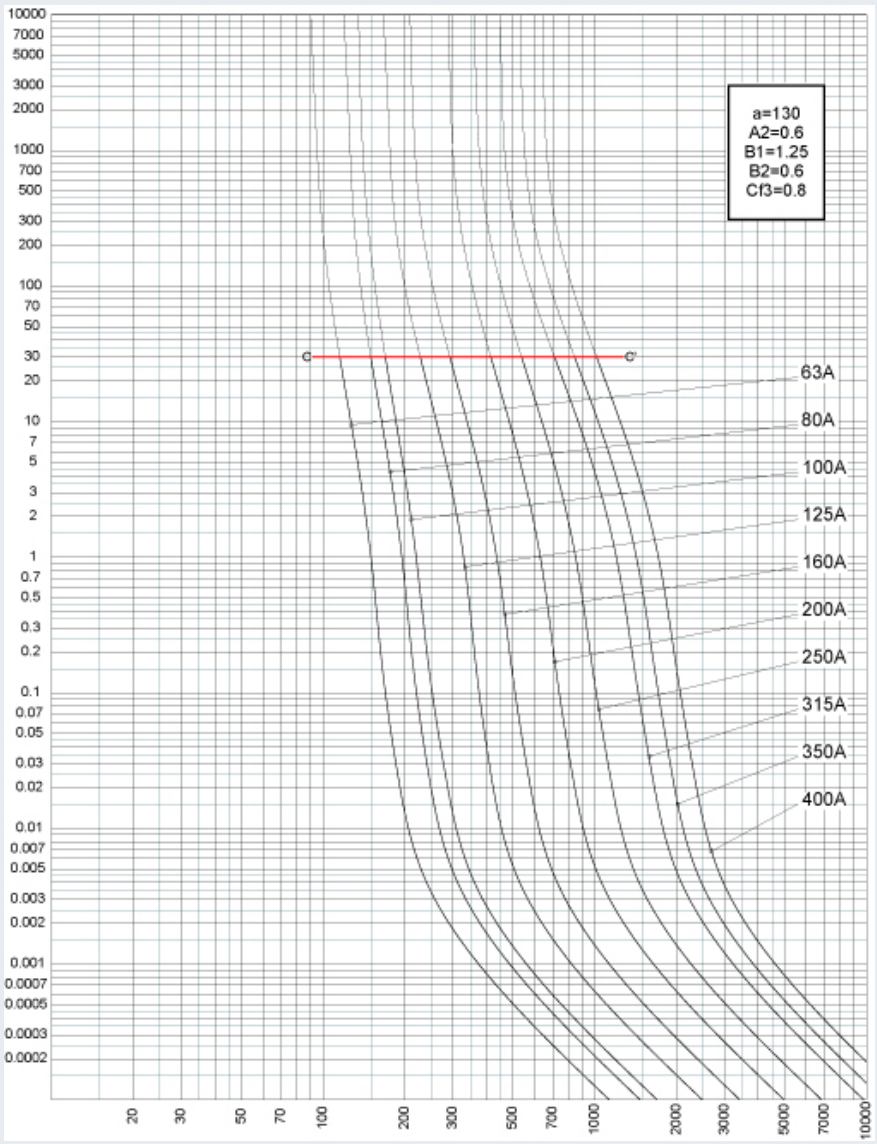
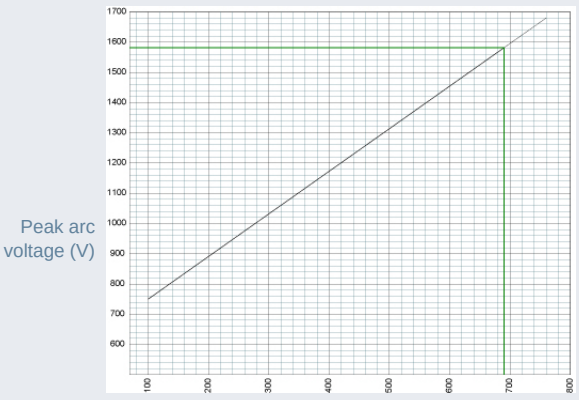
Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 1



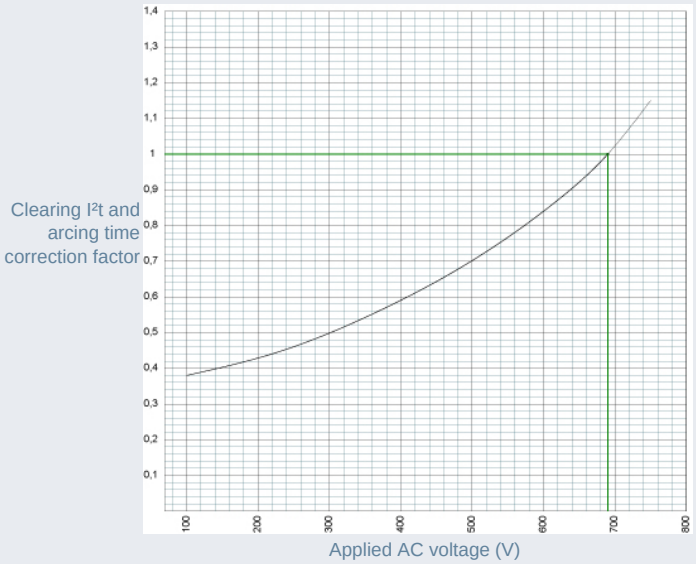
Peak arc voltage
Size 1



Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 1



Peak let thru characteristics
Size 1

fichier n'existe pas

Maximum peak let thru current (A)

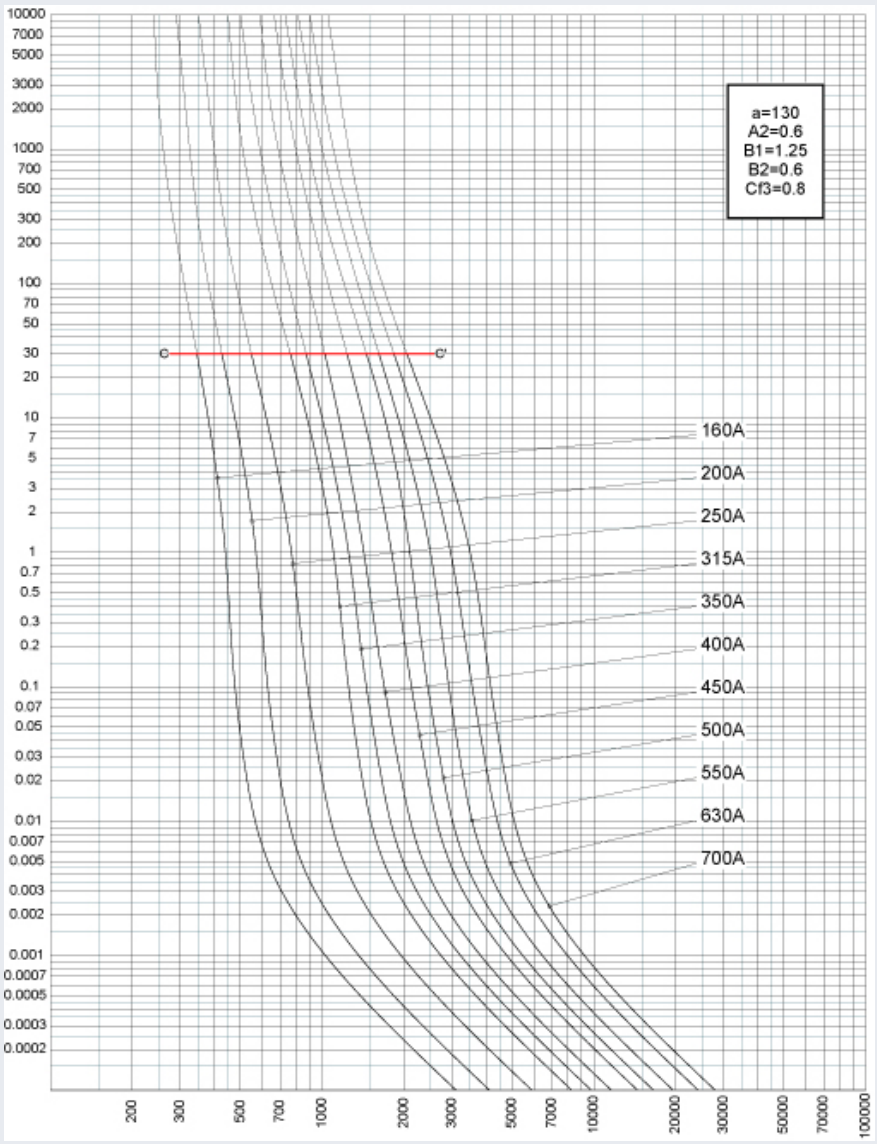
50 Hz rms symetrical prospective current (Ip) (A)

Semiconductor & Special Protection

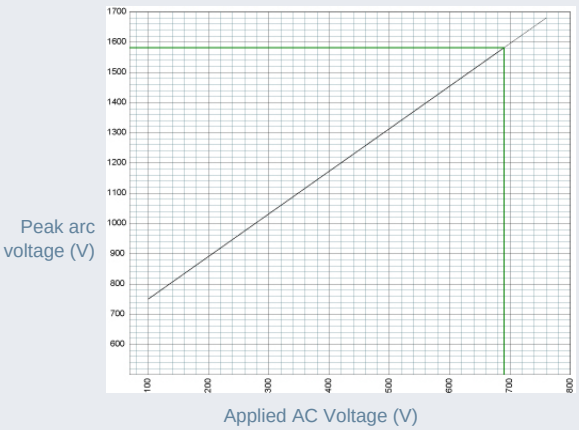
Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 2



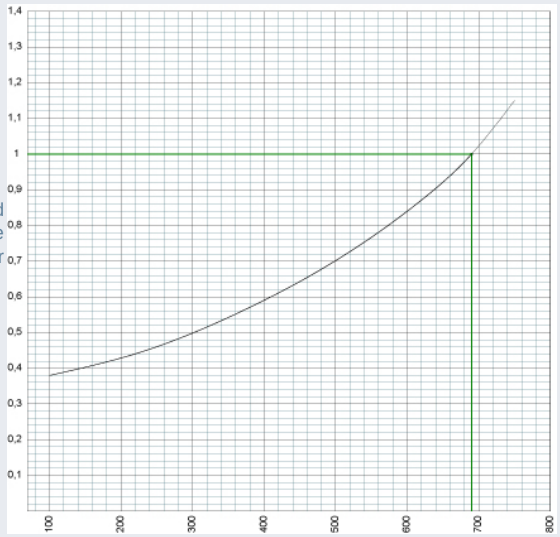
Peak arc voltage
Size 2



Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 2



Peak let thru characteristics
Size 2

fichier n'existe pas

Maximum peak let thru current (A)

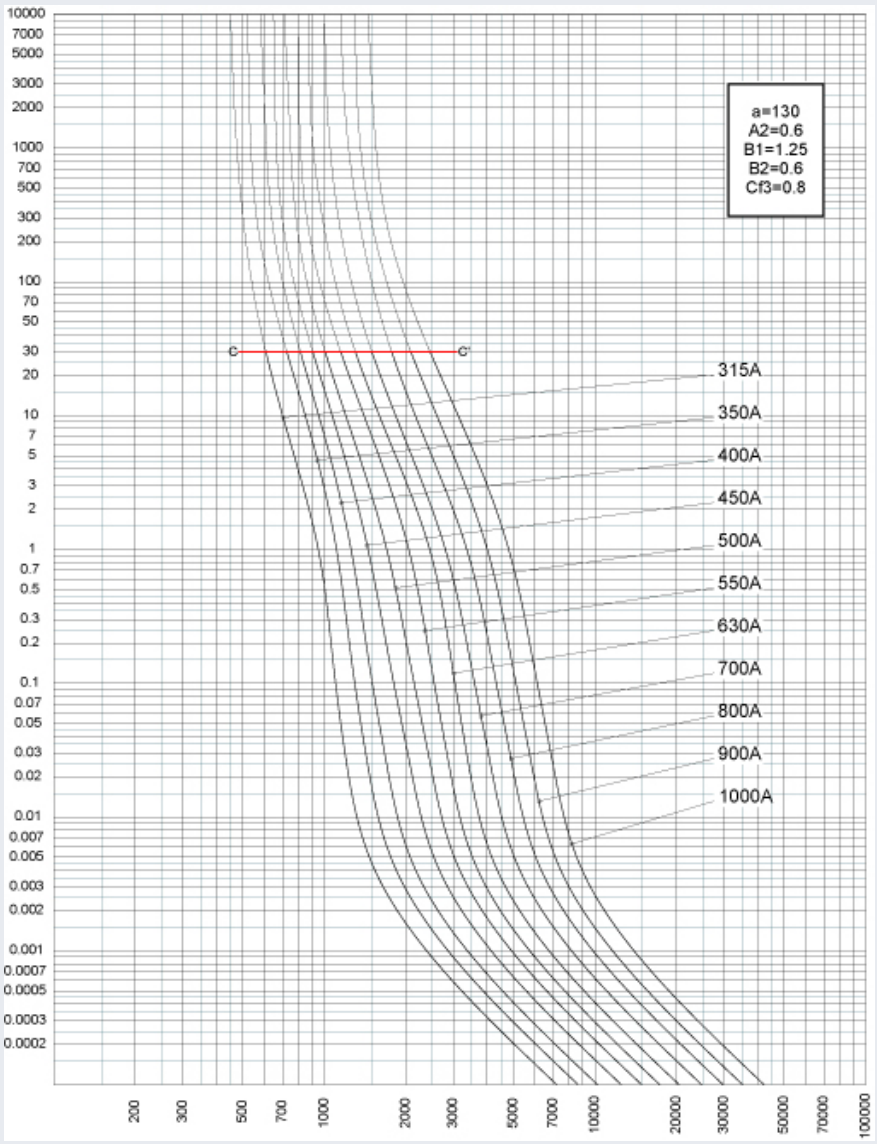
50 Hz rms symetrical prospective current (Ip) (A)

Semiconductor & Special Protection

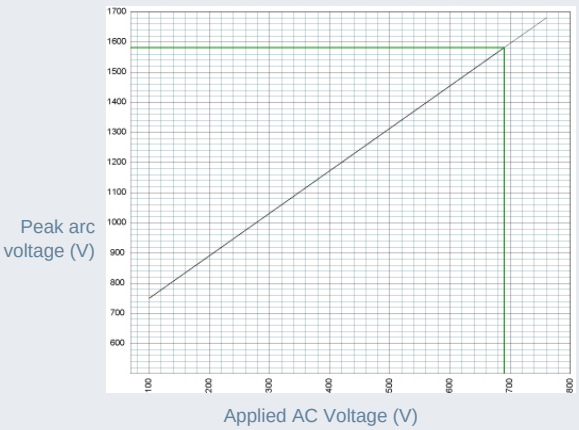
Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

Time current characteristics
Size 3



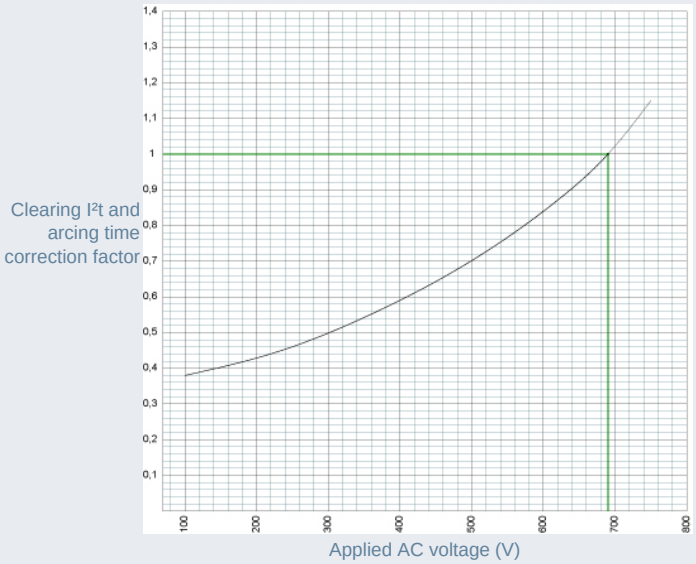
Peak arc voltage
Size 3



Protistor® Square body NH fuse-links

Sizes 000 to 3 aR 500 to 700VAC 16 to 1000A

I²t multiplier coefficient
Size 3



Peak let thru characteristics
Size 3

fichier n'existe pas

Maximum peak let thru current (A)

50 Hz rms symetrical prospective current (Ip) (A)