

PSC PROTECTION SEMICONDUCTOR SQUARE BODY FUSES

SOLUTIONS GUIDE

Now manufactured in North America for faster delivery to our North American consumers



FERRAZ SHAWMUT IS NOW MERSEN

MERSEN

PSC Square Body Fuses: Built with speed in mind

Mersen's high-performance Protection Semiconductor (PSC) technology square body fuses are truly *built with speed in mind* from protection to delivery. Mersen PSC semiconductor fuses deliver the ultimate in protection for your power conversion equipment.

Mersen's speed is not only in the performance, but also in the speed it takes to deliver the semiconductor protection you need. We've increased our production capacity by adding new production lines in our Newburyport, USA and Juarez, Mexico facilities. Our PSC fuses are made to order within ten business days* and direct ship from our production plant to your facility.

What does this mean for you? Over 550 PSC square body fuses in eight different body sizes (Sizes 30, 31, 32, 33, 70, 71, 72, & 73) will be available to ship within two weeks.* With Mersen, you're guaranteed:

- Fast delivery
- Easy ordering
- Superior protection

MERSEN

PSC semiconductor square
body fuses now with

Priority Shipping Commitment

Over 550 PSC fuses in eight different body sizes
will be available to ship within two weeks.*

Sizes 30, 31, 32, 33, 70, 71, 72, and 73



Table of Contents

PSC and Priority Shipping Commitment	2
Why PSC Fuses?	3
Table of Contents	4
690/700 Volt Line	5-14
North American Straight Blade, European Blade	6
North American Tap Single Hole; European Tap Single Hole; Standard Threaded Studs; European French Blade ..	7
700 Volt North American Style Ratings and Application Data, KI Mounting	8
700 Volt North American Style Ratings and Application Data, LI Mounting	9
700 Volt North American Style Ratings and Application Data, TTI Mounting	10
690 Volt European/IEC Style Ratings and Application Data, DIN 80 Mounting	11
690 Volt European/IEC Style Ratings and Application Data, DIN 110 Mounting	12
690 Volt European/IEC Style Ratings and Application Data, TTF Mounting	13
690 Volt European/IEC Style Ratings and Application Data, EF Mounting	14
1250/1300 Volt Line	15-21
North American Straight Blade, Types LI & LLI; European Blade DIN 110 Mounting	16
1250/1300 Volt North American and European Tap Single Hole, Type TTI/TTF; Standard Threaded Studs	17
1300 Volt North American Style Ratings and Application Data, LI, LLI Mounting	18
1300 Volt North American Style Ratings and Application Data, TTI Mounting	19
1250 Volt European/IEC Style Ratings and Application Data, DIN 110 Mounting	20
1250 Volt European/IEC Style Ratings and Application Data, TTF Mounting	21
Microswitches	22
Mersen Electrical Protection Solutions for Power Electronics	23
Contact Mersen	24



690/700 Volt PSC Square Body

Mersen 690/700V PSC square body fuses provide maximum flexibility in equipment design and ultimate protection for today's power conversion equipment. These square body fuses are available in four different body sizes, each size having more than seven worldwide acceptable mounting styles. The different mounting styles and body sizes along with a broad range of ampere ratings allow greatest flexibility in equipment design.

Mersen PSC fuses have been engineered to provide state-of-the-art protection for SCRs, diodes, thyristors, GTOs and IGBT devices. They have die-cut elements embedded in solidified sand, which helps control arcing characteristics for low I^2t and high interrupting rating. All contact surfaces are silver plated and all hardware is non-magnetic.

All PSC square body fuses are equipped with a low voltage trip-indicator. This trip-indicator can operate a field mountable microswitch which is easily mounted directly onto the fuse.

Features/Benefits:

- Choice of mounting styles gives wide choice for equipment design
- Broad range of ampere ratings in a given body size for design flexibility
- UL/CSA/IEC 60269-4 compliance for worldwide semiconductor applications

Highlights:

- Extremely fast-acting
- Current-limiting
- Very low I^2t
- Worldwide acceptability
- Superior cycling ability

Applications:

- Protection of rectifiers, inverters, DC drives, UPS Systems, reduced voltage motor starters, and other equipment in globally accepted applications



Ratings:

- Volts** : 450-700 VAC
 : DC - consult factory
- Amps** : 40-2500A
- I.R.** : 200kA AC

Approvals:

- UL recognized component
File E76491
- IEC 60269-4 certified
- CSA 012636 0 000
- CCC approved

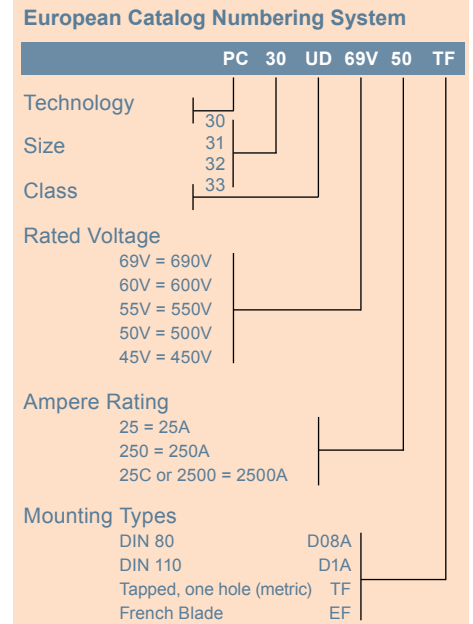
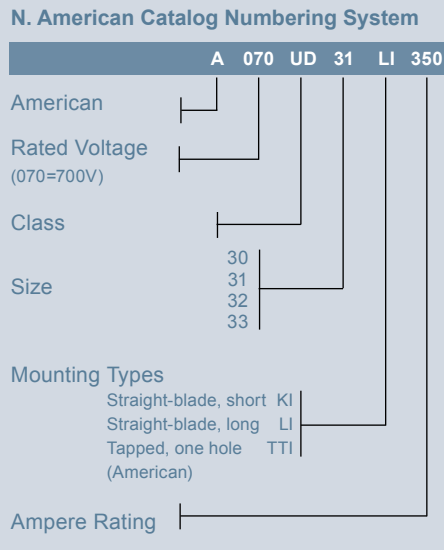


Catalog Number Designation:

A070 UD: North American Mounting Style/Approval Tested @ V_N

PC: European/IEC Mounting Style/Approval Tested @ $1.1 V_N$

* V_N = rated voltage

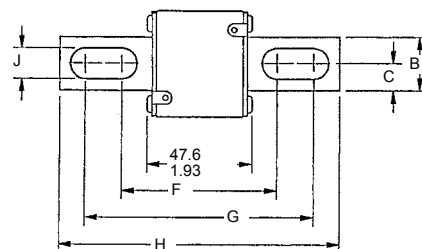


690/700 Volt PSC Square Body

North American Short Straight Blade, Type KI

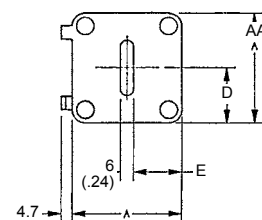
Body Size	Type	Dimensions - mm / in								
		A	B	C	D	E	F	G	H	J
30	KI	40 (1.57)	25 (.98)	12.5 (.49)	21 (.83)	18 (.71)	68 (2.68)	107 (4.21)	129 (5.08)	10.5 (.41)
31		51 (2.00)	25 (.98)	12.5 (.49)	25.5 (1.00)	22.5 (.88)	67.6 (2.66)	107.1 (4.216)	128.8 (5.07)	14.3 (.56)
32		60 (2.36)	32 (1.26)	16 (.63)	30 (1.18)	27 (1.06)	74.2 (2.92)	109 (4.29)	134 (5.28)	14.6 (.57)
33		74.5 (2.93)	40 (1.57)	20 (.79)	37.2 (1.46)	34.2 (1.35)	75.4 (2.97)	107.6 (4.24)	134 (5.28)	15.9 (.63)

Outline Dimensions: Types KI and LI



North American Long Straight Blade, Type LI

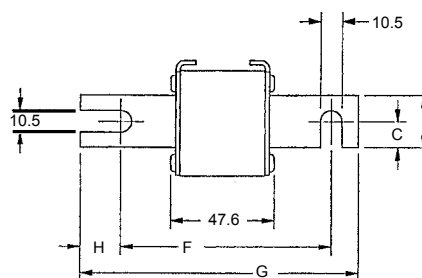
Body Size	Type	Dimensions - mm / in								
		A	B	C	D	E	F	G	H	J
30	LI	40 (1.57)	25 (.98)	12.5 (.49)	21 (.83)	18 (.71)	87.6 (3.45)	126.6 (4.98)	148.6 (5.85)	10.5 (.41)
31		51 (2.01)	25 (.98)	12.5 (.49)	25.5 (1.00)	22.5 (.89)	91.6 (3.61)	122.4 (4.82)	148.6 (5.85)	14.6 (.57)
32		60 (2.36)	32 (1.26)	16 (.63)	30 (1.18)	27 (1.06)	94.2 (3.71)	129 (5.08)	153 (6.02)	14.6 (.57)
33		74.5 (2.93)	40 (1.57)	20 (.79)	37.2 (1.46)	34.2 (1.35)	94.4 (3.72)	126.6 (4.98)	153 (6.02)	15.9 (.63)



European Blade DIN 80, Type D08A

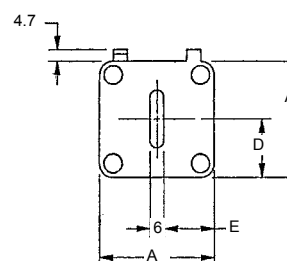
Body Size	Type	Dimensions - mm						
		A	B	C	D	E	F	G
30	DIN 80	40	25	12.5	21	17	77	110
31		51	25	12.5	25	22.5	77	110
32		60	32	16	30	27	77	110
33		74.5	40	20	37.2	34.25	77	110

Outline Dimensions: Types D08A and D1A



European Blade DIN 110, Type D1A

Body Size	Type	Dimensions - mm						
		A	B	C	D	E	F	G
30	DIN 110	40	25	12.5	21	17	101.6	134.6
31		51	25	12.5	25.5	22.5	101.6	134.6
32		60	32	16	30	27	101.6	134.6
33		74.5	40	20	37.2	34.25	101.6	134.6



690/700 Volt PSC Square Body

690 Volt European/IEC Style Ratings and Application Data, EF Mounting

Body Size	Ampere Rating I_n (A)	Rated Voltage V_n (V) (IEC)	Melting I ² t (A ² s x 10 ³)	Total Clearing I ² t @ V_n (A ² s x 10 ³)	Watts Loss @ I_n (W)	Reference No.	Catalog No.	Description
30	50	690	0.116	0.68	9	R300372	PC30UD69V50EF	6,9URD30EF0050
	63	690	0.2	1.2	14	H300088	PC30UD69V63EF	6,9URD30EF0063
	80	690	0.33	1.9	19	J300089	PC30UD69V80EF	6,9URD30EF0080
	100	690	0.47	2.7	26	K300090	PC30UD69V100EF	6,9URD30EF0100
	125	690	0.85	4.9	30	L300091	PC30UD69V125EF	6,9URD30EF0125
	160	690	1.6	9.2	37	M300092	PC30UD69V160EF	6,9URD30EF0160
	200	690	3	16.7	43	N300093	PC30UD69V200EF	6,9URD30EF0200
	250	690	5.8	32.4	50	P300094	PC30UD69V250EF	6,9URD30EF0250
	315	690	12	67	55	Q300095	PC30UD69V315EF	6,9URD30EF0315
	350	690	15.5	86	60	R300096	PC30UD69V350EF	6,9URD30EF0350
400	690	23	130	65	S300097	PC30UD69V400EF	6,9URD30EF0400	
31	200	690	2.6	14.6	45	C300037	PC31UD69V200EF	6,9URD31EF0200
	250	690	4.7	27	52	D300038	PC31UD69V250EF	6,9URD31EF0250
	315	690	7.5	43	65	E300039	PC31UD69V315EF	6,9URD31EF0315
	350	690	10.5	59	67	N300047	PC31UD69V350EF	6,9URD31EF0350
	400	690	19	110	68	F300040	PC31UD69V400EF	6,9URD31EF0400
	450	690	26.5	150	70	G300041	PC31UD69V450EF	6,9URD31EF0450
	500	690	37	210	72	H300042	PC31UD69V500EF	6,9URD31EF0500
	550	690	52	300	75	J300043	PC31UD69V550EF	6,9URD31EF0550
	630	690	75	421	85	K300044	PC31UD69V630EF	6,9URD31EF0630
700	690	95	530	95	L300045	PC31UD69V700EF	6,9URD31EF0700	
32	400	690	15	86	75	V300168	PC32UD69V400EF	6,9URD32EF0400
	450	690	22	124	80	W300169	PC32UD69V450EF	6,9URD32EF0450
	500	690	28	157	90	X300170	PC32UD69V500EF	6,9URD32EF0500
	550	690	37	211	95	Y300171	PC32UD69V550EF	6,9URD32EF0550
	630	690	54	302	105	Z300172	PC32UD69V630EF	6,9URD32EF0630
	700	690	76	432	110	A300173	PC32UD69V700EF	6,9URD32EF0700
	800	690	115	648	120	B300174	PC32UD69V800EF	6,9URD32EF0800
	900	690	170	972	125	C300175	PC32UD69V900EF	6,9URD32EF0900
	1000	690	240	1350	135	D300176	PC32UD69V1000EF	6,9URD32EF1000
33	500	690	19	108	105	Z300218	PC33UD69V500EF	6,9URD33EF0500
	550	690	27	151	110	A300219	PC33UD69V550EF	6,9URD33EF0550
	630	690	40	227	120	B300220	PC33UD69V630EF	6,9URD33EF0630
	700	690	55	324	125	C300221	PC33UD69V700EF	6,9URD33EF0700
	800	690	95	529	130	D300222	PC33UD69V800EF	6,9URD33EF0800
	900	690	135	760	135	E300223	PC33UD69V900EF	6,9URD33EF0900
	1000	690	170	970	155	F300224	PC33UD69V1000EF	6,9URD33EF1000
	1100	690	240	1360	160	G300225	PC33UD69V1100EF	6,9URD33EF1100
	1250	690	350	2000	180	H300226	PC33UD69V1250EF	6,9URD33EF1250
1400	6960	480	2700	200	J300227	PC33UD69V1400EF	6,9URD33EF1400	