

# 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



# 1250/1300 Volt PSC Square Body

Mersen 1250/1300V 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 four 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  $I^2t$
- 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** : 650-1300 VAC  
 : DC - Consult Factory
- Amps** : 50-1800A
- I.R.** : 100kA AC

## Approvals:

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



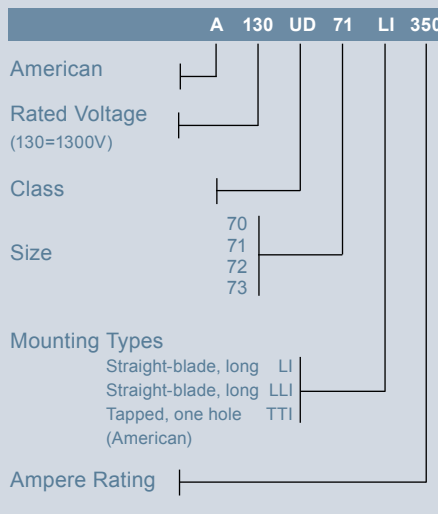
## Catalog Number Designation:

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

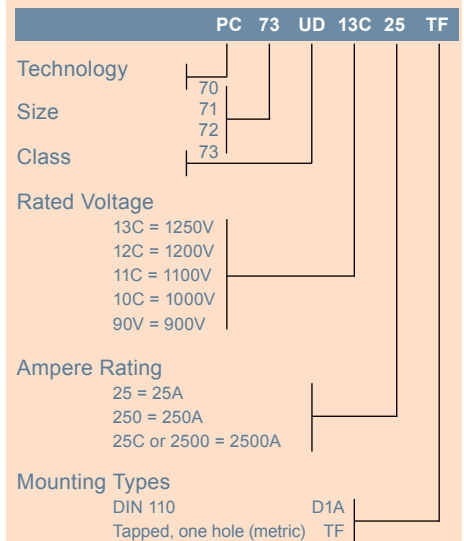
**PC:** European/IEC Mounting Style/Approval Tested @  $1.1 V_N$

\* $V_N$  = rated voltage

### N. American Catalog Numbering System



### European Catalog Numbering System

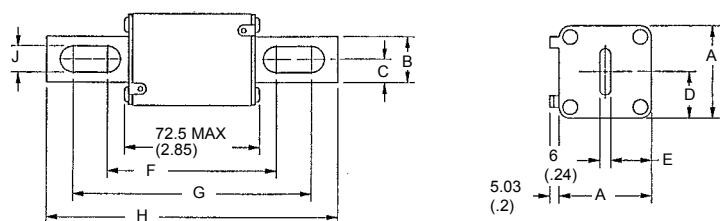


# 1250/1300 Volt PSC Square Body

## North American Straight Blade, Types LI & LLI

Body Size	Type	Dimensions - mm (in)								
		A	B	C	D	E	F	G	H	J
70	LI	40 (1.57)	25 (0.98)	12.5 (0.49)	21 (0.83)	18 (0.71)	91.4 (3.60)	130.4 (5.13)	152.4 (6.00)	10.5 (0.41)
71	LLI	51 (2.01)	25 (0.98)	12.5 (0.49)	25.5 (1.00)	22.5 (0.89)	91.4 (3.60)	130.4 (5.13)	152.4 (6.00)	14.6 (0.57)
72	LI	60 (2.36)	32 (1.26)	16 (0.63)	30 (1.18)	27 (1.06)	97.6 (3.84)	132.4 (5.2)	157.4 (6.20)	14.6 (0.57)
73		74.5 (2.93)	40 (1.57)	20 (0.79)	37.2 (1.46)	34.2 (1.35)	98.8 (3.89)	132.4 (5.21)	157.4 (6.20)	15.9 (0.63)

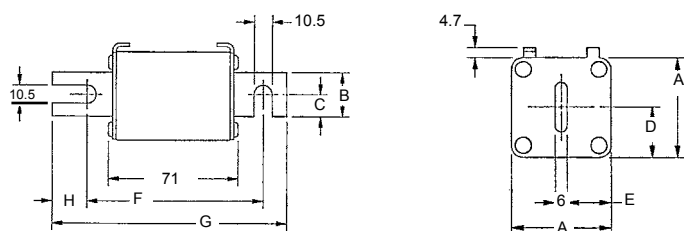
## Outline Dimensions: Types LI and LLI



## European Blade DIN 110, Type D1A

Body Size	Type	Dimensions - mm (in)						
		A	B	C	D	E	F	G
70	DIN 110	40 (1.57)	25 (.98)	12.5 (.49)	21 (.83)	17 (.67)	100.4 (3.95)	133.4 (5.25)
71		51 (2.01)	25 (.98)	12.5 (.49)	25.5 (1.00)	22.5 (.89)	100.4 (3.95)	133.4 (5.25)
72		60 (2.36)	32 (1.26)	16 (.63)	30 (1.18)	27 (1.06)	100.4 (3.95)	133.4 (5.25)
73		74.5 (2.93)	40 (1.57)	20 (.79)	37.2 (1.46)	34.25 (1.35)	100.4 (3.95)	133.4 (5.25)

## Outline Dimensions: Type D1A

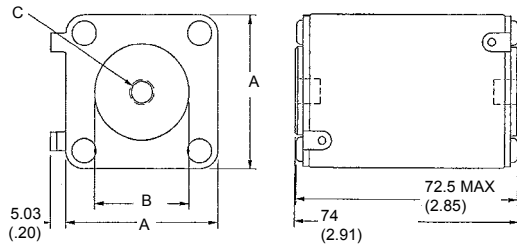


# 1250/1300 Volt PSC Square Body

## 1250/1300 Volt North American and European Tap Single Hole, Type TTI/TTF

Body Size	Type	Dimensions - mm/(In)		Tapped Hole (N. A.)		Tapped Hole (EURO.)	
		A	B	C (TTI)	D (TTF)		
70	TTI/TTF	40 (1.57)	25 (1.00)	5/16-18 X .23DP	M8 X 1.25 X 6 DP		
71		50.8 (2.00)	30.2 (1.19)	5/16-18 X .36DP	M8 X 1.25 X 9 DP		
72		60.3 (2.37)	38.1 (1.50)	3/8-16 X .36DP	M10 X 1.50 X 9 DP		
73		74.6 (2.94)	46 (1.81)	1/2-13 X .35DP	M12 X 1.75 X 9 DP		

### Types TTI and TTF

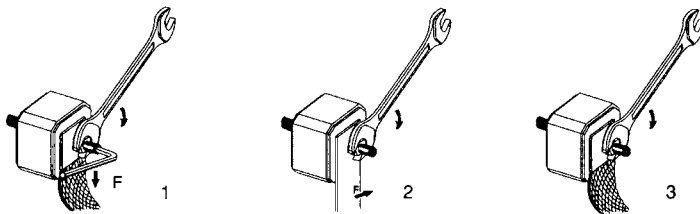


### Standard Threaded Studs

Size	Reference No. Per Pair	Ref. and Dimension Per Pair of Studs	Weight (g)	Max Stud Mounting Torque (Nm)*	Max Nut Tightening Torque (Nm)*		
					Fig. 1	Fig. 2	Fig. 3
70 & 71	S098801	HC M8 X 30 & M 8 X 35	23	13	13.5	13.5	13.5
72	T098802	HC M 10 X 30 & M 10 X 50	40	15	26	26	26
73	V098803	HC M 12 X 35 & M 12 X 50	60		46	46	15
2X72	W098804	HC M 10 X 50	50		26	26	26
2X73	X098805	HC M 12 X 50	70		46	46	15

Packaging: 6 pairs

\*in.lbs = Nm/0.113



# 1250/1300 Volt PSC Square Body

## 1300 Volt North American Style Ratings and Application Data, TTI Mounting

Body Size	Ampere Rating $I_n$ (A)	Rated Voltage $V_n$ (V)	Melting $I^2t$ ( $A^2s \times 10^3$ )	Total Clearing $I^2t$ @ $V_n$ ( $A^2s \times 10^3$ )	Watts Loss @ $I_n$ (W)	Reference No.	Catalog No.	Description
70	63	1300	0.21	1.7	26	Q301015	A130UD70TTI63	A130URD70TTI0063
	80	1300	0.65	3.8	27	R301016	A130UD70TTI80	A130URD70TTI0080
	100	1300	0.83	7.2	30	S301017	A130UD70TTI100	A130URD70TTI0100
	125	1300	1.3	11	38	T301018	A130UD70TTI125	A130URD70TTI0125
	160	1300	2.6	21	45	V301019	A130UD70TTI160	A130URD70TTI0160
	200	1300	4.7	38	54	W301020	A130UD70TTI200	A130URD70TTI0200
	250	1300	9.6	77	58	X301021	A130UD70TTI250	A130URD70TTI0250
	315	1300	20	149	66	Z301023	A130UD70TTI315	A130URD70TTI0315
	350	1200	28	180	68	A301024	A120UD70TTI350	A120URD70TTI0350
71	160	1300	2.6	21	46	B301025	A130UD71TTI160	A130URD71TTI0160
	200	1300	4.7	38	54	C301026	A130UD71TTI200	A130URD71TTI0200
	250	1300	8.9	72	61	D301027	A130UD71TTI250	A130URD71TTI0250
	280	1300	12	96	68	E301028	A130UD71TTI280	A130URD71TTI0280
	315	1300	16	129	73	F301029	A130UD71TTI315	A130URD71TTI0315
	350	1300	22	178	76	G301030	A130UD71TTI350	A130URD71TTI0350
	400	1300	38	308	76	H301031	A130UD71TTI400	A130URD71TTI0400
	450	1300	47	378	87	J301032	A130UD71TTI450	A130URD71TTI0450
	500	1200	68	441	90	K301033	A130UD71TTI500	A130URD71TTI0500
	550	1200	84	548	98	L301034	A120UD71TTI550	A120URD71TTI0550
	630	1200	126	820	105	M301035	A120UD71TTI630	A120URD71TTI0630
72	280	1300	10	85	72	N301036	A130UD72TTI280	A130URD72TTI0280
	315	1300	15	125	76	P301037	A130UD72TTI315	A130URD72TTI0315
	350	1300	21	170	77	Q301038	A130UD72TTI350	A130URD72TTI0350
	400	1300	33	270	80	R301039	A130UD72TTI400	A130URD72TTI0400
	450	1300	44	360	87	S301040	A130UD72TTI450	A130URD72TTI0450
	500	1300	57	465	94	T301041	A130UD72TTI500	A130URD72TTI0500
	550	1300	68	550	110	V301042	A130UD72TTI550	A130URD72TTI0550
	630	1300	106	860	113	W301043	A130UD72TTI630	A130URD72TTI0630
	700	1200	142	920	122	X301044	A120UD72TTI700	A120URD72TTI0700
800	1200	215	1400	125	Y301045	A120UD72TTI800	A120URD72TTI0800	
73	315	1300	12	102	84	Z301046	A130UD73TTI315	A130URD73TTI0315
	350	1300	17	150	86	A301047	A130UD73TTI350	A130URD73TTI0350
	400	1300	25	203	93	B301048	A130UD73TTI400	A130URD73TTI0400
	450	1300	35	290	99	C301049	A130UD73TTI450	A130URD73TTI0450
	500	1300	44	360	110	D301050	A130UD73TTI500	A130URD73TTI0500
	550	1300	57	465	116	E301051	A130UD73TTI550	A130URD73TTI0550
	630	1300	84	680	125	F301052	A130UD73TTI630	A130URD73TTI0630
	700	1300	113	900	135	G301053	A130UD73TTI700	A130URD73TTI0700
	800	1300	190	1530	136	H301054	A130UD73TTI800	A130URD73TTI0800
	900	1300	250	1660	150	T1013903	A130UD73TTI900	A130URD73TTI0900
	1000	1000	370	2430	152	K301056	A110UD73TTI1000	A110URD73TTI1000
	1100	1000	445	2255	168	L301057	A100UD73TTI1100	A100URD73TTI1100
	1250	1000	585	3080	186	M301058	A100UD73TTI1250	A100URD73TTI1250
	1400	900	755	3700	210	N301059	A090UD73TTI1400	A090URD73TTI1400
	1600	700	1430	5740	203	Q300877	A070UD73TTI1600	A070URD73TTI1600
1800	650	2040	7150	206	R300878	A065UD73TTI1800	A065URD73TTI1800	