

# 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

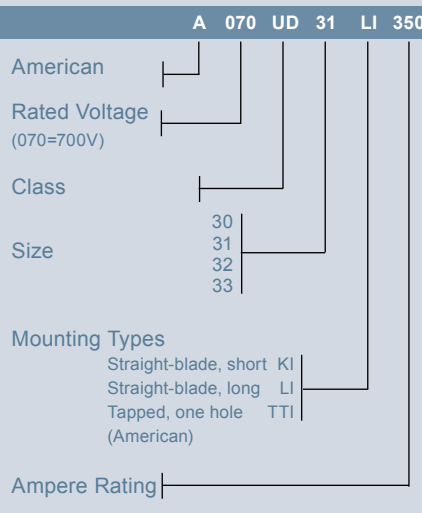
## Catalog Number Designation:

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

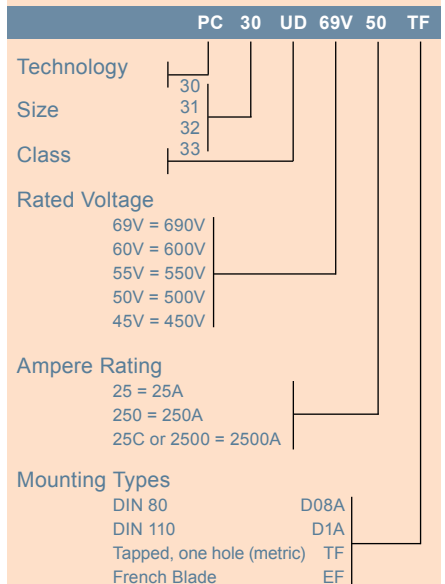
**PC:** European/IEC Mounting Style/Approval Tested @ 1.1  $V_N$

\* $V_N$  = rated voltage

### N. American Catalog Numbering System



### European Catalog Numbering System



## 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

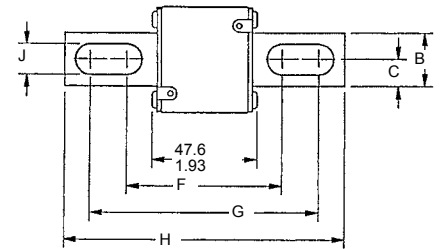


# 690/700 Volt PSC Square Body

## North American Short Straight Blade, Type KI

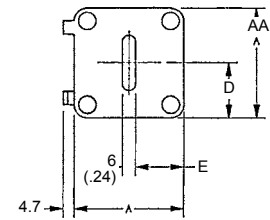
| Body Size | Type | Dimensions - mm / in |              |               |                |                |                |                  |                 |               |
|-----------|------|----------------------|--------------|---------------|----------------|----------------|----------------|------------------|-----------------|---------------|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

## Outline Dimensions: Types KI and LI



## North American Long Straight Blade, Type LI

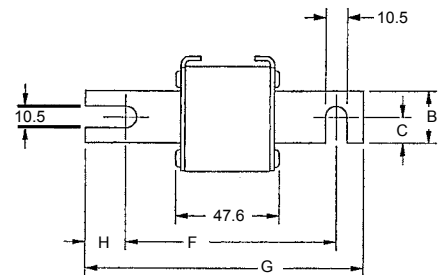
| Body Size | Type | Dimensions - mm / in |              |               |                |                |                |                 |                 |               |
|-----------|------|----------------------|--------------|---------------|----------------|----------------|----------------|-----------------|-----------------|---------------|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



## European Blade DIN 80, Type D08A

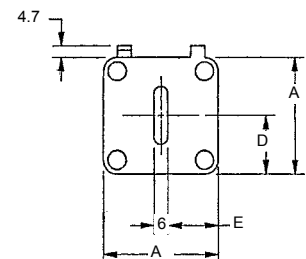
| Body Size | Type   | Dimensions - mm |    |      |      |       |    |     |
|-----------|--------|-----------------|----|------|------|-------|----|-----|
|           |        | A               | B  | C    | D    | E     | F  | G   |
| 30        | DIN 80 | 40              | 25 | 12.5 | 21   | 17    | 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

## 700 Volt North American Style Ratings and Application Data, LI Mounting

| Body Size | Ampere Rating<br>$I_n$ (A) | Rated Voltage<br>$V_n$ (V) | Melting I <sup>2</sup> t<br>(A <sup>2</sup> s x 10 <sup>3</sup> ) | Total Clearing I <sup>2</sup> t<br>@ $V_n$<br>(A <sup>2</sup> s x 10 <sup>3</sup> ) | Watts Loss<br>@ $I_n$ (W) | Reference No.  | Catalog No.     | Description     |
|-----------|----------------------------|----------------------------|---|---|---------------------------|----------------|-----------------|-----------------|
| 30        | 63                         | 700                        | 0.2   | 1.2   | 14                        | M300138        | A070UD30LI63    | A070URD30LI0063 |
|           | 80                         | 700                        | 0.33  | 1.9   | 19                        | N300139        | A070UD30LI080   | A070URD30LI0080 |
|           | 100                        | 700                        | 0.47  | 2.7   | 26                        | P300140        | A070UD30LI100   | A070URD30LI0100 |
|           | 125                        | 700                        | 0.85  | 4.9   | 30                        | Q300141        | A070UD30LI125   | A070URD30LI0125 |
|           | 160                        | 700                        | 1.6   | 9.2   | 37                        | R300142        | A070UD30LI160   | A070URD30LI0160 |
|           | 200                        | 700                        | 3   | 16.7  | 43                        | S300143        | A070UD30LI200   | A070URD30LI0200 |
|           | 250                        | 700                        | 5.8   | 32.4  | 50                        | T300144        | A070UD30LI250   | A070URD30LI0250 |
|           | 315                        | 700                        | 12  | 67  | 55                        | V300145        | A070UD30LI315   | A070URD30LI0315 |
|           | 350                        | 700                        | 15.5  | 86  | 60                        | W300146        | A070UD30LI350   | A070URD30LI0350 |
|           | 400                        | 700                        | 23  | 130   | 65                        | X300147        | A070UD30LI400   | A070URD30LI0400 |
|           | 450                        | 700                        | 26  | 165   | 88                        | K300527        | A070UD30LI450   | A070URD30LI0450 |
|           | 500                        | 700                        | 41  | 264   | 88                        | L300528        | A070UD30LI500   | A070URD30LI0500 |
|           | 550                        | 700                        | 52  | 330   | 90                        | M300529        | A070UD30LI550   | A070URD30LI0550 |
| 31        | 200                        | 700                        | 2.6   | 14.6  | 45                        | V300697        | A070UD31LI200   | A070URD31LI0200 |
|           | 250                        | 700                        | 4.7   | 27  | 52                        | W300698        | A070UD31LI250   | A070URD31LI0250 |
|           | 315                        | 700                        | 7.5   | 43  | 65                        | X300699        | A070UD31LI315   | A070URD31LI0315 |
|           | 350                        | 700                        | 10.5  | 59  | 67                        | Y300700        | A070UD31LI350   | A070URD31LI0350 |
|           | 400                        | 700                        | 19  | 110   | 68                        | Z300701        | A070UD31LI400   | A070URD31LI0400 |
|           | 450                        | 700                        | 26.5  | 150   | 70                        | A300702        | A070UD31LI450   | A070URD31LI0450 |
|           | 500                        | 700                        | 37  | 210   | 72                        | B300703        | A070UD31LI500   | A070URD31LI0500 |
|           | 550                        | 700                        | 52  | 300   | 75                        | C300704        | A070UD31LI550   | A070URD31LI0550 |
|           | 630                        | 700                        | 75  | 421   | 85                        | D300705        | A070UD31LI630   | A070URD31LI0630 |
|           | 700                        | 700                        | 95  | 530   | 95                        | E300706        | A070UD31LI700   | A070URD31LI0700 |
| 800       | 700                        | 140                        | 880   | 120   | F300707                   | A070UD31LI800  | A070URD31LI0800 |                 |
| 32        | 400                        | 700                        | 15  | 86  | 75                        | J300204        | A070UD32LI400   | A070URD32LI0400 |
|           | 450                        | 700                        | 22  | 124   | 80                        | K300205        | A070UD32LI450   | A070URD32LI0450 |
|           | 500                        | 700                        | 28  | 157   | 90                        | L300206        | A070UD32LI500   | A070URD32LI0500 |
|           | 550                        | 700                        | 37  | 211   | 95                        | M300207        | A070UD32LI550   | A070URD32LI0550 |
|           | 630                        | 700                        | 54  | 302   | 105                       | N300208        | A070UD32LI630   | A070URD32LI0630 |
|           | 700                        | 700                        | 76  | 432   | 110                       | P300209        | A070UD32LI700   | A070URD32LI0700 |
|           | 800                        | 700                        | 115   | 648   | 120                       | Q300210        | A070UD32LI800   | A070URD32LI0800 |
|           | 900                        | 700                        | 170   | 972   | 125                       | R300211        | A070UD32LI900   | A070URD32LI0900 |
|           | 1000                       | 700                        | 240   | 1350  | 135                       | S300212        | A070UD32LI1000  | A070URD32LI1000 |
|           | 1100                       | 650                        | 270   | 1620  | 165                       | B301071        | A065UD32LI1100  | A065URD32LI1100 |
|           | 1250                       | 600                        | 410   | 2100  | 180                       | C301072        | A060UD32LI1250  | A060URD32LI1250 |
|           | 1400                       | 550                        | 555   | 2600  | 190                       | D301073        | A055UD32LI1400  | A055URD32LI1400 |
|           | 1600                       | 550                        | 870   | 4000  | 195                       | E301074        | A055UD32LI1600  | A055URD32LI1600 |
| 1800      | 500                        | 1050                       | 4400  | 330   | F301075                   | A050UD32LI1800 | A050URD32LI1800 |                 |
| 33        | 500                        | 700                        | 19  | 108   | 105                       | K300228        | A070UD33LI500   | A070URD33LI0500 |
|           | 550                        | 700                        | 27  | 151   | 110                       | L300229        | A070UD33LI550   | A070URD33LI0550 |
|           | 630                        | 700                        | 40  | 227   | 120                       | M300230        | A070UD33LI630   | A070URD33LI0630 |
|           | 700                        | 700                        | 55  | 324   | 125                       | N300231        | A070UD33LI700   | A070URD33LI0700 |
|           | 800                        | 700                        | 95  | 529   | 130                       | P300232        | A070UD33LI800   | A070URD33LI0800 |
|           | 900                        | 700                        | 135   | 760   | 135                       | Q300233        | A070UD33LI900   | A070URD33LI0900 |
|           | 1000                       | 700                        | 170   | 970   | 155                       | R300234        | A070UD33LI1000  | A070URD33LI1000 |
|           | 1100                       | 700                        | 240   | 1360  | 160                       | S300235        | A070UD33LI1100  | A070URD33LI1100 |
|           | 1250                       | 700                        | 350   | 2000  | 180                       | T300236        | A070UD33LI1250  | A070URD33LI1250 |
|           | 1400                       | 700                        | 480   | 2700  | 200                       | V300237        | A070UD33LI1400  | A070URD33LI1400 |
|           | 1600                       | 650                        | 555   | 3250  | 240                       | G301076        | A065UD33LI1600  | A065URD33LI1600 |
|           | 1800                       | 650                        | 720   | 4330  | 260                       | H301077        | A065UD33LI1800  | A065URD33LI1800 |
|           | 2000                       | 600                        | 950   | 5000  | 290                       | J301078        | A060UD33LI2000  | A060URD33LI2000 |
|           | 2250                       | 550                        | 1250  | 5900  | 330                       | K301079        | A055UD33LI2250  | A055URD33LI2250 |
|           | 2500                       | 500                        | 1870  | 7600  | 330                       | L301080        | A050UD33LI2500  | A050URD33LI2500 |

For the most current product performance data visit [ep-us.mersen.com](http://ep-us.mersen.com) and use catalog search.