

# A100P

## SEMICONDUCTOR PROTECTION FUSES



### HIGHLIGHTS:

- Fast Acting
- Current Limiting
- Low  $I^2t$
- Optional Trigger Indicator

### APPLICATIONS:

- Protection of UPS systems AC/DC drives, reduced voltage motor starters and other 1000V or less semiconductor devices



### Single Pole Fuse Blocks for A100P Fuses

| FUSE<br>AMPERE<br>RATING | FUSE BLOCK<br>CATALOG<br>NUMBER |
|--------------------------|---------------------------------|
| 35-100                   | P266G                           |
| 125-400                  | P266L                           |



A100P Amp-trap® Form 101 Semiconductor Protection fuses are rated 1000V, extending the range of protection for UPS systems, AC and DC drives, reduced voltage motor starters and similar applications where lower  $I^2t$  and superior reliability are needed. With ratings from 15 through 1000 amperes, a wide range of high voltage applications can be served.

### Features/Benefits

- **Low  $I^2t$**  minimizes damage to protected components on short circuit
- **Controlled arc voltage** reduces stress to circuit components during fuse clearing
- **Wide range of ampere ratings**

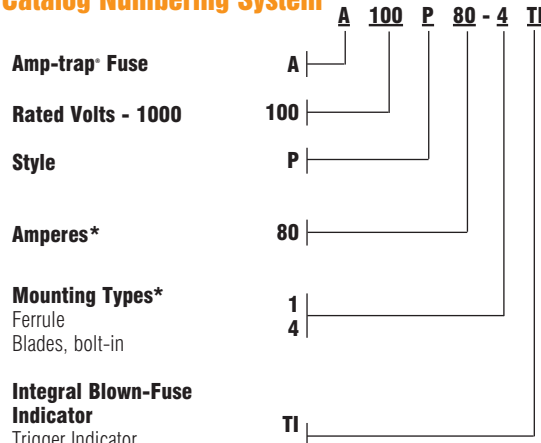
### Ratings

- **AC:** 15-30A1000VAC, 100kA I.R.  
35-1000A  
1000VAC, 100kA I.R.
- **DC:** 15-1000A  
750VDC, 100kA I.R.

### Approvals

- UL Recognized Component
- AC: UL Guide No. JFHR2 (60-800A)
- DC: Ferraz Shawmut Certified

### Catalog Numbering System



\* For ampere ratings and types not listed, consult the factory.

# A100P

## SEMICONDUCTOR PROTECTION FUSES

### Standard Fuse Ampere Ratings, Catalog Numbers

| AMPERE RATING | CATALOG NUMBER | OUTLINE FIG. | AMPERE RATING | CATALOG NUMBER | OUTLINE FIG. | AMPERE RATING | CATALOG NUMBER | OUTLINE FIG. |
|---------------|----------------|--------------|---------------|----------------|--------------|---------------|----------------|--------------|
| 15            | A100P15-1      | 1            | 100           | A100P100-4     | 2            | 350           | A100P350-4TI   | 2            |
| 20            | A100P20-1      | 1            | 100           | A100P100-4TI   | 2            | 400           | A100P400-4     | 2            |
| 25            | A100P25-1      | 1            | 125           | A100P125-4     | 2            | 400           | A100P400-4TI   | 2            |
| 30            | A100P30-1      | 1            | 125           | A100P125-4TI   | 2            | 500           | A100P500-4     | 3            |
| 35            | A100P35-4      | 2            | 150           | A100P150-4     | 2            | 500           | A100P500-4TI   | 3            |
| 40            | A100P40-4      | 2            | 150           | A100P150-4TI   | 2            | 600           | A100P600-4     | 3            |
| 50            | A100P50-4      | 2            | 200           | A100P200-4     | 2            | 600           | A100P600-4TI   | 3            |
| 50            | A100P50-4TI    | 2            | 200           | A100P200-4TI   | 2            | 650           | A100P650-4     | 4            |
| 60            | A100P60-4      | 2            | 225           | A100P225-4     | 2            | 700           | A100P700-4     | 4            |
| 60            | A100P60-4TI    | 2            | 250           | A100P250-4     | 2            | 800           | A100P800-4     | 4            |
| 70            | A100P70-4TI    | 2            | 300           | A100P300-4     | 2            | 800           | A100P800-4TI   | 4            |
| 80            | A100P80-4      | 2            | 300           | A100P300-4TI   | 2            | 1000          | A100P1000-4    | 5            |
| 80            | A100P80-4TI    | 2            | 350           | A100P350-4     | 2            |               |                |              |

For ampere ratings and styles not listed, call Technical Services.

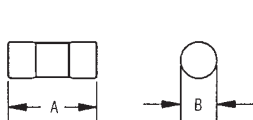


Figure 1

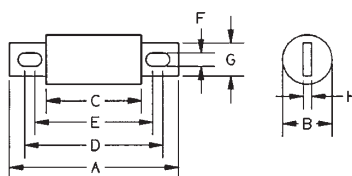


Figure 2

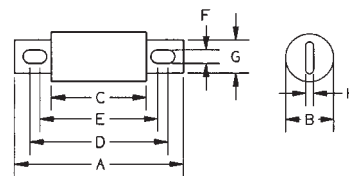


Figure 3

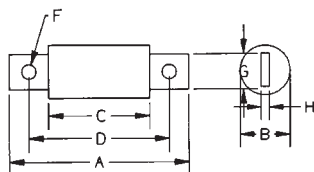


Figure 4

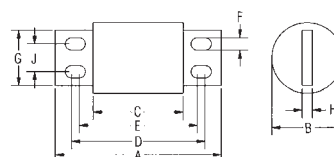


Figure 5

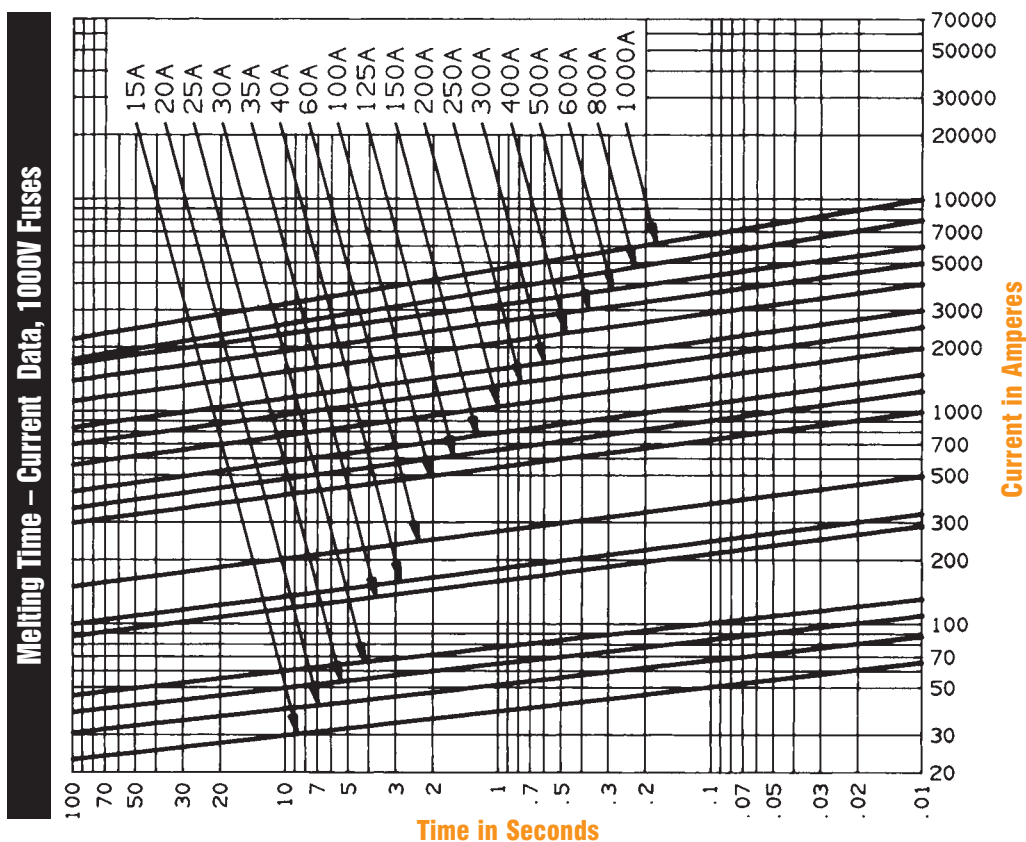
### Dimensions

| OUTLINE REF.    | MOUNTING TYPE | FIG. | DIMENSIONS - INCHES (mm) |                |                |               |               |                |                |                |                |
|-----------------|---------------|------|--------------------------|----------------|----------------|---------------|---------------|----------------|----------------|----------------|----------------|
|                 |               |      | A                        | B              | C              | D             | E             | F              | G              | H              | J              |
| A100P15 to 30   | 1             | 1    | 2.63<br>(66.8)           | 0.56<br>(14.2) | -              | -             | -             | -              | -              | -              | -              |
| A100P35 to 60   | 4, 4TI        | 2    | 5.00<br>(127)            | 1.00<br>(25.4) | 3.50<br>(173)  | 4.31<br>(109) | 4.19<br>(106) | 0.31<br>(7.9)  | 0.75<br>(19.1) | 0.13<br>(3.3)  | -              |
| A100P65 to 100  | 4, 4TI        | 2    | 5.00<br>(127)            | 1.22<br>(31.0) | 3.50<br>(173)  | 4.31<br>(109) | 4.19<br>(106) | 0.31<br>(7.9)  | 1.00<br>(25.4) | 0.19<br>(4.8)  | -              |
| A100P125 to 200 | 4, 4TI        | 2    | 5.72<br>(145)            | 2.00<br>(50.8) | 3.47<br>(88.1) | 4.78<br>(121) | 4.16<br>(106) | 0.41<br>(10.4) | 1.00<br>(25.4) | 0.25<br>(6.4)  | -              |
| A100P225 to 400 | 4, 4TI        | 2    | 5.72<br>(145)            | 2.00<br>(50.8) | 3.47<br>(88.1) | 4.78<br>(121) | 4.16<br>(106) | 0.41<br>(10.4) | 1.50<br>(38.1) | 0.25<br>(6.4)  | -              |
| A100P500 to 600 | 4, 4TI        | 3    | 7.72<br>(196)            | 2.50<br>(63.5) | 3.47<br>(88.1) | 5.88<br>(149) | 5.56<br>(141) | 0.53<br>(13.5) | 2.00<br>(50.8) | 0.38<br>(9.7)  | -              |
| A100P650 to 800 | 4, 4TI        | 4    | 7.44<br>(189)            | 2.88<br>(73.2) | 3.94<br>(100)  | 5.94<br>(151) | -             | 0.63<br>(16.0) | 2.00<br>(50.8) | 0.38<br>(9.7)  | -              |
| A100P1000       | 4             | 5    | 8.22<br>(209)            | 3.50<br>(88.9) | 4.47<br>(114)  | 6.59<br>(167) | 5.84<br>(148) | 0.63<br>(16.0) | 2.75<br>(69.9) | 0.50<br>(12.7) | 1.38<br>(35.1) |

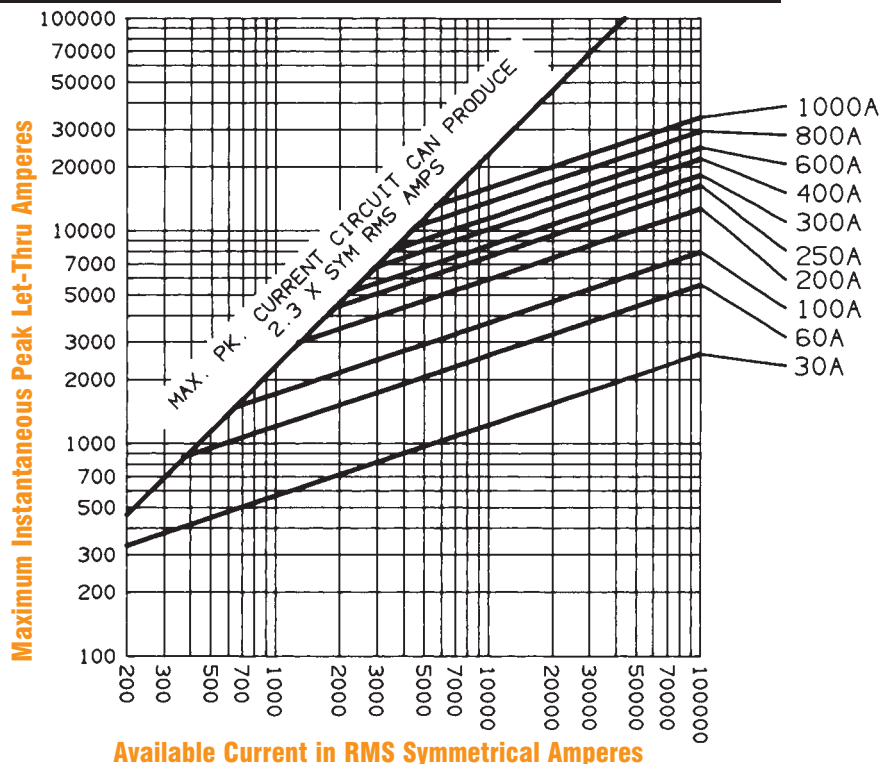
## A100P

## SEMICONDUCTOR PROTECTION FUSES

A100P15 to 1000



Peak Let-Thru Current Data – A100P30 to 1000, 1000 Volts AC



# A100P

## SEMICONDUCTOR PROTECTION FUSES

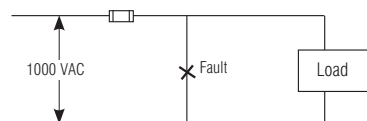
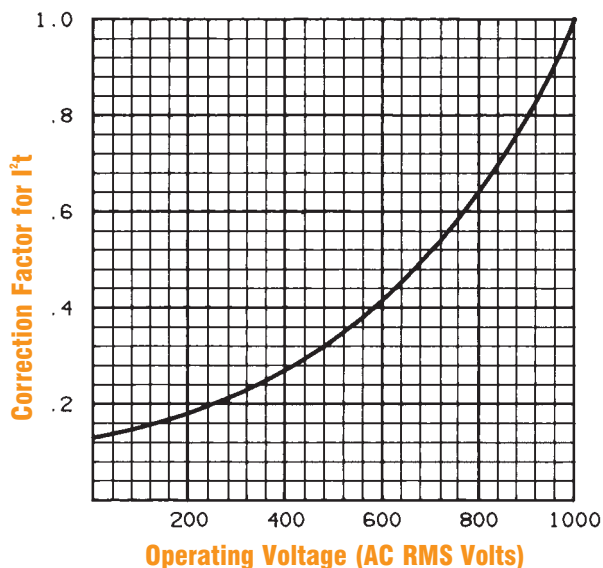


Fig. A

### I<sup>2</sup>t Data – 1000 Volts AC, 100kA

| FUSE<br>AMPERE<br>RATING | I <sup>2</sup> t DATA                            |                                                                          |
|--------------------------|--------------------------------------------------|--------------------------------------------------------------------------|
|                          | MELTING<br>(A <sup>2</sup> s x 10 <sup>3</sup> ) | CLEARING<br>@ 1000VAC<br>FIG. A<br>(A <sup>2</sup> s x 10 <sup>3</sup> ) |
| 15                       | .023                                             | .6                                                                       |
| 20                       | .03                                              | .8                                                                       |
| 25                       | .047                                             | 1.3                                                                      |
| 30                       | .057                                             | 1.5                                                                      |
| 35                       | .29                                              | 2.2                                                                      |
| 40                       | .38                                              | 2.9                                                                      |
| 50                       | .60                                              | 4.5                                                                      |
| 60                       | .86                                              | 6.5                                                                      |
| 65                       | 1.0                                              | 7.6                                                                      |
| 70                       | 1.2                                              | 8.8                                                                      |
| 80                       | 1.5                                              | 12                                                                       |
| 100                      | 2.4                                              | 18                                                                       |
| 125                      | 3.8                                              | 28                                                                       |
| 150                      | 5.4                                              | 41                                                                       |
| 200                      | 9.6                                              | 72                                                                       |
| 225                      | 12                                               | 91                                                                       |
| 250                      | 15                                               | 110                                                                      |
| 300                      | 22                                               | 160                                                                      |
| 350                      | 29                                               | 220                                                                      |
| 400                      | 38                                               | 290                                                                      |
| 500                      | 60                                               | 450                                                                      |
| 600                      | 86                                               | 650                                                                      |
| 650                      | 100                                              | 760                                                                      |
| 700                      | 120                                              | 880                                                                      |
| 800                      | 150                                              | 1,200                                                                    |
| 1,000                    | 240                                              | 1,900                                                                    |

### Clearing I<sup>2</sup>t vs. AC Operating Voltage



### Watts Loss at Rated Current

| AMPERE<br>RATING | WATTS<br>LOSS | AMPERE<br>RATING | WATTS<br>LOSS |
|------------------|---------------|------------------|---------------|
| 15               | 3.4           | 225              | 40            |
| 20               | 5.9           | 250              | 45            |
| 25               | 9             | 300              | 55            |
| 30               | 12.8          | 350              | 65            |
| 35               | 7.3           | 400              | 70            |
| 40               | 8.3           | 500              | 90            |
| 50               | 11            | 600              | 110           |
| 60               | 13            | 650              | 120           |
| 70               | 13            | 700              | 125           |
| 80               | 14            | 800              | 140           |
| 100              | 18            | 1000             | 190           |
| 125              | 23            |                  |               |
| 150              | 28            |                  |               |
| 200              | 36            |                  |               |

### Watts Loss vs. % Rated Current

