

# HSJ

High Speed/Class J

UL/CSA LISTED POWER FUSES

## PROTECT YOUR WIRING AND POWER SEMICONDUCTORS WITH A SINGLE FUSE



The High Speed J (HSJ) fuse combines the low  $I^2t$  of a semiconductor fuse and the branch circuit performance of a Class J UL listed fuse. This fuse was designed for the starting characteristics of solid state motor controllers. The HSJ can provide branch circuit protection per NEC requirements, as well as very low  $I^2t$  for protection of power semiconductors such as Diodes, SCRs, GTOs and SSRs.

### FEATURES/BENEFITS:

- Optimized over-load capability for withstanding elevated levels of current during electronic motor controller starts
- Low  $I^2t$  (low thermal energy)
- Excellent cycling ability for frequent starts/stops without nuisance opening

### RATINGS:

- **Volts:** 600VAC, 500VDC
- **Amps:** 1 to 600A (AC), 15 to 600A (DC)
- **IR:** 200kA I.R. AC, 100kA I.R. DC, L/R = 10mS or less (Self Certified for 600VAC, 300kA I.R., UL witnessed.)

### HIGHLIGHTS:

- Current-limiting
- AC & DC ratings
- Low  $I^2t$
- Compact size

### APPLICATIONS:

- Branch circuits
- Control panels
- Electronic motor controllers
- Phase controllers
- Drives
- Soft-starters
- Solid state relays

### APPROVALS:

- UL listed to standard 248-8 File E2137
- CSA certified to standard C22.2 no. 248.8
- DC listed to UL 248



## CATALOG NUMBERS (AMPS)

|           |       |        |        |
|-----------|-------|--------|--------|
| HSJ1      | HSJ30 | HSJ90  | HSJ250 |
| HSJ3      | HSJ35 | HSJ100 | HSJ300 |
| HSJ6      | HSJ40 | HSJ110 | HSJ350 |
| HSJ10     | HSJ45 | HSJ125 | HSJ400 |
| HSJ15     | HSJ50 | HSJ150 | HSJ450 |
| HSJ17-1/2 | HSJ60 | HSJ175 | HSJ500 |
| HSJ20     | HSJ70 | HSJ200 | HSJ600 |
| HSJ25     | HSJ80 | HSJ225 |        |

## RECOMMENDED FUSE BLOCKS WITH BOX CONNECTORS FOR AMP-TRAP® CLASS J FUSES

| Fuse Ampere Rating | Catalog Number<br>600V or Less |            |
|--------------------|--------------------------------|------------|
|                    | 1-Pole                         | 3-Pole     |
| 0-30               | US3J1I                         | US3J3I     |
| 31-60              | US6J1I                         | US6J3I     |
| 61-100             | FB60J100B1                     | FB60J100B3 |
| 101-200            | 62001J                         | 62003J     |
| 201-400            | 64031J                         | 64033J     |
| 401-600            | 6631J                          | 6633J      |

A variety of pole configurations and termination provisions are available. Refer to Section FB for details.

## DIMENSIONS

| Ampere<br>Rating | A     |     | B      |    | C    |     | D     |    | E     |    | F     |     | G     |    | H     |    |
|------------------|-------|-----|--------|----|------|-----|-------|----|-------|----|-------|-----|-------|----|-------|----|
|                  | in    | mm  | in     | mm | in   | mm  | in    | mm | in    | mm | in    | mm  | in    | mm | in    | mm |
| 1-30             | 2-1/4 | 57  | 13/16  | 21 | -    | -   | -     | -  | -     | -  | -     | -   | -     | -  | -     | -  |
| 31-60            | 2-3/8 | 60  | 1-1/16 | 27 | -    | -   | -     | -  | -     | -  | -     | -   | -     | -  | -     | -  |
| 61-100           | 4-4/8 | 117 | 1-1/8  | 29 | 1/8  | 3.2 | 3/4   | 19 | 1     | 25 | 3-5/8 | 92  | 3/8   | 10 | 9/32  | 7  |
| 101-200          | 5-3/4 | 146 | 1-5/8  | 41 | 3/16 | 4.8 | 1-1/8 | 29 | 1-3/8 | 35 | 4-3/8 | 111 | 3/8   | 10 | 9/32  | 7  |
| 201-400          | 7-1/8 | 181 | 2-1/8  | 54 | 1/4  | 6.3 | 1-5/8 | 41 | 1-7/8 | 48 | 5-1/4 | 133 | 17/32 | 13 | 13/32 | 10 |
| 401-600          | 8     | 203 | 2-1/2  | 64 | 3/8  | 9.5 | 2     | 51 | 2-1/8 | 54 | 6     | 152 | 11/16 | 18 | 17/32 | 13 |

