

# Class J Fuses

## JTD\_ID Series Indicator®

**POWR-PRO®** 600 V ac • Time Delay •  $\frac{1}{10}$ –600 A



## Description

The JTD\_ID Indicating\* Series fuses provide visual blown indication and maximum protection in a compact size. These time-delay, dual-element fuses carry the Littelfuse POWR-PRO® advanced technology designation and are specifically designed for circuits where space is at a premium. They are ideal for use in systems with high in-rush currents. The JTD\_ID fuses offer a patented design that reduces nuisance fuse openings. In addition, they provide Type 2 “No Damage” protection for both NEMA- and IEC-type motor circuit components. These fuses help lower the costs associated with downtime, provide longer fuse life by minimizing nuisance openings, increase system performance by minimizing equipment damage, and improve safety by minimizing accidents.

The POWR-PRO performance brand offers advanced technology protection features, such as self-certification to 300,000 A rms symmetrical and superior current-limiting capability. The self-certification at 300,000 A meets the current trend toward higher short-circuit current ratings (SCCR). Self-certification testing was conducted at a nationally recognized testing laboratory, and the tests were UL witnessed. The POWR-PRO design also includes blown fuse indication for maximum security and protection.

\*Also available in non-indicating version

## Features & Benefits

| FEATURES                    | BENEFITS                                                                                                                              |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>POWR-PRO® technology</b> | Superior protection against electrical system damage                                                                                  |
| <b>Dual-element</b>         | Provides extra time-delay protection with dual-element construction                                                                   |
| <b>Blown fuse indicator</b> | Built-in, blown-fuse indication for quick identification of blown fuses, which reduces downtime and increases safety                  |
| <b>Current-limiting</b>     | POWR-PRO current limitation is $\frac{1}{10}$ –600 A. Reduces damage caused by heating and magnetic effects of short-circuit currents |
| <b>Mounting options</b>     | Indicating and DIN mount holders available                                                                                            |

## Applications

- Motor control centers
- Fused combination motor controllers
- Transformers
- UL listed series-rated molded case circuit breaker panels
- General purpose circuits

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### Specifications

|                             |                                                                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Voltage Ratings</b>      | Ac: 600 V<br>Dc: 300 V ( $\frac{1}{10}$ –100 A)<br>500 V (110–600 A)                                                                |
| <b>Ampere Range</b>         | $\frac{1}{10}$ –600 A                                                                                                               |
| <b>Interrupting Rating</b>  | Ac: 200 kA rms symmetrical<br>300 kA rms symmetrical<br>(Littelfuse self-certified)<br>Dc: 20 kA Littelfuse self-certified          |
| <b>Material</b>             | Body: Melamine<br>Caps: Nickel-plated Bronze ( $\frac{1}{10}$ –60 A)<br>Brass (70–200 A)<br>Brass Cap with Copper Blade (225–600 A) |
| <b>Applicable Standards</b> | UL 248-8, Class J                                                                                                                   |
| <b>Country of Origin</b>    | Mexico                                                                                                                              |

### Certification & Compliance

|            |                               |
|------------|-------------------------------|
| <b>UL</b>  | UL Listed (File: E81895)      |
| <b>CSA</b> | CSA Certified (File: LR29862) |

### Accessories

LFJ60 series fuse holder  
LFPSJ series ( $\frac{1}{10}$  – 60 A) fuse holder

### Ordering Information

| AMPERE | CATALOG NUMBER | PRODUCT MARKING          | PACK QUANTITY | ORDERING NUMBER | UPC         | AGENCY APPROVALS |     |
|--------|----------------|--------------------------|---------------|-----------------|-------------|------------------|-----|
|        |                |                          |               |                 |             | UL               | CSA |
| 0.8    | JTD.800ID      | JTD $\frac{1}{10}$ ID    | 10            | OJTD.800TXID    | 07945802564 | •                | •   |
| 1      | JTD001ID       | JTD 1ID                  | 10            | OJTD001.TXID    | 07945802565 | •                | •   |
| 1.25   | JTD1.25ID      | JTD 1- $\frac{1}{4}$ ID  | 10            | OJTD1.25TXID    | 07945802566 | •                | •   |
| 1.5    | JTD01.5ID      | JTD 1- $\frac{1}{2}$ ID  | 10            | OJTD01.5TXID    | 07945802567 | •                | •   |
| 1.6    | JTD01.6ID      | JTD 1- $\frac{6}{10}$ ID | 10            | OJTD01.6TXID    | 07945802568 | •                | •   |
| 1.8    | JTD01.8ID      | JTD 1- $\frac{9}{10}$ ID | 10            | OJTD01.8TXID    | 07945802569 | •                | •   |
| 2      | JTD002ID       | JTD 2ID                  | 10            | OJTD002.TXID    | 07945802570 | •                | •   |
| 2.25   | JTD2.25ID      | JTD 2- $\frac{1}{4}$ ID  | 10            | OJTD2.25TXID    | 07945802571 | •                | •   |
| 2.5    | JTD02.5ID      | JTD 2- $\frac{1}{2}$ ID  | 10            | OJTD02.5TXID    | 07945802572 | •                | •   |
| 2.8    | JTD02.8ID      | JTD 2- $\frac{8}{10}$ ID | 10            | OJTD02.8TXID    | 07945802573 | •                | •   |
| 3      | JTD003ID       | JTD 3ID                  | 10            | OJTD003.TXID    | 07945802574 | •                | •   |
| 3.2    | JTD03.2ID      | JTD 3- $\frac{2}{10}$ ID | 10            | OJTD03.2TXID    | 07945802575 | •                | •   |
| 3.5    | JTD03.5ID      | JTD 3- $\frac{1}{2}$ ID  | 10            | OJTD03.5TXID    | 07945802576 | •                | •   |
| 4      | JTD004ID       | JTD 4ID                  | 10            | OJTD004.TXID    | 07945802577 | •                | •   |
| 4.5    | JTD04.5ID      | JTD 4- $\frac{1}{2}$ ID  | 10            | OJTD04.5TXID    | 07945802578 | •                | •   |
| 5      | JTD005ID       | JTD 5ID                  | 10            | OJTD005.TXID    | 07945802579 | •                | •   |

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|--------|----------------|--------------------------|---------------|-----------------|-------------|------------------|-----|
|        |                |                          |               |                 |             | UL               | CSA |
| 5.6    | JTD05.6ID      | JTD 5- $\frac{6}{10}$ ID | 10            | OJTD05.6TXID    | 07945802580 | •                | •   |
| 6      | JTD006ID       | JTD 6ID                  | 10            | OJTD006.TXID    | 07945802581 | •                | •   |
| 7      | JTD007ID       | JTD 7ID                  | 10            | OJTD007.TXID    | 07945802582 | •                | •   |
| 8      | JTD008ID       | JTD 8ID                  | 10            | OJTD008.TXID    | 07945802583 | •                | •   |
| 9      | JTD009ID       | JTD 9ID                  | 10            | OJTD009.TXID    | 07945802584 | •                | •   |
| 10     | JTD010ID       | JTD 10ID                 | 10            | OJTD010.TXID    | 07945802595 | •                | •   |
| 12     | JTD012ID       | JTD 12ID                 | 10            | OJTD012.TXID    | 07945802596 | •                | •   |
| 15     | JTD015ID       | JTD 15ID                 | 10            | OJTD015.TXID    | 07945802585 | •                | •   |
| 17.5   | JTD17.5ID      | JTD 17 $\frac{1}{2}$ ID  | 10            | OJTD17.5TXID    | 07945802586 | •                | •   |
| 20     | JTD020ID       | JTD 20ID                 | 10            | OJTD020.TXID    | 07945802587 | •                | •   |
| 25     | JTD025ID       | JTD 25ID                 | 10            | OJTD025.TXID    | 07945802588 | •                | •   |
| 30     | JTD030ID       | JTD 30ID                 | 10            | OJTD030.TXID    | 07945802589 | •                | •   |
| 35     | JTD035ID       | JTD 35ID                 | 10            | OJTD035.TXID    | 07945802590 | •                | •   |
| 40     | JTD040ID       | JTD 40ID                 | 10            | OJTD040.TXID    | 07945802591 | •                | •   |
| 45     | JTD045ID       | JTD 45ID                 | 10            | OJTD045.TXID    | 07945802592 | •                | •   |
| 50     | JTD050ID       | JTD 50ID                 | 10            | OJTD050.TXID    | 07945802593 | •                | •   |
| 60     | JTD060ID       | JTD 60ID                 | 10            | OJTD060.TXID    | 07945802594 | •                | •   |
| 70     | JTD070ID       | JTD70ID                  | 5             | OJTD070.VXID    | 07945803176 | •                | •   |
| 80     | JTD080ID       | JTD80ID                  | 5             | OJTD080.VXID    | 07945803177 | •                | •   |
| 90     | JTD090ID       | JTD90ID                  | 5             | OJTD090.VXID    | 07945803178 | •                | •   |
| 100    | JTD100ID       | JTD100ID                 | 5             | OJTD100.VXID    | 07945803179 | •                | •   |
| 110    | JTD110ID       | JTD110ID                 | 1             | OJTD110.XXID    | 07945803181 | •                | •   |
| 125    | JTD125ID       | JTD125ID                 | 1             | OJTD125.XXID    | 07945803182 | •                | •   |
| 150    | JTD150ID       | JTD150ID                 | 1             | OJTD150.XXID    | 07945803183 | •                | •   |
| 175    | JTD170ID       | JTD170ID                 | 1             | OJTD175.XXID    | 07945803184 | •                | •   |
| 200    | JTD200ID       | JTD200ID                 | 1             | OJTD200.XXID    | 07945803185 | •                | •   |
| 225    | JTD225ID       | JTD225ID                 | 1             | OJTD225.XXID    | 07945803186 | •                | •   |
| 250    | JTD250ID       | JTD250ID                 | 1             | OJTD250.XXID    | 07945803187 | •                | •   |
| 300    | JTD300ID       | JTD300ID                 | 1             | OJTD300.XXID    | 07945803188 | •                | •   |
| 350    | JTD350ID       | JTD350ID                 | 1             | OJTD350.XXID    | 07945803189 | •                | •   |
| 400    | JTD400ID       | JTD400ID                 | 1             | OJTD400.XXID    | 07945803190 | •                | •   |
| 450    | JTD450ID       | JTD450ID                 | 1             | OJTD450.XXID    | 07945803191 | •                | •   |
| 500    | JTD500ID       | JTD500ID                 | 1             | OJTD500.XXID    | 07945803192 | •                | •   |
| 600    | JTD600ID       | JTD600ID                 | 1             | OJTD600.XXID    | 07945803193 | •                | •   |

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### Electrical Specifications

| AMPERAGE RATING | VOLTAGE RATING |     | INTERRUPTING RATING |       | WATTS LOSS AT 100 % RATED CURRENT (W) | WATTS LOSS AT 80 % RATED CURRENT (W) | TOTAL CLEARING I <sup>2</sup> T (A <sup>2</sup> SEC) 200 KA |
|-----------------|----------------|-----|---------------------|-------|---------------------------------------|--------------------------------------|-------------------------------------------------------------|
|                 | AC             | DC  | AC                  | DC    |                                       |                                      |                                                             |
| 3               | 600            | 300 | 200 kA              | 20 kA | 4.537                                 | 2.801                                | 820                                                         |
| 10              | 600            | 300 | 200 kA              | 20 kA | 4.087                                 | 2.418                                | 1690                                                        |
| 30              | 600            | 300 | 200 kA              | 20 kA | 4.247                                 | 2.92                                 | 4754                                                        |
| 60              | 600            | 300 | 200 kA              | 20 kA | 6.447                                 | 3.83                                 | 10450                                                       |
| 100             | 600            | 300 | 200 kA              | 20 kA | 7.463                                 | 4.447                                | 68150                                                       |
| 200             | 600            | 500 | 200 kA              | 20 kA | 18.39                                 | 10.187                               | 159000                                                      |
| 400             | 600            | 500 | 200 kA              | 20 kA | 40.037                                | 23.463                               | 1055000                                                     |
| 600             | 600            | 500 | 200 kA              | 20 kA | 61.187                                | 34.983                               | 1970000                                                     |

### Fuse Weight

| AMPERAGE   | POUNDS | GRAMS   |
|------------|--------|---------|
| 1/10–3 1/2 | 0.088  | 39.92   |
| 4–12       | 0.090  | 40.82   |
| 15–30      | 0.090  | 40.82   |
| 35–60      | 0.180  | 81.65   |
| 70–100     | 0.242  | 109.77  |
| 110–200    | 0.774  | 351.08  |
| 225–400    | 1.704  | 772.92  |
| 450–600    | 3.124  | 1417.02 |

### Dimensions

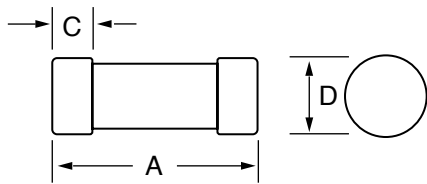


Fig. 1

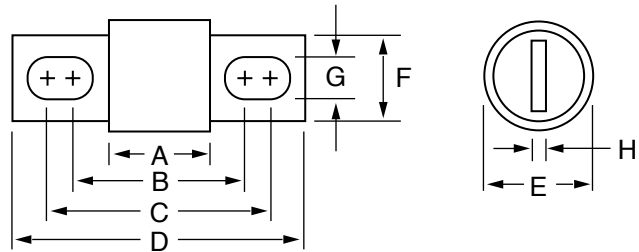


Fig. 2

| AMPERAGE | FIG. NO. | VOLTAGE RATING |                 |                 |               |              |              |              |            |
|----------|----------|----------------|-----------------|-----------------|---------------|--------------|--------------|--------------|------------|
|          |          | A              | B               | C               | D             | E            | F            | G            | H          |
| 1–30     | 1        | 2 1/4 (57.2)   | —               | 1/2 (12.7)      | 1 1/16 (20.6) | —            | —            | —            | —          |
| 35–60    | 1        | 2 3/8 (60.3)   | —               | 5/8 (15.9)      | 1 1/8 (27.0)  | —            | —            | —            | —          |
| 70–100   | 2        | 2 5/8 (66.7)   | 3 11/32 (89.7)  | 3 23/32 (94.5)  | 4 5/8 (117.5) | 1 1/8 (28.6) | 3/4 (19.1)   | 9/32 (7.1)   | 1/8 (3.2)  |
| 110–200  | 2        | 3 (76.2)       | 4 3/32 (108.7)  | 4 15/32 (113.5) | 5 1/4 (146.1) | 1 1/2 (38.1) | 1 1/8 (28.6) | 9/32 (7.1)   | 3/16 (4.8) |
| 225–400  | 2        | 3 3/8 (85.7)   | 5 1/8 (130.2)   | 5 3/8 (136.5)   | 7 1/8 (181.0) | 2 (50.8)     | 1 3/8 (41.3) | 13/32 (10.3) | 1/4 (6.4)  |
| 450–600  | 2        | 3 3/4 (95.3)   | 5 27/32 (148.4) | 6 3/32 (156.4)  | 8 (203.2)     | 2 1/2 (63.5) | 2 (50.8)     | 17/32 (13.5) | 3/8 (9.5)  |

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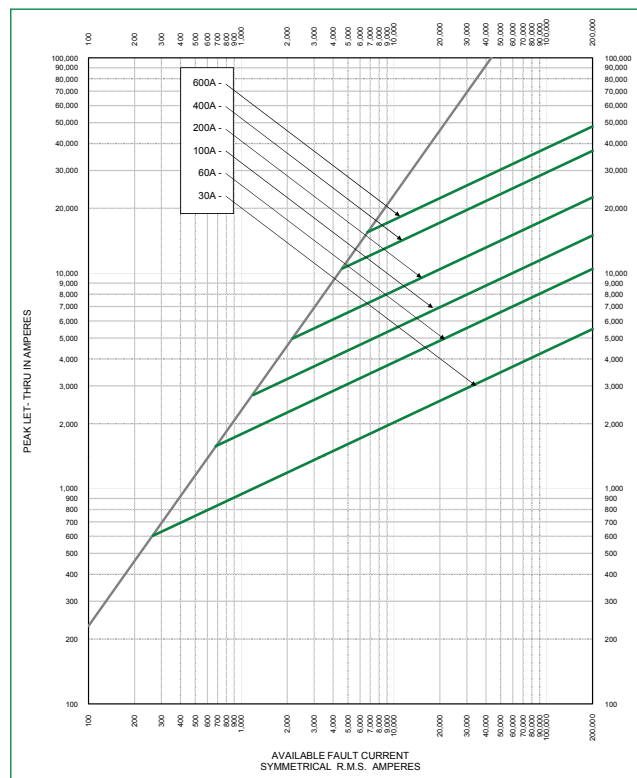
### Current-Limiting Effects

| SHORT CIRCUIT<br>CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS |       |       |       |        |        |
|---------------------------|-----------------------------------------------------------|-------|-------|-------|--------|--------|
|                           | 30 A                                                      | 60 A  | 100 A | 200 A | 400 A  | 600 A  |
| 5,000                     | 699                                                       | 1,331 | 1,903 | 2,858 | 4,702  | -      |
| 10,000                    | 881                                                       | 1,676 | 2,397 | 3,601 | 5,925  | 7,689  |
| 15,000                    | 1,008                                                     | 1,919 | 2,744 | 4,123 | 6,782  | 8,802  |
| 20,000                    | 1,110                                                     | 2,112 | 3,020 | 4,537 | 7,464  | 9,687  |
| 25,000                    | 1,196                                                     | 2,275 | 3,254 | 4,888 | 8,041  | 10,436 |
| 30,000                    | 1,271                                                     | 2,418 | 3,457 | 5,194 | 8,545  | 11,089 |
| 35,000                    | 1,338                                                     | 2,545 | 3,640 | 5,468 | 8,995  | 11,674 |
| 40,000                    | 1,398                                                     | 2,661 | 3,805 | 5,717 | 9,405  | 12,205 |
| 50,000                    | 1,506                                                     | 2,867 | 4,099 | 6,158 | 10,131 | 13,148 |
| 60,000                    | 1,601                                                     | 3,046 | 4,356 | 6,544 | 10,766 | 13,972 |
| 80,000                    | 1,762                                                     | 3,353 | 4,795 | 7,203 | 11,849 | 15,378 |
| 100,000                   | 1,898                                                     | 3,612 | 5,165 | 7,759 | 12,764 | 16,565 |
| 150,000                   | 2,173                                                     | 4,134 | 5,912 | 8,882 | 14,611 | 18,963 |
| 200,000                   | 2,391                                                     | 4,551 | 6,507 | 9,776 | 16,082 | 20,871 |

\*Prospective RMS Symmetrical Amperes Short-Circuit Current

Note: Data Derived from Peak Let-Thru Curve

### Peak Let-Thru Curve



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