

Class RK5 Fuses

IDSR Series

600 V ac • Dual Element • Time Delay • $\frac{1}{10}$ –600 A



Description

The time-delay, dual-element IDSR series fuses combine a 600 V dc capability with indication to provide an ideal solution for many dc applications. These fuses offer a patented, state-of-the-art, solid-state design with maximum reliability and superior performance characteristics.

Features & Benefits

| FEATURES | BENEFITS |
|---|---|
| Excellent short-circuit protection | Improves safety through faster response to fault currents |
| Dual-element design | Provides advanced short-circuit and overload protection |
| Current-limiting | Restricts fault currents to provide a high degree of circuit protection |
| Visual blown fuse indication | Indication window turns black allowing fast and easy identification of a blown fuse |

Applications

- Dc circuits
- Solar inverters
- Motors
- Transformers and solenoids
- Fluorescent lighting

Specifications

| | |
|-----------------------------|---|
| Voltage Rating | Ac: 600 V Dc: 600 V |
| Ampere Range | $\frac{1}{10}$ –600 A |
| Interrupting Ratings | Ac: 200 kA rms symmetrical; 300 kA rms symmetrical (Littelfuse self-certified) Dc: 20 kA |
| Applicable Standards | UL 248-12, Class RK5 |
| Country of Origin | Mexico |

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Certification & Compliance

| | |
|------------|-------------------------------|
| UL | UL Listed (File: E81895) |
| CSA | CSA Certified (File: LR29862) |

Accessories

LFR60 series fuse holder

Ordering Information

| AMPERE | CATALOG NUMBER | PRODUCT MARKING | PACK QUANTITY | ORDERING NUMBER | UPC | AGENCY APPROVALS | |
|--------|----------------|-----------------|---------------|-----------------|-------------|------------------|-----|
| | | | | | | UL | CSA |
| 1/10 | IDSR.100 | IDSR 1/10 | 10 | IDSR.100T | 07945801523 | • | • |
| 15/100 | IDSR.150 | IDSR 15/100 | 10 | IDSR.150T | 07945801524 | • | • |
| 2/10 | IDSR.200 | IDSR 2/10 | 10 | IDSR.200T | 07945801525 | • | • |
| 1/4 | IDSR.250 | IDSR 1/4 | 10 | IDSR.250T | 07945801526 | • | • |
| 3/10 | IDSR.300 | IDSR 3/10 | 10 | IDSR.300T | 07945801527 | • | • |
| 4/10 | IDSR.400 | IDSR 4/10 | 10 | IDSR.400T | 07945801528 | • | • |
| 1/2 | IDSR.500 | IDSR 1/2 | 10 | IDSR.500T | 07945801529 | • | • |
| 6/10 | IDSR.600 | IDSR 6/10 | 10 | IDSR.600T | 07945801530 | • | • |
| 8/10 | IDSR.800 | IDSR 8/10 | 10 | IDSR.800T | 07945801531 | • | • |
| 1 | IDSR001 | IDSR 1 | 10 | IDSR001.T | 07945801532 | • | • |
| 1 1/8 | IDSR1.12 | IDSR 1 1/8 | 10 | IDSR1.12T | 07945801533 | • | • |
| 1 1/4 | IDSR1.25 | IDSR 1 1/4 | 10 | IDSR1.25T | 07945801534 | • | • |
| 1 1/10 | IDSR01.4 | IDSR 1 1/10 | 10 | IDSR01.4T | 07945801535 | • | • |
| 1 1/2 | IDSR01.5 | IDSR 1 1/2 | 10 | IDSR01.5T | 07945801536 | • | • |
| 1 9/10 | IDSR01.6 | IDSR 1 9/10 | 10 | IDSR01.6T | 07945801537 | • | • |
| 1 8/10 | IDSR01.8 | IDSR 1 8/10 | 10 | IDSR01.8T | 07945801538 | • | • |
| 2 | IDSR002 | IDSR 2 | 10 | IDSR002.T | 07945801539 | • | • |
| 2 1/4 | IDSR2.25 | IDSR 2 1/4 | 10 | IDSR2.25T | 07945801540 | • | • |
| 2 1/2 | IDSR02.5 | IDSR 2 1/2 | 10 | IDSR02.5T | 07945801541 | • | • |
| 2 9/10 | IDSR02.8 | IDSR 2 9/10 | 10 | IDSR02.8T | 07945801542 | • | • |
| 3 | IDSR003 | IDSR 3 | 10 | IDSR003.T | 07945801543 | • | • |
| 3 3/10 | IDSR03.2 | IDSR 3 3/10 | 10 | IDSR03.2T | 07945801544 | • | • |
| 3 1/2 | IDSR03.5 | IDSR 3 1/2 | 10 | IDSR03.5T | 07945801545 | • | • |
| 4 | IDSR004 | IDSR 4 | 10 | IDSR004.T | 07945801546 | • | • |
| 4 1/2 | IDSR04.5 | IDSR 4 1/2 | 10 | IDSR04.5T | 07945801547 | • | • |
| 5 | IDSR005 | IDSR 5 | 10 | IDSR005.T | 07945801548 | • | • |
| 5 9/10 | IDSR05.6 | IDSR 5 9/10 | 10 | IDSR05.6T | 07945801549 | • | • |
| 6 | IDSR006 | IDSR 6 | 10 | IDSR006.T | 07945801550 | • | • |
| 6 1/4 | IDSR6.25 | IDSR 6 1/4 | 10 | IDSR6.25T | 07945801551 | • | • |
| 7 | IDSR007 | IDSR 7 | 10 | IDSR007.T | 07945801552 | • | • |
| 7 1/2 | IDSR07.5 | IDSR 7 1/2 | 10 | IDSR07.5T | 07945801553 | • | • |
| 8 | IDSR008 | IDSR 8 | 10 | IDSR008.T | 07945801554 | • | • |

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| | | | | | | UL | CSA |
| 9 | IDSR009 | IDSR 9 | 10 | IDSR009.T | 07945801555 | • | • |
| 10 | IDSR010 | IDSR 10 | 10 | IDSR010.T | 07945801556 | • | • |
| 12 | IDSR012 | IDSR 12 | 10 | IDSR012.T | 07945801557 | • | • |
| 15 | IDSR015 | IDSR 15 | 10 | IDSR015.T | 07945801558 | • | • |
| 17 ½ | IDSR17.5 | IDSR 17 ½ | 10 | IDSR17.5T | 07945801559 | • | • |
| 20 | IDSR020 | IDSR 20 | 10 | IDSR020.T | 07945801560 | • | • |
| 25 | IDSR025 | IDSR 25 | 10 | IDSR025.T | 07945801561 | • | • |
| 30 | IDSR030 | IDSR 30 | 10 | IDSR030.T | 07945801562 | • | • |
| 35 | IDSR035 | IDSR 35 | 10 | IDSR035.T | 07945801563 | • | • |
| 40 | IDSR040 | IDSR 40 | 10 | IDSR040.T | 07945801564 | • | • |
| 45 | IDSR045 | IDSR 45 | 10 | IDSR045.T | 07945801565 | • | • |
| 50 | IDSR050 | IDSR 50 | 10 | IDSR050.T | 07945801566 | • | • |
| 60 | IDSR060 | IDSR 60 | 10 | IDSR060.T | 07945801567 | • | • |
| 70 | IDSR070 | IDSR 70 | 5 | IDSR070.V | 07945801568 | • | • |
| 75 | IDSR075 | IDSR 75 | 5 | IDSR075.V | 07945801569 | • | • |
| 80 | IDSR080 | IDSR 80 | 5 | IDSR080.V | 07945801570 | • | • |
| 90 | IDSR090 | IDSR 90 | 5 | IDSR090.V | 07945801571 | • | • |
| 100 | IDSR100 | IDSR 100 | 5 | IDSR100.V | 07945801572 | • | • |
| 110 | IDSR110 | IDSR 110 | 1 | IDSR110.X | 07945801573 | • | • |
| 125 | IDSR125 | IDSR 125 | 1 | IDSR125.X | 07945801574 | • | • |
| 150 | IDSR150 | IDSR 150 | 1 | IDSR150.X | 07945801575 | • | • |
| 175 | IDSR175 | IDSR 175 | 1 | IDSR175.X | 07945801576 | • | • |
| 200 | IDSR200 | IDSR 200 | 1 | IDSR200.X | 07945801577 | • | • |
| 225 | IDSR225 | IDSR 225 | 1 | IDSR225.X | 07945801578 | • | • |
| 250 | IDSR250 | IDSR 250 | 1 | IDSR250.X | 07945801579 | • | • |
| 300 | IDSR300 | IDSR 300 | 1 | IDSR300.X | 07945801580 | • | • |
| 350 | IDSR350 | IDSR 350 | 1 | IDSR350.X | 07945801581 | • | • |
| 400 | IDSR400 | IDSR 400 | 1 | IDSR400.X | 07945801582 | • | • |
| 450 | IDSR450 | IDSR 450 | 1 | IDSR450.X | 07945801583 | • | • |
| 500 | IDSR500 | IDSR 500 | 1 | IDSR500.X | 07945801584 | • | • |
| 600 | IDSR600 | IDSR 600 | 1 | IDSR600.X | 07945801585 | • | • |

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Dimensions

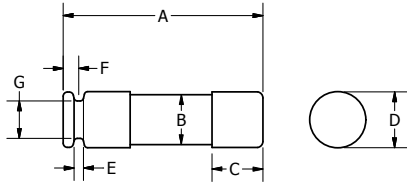


FIG. 1

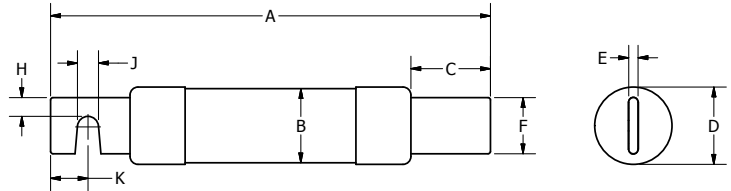


FIG. 2

| AMPS | FIGURE NUMBER | DIMENSIONS INCHES (MM) | | | | | | | | | |
|---------|---------------|------------------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|
| | | A | B | C | D | E | F | G | H | J | K |
| 1/10-30 | 1 | 5 (127.0) | 0.76 (19.2) | 0.63 (15.9) | 0.81 (20.7) | 0.09 (2.4) | 0.19 (4.7) | 0.61 (15.5) | - | - | - |
| 35-60 | 1 | 5.50 (139.7) | 1 (25.1) | 0.63 (15.9) | 1.06 (27.0) | 0.09 (2.4) | 0.25 (6.4) | 0.88 (22.2) | - | - | - |
| 70-100 | 2 | 7.88 (200.0) | 1.24 (31.5) | 1.06 (27.0) | 1.28 (32.6) | 0.13 (3.2) | 0.75 (19.1) | - | 0.25 (6.4) | 0.28 (7.1) | 0.50 (12.7) |
| 110-200 | 2 | 9.63 (244.5) | 1.74 (44.2) | 1.47 (37.3) | 1.79 (45.4) | 0.19 (4.8) | 1.13 (28.6) | - | 0.44 (11.1) | 0.28 (7.1) | 0.69 (17.5) |
| 225-400 | 2 | 11.63 (295.3) | 2.50 (63.1) | 2 (50.8) | 2.54 (64.6) | 0.25 (6.4) | 1.63 (41.3) | - | 0.63 (15.9) | 0.41 (10.3) | 0.95 (24.0) |
| 450-600 | 2 | 13.38 (339.7) | 3 (76.0) | 2.41 (61.1) | 3.04 (77.3) | 0.25 (6.4) | 2 (50.8) | - | 0.75 (19.1) | 0.53 (13.5) | 1.13 (28.6) |

Current-Limiting Effects of IDSR Fuses

| SHORT CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | | |
|------------------------|---|-------|-------|--------|--------|--------|--------|
| | 15 A | 30 A | 60 A | 100 A | 200 A | 400 A | 600 A |
| 5,000 | 800 | 1,100 | 2,100 | 3,200 | 5,000 | 5,000 | 5,000 |
| 10,000 | 1,100 | 1,600 | 2,900 | 4,300 | 7,300 | 10,000 | 10,000 |
| 15,000 | 1,300 | 1,900 | 3,400 | 5,000 | 8,600 | 13,700 | 15,000 |
| 20,000 | 1,400 | 2,200 | 3,800 | 5,600 | 9,500 | 15,500 | 19,000 |
| 25,000 | 1,500 | 2,500 | 4,100 | 6,100 | 10,300 | 16,700 | 21,500 |
| 30,000 | 1,600 | 2,700 | 4,500 | 6,500 | 11,000 | 17,700 | 23,500 |
| 35,000 | 1,700 | 2,900 | 4,700 | 6,800 | 11,600 | 18,600 | 25,200 |
| 40,000 | 1,800 | 3,100 | 5,000 | 7,200 | 12,100 | 19,400 | 26,600 |
| 50,000 | 1,900 | 3,400 | 5,400 | 7,800 | 13,100 | 20,800 | 29,500 |
| 60,000 | 2,000 | 3,600 | 5,800 | 8,300 | 13,900 | 22,000 | 30,600 |
| 80,000 | 2,200 | 4,000 | 6,300 | 9,100 | 15,400 | 24,000 | 33,200 |
| 100,000 | 2,300 | 4,200 | 6,800 | 9,800 | 16,700 | 25,500 | 35,100 |
| 150,000 | 2,600 | 4,500 | 7,700 | 11,200 | 19,300 | 28,100 | 38,000 |
| 200,000 | 2,800 | 4,600 | 8,400 | 12,400 | 21,400 | 30,000 | 39,600 |

*Prospective RMS Symmetrical Amperes Short-Circuit Current
 Note: Data Derived from Peak Let-Thru Curves

Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.