

# Class RK5 Fuses

## FLSR Series

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



### Description

The FLSR series dual-element, time-delay UL Class RK5 fuses are the most widely used fuse class. They offer superior performance and excellent protection for all types of circuits, especially those with motors. Precision manufactured parts ensure an accurate, consistent response to overloads and short-circuits. The FLSR fuses are also available in an indicating version, see the FLSR\_ID series.

### Features & Benefits

| FEATURES                                  | BENEFITS  |
|---|---|
| <b>Excellent short-circuit protection</b> | Improves safety through faster response to fault currents               |
| <b>Dual-element design</b>                | Provides advanced short-circuit and overload protection                 |
| <b>Current-limiting</b>                   | Restricts fault currents to provide a high degree of circuit protection |

### Applications

- Service entrance switches
- Transformers
- Switchboard mains and feeders
- Motor control central mains and motor branch circuits
- All general purpose circuits

### Specifications

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

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### Certification & Compliance

|            |                               |
|------------|-------------------------------|
| <b>UL</b>  | UL Listed (File: E81895)      |
| <b>CSA</b> | 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   | FLSR.100       | FLSR 1/10 A     | 10            | FLSR.100T       | 07945817011 | •                | •   |
| 15/100 | FLSR.150       | FLSR 15/100 A   | 10            | FLSR.150T       | 07945817013 | •                | •   |
| 2/10   | FLSR.200       | FLSR 2/10 A     | 10            | FLSR.200T       | 07945817018 | •                | •   |
| 1/4    | FLSR.250       | FLSR 1/4 A      | 10            | FLSR.250T       | 07945817019 | •                | •   |
| 3/10   | FLSR.300       | FLSR 3/10 A     | 10            | FLSR.300T       | 07945800092 | •                | •   |
| 4/10   | FLSR.400       | FLSR 4/10 A     | 10            | FLSR.400T       | 07945817023 | •                | •   |
| 1/2    | FLSR.500       | FLSR 1/2 A      | 10            | FLSR.500T       | 07945817024 | •                | •   |
| 6/10   | FLSR.600       | FLSR 6/10 A     | 10            | FLSR.600T       | 07945800093 | •                | •   |
| 8/10   | FLSR.800       | FLSR 8/10 A     | 10            | FLSR.800T       | 07945800094 | •                | •   |
| 1      | FLSR001        | FLSR 1A         | 10            | FLSR001.T       | 07945817031 | •                | •   |
| 1 1/6  | FLSR1.12       | FLSR 1 1/6 A    | 10            | FLSR1.12T       | 07945817032 | •                | •   |
| 1 1/4  | FLSR1.25       | FLSR 1 1/4 A    | 10            | FLSR1.25T       | 07945817034 | •                | •   |
| 1 1/10 | FLSR01.4       | FLSR 1 1/10 A   | 10            | FLSR01.4T       | 07945817036 | •                | •   |
| 1 1/2  | FLSR01.5       | FLSR 1 1/2 A    | 10            | FLSR01.5T       | 07945817037 | •                | •   |
| 1 9/10 | FLSR01.6       | FLSR 1 9/10 A   | 10            | FLSR01.6T       | 07945817038 | •                | •   |
| 1 8/10 | FLSR01.8       | FLSR 1 8/10 A   | 10            | FLSR01.8T       | 07945817040 | •                | •   |
| 2      | FLSR002        | FLSR 2A         | 10            | FLSR002.T       | 07945817041 | •                | •   |
| 2 1/4  | FLSR2.25       | FLSR 2 1/4 A    | 10            | FLSR2.25T       | 07945817042 | •                | •   |
| 2 1/2  | FLSR02.5       | FLSR 2 1/2 A    | 10            | FLSR02.5T       | 07945817043 | •                | •   |
| 2 9/10 | FLSR02.8       | FLSR 2 9/10 A   | 10            | FLSR02.8T       | 07945817046 | •                | •   |
| 3      | FLSR003        | FLSR 3A         | 10            | FLSR003.T       | 07945817047 | •                | •   |
| 3 3/10 | FLSR03.2       | FLSR 3 3/10 A   | 10            | FLSR03.2T       | 07945817049 | •                | •   |
| 3 1/2  | FLSR03.5       | FLSR 3 1/2 A    | 10            | FLSR03.5T       | 07945817051 | •                | •   |
| 4      | FLSR004        | FLSR 4A         | 10            | FLSR004.T       | 07945817053 | •                | •   |
| 4 1/2  | FLSR04.5       | FLSR 4 1/2 A    | 10            | FLSR04.5T       | 07945817054 | •                | •   |
| 5      | FLSR005        | FLSR 5A         | 10            | FLSR005.T       | 07945817055 | •                | •   |
| 5 9/10 | FLSR05.6       | FLSR 5 9/10 A   | 10            | FLSR05.6T       | 07945817056 | •                | •   |
| 6      | FLSR006        | FLSR 6A         | 10            | FLSR006.T       | 07945817058 | •                | •   |
| 6 1/4  | FLSR6.25       | FLSR 6 1/4 A    | 10            | FLSR6.25T       | 07945817059 | •                | •   |
| 7      | FLSR007        | FLSR 7A         | 10            | FLSR007.T       | 07945817061 | •                | •   |

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|--------|----------------|-----------------|---------------|-----------------|-------------|------------------|-----|
|        |                |                 |               |                 |             | UL               | CSA |
| 7½     | FLSR07.5       | FLSR 7½A        | 10            | FLSR07.5T       | 07945817062 | •                | •   |
| 8      | FLSR008        | FLSR 8A         | 10            | FLSR008.T       | 07945817063 | •                | •   |
| 9      | FLSR009        | FLSR 9A         | 10            | FLSR009.T       | 07945817064 | •                | •   |
| 10     | FLSR010        | FLSR 10A        | 10            | FLSR010.T       | 07945817065 | •                | •   |
| 12     | FLSR012        | FLSR 12A        | 10            | FLSR012.T       | 07945817066 | •                | •   |
| 15     | FLSR015        | FLSR 15A        | 10            | FLSR015.T       | 07945817068 | •                | •   |
| 17½    | FLSR17.5       | FLSR 17½A       | 10            | FLSR17.5T       | 07945817069 | •                | •   |
| 20     | FLSR020        | FLSR 20A        | 10            | FLSR020.T       | 07945817071 | •                | •   |
| 25     | FLSR025        | FLSR 25A        | 10            | FLSR025.T       | 07945817072 | •                | •   |
| 30     | FLSR030        | FLSR 30A        | 10            | FLSR030.T       | 07945817073 | •                | •   |
| 35     | FLSR035        | FLSR 35A        | 10            | FLSR035.T       | 07945817074 | •                | •   |
| 40     | FLSR040        | FLSR 40A        | 10            | FLSR040.T       | 07945817075 | •                | •   |
| 45     | FLSR045        | FLSR 45A        | 10            | FLSR045.T       | 07945817076 | •                | •   |
| 50     | FLSR050        | FLSR 50A        | 10            | FLSR050.T       | 07945817077 | •                | •   |
| 60     | FLSR060        | FLSR 60A        | 10            | FLSR060.T       | 07945817078 | •                | •   |
| 70     | FLSR070        | FLSR 70A        | 5             | FLSR070.V       | 07945817079 | •                | •   |
| 75     | FLSR075        | FLSR 75A        | 5             | FLSR075.V       | 07945800217 | •                | •   |
| 80     | FLSR080        | FLSR 80A        | 5             | FLSR080.V       | 07945817080 | •                | •   |
| 90     | FLSR090        | FLSR 90A        | 5             | FLSR090.V       | 07945817081 | •                | •   |
| 100    | FLSR100        | FLSR 100A       | 5             | FLSR100.V       | 07945817082 | •                | •   |
| 110    | FLSR110        | FLSR 110A       | 1             | FLSR110.X       | 07945817083 | •                | •   |
| 125    | FLSR125        | FLSR 125A       | 1             | FLSR125.X       | 07945817084 | •                | •   |
| 150    | FLSR150        | FLSR 150A       | 1             | FLSR150.X       | 07945817086 | •                | •   |
| 175    | FLSR175        | FLSR 175A       | 1             | FLSR175.X       | 07945817087 | •                | •   |
| 200    | FLSR200        | FLSR 200A       | 1             | FLSR200.X       | 07945817088 | •                | •   |
| 225    | FLSR225        | FLSR 225A       | 1             | FLSR225.X       | 07945817089 | •                | •   |
| 250    | FLSR250        | FLSR 250A       | 1             | FLSR250.X       | 07945817090 | •                | •   |
| 300    | FLSR300        | FLSR 300A       | 1             | FLSR300.X       | 07945817091 | •                | •   |
| 350    | FLSR350        | FLSR 350A       | 1             | FLSR350.X       | 07945817092 | •                | •   |
| 400    | FLSR400        | FLSR 400A       | 1             | FLSR400.X       | 07945817093 | •                | •   |
| 450    | FLSR450        | FLSR 450A       | 1             | FLSR450.X       | 07945817095 | •                | •   |
| 500    | FLSR500        | FLSR 500A       | 1             | FLSR500.X       | 07945817096 | •                | •   |
| 600    | FLSR600        | FLSR 600A       | 1             | FLSR600.X       | 07945817098 | •                | •   |

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### Dimensions

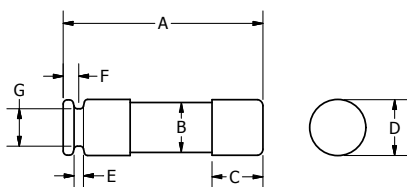


FIG. 1

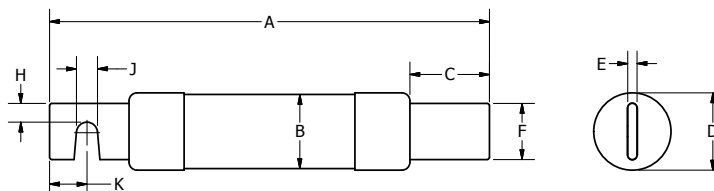


FIG. 2

| AMPS    | FIGURE NUMBER | DIMENSIONS INCHES (MM) |                |                |                |               |                |                |                |                |                |
|---------|---------------|------------------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|
|         |               | A                      | B              | C              | D              | E             | F              | G              | H              | J              | K              |
| 1/10-30 | 1             | 5<br>(127.0)           | 0.76<br>(19.2) | 0.63<br>(15.9) | 0.81<br>(20.7) | 0.09<br>(2.4) | 0.19<br>(4.7)  | 0.61<br>(15.5) | -              | -              | -              |
| 35-60   | 1             | 5.50<br>(139.7)        | 1<br>(25.1)    | 0.63<br>(15.9) | 1.06<br>(27.0) | 0.09<br>(2.4) | 0.25<br>(6.4)  | 0.88<br>(22.2) | -              | -              | -              |
| 70-100  | 2             | 7.88<br>(200.0)        | 1.24<br>(31.5) | 1.06<br>(27.0) | 1.28<br>(32.6) | 0.13<br>(3.2) | 0.75<br>(19.1) | -              | 0.25<br>(6.4)  | 0.28<br>(7.1)  | 0.50<br>(12.7) |
| 110-200 | 2             | 9.63<br>(244.5)        | 1.74<br>(44.2) | 1.47<br>(37.3) | 1.79<br>(45.4) | 0.19<br>(4.8) | 1.13<br>(28.6) | -              | 0.44<br>(11.1) | 0.28<br>(7.1)  | 0.69<br>(17.5) |
| 225-400 | 2             | 11.63<br>(295.3)       | 2.50<br>(63.1) | 2<br>(50.8)    | 2.54<br>(64.6) | 0.25<br>(6.4) | 1.63<br>(41.3) | -              | 0.63<br>(15.9) | 0.41<br>(10.3) | 0.95<br>(24.0) |
| 450-600 | 2             | 13.38<br>(339.7)       | 3<br>(76.0)    | 2.41<br>(61.1) | 3.04<br>(77.3) | 0.25<br>(6.5) | 2<br>(50.8)    | -              | 0.75<br>(19.1) | 0.53<br>(13.5) | 1.13<br>(28.6) |

### Current-Limiting Effects of FLSR Fuses

| SHORT CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS |       |        |        |        |        |
|------------------------|---|-------|--------|--------|--------|--------|
|                        | 30 A  | 60 A  | 100 A  | 200 A  | 400 A  | 600 A  |
| 5,000                  | 1,250   | 2,100 | 3,200  | 5,000  | 5,000  | 5,000  |
| 10,000                 | 1,600   | 2,850 | 4,300  | 7,250  | 10,000 | 10,000 |
| 15,000                 | 1,800   | 3,400 | 5,000  | 8,500  | 13,500 | 15,000 |
| 20,000                 | 2,250   | 3,800 | 5,500  | 9,500  | 15,750 | 19,000 |
| 25,000                 | 2,450   | 4,100 | 5,700  | 10,250 | 17,000 | 21,000 |
| 30,000                 | 2,700   | 4,500 | 6,400  | 10,750 | 18,000 | 23,000 |
| 35,000                 | 2,900   | 4,800 | 6,700  | 11,500 | 19,000 | 24,250 |
| 40,000                 | 3,000   | 5,000 | 7,250  | 12,000 | 19,500 | 27,000 |
| 50,000                 | 3,400   | 5,250 | 7,750  | 13,000 | 21,000 | 29,000 |
| 60,000                 | 3,600   | 5,750 | 8,100  | 14,000 | 22,000 | 30,500 |
| 80,000                 | 3,900   | 6,250 | 9,000  | 15,000 | 24,000 | 33,000 |
| 100,000                | 4,300   | 6,750 | 9,750  | 16,500 | 26,000 | 35,000 |
| 150,000                | 4,500   | 7,600 | 11,100 | 19,000 | 28,000 | 38,000 |
| 200,000                | 4,600   | 8,400 | 12,250 | 21,500 | 30,000 | 40,000 |

\*Prospective RMS Symmetrical Amperes Short-Circuit Current

Note: Data Derived from Peak Let-Thru Curves

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