

# R-Rated Fuses

## For Motor Circuit Protection

### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B



- R-Rated medium voltage fuses are back-up current limiting fuses used in conjunction with medium voltage motors and motor controllers.
- The JCK-A, JCL-A, & JCR are supplied with Westinghouse Ampguard Hookeye.
- This single hookeye is on one end of the fuse and aids in the insertion and removal of the fuse.
- Current limiting fuses may be designated as R-Rated if they meet the following requirements:
  1. The fuse will safely interrupt all currents between its minimum and maximum interrupting ratings.
  2. The fuse will melt in a range of 15 to 35 seconds at a value of 100 times the "R" number (ANSI C37.46).
- Bussmann R-Rated current limiting fuses are designed for use with medium voltage starters to provide short-circuit protection for the motor and motor controller.
- These fuses offer a high level of fault current interruption in a self-contained, non-venting package which can be mounted indoors or in an enclosure.
- Open fuse indication on all fuses.

CATALOG SYMBOL: JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

R-RATED

MEDIUM VOLTAGE

CURRENT LIMITING

2400V AC — JCK, JCK-A, JCK-B, JCH

4800V AC — JCL, JCL-A, JCL-B, JCG

7200V AC — JCR, JCR-B

MAX. DESIGN VOLTAGE      2540V AC — JCK, JCK-A, JCK-B, JCH

5080V AC — JCL, JCL-A, JCL-B, JCG

8300V AC — JCR, JCR-B

U.L. RECOGNIZED:      2540V AC — JCK, JCK-A  
5080V AC — JCL, JCL-A

U.L. RECOGNIZED (GUIDE #MSSS2, FILE # E96676)

# R-Rated Fuses

## For Motor Circuit Protection

### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

#### Specifications

| Buss<br>Catalog No.                                                                                                                            | Amperage | Maximum<br>Design Voltage | Dimensions (Inches) |       |      | Construction | Max. Int. Cap. |             | Min. Int. Cap. |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------|---------------------|-------|------|--------------|----------------|-------------|----------------|
|                                                                                                                                                |          |                           | A                   | B     | C    |              | Amps (Asym.)   | Amps (Sym.) | Amps (Sym.)    |
| 2400V; R-Rated; Indoor/Enclosure (See Figure 1)                                                                                                |          |                           |                     |       |      |              |                |             |                |
| JCK-2R                                                                                                                                         | 70 2R    | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 165            |
| JCK-3R                                                                                                                                         | 100 3R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 220            |
| JCK-4R                                                                                                                                         | 130 4R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 320            |
| JCK-5R                                                                                                                                         | 150 5R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 410            |
| JCK-6R                                                                                                                                         | 170 6R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 480            |
| JCK-9R                                                                                                                                         | 200 9R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 720            |
| JCK-12R                                                                                                                                        | 230 12R  | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 970            |
| JCK-18R                                                                                                                                        | 390 18R  | 2540V                     | 11.24               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,430          |
| JCK-24R                                                                                                                                        | 450 24R  | 2540V                     | 11.24               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,880          |
| 2400V; R-Rated; Indoor/Enclosure; With Westinghouse Ampguard Hookeye (See Figure 1)                                                            |          |                           |                     |       |      |              |                |             |                |
| JCK-A-2R                                                                                                                                       | 70 2R    | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 165            |
| JCK-A-3R                                                                                                                                       | 100 3R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 220            |
| JCK-A-4R                                                                                                                                       | 130 4R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 320            |
| JCK-A-5R                                                                                                                                       | 150 5R   | 27540V                    | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 410            |
| JCK-A-6R                                                                                                                                       | 170 6R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 480            |
| JCK-A-9R                                                                                                                                       | 200 9R   | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 720            |
| JCK-A-12R                                                                                                                                      | 230 12R  | 2540V                     | 11.24               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 970            |
| JCK-A-18R                                                                                                                                      | 390 18R  | 2540V                     | 11.24               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,430          |
| JCK-A-24R                                                                                                                                      | 450 24R  | 2540V                     | 11.24               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,880          |
| 2400V; R-Rated; Indoor/Enclosure; Bolt-On (See Figure 2)                                                                                       |          |                           |                     |       |      |              |                |             |                |
| JCK-B-30                                                                                                                                       | 25       | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 90             |
| JCK-B-2R                                                                                                                                       | 70 2R    | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 170            |
| JCK-B-3R                                                                                                                                       | 100 3R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 245            |
| JCK-B-4R                                                                                                                                       | 130 4R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 340            |
| JCK-B-5R                                                                                                                                       | 150 5R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 430            |
| JCK-B-6R                                                                                                                                       | 170 6R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 500            |
| JCK-B-9R                                                                                                                                       | 200 9R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 1,000          |
| JCK-B-12R                                                                                                                                      | 230 12R  | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 1,250          |
| JCK-B-18R                                                                                                                                      | 390 18R  | 2540V                     | 14.18               | 12.81 | 3.56 | Double       | 80,000         | 50,000      | 1,700          |
| JCK-B-24R                                                                                                                                      | 450 24R  | 2540V                     | 14.18               | 12.81 | 3.56 | Double       | 80,000         | 50,000      | 1,210          |
| 2400V; R-Rated; Indoor; Hermetically Sealed, Class 1, Group D, Div. 2, Hazardous Locations; For Use with Ampgard Motor Starters (See Figure 1) |          |                           |                     |       |      |              |                |             |                |
| JCH-30                                                                                                                                         | 25       | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 90             |
| JCH-2R                                                                                                                                         | 70 2R    | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 170            |
| JCH-3R                                                                                                                                         | 100 3R   | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 245            |
| JCH-4R                                                                                                                                         | 130 4R   | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 340            |
| JCH-5R                                                                                                                                         | 150 5R   | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 430            |
| JCH-6R                                                                                                                                         | 170 6R   | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 500            |
| JCH-9R                                                                                                                                         | 200 9R   | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 1,000          |
| JCH-12R                                                                                                                                        | 230 12R  | 2540V                     | 10.81               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 1,250          |
| JCH-18R                                                                                                                                        | 390 18R  | 2540V                     | 10.81               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,700          |
| JCH-24R                                                                                                                                        | 450 24R  | 2540V                     | 10.81               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 2,100          |
| 4800V; R-Rated; Indoor/Enclosure (See Figure 1)                                                                                                |          |                           |                     |       |      |              |                |             |                |
| JCL-2R                                                                                                                                         | 70 2R    | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 165            |
| JCL-3R                                                                                                                                         | 100 3R   | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 220            |
| JCL-4R                                                                                                                                         | 130 4R   | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 320            |
| JCL-5R                                                                                                                                         | 150 5R   | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 410            |
| JCL-6R                                                                                                                                         | 170 6R   | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 480            |
| JCL-9R                                                                                                                                         | 200 9R   | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 720            |
| JCL-12R                                                                                                                                        | 230 12R  | 5080V                     | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000      | 970            |
| JCL-18R                                                                                                                                        | 390 18R  | 5080V                     | 15.76               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,430          |
| JCL-24R                                                                                                                                        | 450 24R  | 5080V                     | 15.76               | 3.0   | 3.0  | Double       | 80,000         | 50,000      | 1,880          |

# R-Rated Fuses

## For Motor Circuit Protection

### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

#### Specifications

| Buss                                                                                                                                           |          | Maximum        | Dimensions (Inches) |       |      |              | Max. Int. Cap. | Min. Int. Cap. |             |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|---------------------|-------|------|--------------|----------------|----------------|-------------|
| Catalog No.                                                                                                                                    | Amperage | Design Voltage | A                   | B     | C    | Construction | Amps (Asym.)   | Amps (Sym.)    | Amps (Sym.) |
| 4800V; R-Rated; Indoor/Enclosure; With Westinghouse Ampguard Hookeye (See Figure 1)                                                            |          |                |                     |       |      |              |                |                |             |
| JCL-A-2R                                                                                                                                       | 70 2R    | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 165         |
| JCL-A-3R                                                                                                                                       | 100 3R   | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 220         |
| JCL-A-4R                                                                                                                                       | 130 4R   | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 320         |
| JCL-A-5R                                                                                                                                       | 150 5R   | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 410         |
| JCL-A-6R                                                                                                                                       | 170 6R   | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 480         |
| JCL-A-9R                                                                                                                                       | 200 9R   | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 720         |
| JCL-A-12R                                                                                                                                      | 230 12R  | 5080V          | 15.76               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 970         |
| JCL-A-18R                                                                                                                                      | 390 18R  | 5080V          | 15.76               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 1,430       |
| JCL-A-24R                                                                                                                                      | 450 24R  | 5080V          | 15.76               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 1,880       |
| 4800V; R-Rated; Indoor/Enclosure; Bolt-On (See Figure 2)                                                                                       |          |                |                     |       |      |              |                |                |             |
| JCL-B-30                                                                                                                                       | 30       | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 95          |
| JCL-B-2R                                                                                                                                       | 70 2R    | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 180         |
| JCL-B-3R                                                                                                                                       | 100 3R   | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 270         |
| JCL-B-4R                                                                                                                                       | 130 4R   | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 350         |
| JCL-B-5R                                                                                                                                       | 150 5R   | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 450         |
| JCL-B-6R                                                                                                                                       | 170 6R   | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 540         |
| JCL-B-9R                                                                                                                                       | 200 9R   | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 700         |
| JCL-B-12R                                                                                                                                      | 230 12R  | 5080V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 1,000       |
| JCL-B-18R                                                                                                                                      | 390 18R  | 5080V          | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000         | 1,450       |
| JCL-B-24R                                                                                                                                      | 450 24R  | 5080V          | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000         | 2,000       |
| 4800V; R-Rated; Indoor; Hermetically Sealed, Class 1, Group D, Div. 2, Hazardous Locations; For Use with Ampgard Motor Starters (See Figure 1) |          |                |                     |       |      |              |                |                |             |
| JCG-30                                                                                                                                         | 30       | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 95          |
| JCG-2R                                                                                                                                         | 70 2R    | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 180         |
| JCG-3R                                                                                                                                         | 100 3R   | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 270         |
| JCG-4R                                                                                                                                         | 130 4R   | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 350         |
| JCG-5R                                                                                                                                         | 150 5R   | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 450         |
| JCG-6R                                                                                                                                         | 170 6R   | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 540         |
| JCG-9R                                                                                                                                         | 200 9R   | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 700         |
| JCG-12R                                                                                                                                        | 230 12R  | 5080V          | 15.91               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 1,000       |
| JCG-A-18R                                                                                                                                      | 390 18R  | 5080V          | 15.91               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 1,450       |
| JCG-A-24R                                                                                                                                      | 450 24R  | 5080V          | 15.91               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 2,000       |
| 7200V; R-Rated; Indoor/Enclosure; With Ampgard Hookeye (See Figure 1)                                                                          |          |                |                     |       |      |              |                |                |             |
| JCR-2R                                                                                                                                         | 70 2R    | 8300V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 160         |
| JCR-3R                                                                                                                                         | 100 3R   | 8300V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 250         |
| JCR-4R                                                                                                                                         | 130 4R   | 8300V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 325         |
| JCR-5R                                                                                                                                         | 150 5R   | 8300V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 390         |
| JCR-6R                                                                                                                                         | 170 6R   | 8300V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 500         |
| JCR-9R                                                                                                                                         | 200 9R   | 7200V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 750         |
| JCR-12R                                                                                                                                        | 230 12R  | 7200V          | 15.85               | 3.0   | 3.0  | Single       | 80,000         | 50,000         | 1,000       |
| JCR-18R                                                                                                                                        | 390 18R  | 7200V          | 15.85               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 1,450       |
| JCR-24R                                                                                                                                        | 450 24R  | 7200V          | 15.85               | 3.0   | 3.0  | Double       | 80,000         | 50,000         | 2,500       |
| 7200V; R-Rated; Indoor/Enclosure; Bolt-On (See Figure 2)                                                                                       |          |                |                     |       |      |              |                |                |             |
| JCR-B-2R                                                                                                                                       | 70 2R    | 8300V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 160         |
| JCR-B-3R                                                                                                                                       | 100 3R   | 8300V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 250         |
| JCR-B-4R                                                                                                                                       | 130 4R   | 8300V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 325         |
| JCR-B-5R                                                                                                                                       | 150 5R   | 8300V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 390         |
| JCR-B-6R                                                                                                                                       | 170 6R   | 8300V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 500         |
| JCR-B-9R                                                                                                                                       | 200 9R   | 7200V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 750         |
| JCR-B-12R                                                                                                                                      | 230 12R  | 7200V          | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000         | 1,000       |
| JCR-B-18R                                                                                                                                      | 390 18R  | 7200V          | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000         | 1,450       |
| JCR-B-24R                                                                                                                                      | 450 24R  | 7200V          | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000         | 2,500       |

# R-Rated Fuses

## For Motor Circuit Protection

### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

#### Dimensional Data

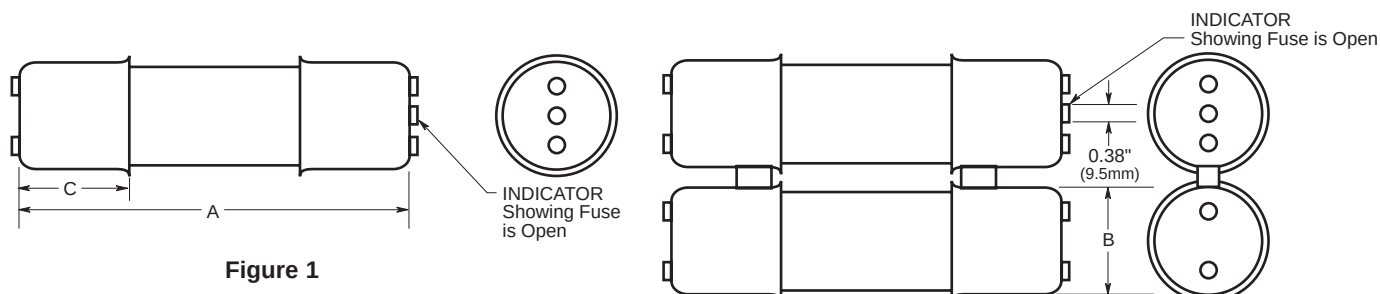
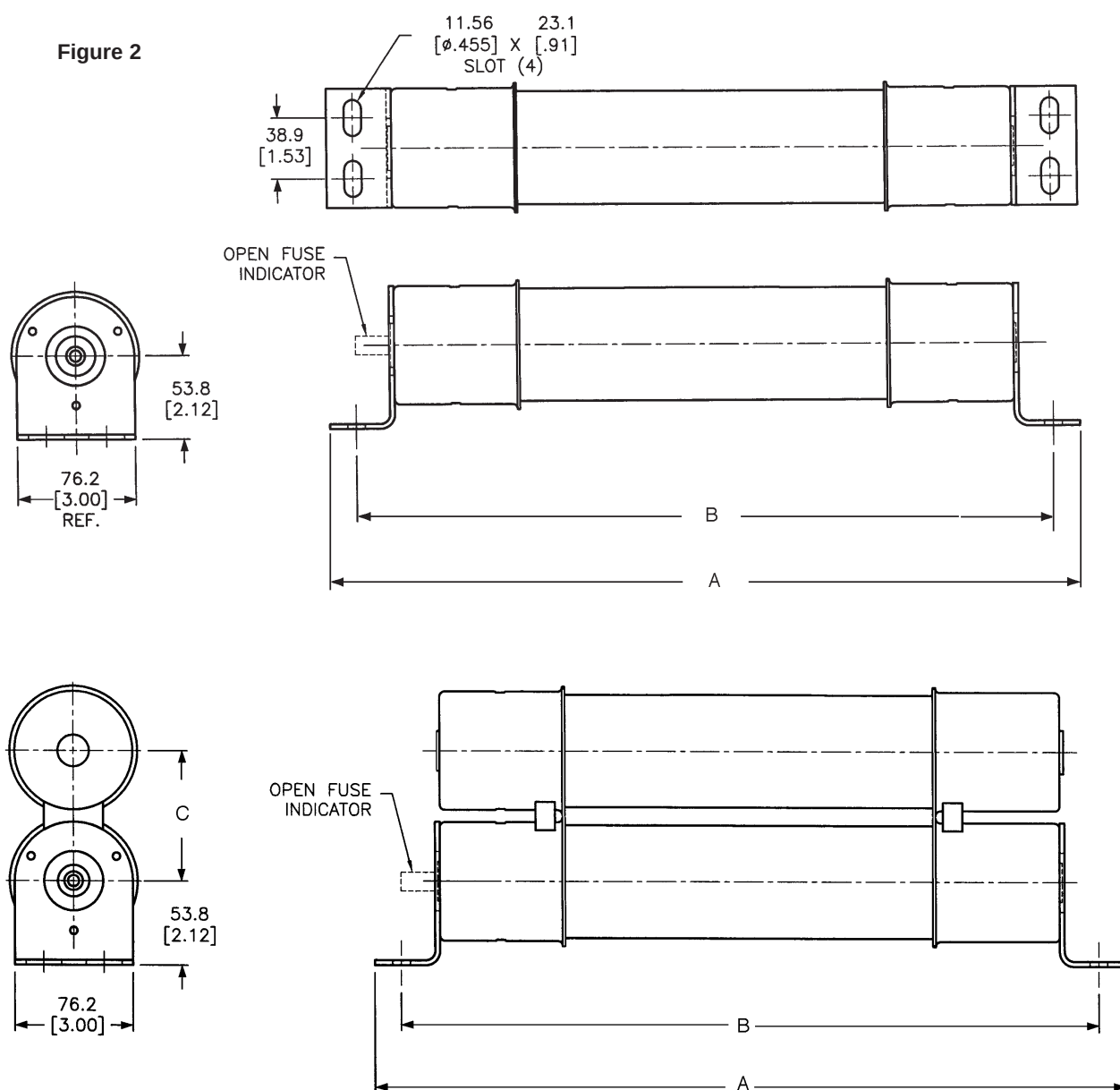


Figure 2

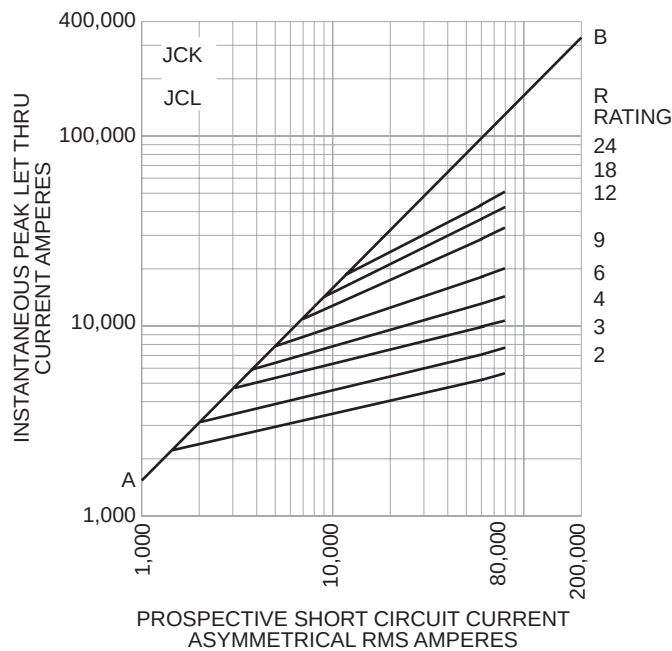


# R-Rated Fuses For Motor Circuit Protection Medium Voltage

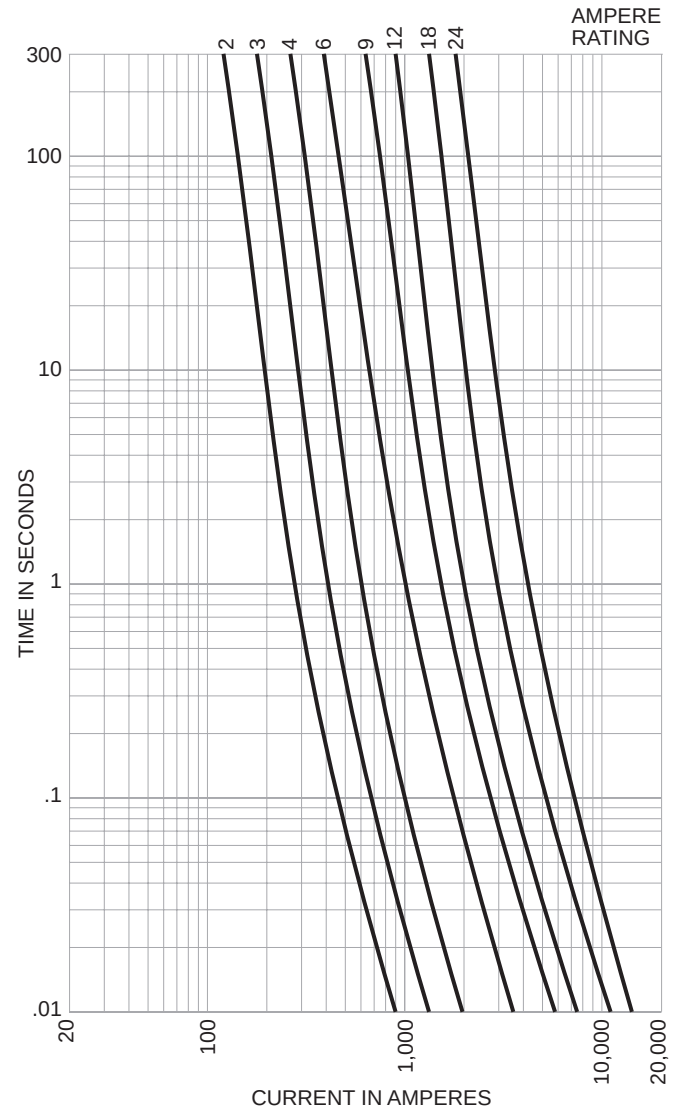
# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

## JCK, JCK-A, JCL, JCL-A

Current Limitation Curves



Time-Current Characteristic Curves—Average Melt



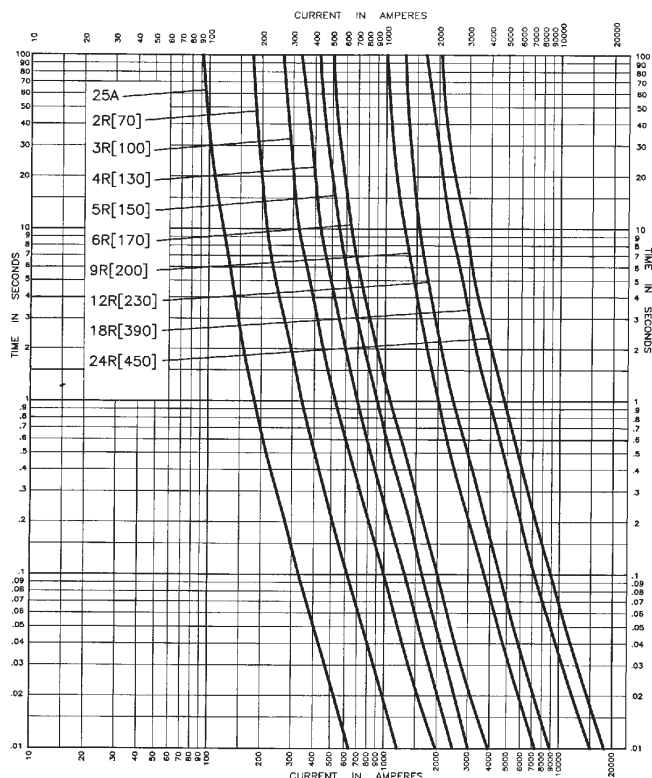
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

## JCK-B, JCH

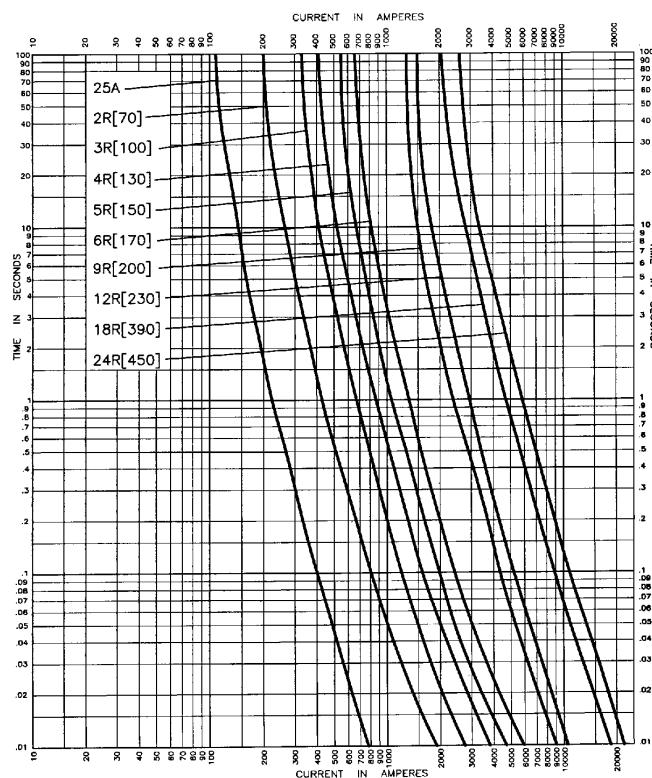
Time-Current Curve: Minimum Melt

50999-1



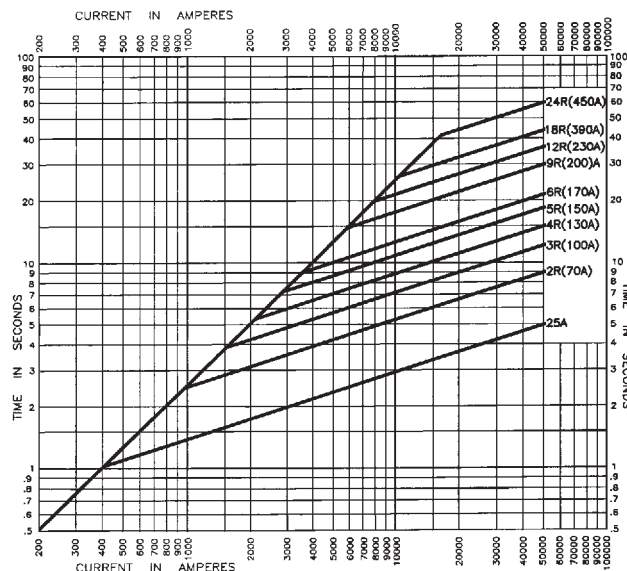
Time-Current Curve: Total Clearing

50999-2



## Peak Let-Through Curves

50999-3



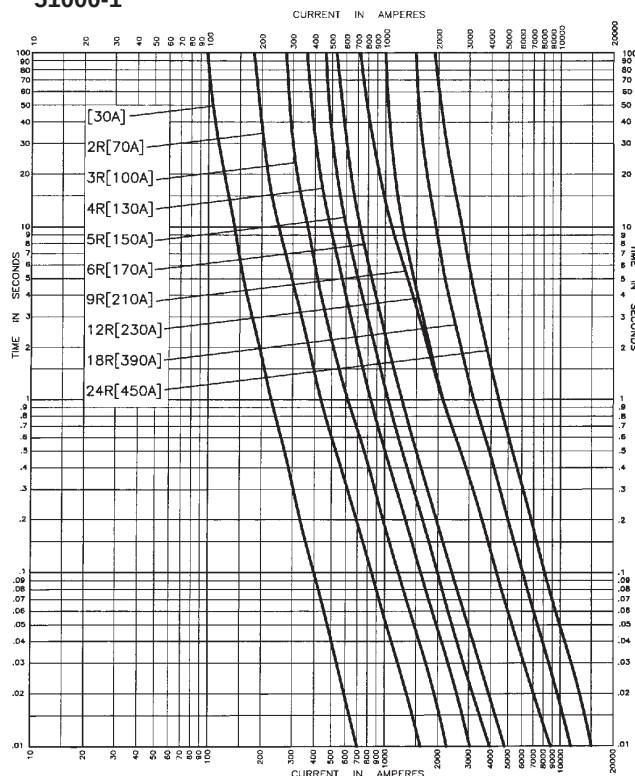
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

## JCL-B, JCG

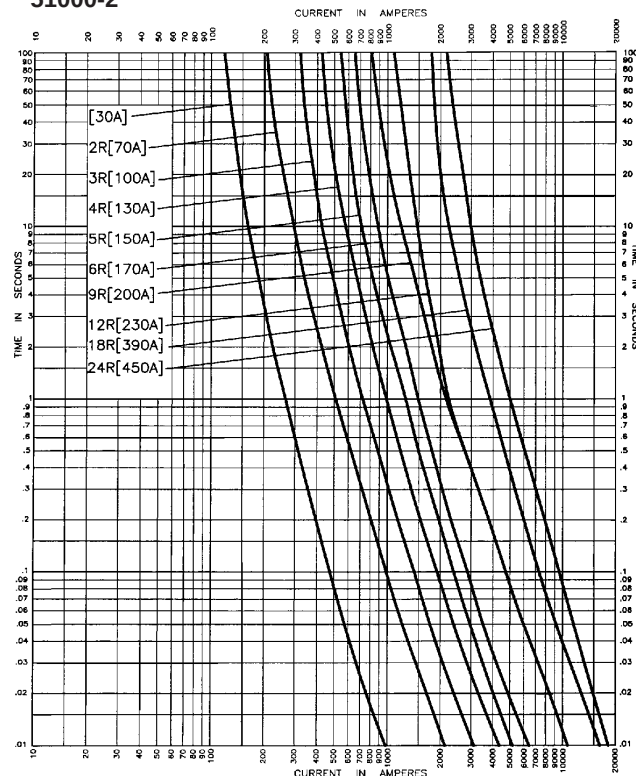
Time-Current Curve: Minimum Melt

51000-1



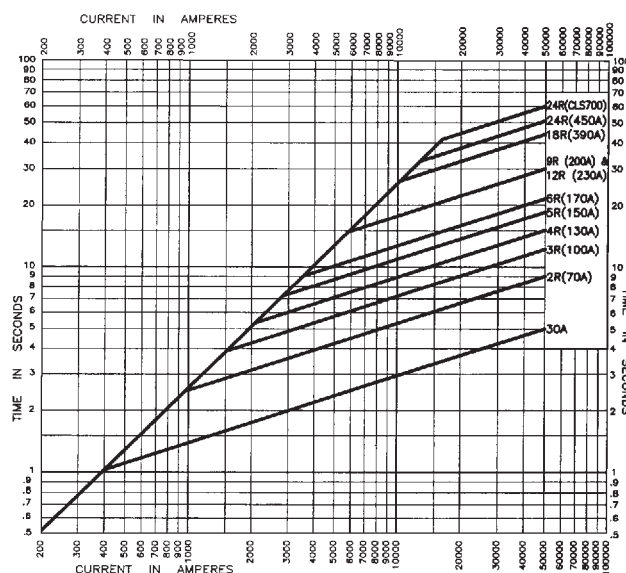
Time-Current Curve: Total Clearing

51000-2



## Peak Let-Through Curves

51000-3





# R-Rated Fuses

## For Motor Circuit Protection

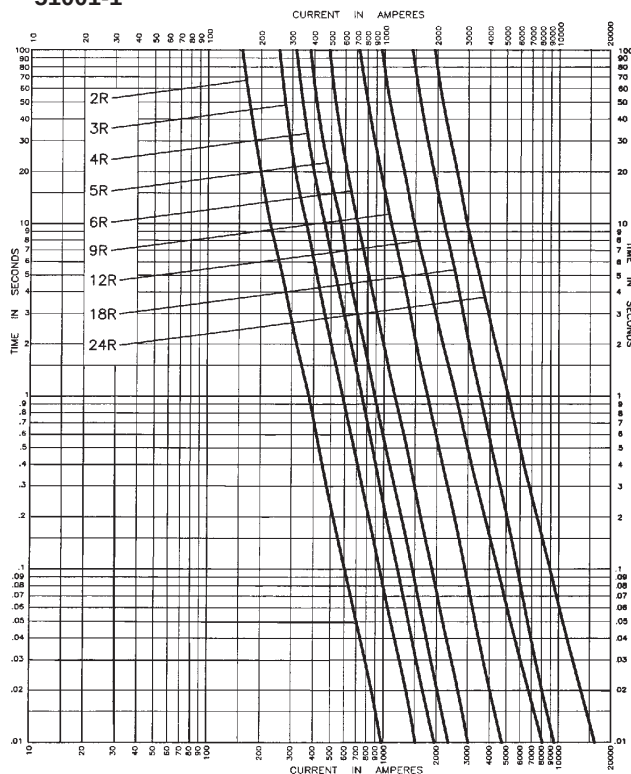
### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR, & JCR-B

## JCR, JCR-B

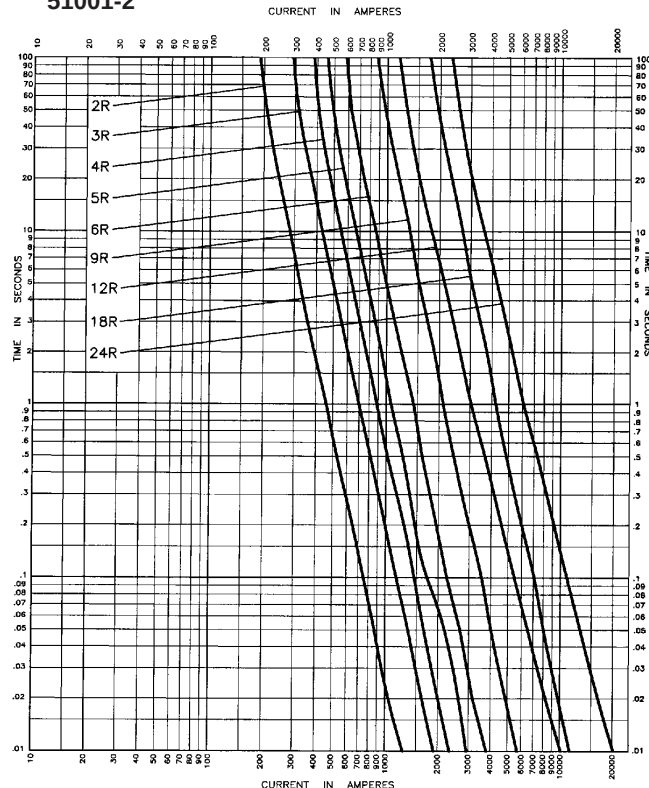
Time-Current Curve: Minimum Melt

51001-1



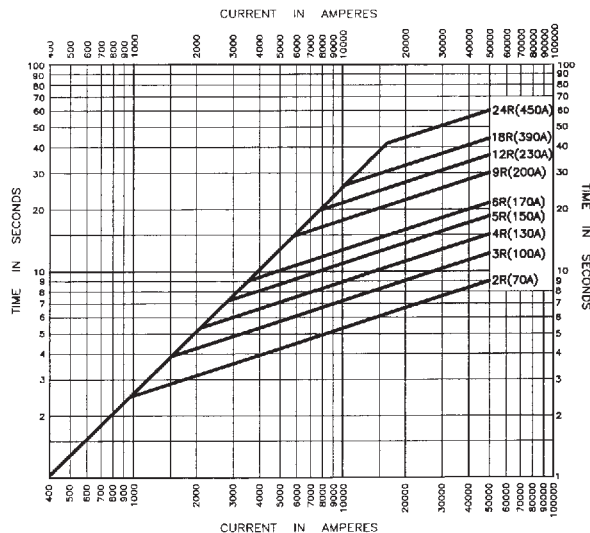
Time-Current Curve: Total Clearing

51001-2



## Peak Let-Through Curves

51001-3



The only controlled copy of this BIF document is the electronic read-only version located on the Bussmann Network Drive. All other copies of this BIF document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Form No. JCK, JCK-A, JCK-B, JCH, JCL,  
JCL-A, JCL-B, JCG, JCR, & JCR-B

Page 8 of 8

BIF Doc #6001