

# R-Rated Fuses

## For Motor Circuit Protection

### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR-A, & 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-A are supplied with Cutler-Hammer Ampgard 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-A, & 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-A, JCR-B

**Max. Design Voltage** 2540V AC — JCK, JCK-A, JCK-B, JCH  
5080V AC — JCL, JCL-A, JCL-B, JCG  
8300V AC — JCR-A, JCR-B

**UL Recognized:** 2540V AC — JCK, JCK-A  
5080V AC — JCL, JCL-A  
(2R-24R)

UL Recognized (GUIDE #MSSS2, FILE # E96676)

# R-Rated Fuses

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### Medium Voltage

# JCK, JCK-A, JCK-B, JCH, JCL, JCL-A, JCL-B, JCG, JCR-A, & 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 Cutler-Hammer Ampgard 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      | 100            |
| JCK-B-2R                                                                                                                                       | 70 2R    | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 180            |
| JCK-B-3R                                                                                                                                       | 100 3R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 270            |
| JCK-B-4R                                                                                                                                       | 130 4R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 360            |
| JCK-B-5R                                                                                                                                       | 150 5R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 450            |
| JCK-B-6R                                                                                                                                       | 170 6R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 540            |
| JCK-B-9R                                                                                                                                       | 200 9R   | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 740            |
| JCK-B-12R                                                                                                                                      | 230 12R  | 2540V                     | 14.18               | 12.81 | -    | Single       | 80,000         | 50,000      | 1,080          |
| JCK-B-18R                                                                                                                                      | 390 18R  | 2540V                     | 14.18               | 12.81 | 3.56 | Double       | 80,000         | 50,000      | 1,500          |
| JCK-B-24R                                                                                                                                      | 450 24R  | 2540V                     | 14.18               | 12.81 | 3.56 | Double       | 80,000         | 50,000      | 2,200          |
| 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                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 100            |
| JCH-2R                                                                                                                                         | 70 2R    | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 180            |
| JCH-3R                                                                                                                                         | 100 3R   | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 270            |
| JCH-4R                                                                                                                                         | 130 4R   | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 360            |
| JCH-5R                                                                                                                                         | 150 5R   | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 450            |
| JCH-6R                                                                                                                                         | 170 6R   | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 540            |
| JCH-9R                                                                                                                                         | 200 9R   | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 740            |
| JCH-12R                                                                                                                                        | 230 12R  | 2540V                     | 11.56               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 1,080          |
| JCH-18R                                                                                                                                        | 390 18R  | 2540V                     | 11.56               | 3.0   | 7.68 | Double       | 80,000         | 50,000      | 1,500          |
| JCH-24R                                                                                                                                        | 450 24R  | 2540V                     | 11.56               | 3.0   | 7.68 | Double       | 80,000         | 50,000      | 2,200          |
| 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          |

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

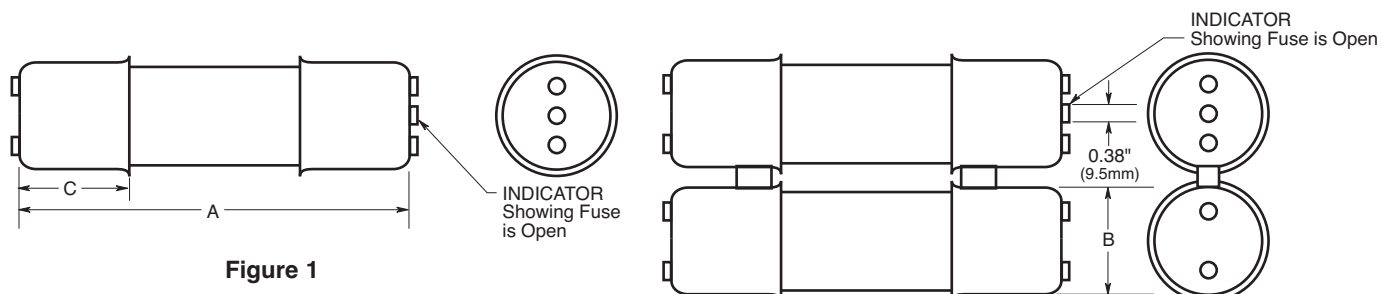
#### Specifications

| 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.)    |
| 4800V; R-Rated; Indoor/Enclosure; With Cutler-Hammer Ampgard 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          |
| JCL-A-36R                                                                                                                                      | 650 36R  | 5080V                     | 16.0                | 4.0   | -    | Double       | 100,000        | 63,000      | 3,200          |
| 4800V; R-Rated; Indoor/Enclosure; Bolt-On (See Figure 2)                                                                                       |          |                           |                     |       |      |              |                |             |                |
| JCL-B-30                                                                                                                                       | 30       | 5080V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 100            |
| 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      | 360            |
| 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      | 740            |
| JCL-B-12R                                                                                                                                      | 230 12R  | 5080V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 1,080          |
| JCL-B-18R                                                                                                                                      | 390 18R  | 5080V                     | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000      | 1,500          |
| JCL-B-24R                                                                                                                                      | 450 24R  | 5080V                     | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000      | 2,200          |
| 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                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 95             |
| JCG-2R                                                                                                                                         | 70 2R    | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 180            |
| JCG-3R                                                                                                                                         | 100 3R   | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 270            |
| JCG-4R                                                                                                                                         | 130 4R   | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 350            |
| JCG-5R                                                                                                                                         | 150 5R   | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 450            |
| JCG-6R                                                                                                                                         | 170 6R   | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 540            |
| JCG-9R                                                                                                                                         | 200 9R   | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 700            |
| JCG-12R                                                                                                                                        | 230 12R  | 5080V                     | 16.6                | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 1,000          |
| JCG-18R                                                                                                                                        | 390 18R  | 5080V                     | 15.85               | 3.0   | 6.31 | Double       | 80,000         | 50,000      | 1,450          |
| JCG-24R                                                                                                                                        | 450 24R  | 5080V                     | 15.85               | 3.0   | 6.31 | Double       | 80,000         | 50,000      | 2,000          |
| 7200V; R-Rated; Indoor/Enclosure; With Ampgard Hookeye (See Figure 1)                                                                          |          |                           |                     |       |      |              |                |             |                |
| JCR-A-2R                                                                                                                                       | 70 2R    | 8300V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 200            |
| JCR-A-3R                                                                                                                                       | 100 3R   | 8300V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 320            |
| JCR-A-4R                                                                                                                                       | 130 4R   | 8300V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 405            |
| JCR-A-5R                                                                                                                                       | 150 5R   | 8300V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 550            |
| JCR-A-6R                                                                                                                                       | 170 6R   | 8300V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 670            |
| JCR-A-9R                                                                                                                                       | 200 9R   | 7200V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 1,300          |
| JCR-A-12R                                                                                                                                      | 230 12R  | 7200V                     | 15.85               | 3.0   | 4.12 | Single       | 80,000         | 50,000      | 1,500          |
| JCR-A-18R                                                                                                                                      | 390 18R  | 7200V                     | 15.85               | 3.0   | 7.43 | Double       | 80,000         | 50,000      | 2,000          |
| JCR-A-24R                                                                                                                                      | 450 24R  | 7200V                     | 15.85               | 3.0   | 7.43 | Double       | 80,000         | 50,000      | 2,600          |
| 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      | 200            |
| JCR-B-3R                                                                                                                                       | 100 3R   | 8300V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 320            |
| JCR-B-4R                                                                                                                                       | 130 4R   | 8300V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 405            |
| JCR-B-5R                                                                                                                                       | 150 5R   | 8300V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 550            |
| JCR-B-6R                                                                                                                                       | 170 6R   | 8300V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 670            |
| JCR-B-9R                                                                                                                                       | 200 9R   | 7200V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 1,300          |
| JCR-B-12R                                                                                                                                      | 230 12R  | 7200V                     | 19.25               | 17.88 | -    | Single       | 80,000         | 50,000      | 1,500          |
| JCR-B-18R                                                                                                                                      | 390 18R  | 7200V                     | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000      | 2,000          |
| JCR-B-24R                                                                                                                                      | 450 24R  | 7200V                     | 19.25               | 17.88 | 3.31 | Double       | 80,000         | 50,000      | 2,600          |

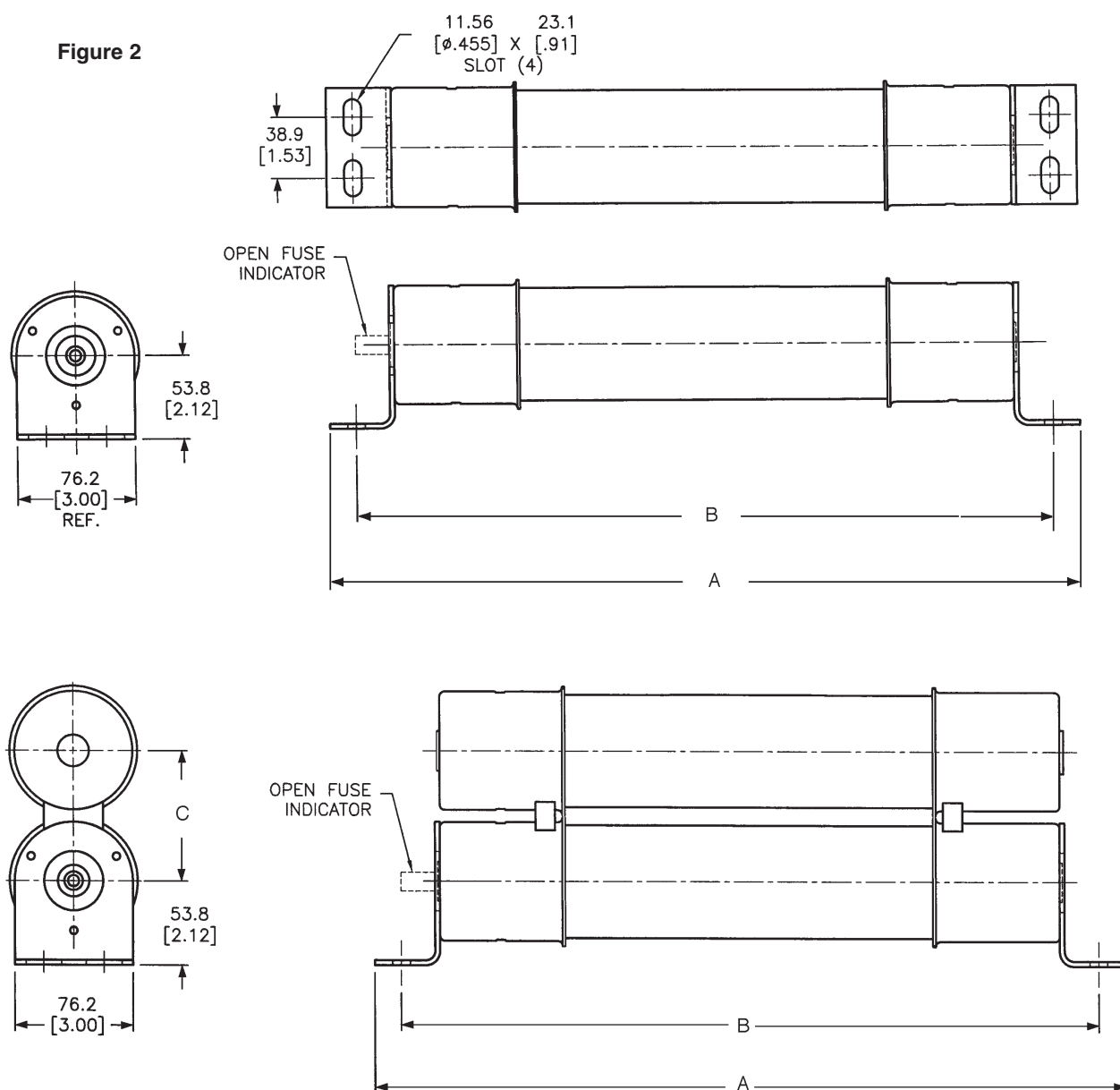
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

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

## Dimensional Data



**Figure 2**



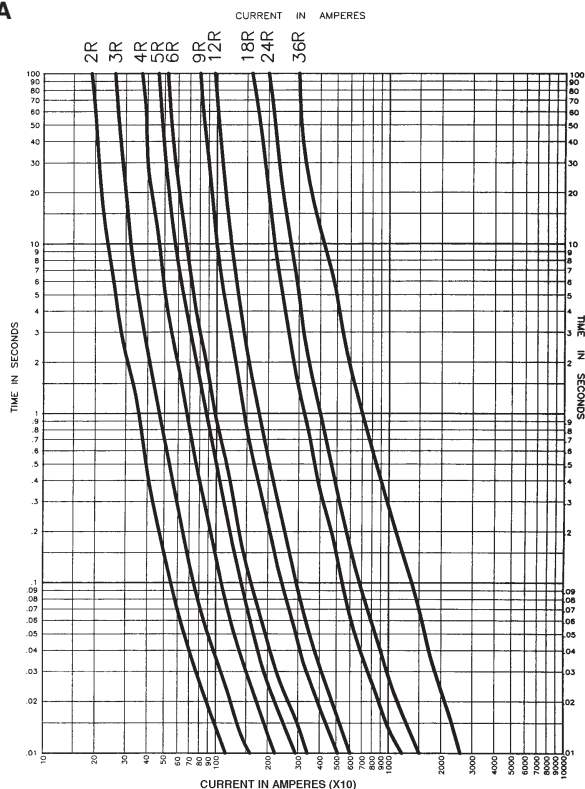
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

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

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

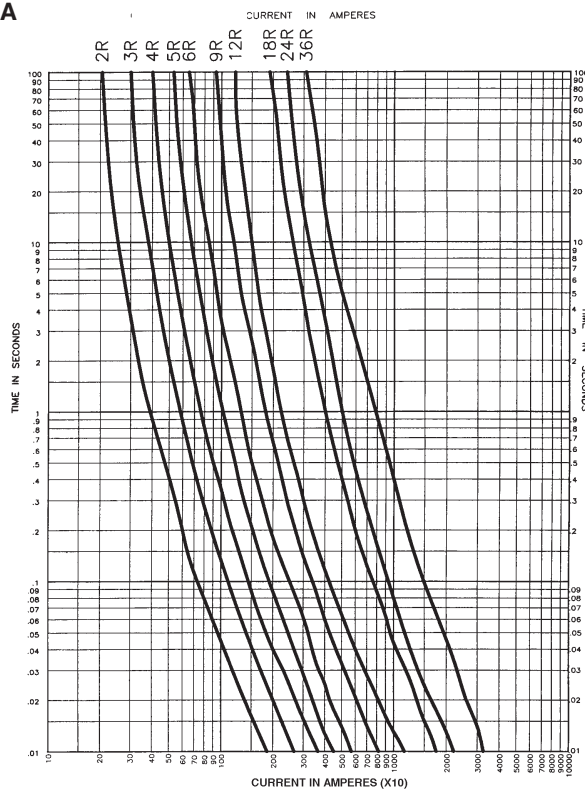
Time-Current Characteristic Curves—Minimum Melt

167-A



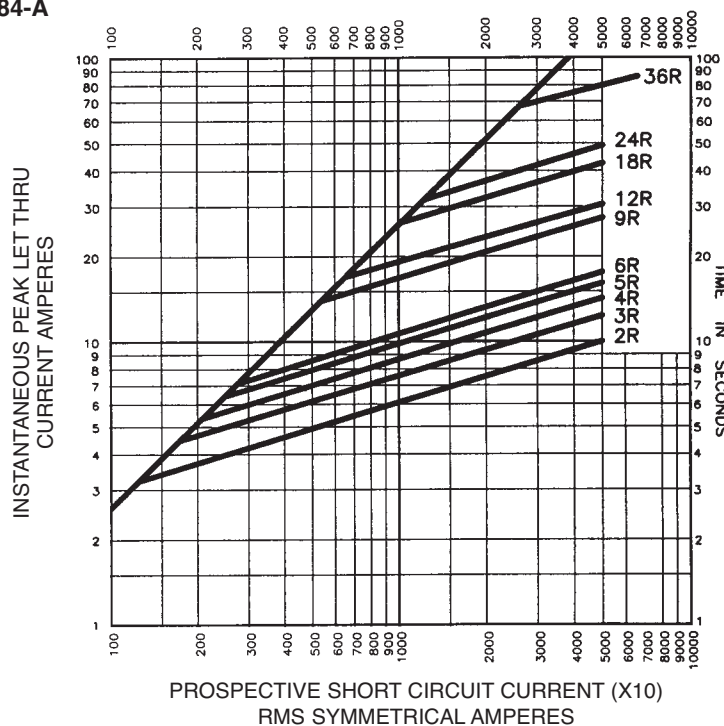
Total Clearing Curves

168-A



Current Limitation Curves

184-A



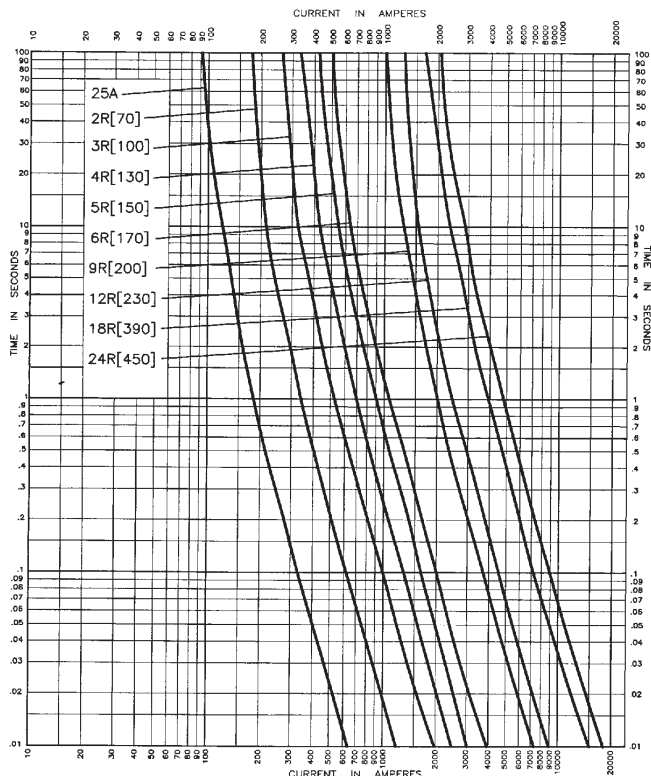
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

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

## JCK-B, JCH

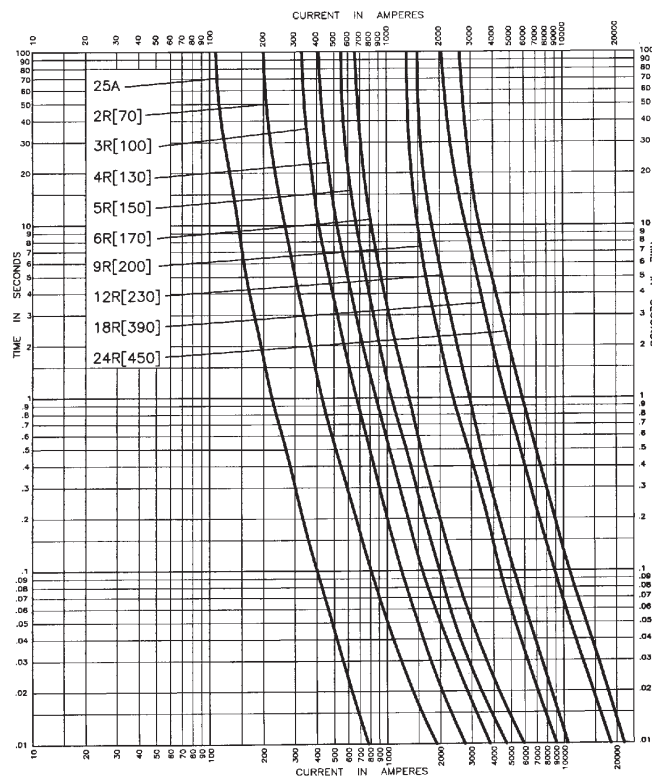
Time-Current Curve: Minimum Melt

50999-1



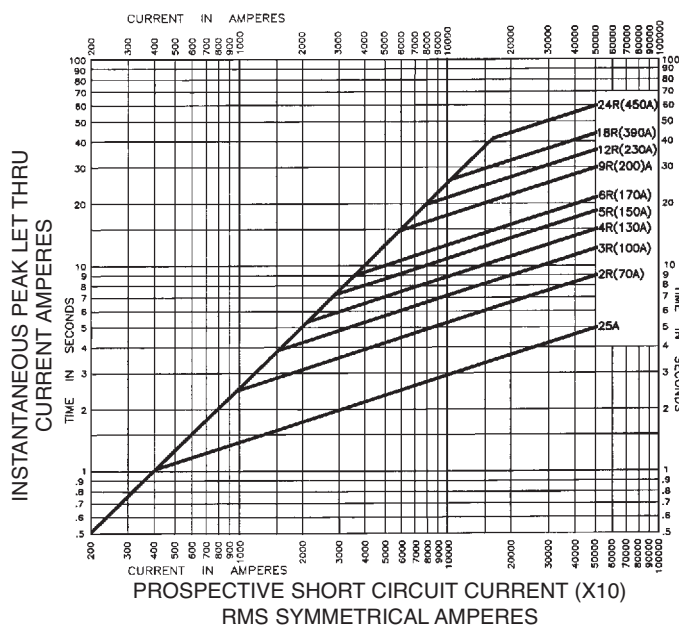
Time-Current Curve: Total Clearing

50999-2



## Peak Let-Through Curves

50999-3





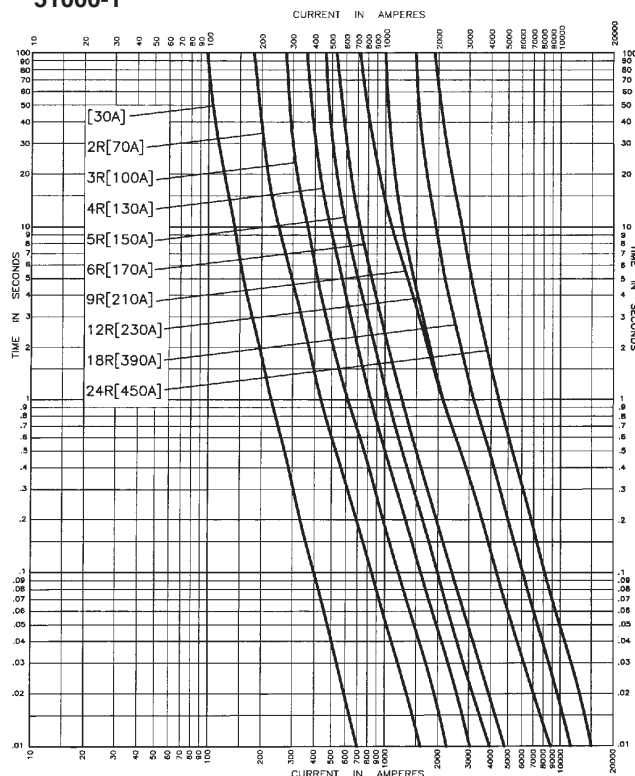
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

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

## JCL-B, JCG

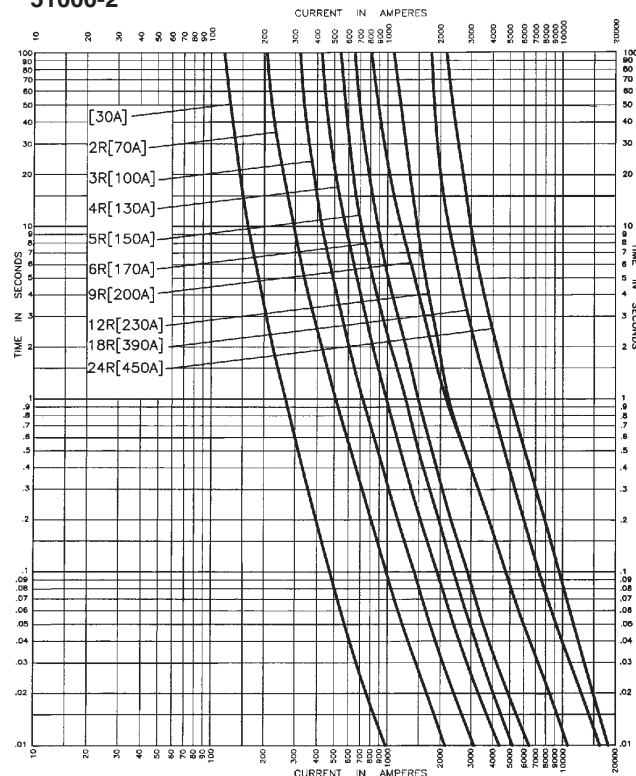
Time-Current Curve: Minimum Melt

51000-1



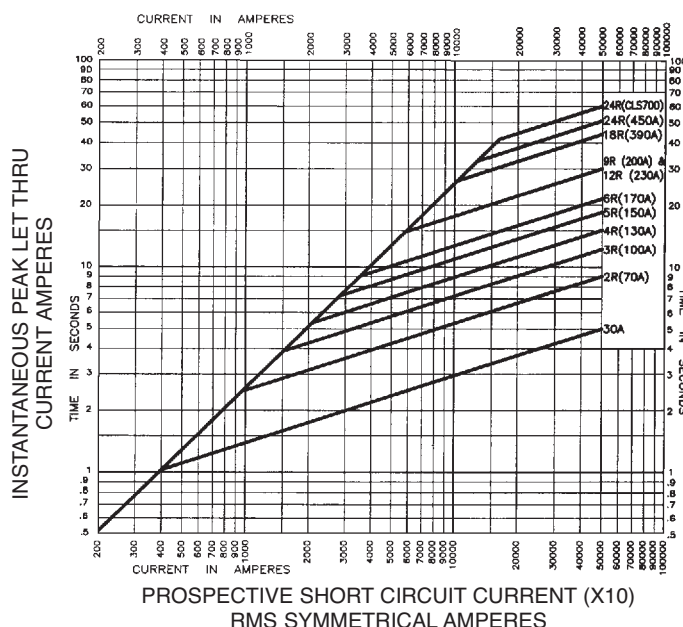
Time-Current Curve: Total Clearing

51000-2



## Peak Let-Through Curves

51000-3



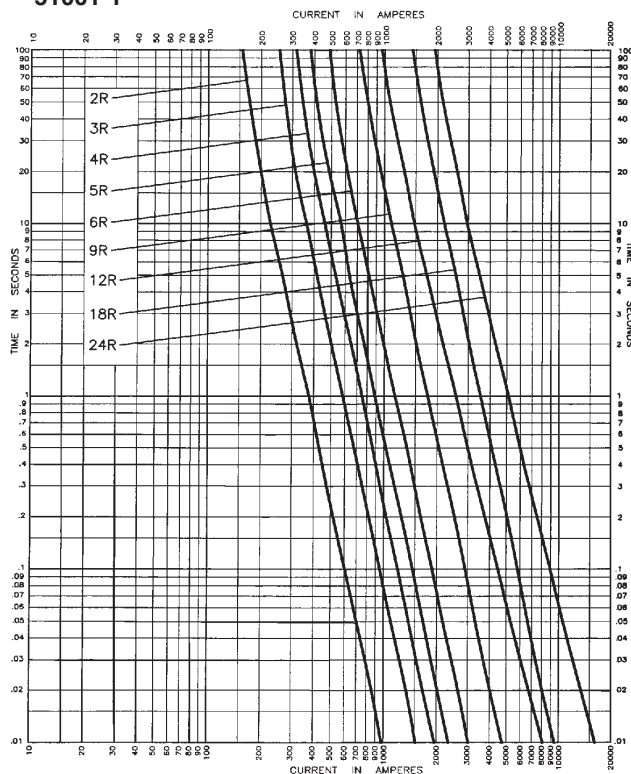
# R-Rated Fuses For Motor Circuit Protection Medium Voltage

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

## JCR, JCR-B

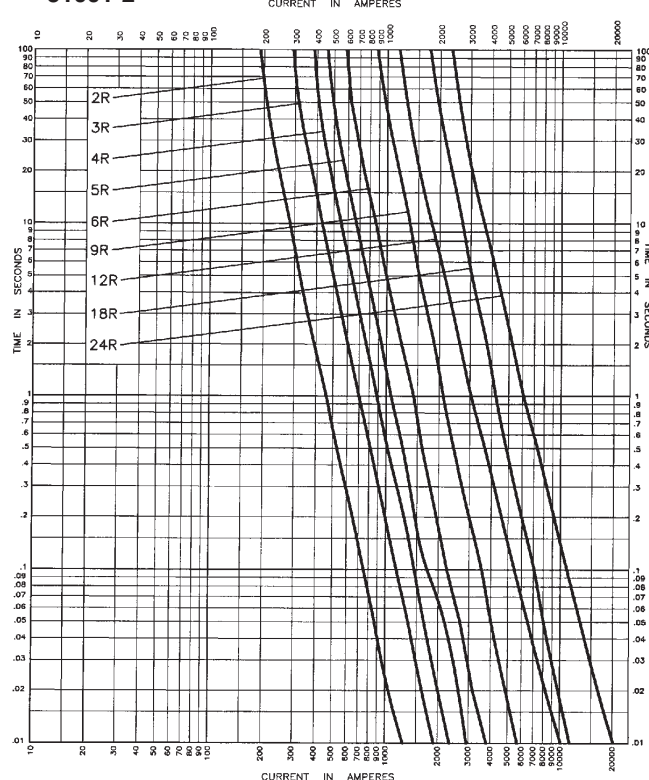
Time-Current Curve: Minimum Melt

51001-1



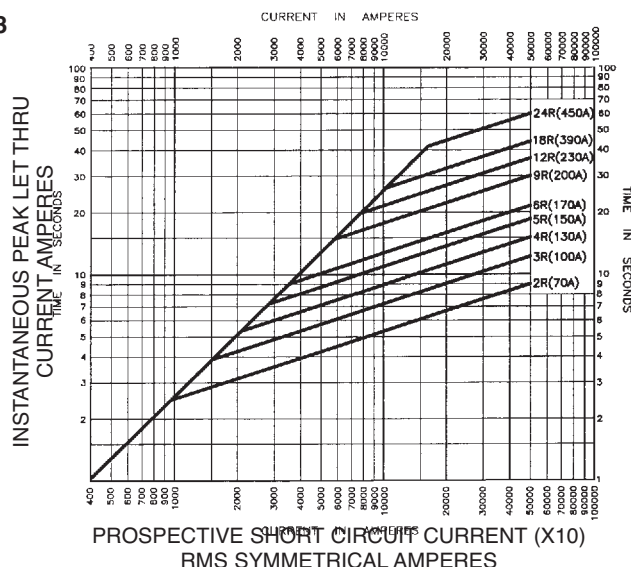
Time-Current Curve: Total Clearing

51001-2



## Peak Let-Through Curves

51001-3



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