

RoHS **Class CC fuses CCMR, KLDR and KLKR Series**



### Description

Fast-Acting KLKR fuses provide fast-acting protection to equipment containing surge sensitive components. Use KLKR Fuses for non-inductive loads not requiring time-delay.

CCMR fuses (formerly KLDR) are specifically designed to withstand sustained starting currents of small motors. The CCMR Fuses provide short-circuit protection for motor branch-circuits.

KLDR fuses are specifically designed to withstand the momentary high magnetizing currents of control transformers, solenoids, and similar inductive loads.

### Agency Approvals

| Agency | Agency File Number | Ampere Range                              |
|--------|--------------------|---|
|        | E81895             | 0.1 - 30A (KLDR/KLKR)<br>0.2 - 60A (CCMR) |
|        | LR 29862           | 0.1 - 30A                                 |

**Notes:**

**KLKR Series:** UL listed Fast-Acting Class CC per UL 248 and CSA Certified

**KLDR Series:** UL listed Time-Delay Class CC per UL 248 and CSA Certified.

**CCMR Series:** UL listed Time-Delay Class CC per UL 248 and CSA Certified, and 35-60A UL Listed Time-Delay Class CD.

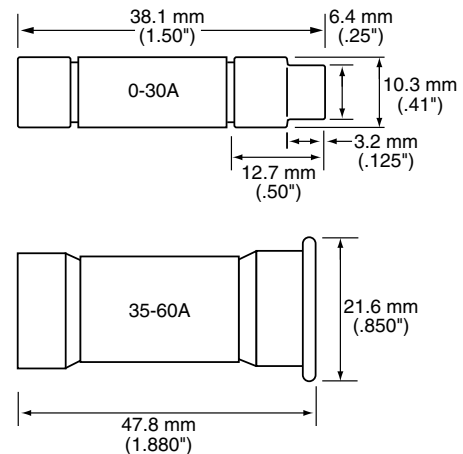
### Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time        |
|--------------------|---------------|---------------------|
| 110%               | 0-30A         | 15 minutes, Minimum |
| 135%               | 0-30A         | 1 hour, Maximum     |
| 200%               | 0-30A         | 4 minutes, Maximum  |
| 200% Time-delay    |               | 12 seconds, Minimum |

### Product Characteristics

|                             |   |
|-----------------------------|---|
| <b>Voltage Rating</b>       | AC: 600 Volts<br>DC: 250 Volts (CCMR 0.2 – 2A)<br>(CCMR 4.5 – 10A)<br>(CCMR 35 – 60A)<br>300 Volts (CCMR 2.25 – 4A)<br>300 Volts (KLDR)<br>300 Volts (KLKR)<br>500 Volts (CCMR 2 - 30A) |
| <b>RoHS compliant items</b> | KLKR - 0.1A - 30A<br>CCMR - 25A and 30A<br>KLDR - 0.1A - 7.5A, 25A and 30A  |

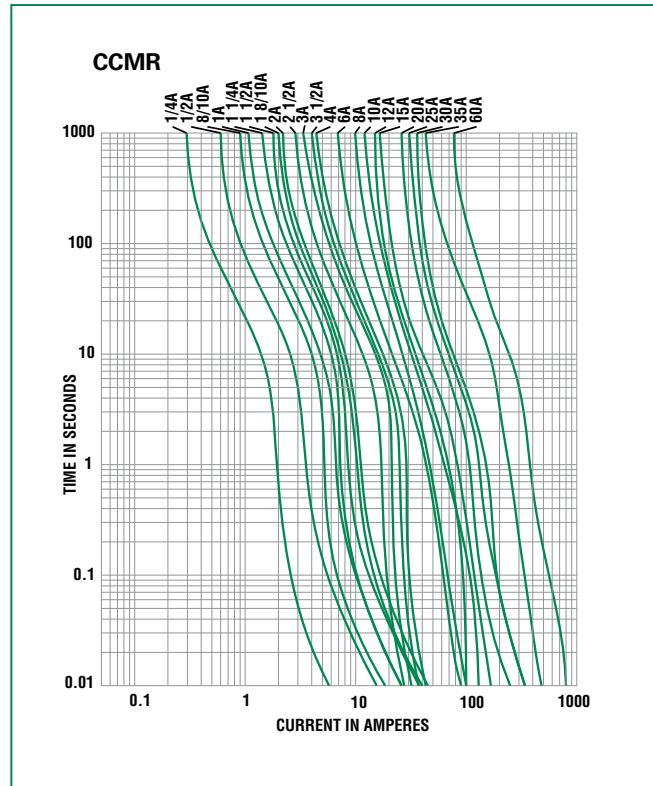
### Dimensions



## Electrical Specifications by Item -- CCMR Series

| Amp Code  | Amp Rating (A) | Interrupting Rating                   | Nominal Cold Resistance (Ohms) | Agency Approvals |    |
|-----------|----------------|---------------------------------------|--------------------------------|------------------|----|
|           |                |                                       |                                | UL               | SF |
| CCMR.200  | .2             | AC 200,000 ampere<br>DC 20,000 ampere | 68.4                           | x                | x  |
| CCMR.250  | .25            |                                       | 43.3                           | x                | x  |
| CCMR.300  | .3             |                                       | 28.6                           | x                | x  |
| CCMR.500  | .5             |                                       | 7.62                           | x                | x  |
| CCMR.600  | .6             |                                       | 8.2                            | x                | x  |
| CCMR.800  | .8             |                                       | 4.013                          | x                | x  |
| CCMR 001  | 1              |                                       | 2.85                           | x                | x  |
| CCMR 1.25 | 1.25           |                                       | 1.687                          | x                | x  |
| CCMR 01.4 | 1.4            |                                       | 1.39                           | x                | x  |
| CCMR 01.5 | 1.5            |                                       | 1.24                           | x                | x  |
| CCMR 01.6 | 1.6            |                                       | .9894                          | x                | x  |
| CCMR 01.8 | 1.8            |                                       | .7783                          | x                | x  |
| CCMR 002  | 2              |                                       | .485                           | x                | x  |
| CCMR 2.25 | 2.25           |                                       | .337                           | x                | x  |
| CCMR 02.5 | 2.5            |                                       | .3375                          | x                | x  |
| CCMR 02.8 | 2.8            |                                       | .2400                          | x                | x  |
| CCMR 003  | 3              |                                       | .2188                          | x                | x  |
| CCMR 03.2 | 3.2            |                                       | .1855                          | x                | x  |
| CCMR 03.5 | 3.5            |                                       | .1346                          | x                | x  |
| CCMR 004  | 4              |                                       | .121                           | x                | x  |
| CCMR 04.5 | 4.5            |                                       | .0835                          | x                | x  |
| CCMR 005  | 5              |                                       | .07780                         | x                | x  |
| CCMR 05.6 | 5.6            |                                       | .0535                          | x                | x  |
| CCMR 006  | 6              |                                       | .0517                          | x                | x  |
| CCMR 6.25 | 6.25           |                                       | .0464                          | x                | x  |
| CCMR 007  | 7              |                                       | .0369                          | x                | x  |
| CCMR 07.5 | 7.5            |                                       | .027                           | x                | x  |
| CCMR 008  | 8              |                                       | .0259                          | x                | x  |
| CCMR 009  | 9              |                                       | .0193                          | x                | x  |
| CCMR 010  | 10             |                                       | .0135                          | x                | x  |
| CCMR 012  | 12             |                                       | .0121                          | x                | x  |
| CCMR 015  | 15             |                                       | .00795                         | x                | x  |
| CCMR 17.5 | 17.5           |                                       | .00495                         | x                | x  |
| CCMR 020  | 20             |                                       | .00360                         | x                | x  |
| CCMR 025  | 25             |                                       | .00306                         | x                | x  |
| CCMR 030  | 30             |                                       | .00257                         | x                | x  |
| CCMR 035  | 35             |                                       | .00408                         | x                | x  |
| CCMR 040  | 40             |                                       | .00290                         | x                | x  |
| CCMR 045  | 45             |                                       | .00229                         | x                | x  |
| CCMR 050  | 50             |                                       | .00169                         | x                | x  |
| CCMR 060  | 60             |                                       | .00112                         | x                | x  |

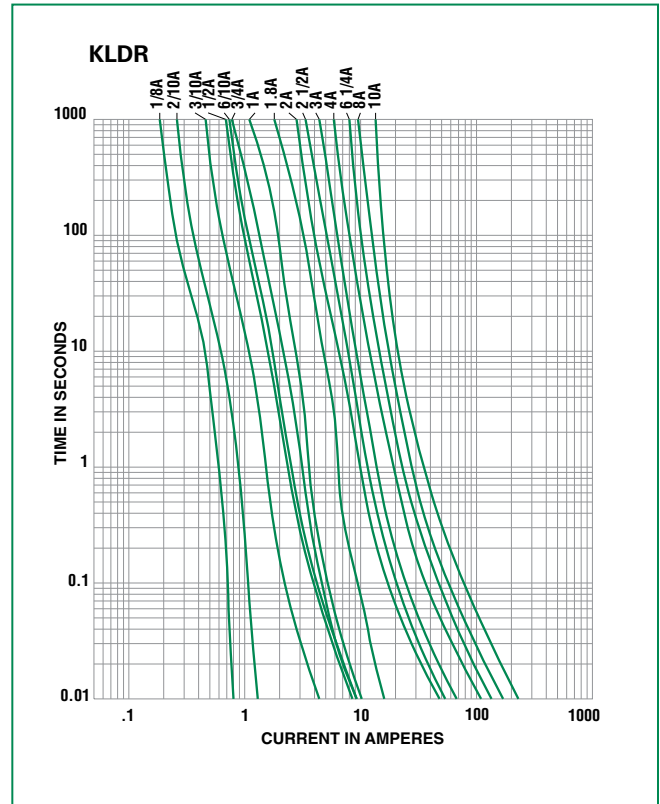
## Average Time Current Curves -- CCMR Series



## Electrical Specifications by Item -- KLDR Series

| Amp Code  | Amp Rating (A) | Interrupting Rating                   | Nominal Cold Resistance (Ohms) | Agency Approvals |    |
|-----------|----------------|---------------------------------------|--------------------------------|------------------|----|
|           |                |                                       |                                | UL               | CS |
| KLDR.100  | .1             | AC 200,000 ampere<br>DC 20,000 ampere | 246                            | x                | x  |
| KLDR.125  | .125           |                                       | 134.9                          | x                | x  |
| KLDR.150  | .15            |                                       | 96                             | x                | x  |
| KLDR.187  | .1875          |                                       | 66.4                           | x                | x  |
| KLDR.200  | .2             |                                       | 57.8                           | x                | x  |
| KLDR.250  | .25            |                                       | 31.61                          | x                | x  |
| KLDR.300  | .3             |                                       | 35.3                           | x                | x  |
| KLDR.400  | .4             |                                       | 23.0                           | x                | x  |
| KLDR.500  | .5             |                                       | 10.7                           | x                | x  |
| KLDR.600  | .6             |                                       | 734                            | x                | x  |
| KLDR.750  | .75            |                                       | 6.20                           | x                | x  |
| KLDR.800  | .8             |                                       | 6.20                           | x                | x  |
| KLDR 001. | 1              |                                       | 1.068                          | x                | x  |
| KLDR 1.12 | 1.125          |                                       | 2.94                           | x                | x  |
| KLDR 1.25 | 1.25           |                                       | 2.33                           | x                | x  |
| KLDR 01.4 | 1.4            |                                       | 1.5                            | x                | x  |
| KLDR 01.5 | 1.5            |                                       | .898                           | x                | x  |
| KLDR 01.6 | 1.6            |                                       | .625                           | x                | x  |
| KLDR 01.8 | 1.8            |                                       | .486                           | x                | x  |
| KLDR 002  | 2              |                                       | .55                            | x                | x  |
| KLDR 2.25 | 2.25           |                                       | .52                            | x                | x  |
| KLDR 02.5 | 2.5            |                                       | .333                           | x                | x  |
| KLDR 02.8 | 2.8            |                                       | .26                            | x                | x  |
| KLDR 003  | 3              |                                       | .21                            | x                | x  |
| KLDR 03.2 | 3.2            |                                       | .171                           | x                | x  |
| KLDR 03.5 | 3.5            |                                       | .239                           | x                | x  |
| KLDR 004  | 4              |                                       | .118                           | x                | x  |
| KLDR 04.5 | 4.5            |                                       | .082                           | x                | x  |
| KLDR 005  | 5              |                                       | .0440                          | x                | x  |
| KLDR 05.6 | 5.6            |                                       | .0334                          | x                | x  |
| KLDR 006  | 6              | .0315                                 | x                              | x                |    |
| KLDR 6.25 | 6.25           | .03                                   | x                              | x                |    |
| KLDR 007  | 7              | .02674                                | x                              | x                |    |
| KLDR 07.5 | 7.5            | .0205                                 | x                              | x                |    |
| KLDR 008  | 8              | .0259                                 | x                              | x                |    |
| KLDR 009  | 9              | .0193                                 | x                              | x                |    |
| KLDR 010  | 10             | .0135                                 | x                              | x                |    |
| KLDR 012  | 12             | .0121                                 | x                              | x                |    |
| KLDR 015  | 15             | .00795                                | x                              | x                |    |
| KLDR 17.5 | 17.5           | .00495                                | x                              | x                |    |
| KLDR 020  | 20             | .0036                                 | x                              | x                |    |
| KLDR 025  | 25             | .00306                                | x                              | x                |    |
| KLDR 030  | 30             | .00257                                | x                              | x                |    |

## Average Time Current Curves -- KLDR Series



## Electrical Specifications by Item -- KLKR Series

| Ampere Code | Amp Rating (A) | Interrupting Rating                   | Nominal Cold Resistance (Ohms) | Agency Approvals |    |
|-------------|----------------|---------------------------------------|--------------------------------|------------------|----|
|             |                |                                       |                                | UL               | SF |
| KLKR.100    | .1             | AC 200,000 ampere<br>DC 20,000 ampere | 79.33                          | x                | x  |
| KLKR.125    | .125           |                                       | 56.52                          | x                | x  |
| KLKR.200    | .2             |                                       | 28.21                          | x                | x  |
| KLKR.250    | .25            |                                       | 19.22                          | x                | x  |
| KLKR.300    | .3             |                                       | 15.10                          | x                | x  |
| KLKR.500    | .5             |                                       | 6.95                           | x                | x  |
| KLKR.750    | .75            |                                       | 1.994                          | x                | x  |
| KLKR 001    | 1              |                                       | .2342                          | x                | x  |
| KLKR 01.5   | 1.5            |                                       | .225                           | x                | x  |
| KLKR 002.   | 2              |                                       | .135                           | x                | x  |
| KLKR 02.5   | 2.5            |                                       | .0906                          | x                | x  |
| KLKR 003    | 3              |                                       | .0776                          | x                | x  |
| KLKR 03.5   | 3.5            |                                       | .0562                          | x                | x  |
| KLKR 004    | 4              |                                       | .0468                          | x                | x  |
| KLKR 005    | 5              |                                       | .0332                          | x                | x  |
| KLKR 006    | 6              |                                       | .0238                          | x                | x  |
| KLKR 007    | 7              |                                       | .0208                          | x                | x  |
| KLKR 008    | 8              |                                       | .0177                          | x                | x  |
| KLKR 009    | 9              |                                       | .0151                          | x                | x  |
| KLKR 010    | 10             |                                       | .01325                         | x                | x  |
| KLKR 012    | 12             |                                       | .00852                         | x                | x  |
| KLKR 015    | 15             |                                       | .0074                          | x                | x  |
| KLKR 020    | 20             |                                       | .00511                         | x                | x  |
| KLKR 025    | 25             |                                       | .003775                        | x                | x  |
| KLKR 030    | 30             |                                       | .002954                        | x                | x  |

## Average Time Current Curves -- KLKR Series

