

## CCMR Series POWR-PRO® Class CC and CD Fuses

**600 VAC • Dual-Element, Time-Delay • 2/10 – 60 Amperes**



For space saving protection of motor circuits up to 40 HP\*, we recommend Littelfuse POWR-PRO CCMR series fuses. These fuses are the only true dual-element, time-delay fuses that come in a small package specifically engineered for motor branch circuit protection. CCMR series fuses provide Type 2 “No Damage” protection to both NEMA-rated and the more sensitive IEC (International Electrotechnical Commission) type motor circuit components.

Rating for rating, CCMR fuses are the most current-limiting fuses available. They also provide superior short-circuit protection since their time-delay characteristics permit the use of smaller fuse ratings in motor

circuits than would be possible if using fast-acting fuses. CCMR series fuses provide superior protection in a fraction of the space required by other fuse classes. For example, when 600V three pole, 30 ampere Class R fuse blocks are replaced by Littelfuse Class CC fuse blocks, mounting space requirements may be reduced 70% or more. This is especially important when a panel contains control devices for many motors.

In addition to the UL Listed smaller sizes, Littelfuse CCMR series fuses are now available in larger sizes — from 35 to 60 amperes! **No other fuse is available with this current carrying capacity in a package this small. In fact, the 60 ampere CCMR fuse is the smallest 60A fuse available rated at 600 volts.**

### Applications

CCMR series fuses are specifically designed to withstand sustained starting currents of small motors  
Provide short-circuit protection for motor branch circuits  
Use with IEC- and NEMA-rated motor controllers and contactors  
General purpose circuits up to 60 amps

### Features/Benefits

- Space savings — No other fuse class approved for branch circuit protection has a 600 volt rating and 300,000 A.I.R. in such a small package.
- Extremely current-limiting — Reduces damage caused by heating and magnetic effects of short-circuit currents. Stops damaging short-circuit currents faster than any mechanical protective device.
- Excellent time-delay — Eliminates needless downtime caused by power surges or equipment demands. Permits selection of fuse sizes closer to actual load conditions, which provides better protection.
- 300kA Interrupting Rating — Littelfuse self-certified to 300,000 amperes as standard. Meets future trend towards higher available short-circuit currents.

*\*Consult the Motor Protection Tables in the Fuseology section for specific motor sizing information*

### Specifications

|                              |                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Voltage Ratings:</b>      | AC: 600 Volts                                                                                         |
|                              | DC: 250 Volts (CCMR 2/10 — 2A)<br>(CCMR 4½ — 10A)<br>(CCMR 35 — 60A)                                  |
|                              | 300 Volts (CCMR 2½ — 4A)                                                                              |
|                              | 500 Volts (CCMR 12 — 30A)                                                                             |
| <b>Interrupting Ratings:</b> | AC: 200,000 amperes rms symmetrical<br>300,000 amperes rms symmetrical<br>(Littelfuse self-certified) |
|                              | DC: 20,000 amperes                                                                                    |
| <b>Ampere Range:</b>         | 2/10 — 60 amperes                                                                                     |
| <b>Approvals:</b>            | AC: Standard 248-4, Class CC                                                                          |
|                              | UL Listed 2/10 — 30 amps (File No: E81895)                                                            |
|                              | Standard 248, Class CD                                                                                |
|                              | UL Listed 35 — 60 amps (File No: E81895)                                                              |
|                              | CSA Certified 2/10 — 60 amps<br>(File No: LR29862)                                                    |
|                              | DC: Littelfuse self-certified                                                                         |

### Ampere Ratings

|      |    |    |    |    |     |    |
|------|----|----|----|----|-----|----|
| 2/10 | 1  | 2  | 3½ | 6¼ | 12  | 35 |
| ¼    | 1¼ | 2¼ | 4  | 7  | 15  | 40 |
| 3/10 | 1½ | 2½ | 4½ | 7½ | 17½ | 45 |
| ½    | 1½ | 2½ | 5  | 8  | 20  | 50 |
| 5/10 | 1¾ | 3  | 5½ | 9  | 25  | 60 |
| 8/10 | 1¾ | 3½ | 6  | 10 | 30  |    |

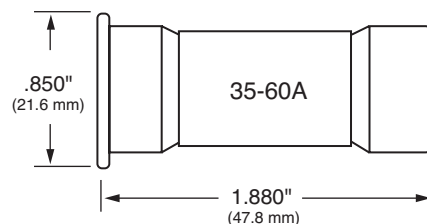
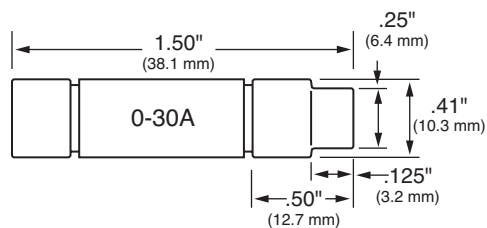
Example part number (series & amperage): CCMR 40

### Recommended Fuse Blocks

LPSC (CCMR 2/10 — 30A)  
L60030C series (CCMR 2/10 — 30A)  
L60060C series (CCMR 35 — 60A)  
Refer to Blocks & Holders section of this catalog for additional information.

## CCMR Series POWR-PRO® Class CC and CD Fuses

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### Current-Limiting Effects of CCMR (600V) fuses

| Short Circuit Current* | Apparent RMS Symmetrical For Various Fuse Ratings |     |        |     |       |       |       |       |
|------------------------|---------------------------------------------------|-----|--------|-----|-------|-------|-------|-------|
|                        | 2A                                                | 4A  | 6 1/4A | 10A | 12A   | 15A   | 20A   | 30A   |
| 5,000                  | 160                                               | 190 | 330    | 370 | 525   | 600   | 625   | 750   |
| 10,000                 | 180                                               | 220 | 400    | 440 | 600   | 700   | 725   | 875   |
| 15,000                 | 200                                               | 250 | 430    | 480 | 675   | 775   | 800   | 950   |
| 20,000                 | 220                                               | 260 | 460    | 520 | 720   | 825   | 850   | 1,000 |
| 25,000                 | 230                                               | 280 | 480    | 550 | 750   | 850   | 900   | 1,050 |
| 30,000                 | 240                                               | 290 | 500    | 570 | 800   | 900   | 950   | 1,125 |
| 35,000                 | 245                                               | 300 | 520    | 590 | 825   | 925   | 975   | 1,175 |
| 40,000                 | 255                                               | 310 | 550    | 600 | 850   | 975   | 1,000 | 1,200 |
| 50,000                 | 260                                               | 330 | 570    | 640 | 875   | 1,000 | 1,100 | 1,300 |
| 60,000                 | 280                                               | 340 | 600    | 670 | 900   | 1,050 | 1,125 | 1,350 |
| 80,000                 | 300                                               | 360 | 625    | 700 | 1,000 | 1,125 | 1,200 | 1,400 |
| 100,000                | 310                                               | 380 | 650    | 750 | 1,050 | 1,200 | 1,250 | 1,500 |
| 150,000                | 340                                               | 420 | 700    | 800 | 1,150 | 1,300 | 1,400 | 1,600 |
| 200,000                | 350                                               | 440 | 750    | 850 | 1,200 | 1,400 | 1,450 | 1,750 |

\*Prospective RMS Symmetrical Amperes Short-Circuit Current

Note: Data Derived from Peak Let-Thru Curves

