

# CCMR Series POWR-PRO® CC Fuses

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

**Littelfuse®**  
POWR-GARD™ Products



## SPECIFICATIONS

**Voltage Ratings:** AC: 600 Volts

DC: 250 Volts (CCMR 2/10 — 2A)  
(CCMR 4 1/2 — 10A)  
(CCMR 35 — 60A)  
300 Volts (CCMR 2 1/4 — 4A)  
500 Volts (CCMR 12 — 30A)

**Interrupting Ratings:** AC: 200,000 amperes rms symmetrical  
300,000 amperes rms symmetrical  
(Littelfuse self-certified)

DC: 20,000 amperes

**Ampere Range:** 2/10 — 60 amperes

**Approvals:** 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: E71611)  
CSA Certified 2/10 — 60 amps  
(File No: LR29862)

DC: Littelfuse self-certified

## AMPERE RATINGS

|      |        |        |        |       |        |    |
|------|--------|--------|--------|-------|--------|----|
| 1/10 | 1      | 2      | 3 1/2  | 6 1/2 | 12     | 35 |
| 1/4  | 1 1/4  | 2 1/4  | 4      | 7     | 15     | 40 |
| 3/10 | 1 1/10 | 2 1/2  | 4 1/2  | 7 1/2 | 17 1/2 | 45 |
| 1/2  | 1 1/2  | 2 1/10 | 5      | 8     | 20     | 50 |
| 3/10 | 1 1/10 | 3      | 5 1/10 | 9     | 25     | 60 |
| 1/2  | 1 1/10 | 3 1/10 | 6      | 10    | 30     |    |

Example part number (series & amperage): CCMR 40

## RECOMMENDED FUSE BLOCKS

L60030C series (CCMR 2/10 — 30A)  
L60060C series (CCMR 35 — 60A)

Refer to Fuse Block section of this catalog for additional information.

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 in a package this small that are specifically engineered for motor branch circuit protection. They provide Type 2 protection (no damage) to both NEMA-rated and the more sensitive IEC (International Electrotechnical Commission) type motor circuit components.

Because CCMR fuses are the most current limiting rating for rating, and because their time-delay characteristics permit the use of smaller fuse ratings in motor circuits than would be possible with fast-acting fuses, CCMR fuses provide superior short-circuit protection. Furthermore, they provide this 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. As a matter of fact, the 60 ampere CCMR fuse is the smallest 60A fuse available which is rated at 600 volts.**

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

## 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

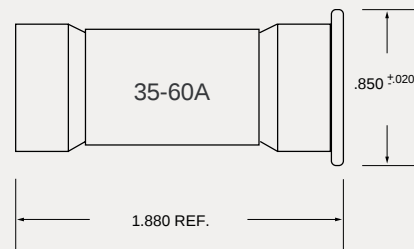
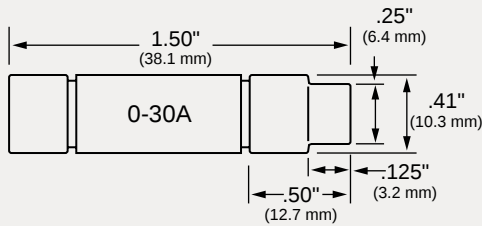
## FEATURES/BENEFITS

- **Space savings** — No other fuse class approved for branch-circuit protection has a 600 volt rating and 300,000 A.I.R. in a package this small.
- **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 — provides better protection.
- **300kA Interrupting Rating** — Littelfuse self-certified to 300,000 amperes as standard. Meets future trend towards higher available short circuit currents.



# CCMR Series POWR-PRO® CC Fuses

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

|                                                             | Short Circuit<br>Current* | Let-Thru Current** For Various Fuse Ratings |     |        |     |       |       |       |       |
|-------------------------------------------------------------|---------------------------|---------------------------------------------|-----|--------|-----|-------|-------|-------|-------|
|                                                             |                           | 2A                                          | 4A  | 6 1/4A | 10A | 12A   | 15A   | 20A   | 30A   |
| * Prospective RMS Symmetrical Amperes Short-Circuit Current | 5,000                     | 160                                         | 190 | 330    | 370 | 525   | 600   | 625   | 750   |
|                                                             | 10,000                    | 180                                         | 220 | 400    | 440 | 600   | 700   | 725   | 875   |
| ** Apparent RMS Symmetrical                                 | 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 |
| Note: Data derived from Peak Let-Thru Curves                | 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 |

