Part Number: **CCMR035.**

Technology: **Fuses**

Series: **CCMR**

CCMR Series - Class CC Dual Element Time Delay Fuse for Short-Circuit Protection of Motor Branch-circuits

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 CC fuses specifically engineered for motor branch circuit protection.
- They provide Type II protection (no damage) to both NEMA-rated and the more sensitive IEC (International Electromechanical Commission) type motor circuit components.
- CCMR series fuses are now available in larger sizes — from 35 to 60 amperes! No other 600V fuse is available with this current carrying capacity in a package this small.
- Compared to other UL Listed fuses, Class CC fuses are the most current limiting, rating for rating.
- Because they are physically compact, 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, panel-mounting space is reduced approximately 70%. This is especially important when a panel contains many fuses to protect multiple circuit components.

Applications:
Three types of Class CC Fuses, specifically designed to protect different types of components:

1. Motor protection – CCMR series; dual-element, time-delay fuses specifically designed to protect motor circuits up to 40 HP**.
2. Small transformer protection (control power transformers) – KLDR series, time-delay fuses designed to withstand the high magnetizing inrush of transformers.
3. General purpose protection of equipment requiring fast overload protection – KLKR series, fast-acting fuses used for protection of equipment containing solid-state devices or other electronic components requiring fast response on overloads.

Safety:

- 200,000 A.I.R. — Reliable interruption of all overcurrents up to 200,000 amperes.
- Extremely current limiting — Reduces damage caused by heating and magnetic effects of short-circuit currents… stops damaging short-circuit faster than any mechanical protective device.

Space Saving:

- Class CC fuses are the smallest 600V, 200,000 A.I.R. fuses approved for branch circuit protection.

Economical

- Current limiting design often permits use of readily available, less costly equipment.

Electrical Characteristics

Property	Value
Amp Rating (A)	35
Form Factor	Class CC
Fuse Class	Supplemental
Opening Characteristic	Slo-Blo®
Resistance (Ohms)	0.00426
Voltage Rating (V)	600

RoHS Pb Class CC* Fast-Acting & Slo-Blo® Type Fuses CCMR Series

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 KLMR) 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.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
110%	1/10–30	15 minutes, **Min**imum
135%	1/10–30	1 hour, **Max**imum

AGENCY APPROVALS: DC ratings are self-certified. KLKR Series: UL listed Fast-Acting Class CC per UL 248 and CSA Certified. KLDR, **CCMR Series:** UL listed Time-Delay Class CC per UL 248 and CSA Certified.
*CCMR 35-60A UL Listed Time-Delay Class CD.

INTERRUPTING RATING:

AC: 200,000 ampere
DC: 20,000 amperes

ENVIRONMENTAL SPECS: only KLKR is RoHS compliant and lead-free

AGENCY FILE NUMBERS: UL E81895, CSA LR 29862.

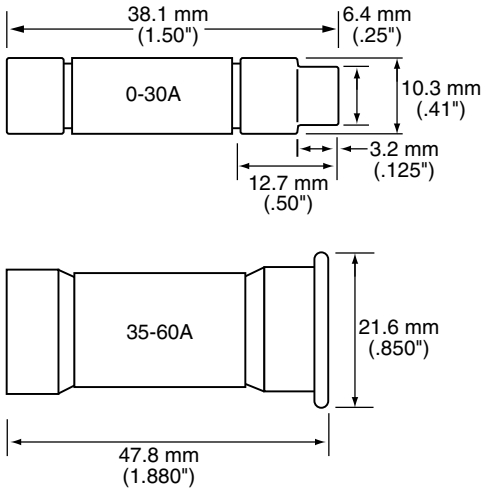
VOLTAGE RATINGS: AC: 600 Volts
DC: 250 Volts (CCMR 2/10 – 2A)
(CCMR 4 1/2 – 10A)
(CCMR 35 – 60A)
300 Volts (CCMR 2 1/4 – 4A)
300 Volts (KLDR)
300 Volts (KLKR)

ORDERING INFORMATION:

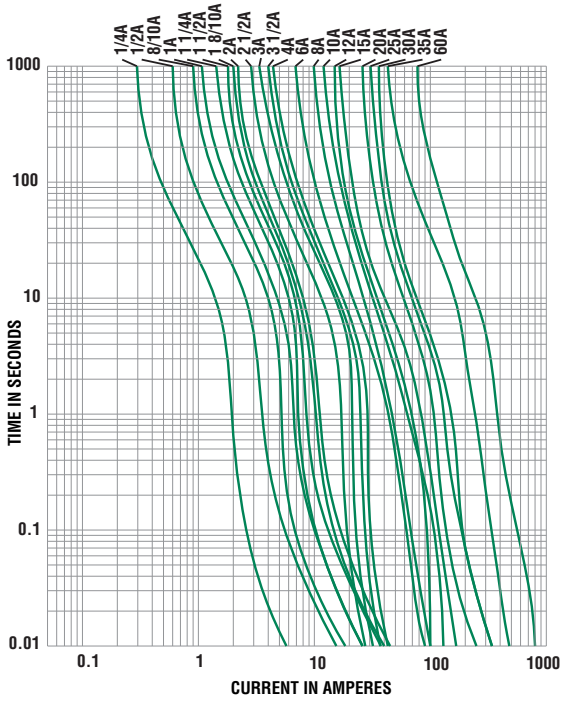
Ampere Rating	Catalog Number	Nominal Resistance Cold Ohms	Catalog Number	Nominal Resistance Cold Ohms	Catalog Number	Nominal Resistance Cold Ohms
1/10	–	–	**KLDR**.100	246	**KLKR**.100	79.33
1/8	–	–	**KLDR**.125	134.9	**KLKR**.125	56.52
15/100	–	–	**KLDR**.150	96	–	–
3/16	–	–	**KLDR**.187	66.4	–	–
2/10	**CCMR**.200	68.4	**KLDR**.200	57.8	**KLKR**.200	28.21
1/4	**CCMR**.250	43.3	**KLDR**.250	31.61	**KLKR**.250	19.22
3/10	**CCMR**.300	28.6	**KLDR**.300	25.5	**KLKR**.300	15.10
4/10	–	–	**KLDR**.400	13.6	–	–
1/2	**CCMR**.500	7.62	**KLDR**.500	15.9	**KLKR**.500	6.95
6/10	**CCMR**.600	8.2	**KLDR**.600	9.99	–	–
3/4	–	–	**KLDR**.750	6.08	**KLKR**.750	3.581
8/10	**CCMR**.800	4.013	**KLDR**.800	6.2	–	–
1	**CCMR** 001.	2.59	**KLDR** 001.	4.0	**KLKR** 001.	.2342
1 1/8	–	–	**KLDR** 1.12	2.94	–	–
1 1/4	**CCMR** 1.25	1.687	**KLDR** 1.25	2.33	–	–
1 4/10	**CCMR** 01.4	1.33	**KLDR** 01.4	1.5	–	–
1 1/2	**CCMR** 01.5	1.24	**KLDR** 01.5	.898	**KLKR** 01.5	.225
1 6/10	**CCMR** 01.6	.9894	**KLDR** 01.6	.625	–	–
1 8/10	**CCMR** 01.8	.7783	**KLDR** 01.8	.486	–	–
2	**CCMR** 002.	.485	**KLDR** 002.	.55	**KLKR** 002.	.135
2 1/4	**CCMR** 2.25	.4166	**KLDR** 2.25	.52	–	–
2 1/2	**CCMR** 02.5	.3375	**KLDR** 02.5	.333	**KLKR** 02.5	.0906
2 8/10	**CCMR** 02.8	.2400	**KLDR** 02.8	.26	–	–
3	**CCMR** 003.	.2188	**KLDR** 003.	.21	**KLKR** 003.	.0776
3 2/10	**CCMR** 03.2	.1855	**KLDR** 03.2	.171	–	–
3 1/2	**CCMR** 03.5	.1346	**KLDR** 03.5	.239	**KLKR** 03.5	.0562
4	**CCMR** 004.	.1231	**KLDR** 004.	.118	**KLKR** 004.	.0468
4 1/2	**CCMR** 04.5	.093	**KLDR** 04.5	.082	–	–
5	**CCMR** 005.	.0704	**KLDR** 005.	.0399	**KLKR** 005.	.0332
5 6/10	**CCMR** 05.6	.0535	**KLDR** 05.6	.0334	–	–
6	**CCMR** 006.	.0517	**KLDR** 006.	.0315	**KLKR** 006.	.0238
6 1/4	**CCMR** 6.25	.0464	**KLDR** 6.25	.03	–	–
7	**CCMR** 007.	.0369	**KLDR** 007.	.0253	**KLKR** 007.	.0208
7 1/2	**CCMR** 07.5	.027	**KLDR** 07.5	.0205	–	–
8	**CCMR** 008.	.023	**KLDR** 008.	.0193	**KLKR** 008.	.0177
9	**CCMR** 009.	.0193	**KLDR** 009.	.0155	**KLKR** 009.	.0151
10	**CCMR** 010.	.0133	**KLDR** 010.	.0122	**KLKR** 010.	.01325
12	**CCMR** 012.	.0114	**KLDR** 012.	.0114	**KLKR** 012.	.00852
15	**CCMR** 015.	.00708	**KLDR** 015.	.00708	**KLKR** 015.	.0074
17 1/2	**CCMR** 17.5	.00495	**KLDR** 17.5	.00495	–	–
20	**CCMR** 020.	.00360	**KLDR** 020.	.0036	**KLKR** 020.	.00511
25	**CCMR** 025.	.00250	**KLDR** 025.	.0025	**KLKR** 025.	.003775
30	**CCMR** 030.	.00240	**KLDR** 030.	.0024	**KLKR** 030.	.002954
35	**CCMR** 035.	.00426	–	–	–	–
40	**CCMR** 040.	.00286	–	–	–	–
45	**CCMR** 045.	.00246	–	–	–	–
50	**CCMR** 050.	.00182	–	–	–	–
60	**CCMR** 060.	.00118	–	–	–	–

11 AXIAL LEAD AND CARTRIDGE FUSES

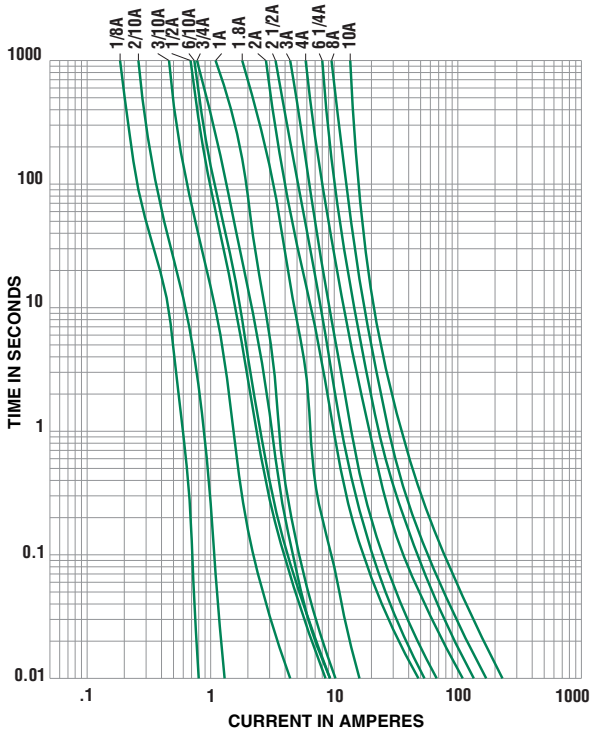
RoHS Pb Class CC* Fast-Acting & Slo-Blo® Type Fuses CCMR Series



Average Time Current Curve (CCMR)



Average Time Current Curve (KLDR)



Average Time Current Curve (KLKR)