

CLASS CC/CD CCMR SERIES FUSES

POWR-PRO® 600 VAC • Dual Element • Time-Delay • $\frac{2}{10}$ -60 A


Description

The CCMR series is ideal for space saving protection of motors up to 40 hp*. It was designed specifically to withstand sustained starting currents of small motors. The CCMR 60 fuse is the smallest 60 A fuse available rated at 600 V. Compared to other UL Listed fuses, Class CC fuses are the most current-limiting, rating for rating.

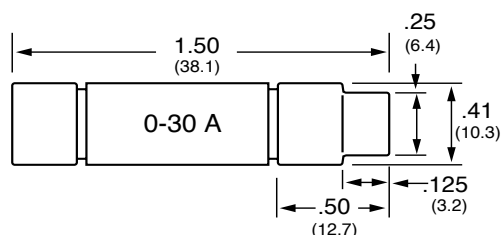
Features/Benefits

- POWR-PRO® Performance
- Extremely current-limiting
- Ratings up to 60 Amps
- 300 kA Interrupting Rating (self-certified)

Applications

- Motor and motor branch circuit protection

Dimensions Inches (mm)



Specifications

Voltage Rating

AC: 600 V
 DC: 250 V (CCMR $\frac{2}{10}$ –2 A)
 (CCMR $\frac{4}{10}$ –10 A)
 (CCMR 35–60 A)
 300 V (CCMR $\frac{2}{10}$ –4 A)
 500 V (CCMR 12–30 A)

Amperage Rating

$\frac{2}{10}$ –60 A

Interrupting Rating

AC: 200 kA rms symmetrical
 300 kA Littelfuse self-certified

DC: 20 kA

Approvals

AC: Standard 248-4, Class CC
 UL Listed $\frac{2}{10}$ -30 A (File: E81895)
 Standard 248, Class CD
 UL Listed 35-60 A (File: E81895)
 CSA Certified $\frac{2}{10}$ -30 A (File: LR29862)

DC: Littelfuse self-certified

Environmental

RoHS Compliant (except 35-60 A)

Country of Origin

Mexico

Ordering Information

AMPERAGE RATINGS						
$\frac{2}{10}$	1	2	$3\frac{1}{2}$	$6\frac{1}{4}$	12	35
$\frac{1}{4}$	$1\frac{1}{4}$	$2\frac{1}{4}$	4	7	15	40
$\frac{3}{10}$	$1\frac{4}{10}$	$2\frac{1}{2}$	$4\frac{1}{2}$	$7\frac{1}{2}$	$17\frac{1}{2}$	45
$\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{8}{10}$	5	8	20	50
$\frac{6}{10}$	$1\frac{6}{10}$	3	$5\frac{6}{10}$	9	25	60
$\frac{8}{10}$	$1\frac{8}{10}$	$3\frac{2}{10}$	6	10	30	

SERIES	AMPERAGE	ROHS	CATALOG NUMBER	ORDERING NUMBER
CCMR	10	•	CCMR020	CCMR020.TXP
CCMR	45		CCMR045	CCMR045.T

Web Resources

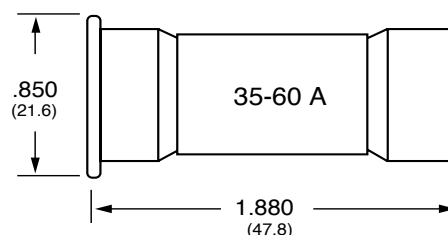
TC Curves, downloadable CAD drawings and other technical information: Littelfuse.com/ccmr

Recommended Fuse Holders

LFC600 Series

L60030C Series

LPSC Touch-Safe Series



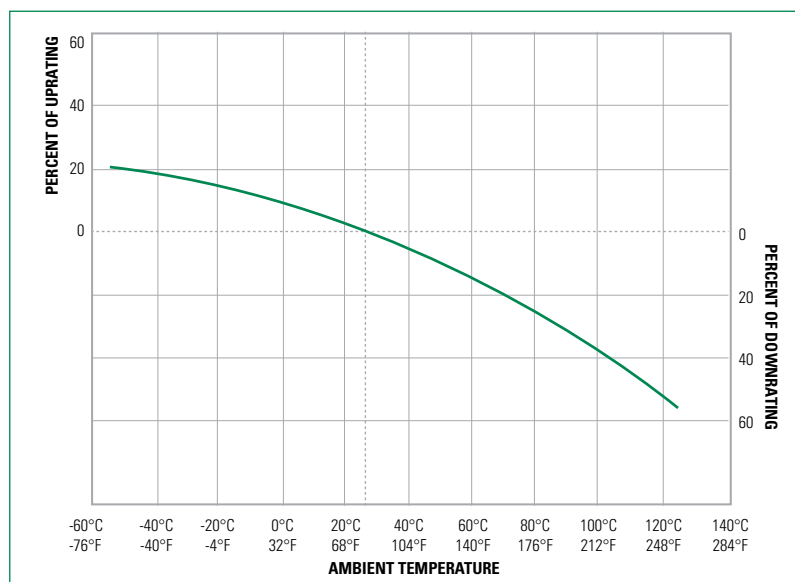
*Consult Motor Protection Tables on www.littelfuse.com or call 800-TEC-FUSE for specific motor sizing information.

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Electrical Specifications

ORDERING NUMBER	AMPERAGE RATING	VOLTAGE RATING		INTERRUPTING RATING		UPC	WATTS LOSS AT 100% RATED CURRENT (W)	WATTS LOSS AT 80% RATED CURRENT (W)	TOTAL CLEARING I ² T (A ² SEC) 200 kA	AGENCY APPROVALS		
		AC	DC	AC	DC					UL	CSA	RoHS
CCMR2.25TXP	2-1/4	600	300	200 kA	20 kA	07945896818	1.55	0.99	351	•	•	•
CCMR02.5TXP	2-1/2	600	300	200 kA	20 kA	07945896819	1.99	1.26	192	•	•	•
CCMR003.TXP	3	600	300	200 kA	20 kA	07945896821	1.55	1.02	286	•	•	•
CCMR004.TXP	4	600	300	200 kA	20 kA	07945896824	1.62	1.04	1870	•	•	•
CCMR005.TXP	5	600	250	200 kA	20 kA	07945896826	1.89	1.20	1060	•	•	•
CCMR6.25TXP	6-1/4	600	250	200 kA	20 kA	07945896829	1.72	1.08	797	•	•	•
CCMR07.5TXP	7-1/2	600	250	200 kA	20 kA	07945896831	1.72	1.09	983	•	•	•
CCMR008.TXP	8	600	250	200 kA	20 kA	07945896832	1.39	0.83	431	•	•	•
CCMR010.TXP	10	600	250	200 kA	20 kA	07945896834	1.49	0.90	1250	•	•	•
CCMR015.TXP	15	600	500	200 kA	20 kA	07945896836	1.77	1.03	1120	•	•	•
CCMR020.TXP	20	600	500	200 kA	20 kA	07945896838	2.3	1.39	918	•	•	•
CCMR030.TXP	30	600	500	200 kA	20 kA	07945896840	2.75	1.62	1790	•	•	•

Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)



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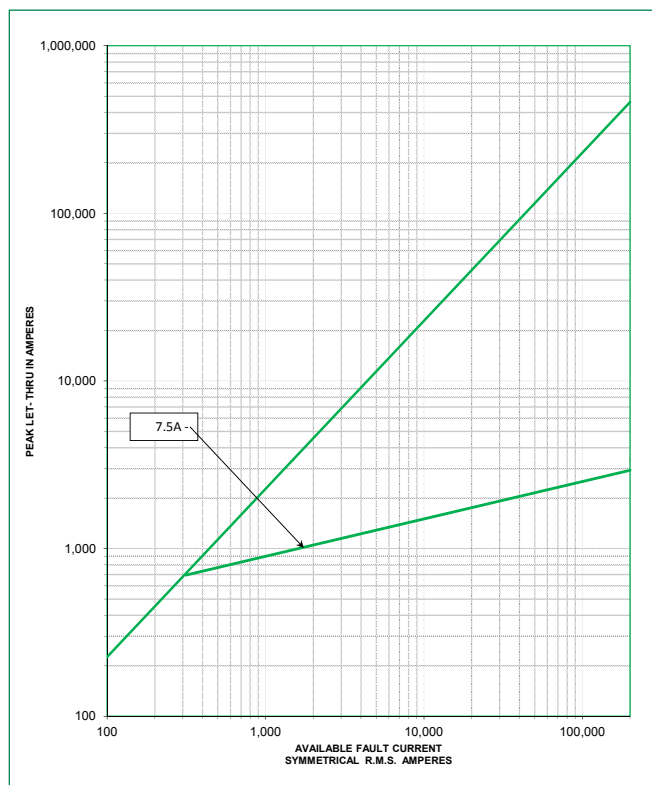
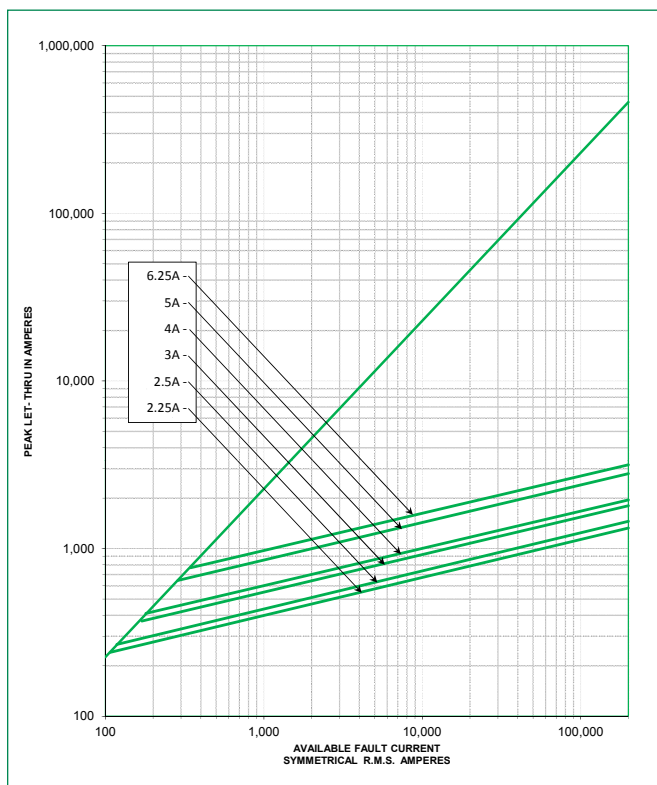
Current-Limiting Effects

SHORT CIRCUIT CURRENT*	APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS																	
	2.25A	2.5A	3A	4A	5A	6.25A	7.5A	8A	10A	12A	15A	20A	30A	35A	40A	45A	50A	60A
5,000	255	280	345	380	540	615	570	555	530	575	660	535	750	1170	1,240	1,320	1,070	1,525
10,000	300	330	410	445	630	720	670	650	625	680	775	635	875	1480	1,565	1,670	1,355	1,930
15,000	330	360	445	485	695	785	730	710	680	735	845	700	950	1695	1,795	1,915	1,555	2,200
20,000	350	380	475	520	745	840	775	770	725	790	900	735	1,000	1870	1,980	2,110	1,710	2,430
25,000	365	400	500	545	775	880	815	800	760	830	945	800	1,050	2015	2,135	2,275	1,845	2,620
30,000	385	420	520	570	810	905	850	840	790	865	980	815	1,125	2145	2,270	2,420	1,965	2,780
35,000	400	435	540	590	840	950	880	870	830	890	1,020	840	1,175	2260	2,390	2,550	2,070	2,885
40,000	410	445	555	605	865	980	900	890	840	930	1,050	860	1,200	2360	2,500	2,665	2,165	3,025
50,000	430	473	585	630	905	1,025	950	935	890	965	1,100	910	1,300	2545	2,695	2,875	2,330	3,200
60,000	445	490	610	665	945	1,060	1,000	970	930	1,000	1,145	950	1,350	2705	2,865	3,055	2,480	3,350
80,000	470	525	648	710	1,000	1,140	1,050	1,040	985	1,065	1,220	1010	1,400	2985	3,160	3,365	2,730	3,540
100,000	500	555	685	740	1,060	1,195	1,110	1,100	1,030	1,130	1,285	1075	1,500	3215	3,405	3,630	2,945	3,685
150,000	550	600	750	815	1,145	1,310	1,220	1,190	1,135	1,235	1,400	1150	1,600	3685	3,905	4,160	3,375	4,030
200,000	585	650	800	870	1,245	1,400	1,290	1,285	1,210	1,320	1,500	1250	1,750	4060	4,300	4,580	3,720	4,230

*Prospective RMS Symmetrical Amperes Short-Circuit Current

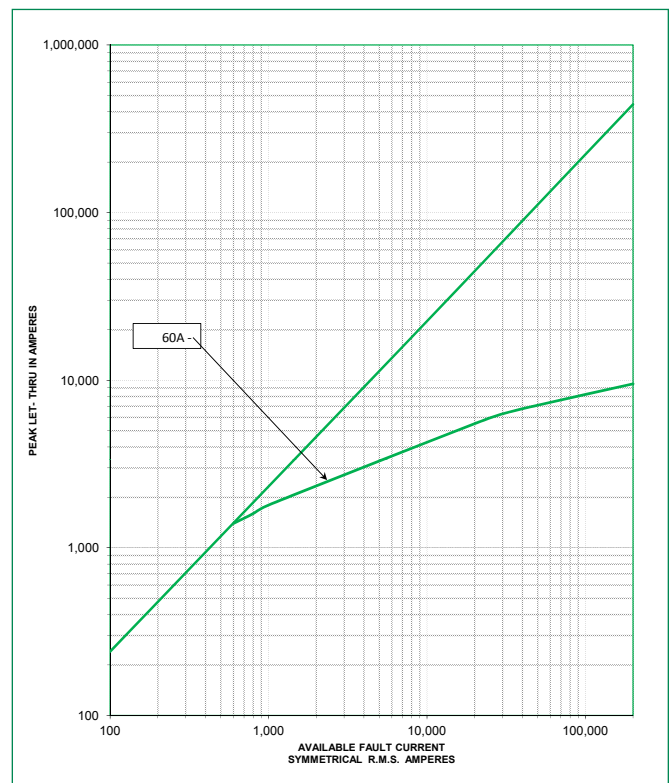
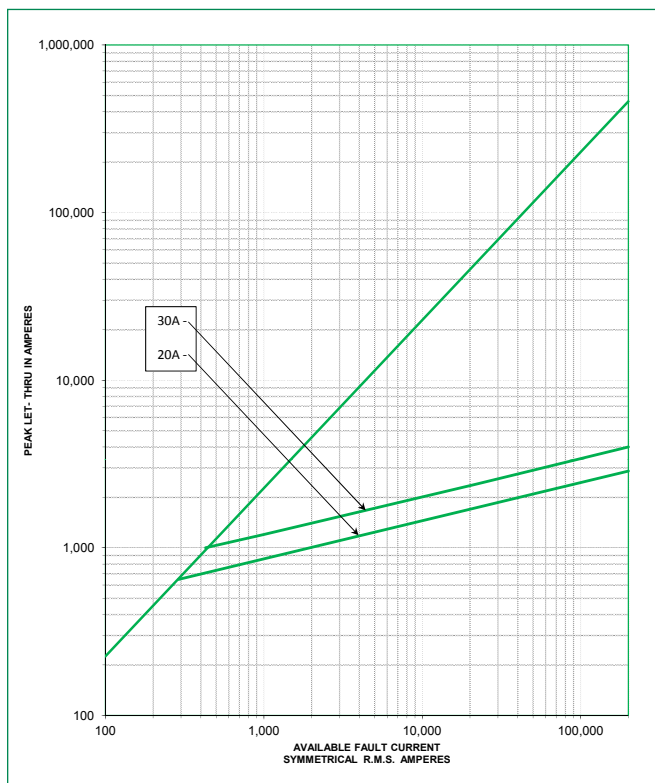
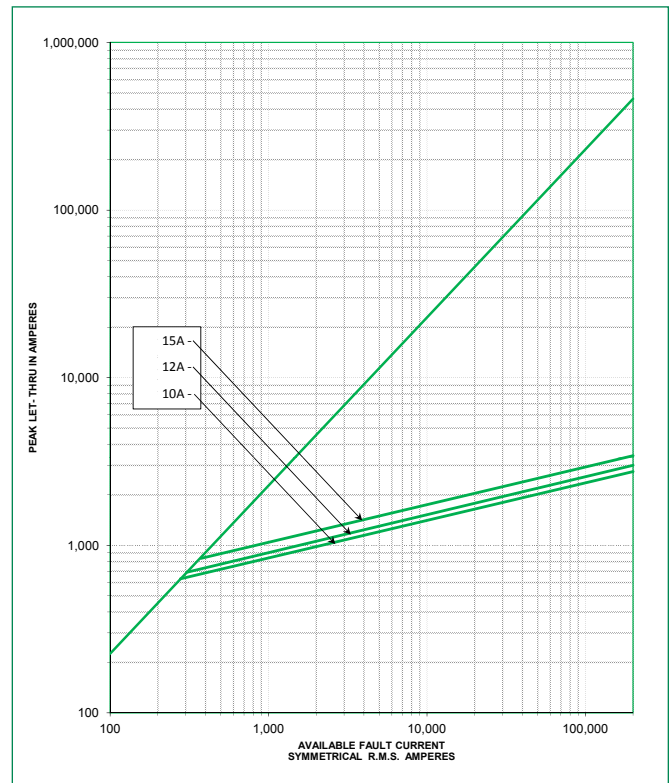
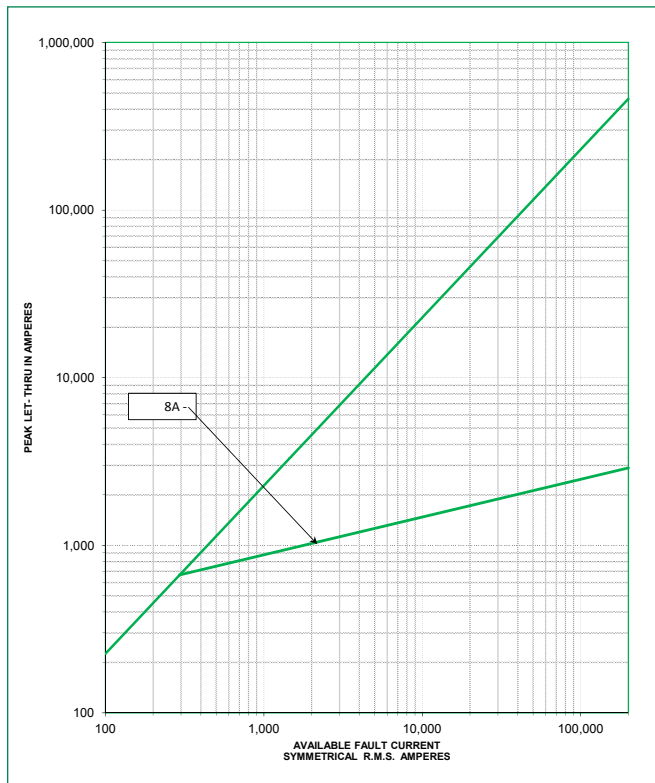
Note: Data Derived from Peak Let-Thru Curves

Peak Let-Thru Curves

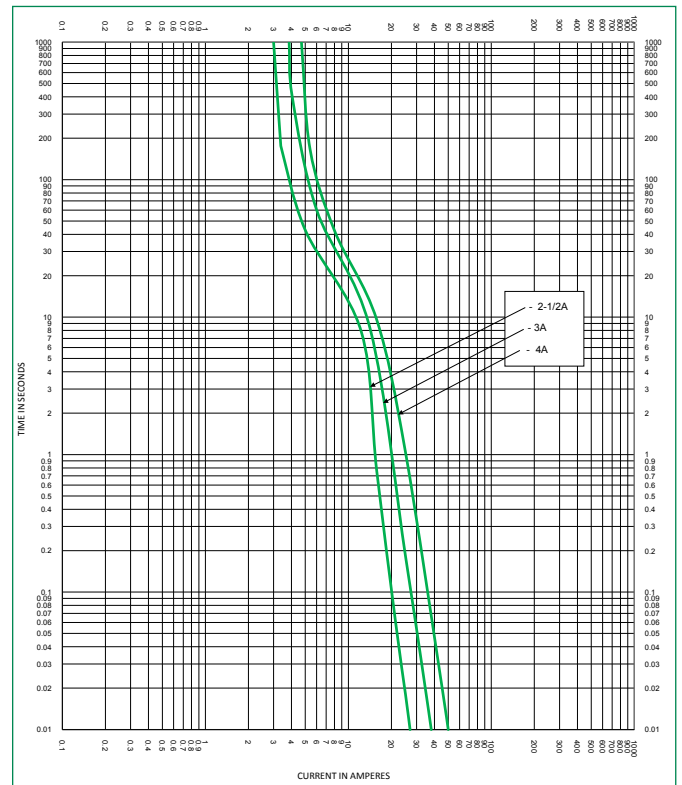
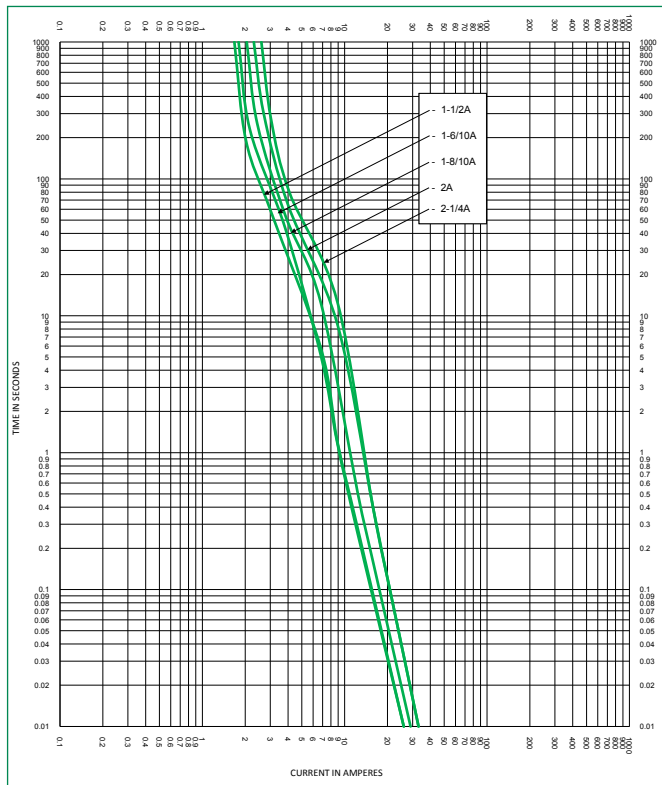
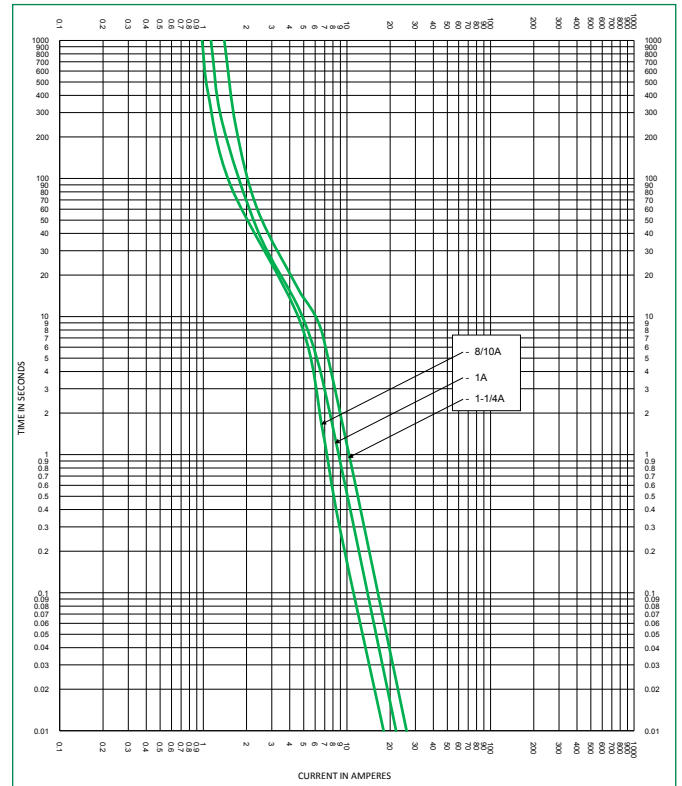
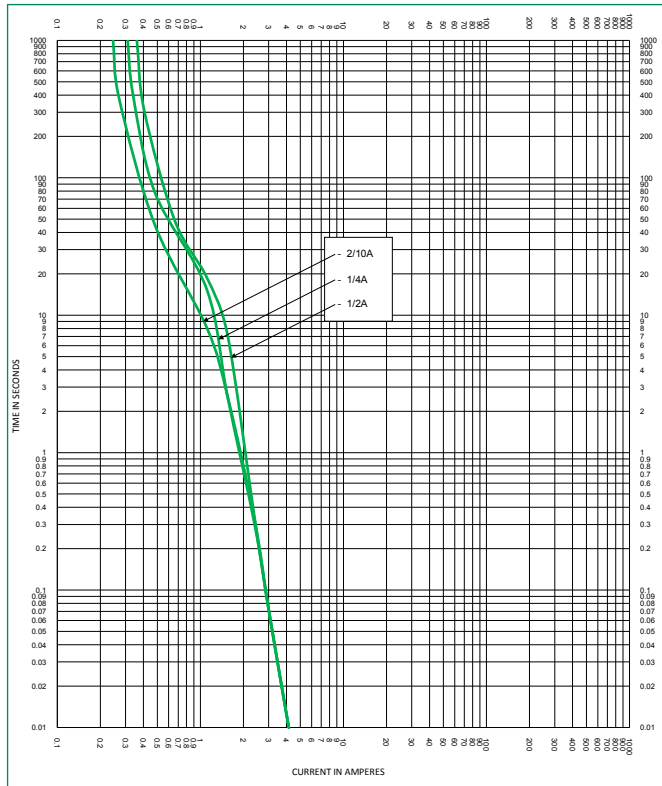


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Peak Let-Thru Curves



Time Current Curves



Time Current Curves

