

CLASS CC/CD CCMR SERIES FUSES

POWR-PRO® 600 Vac • Dual Element • Time-Delay • $2/_{10}$ -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

Specifications

Voltage Rating

AC: 600 V
 DC: 250 V (CCMR $2/_{10}$ -2 A)
 (CCMR $4\frac{1}{2}$ -10 A)
 (CCMR 35-60 A)
 300 V (CCMR $2\frac{1}{4}$ -4 A)
 500 V (CCMR 12-30 A)

Amperage Rating

$2/_{10}$ - 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 $2/_{10}$ -30 A (File: E81895)
 Standard 248, Class CD
 UL Listed 35-60 A (File: E81895)
 CSA Certified (File: LR29862)

Environmental

DC: Littelfuse self-certified

Country of Origin

RoHS Compliant (except 35-60 A)
 Mexico

Ordering Information

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

SERIES	AMPERAGE	ROHS	CATALOG NUMBER	ORDERING NUMBER
CCMR	10	•	CCMR010	CCMR010.TXP
CCMR	45		CCMR045	CCMR045.T

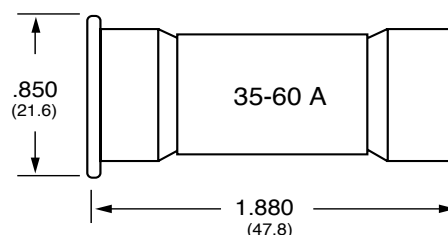
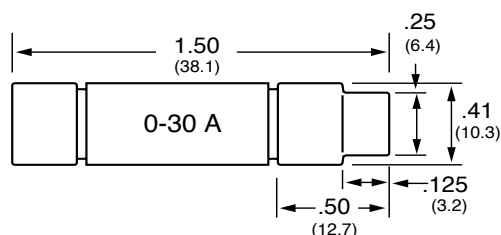
Web Resources

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

Recommended Fuse Holders

LFC600 Series
 L60030C Series
 LFPSC Touch-Safe Series

Dimensions Inches (mm)



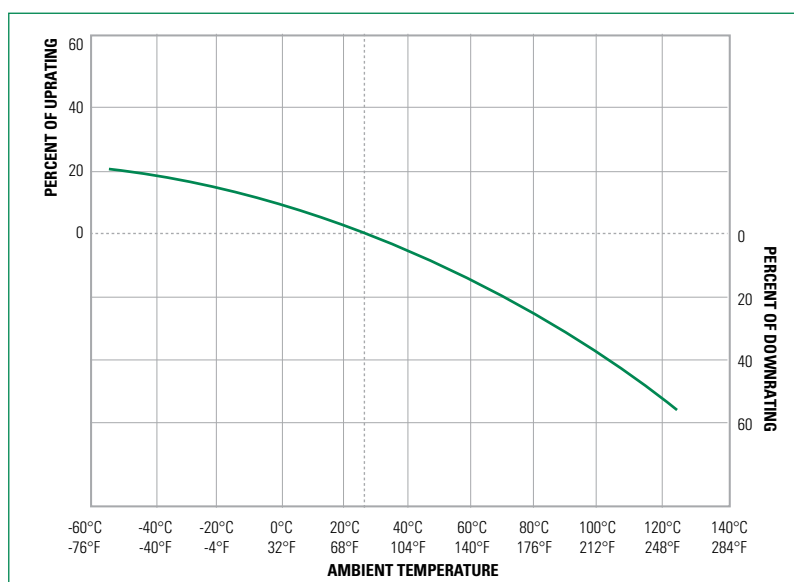
*Consult Motor Protection Tables on www.littelfuse.com or call 800-TEC-FUSE for specific motor sizing information.

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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	2-¼	600	300	200 kA	20 kA	07945896818	1.55	0.99	351	•	•	•
CCMR02.5TXP	2-½	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	6-¼	600	250	200 kA	20 kA	07945896829	1.72	1.08	797	•	•	•
CCMR07.5TXP	7-½	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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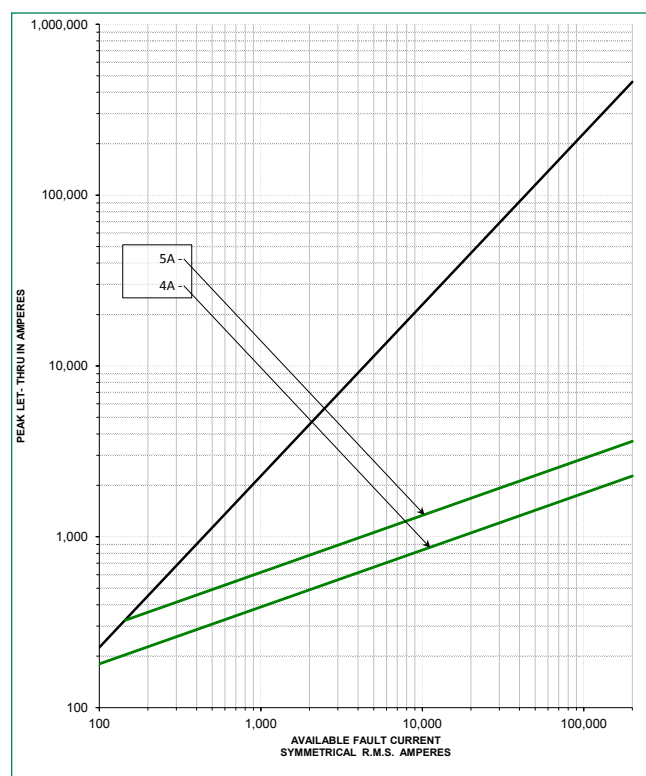
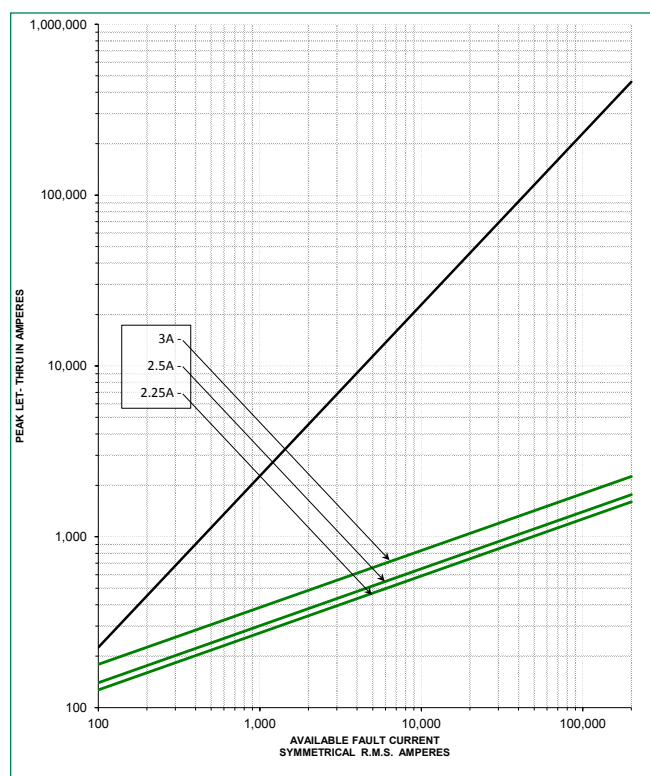
Current-Limiting Effects

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	203	224	287	289	460	472	442	437	359	369	435	355	621	1,170	1,240	1,320	1,070	1,525
10,000	256	282	361	364	580	595	557	551	452	465	548	447	783	1,480	1,565	1,670	1,355	1,930
15,000	293	323	413	416	664	681	637	631	517	532	627	512	896	1,695	1,795	1,915	1,555	2,200
20,000	323	356	455	458	730	750	702	694	569	585	690	563	987	1,870	1,980	2,110	1,710	2,430
25,000	348	383	490	493	787	808	756	748	613	630	743	607	1,063	2,015	2,135	2,275	1,845	2,620
30,000	370	407	521	524	836	858	803	795	651	670	790	645	1,129	2,145	2,270	2,420	1,965	2,780
35,000	389	429	548	552	880	903	845	837	686	705	832	679	1,189	2,260	2,390	2,550	2,070	2,885
40,000	407	448	573	577	920	944	884	875	717	737	870	709	1,243	2,360	2,500	2,665	2,165	3,025
50,000	438	483	617	622	991	1,017	952	942	772	794	937	764	1,339	2,545	2,695	2,875	2,330	3,200
60,000	466	513	656	661	1,053	1,081	1,012	1,001	821	844	995	812	1,423	2,705	2,865	3,055	2,480	3,350
80,000	513	564	722	727	1,159	1,190	1,114	1,102	903	929	1,096	894	1,566	2,985	3,160	3,365	2,730	3,540
100,000	552	608	778	783	1,249	1,282	1,200	1,187	973	1,001	1,180	963	1,687	3,215	3,405	3,630	2,945	3,685
150,000	632	696	890	897	1,430	1,467	1,373	1,359	1,114	1,146	1,351	1,102	1,931	3,685	3,905	4,160	3,375	4,030
200,000	696	766	980	987	1,574	1,615	1,511	1,496	1,226	1,261	1,487	1,213	2,125	4,060	4,300	4,580	3,720	4,230

*Prospective RMS Symmetrical Amperes Short-Circuit Current

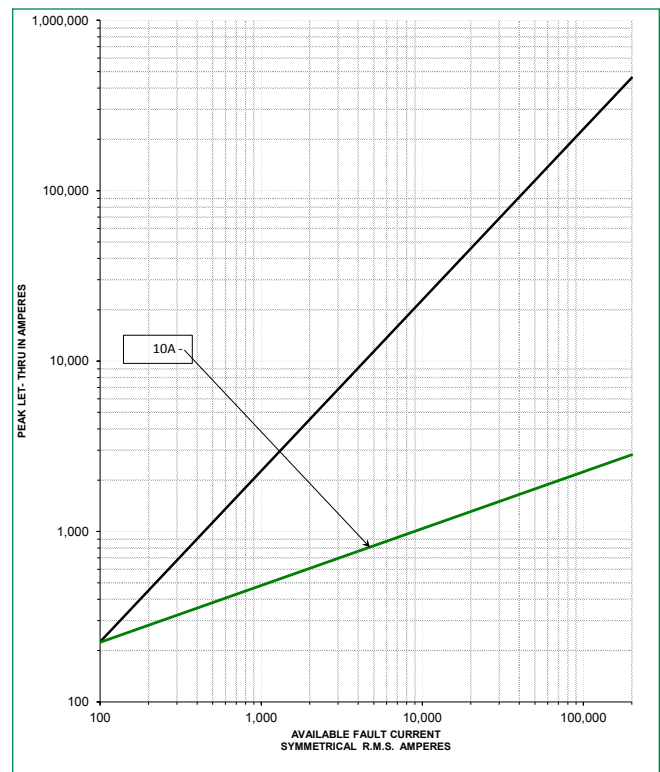
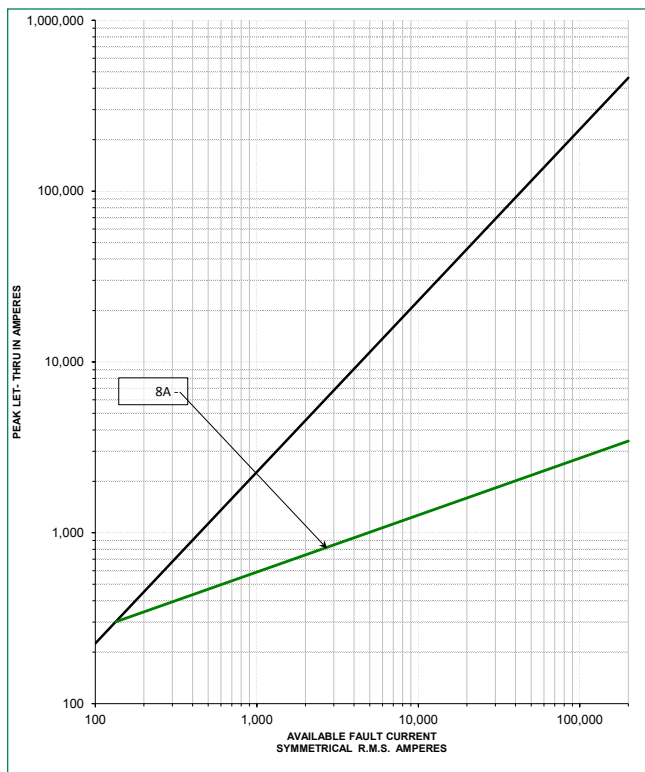
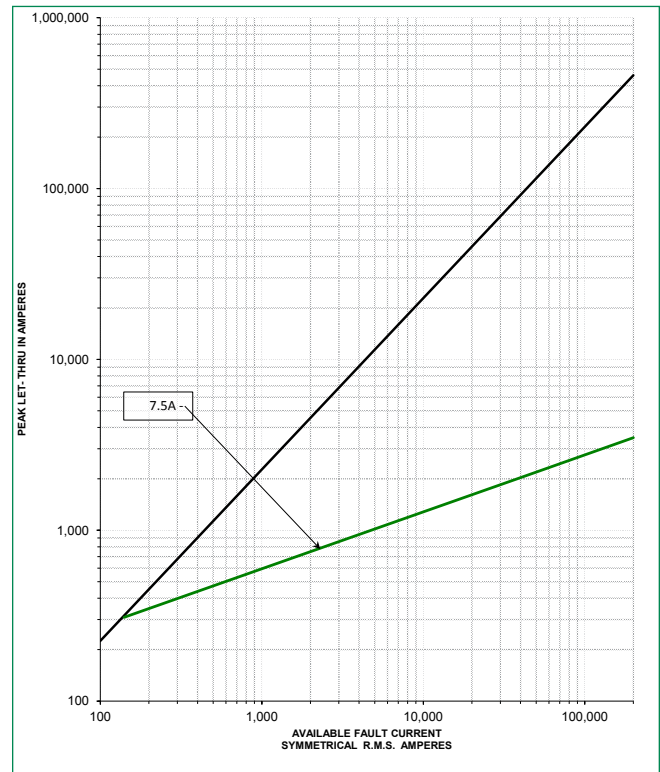
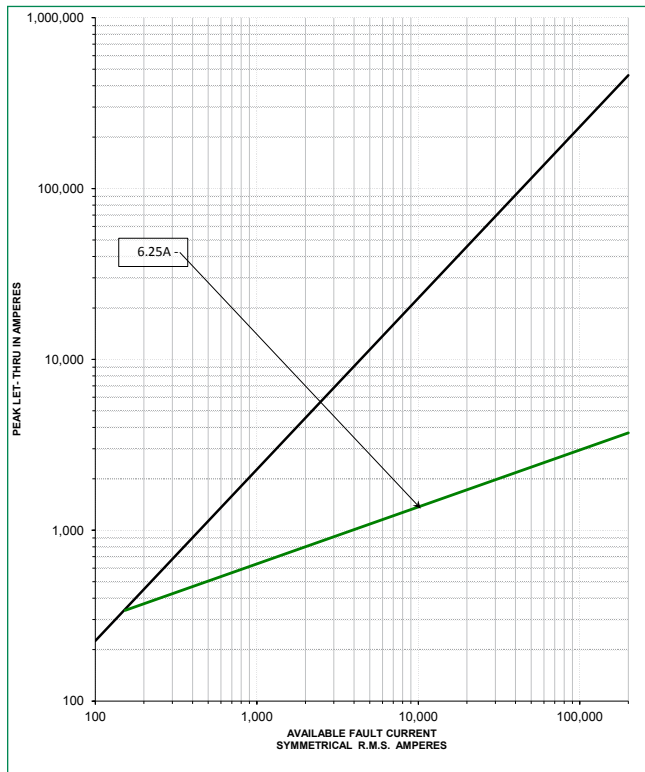
Note: Data Derived from Peak Let-Thru Curves

Peak Let-Thru Curves



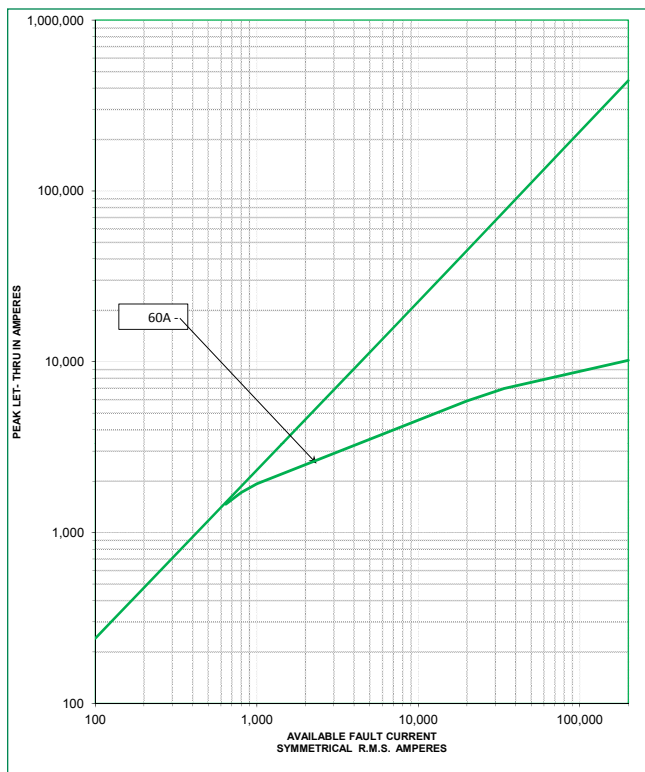
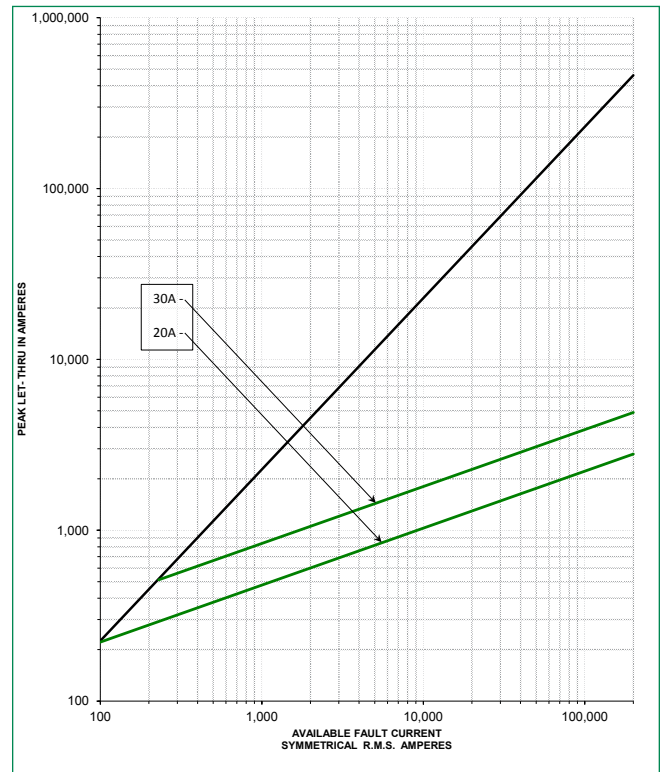
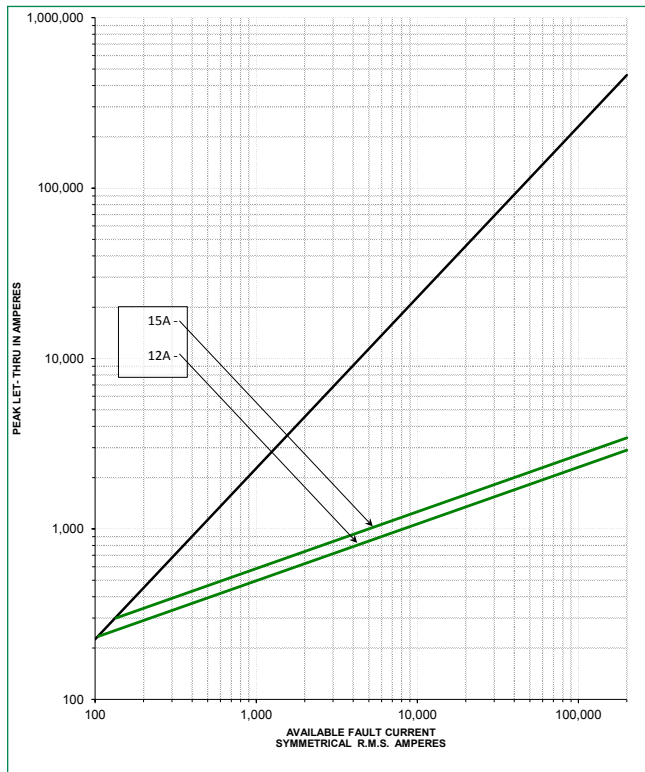
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Peak Let-Thru Curves

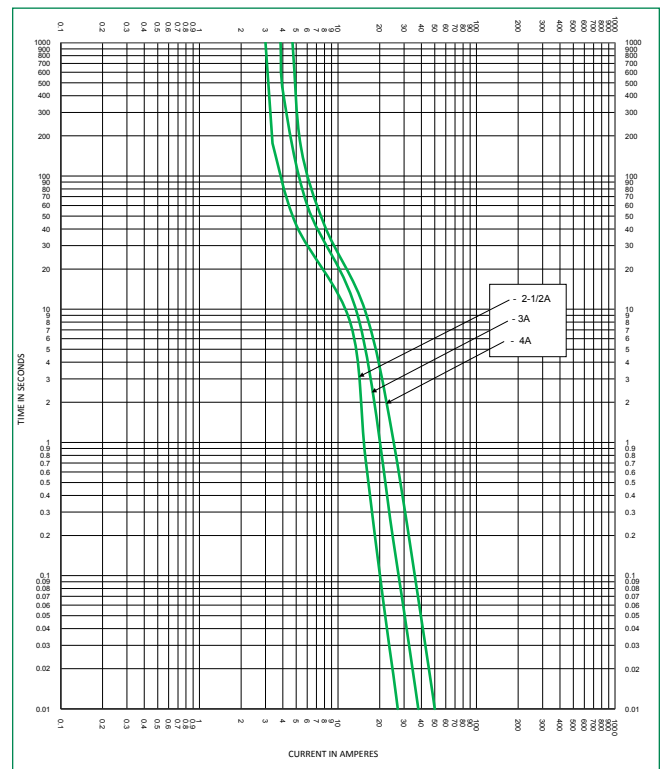
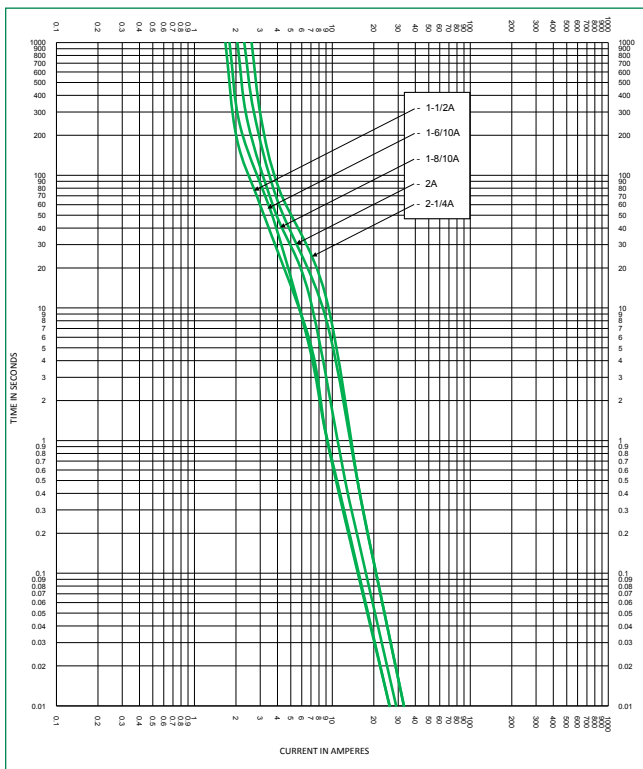
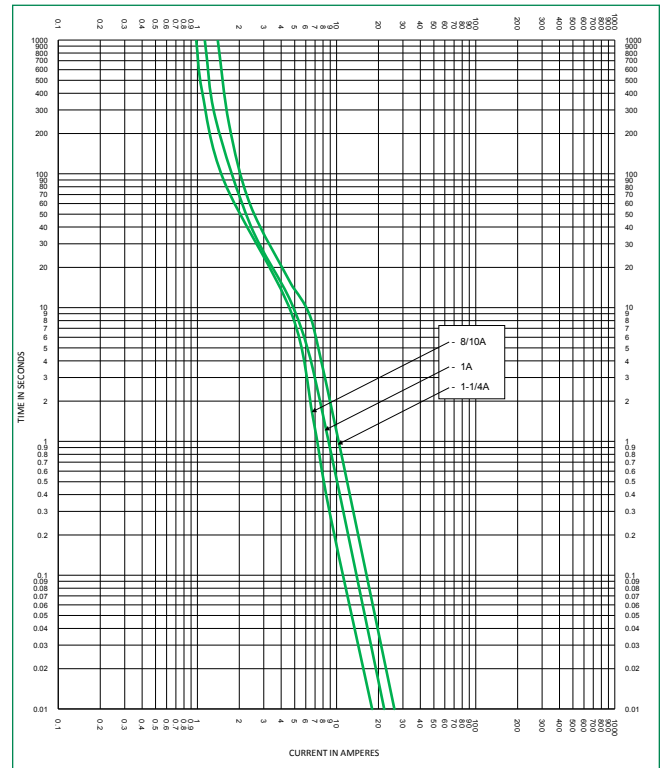
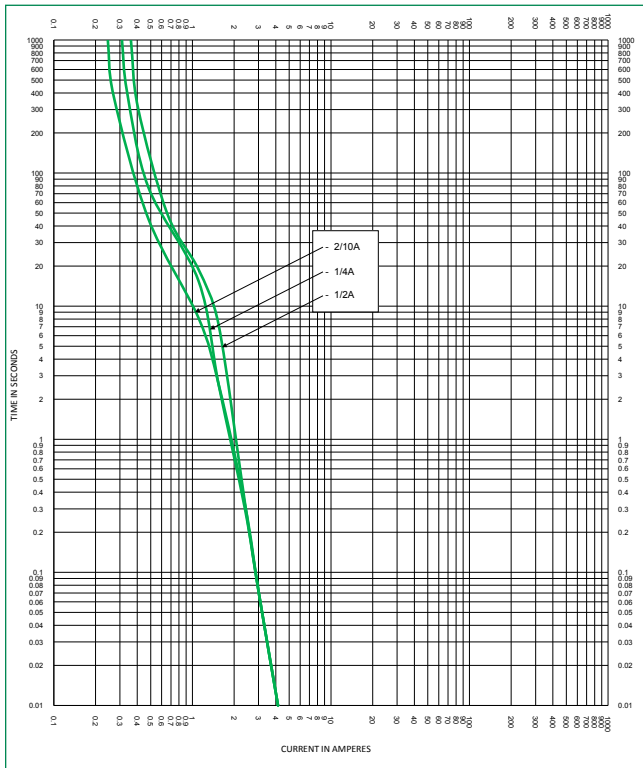


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Peak Let-Thru Curves



Time Current Curves



Time Current Curves

