

JLLN/JLLS POWR-T™ Class T Fuses

RoHS

300/600 VAC • Fast-Acting • 1 – 1200 Amperes


Space saving POWR-T fuses are the most compact fuses available in ratings above 30 amperes — less than one-third the size of comparable Class R fuses. When rated in accordance with the NEC®, POWR-T fuses provide fast acting overload and short-circuit protection for non-inductive circuits and equipment. Used in inductive circuits, the ampere rating of POWR-T fuses must be increased to prevent opening on in-rush currents. In such instances, POWR-T fuses may provide only short-circuit protection.

Applications

Littelfuse Class T fuses can be used in applications that require fast-acting protection, such as equipment containing variable speed drives, rectifiers, and other surge-sensitive components. Main switches containing Class T fuses may be used to provide protection to individual electric services and meter stacks. Molded case circuit breaker load centers and Panelboards also will have increased interrupting ratings when “series rated” with Class T fuses.

Features/Benefits

Space-Saving – Switch enclosures, fuse pullouts, and other equipment using Class T fuses are usually more compact. Typical three-pole Class T fuse blocks require less than 50% of the panel space required by similar Class R blocks.

Longer Equipment Life and Increased Safety – Class T fuses provide fast, reliable protection against overcurrents up to 200,000 amperes. Extremely current-limiting design minimizes the damaging heating and magnetic effects caused by short-circuit currents.

Optional Mounting Types – In addition to the Class T dimensions, Littelfuse offers select ratings with PC board mounting tabs for specialty applications. PC board mount versions are UL Recognized. Contact the factory for more information.

NOTE: JLLN Class T 300 volt fuses are UL Listed for circuits not exceeding 300 volts to ground. However, since UL does not include testing 300 volt Class T fuses on 277/480 volt three-phase bolted faults, Littelfuse does not recommend using 300 volt Class T fuses where phase-to-phase voltage exceeds 300 volts.

Specifications

Voltage Ratings:	AC: 300 Volts (JLLN); 600 Volts (JLLS)
	DC: 125 Volts (JLLN 1 – 30A)
	160 Volts (JLLN 35 – 60A)
	125 Volts (JLLN 110 – 1200A)
Interrupting Ratings:	300 Volts (JLLS)
	AC: 200,000 amperes rms symmetrical
	DC: 20,000 amperes
	(JLLN 110 – 1200A)
Ampere Range:	(JLLS 1 – 1200A)
	1– 1200 amperes
	Approvals: AC: Standard 248-15, Class T
	UL Listed (File No: E81895):
	JLLN/JLLS (1 – 800A)
	UL Recognized (File No: E71611):
	JLLS (900 – 1200A)
	CSA Certified (File No: LR29862):
	JLLN/JLLS (1 – 600A)
	DC: UL Listed (File No: E81895):
	JLLN (110 – 1200A)
	Littelfuse self-certified: JLLN 1-60A
	JLLS (1 – 1200A)

Ampere Ratings

1	30	90	250	800
2	35	100	300	900*
3	40	110	350	1000
6	45	125	400	1100
10	50	150	450	1200
15	60	175	500	
20	70	200	600	
25	80	225	700	

* JLLS only

Example part number (series & amperage): JLLS 100

Recommended Fuse Blocks

LT300 series (for JLLN series fuses)
 LT600 series (for JLLS series fuses)
 LSCR002 (for JLLN/JLLS 700-1200A fuses)

Refer to the Blocks and Holders section of this catalog for additional information.

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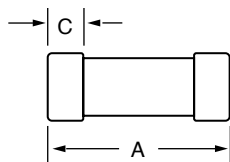


Fig. 1

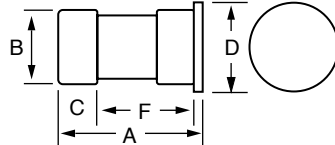


Fig. 2

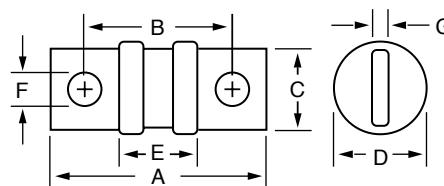


Fig. 3

Amperes	Refer to Fig. No.	Series	Dimensions in Inches (mm in parentheses)						
			A	B	C	D	E	F	G
1 – 30	1	JLLN	$\frac{7}{8}$ (22.2)	—	$\frac{9}{32}$ (7.1)	$\frac{13}{32}$ (10.3)	—	—	—
		JLLS	1½ (38.1)	—	$\frac{9}{32}$ (7.1)	$\frac{9}{16}$ (14.3)	—	—	—
35 – 60	1	JLLN	$\frac{7}{8}$ (22.2)	—	$\frac{9}{32}$ (7.1)	$\frac{9}{16}$ (14.3)	—	—	—
	2	JLLS	$1\frac{1}{16}$ (39.7)	$\frac{13}{16}$ (20.6)	$\frac{13}{32}$ (10.3)	1 (25.4)	$\frac{1}{16}$ (1.6)	$\frac{13}{32}$ (27.8)	—
70 – 100	3	JLLN	$2\frac{5}{32}$ (54.8)	$1\frac{1}{16}$ (39.7)	$\frac{3}{4}$ (19.1)	$\frac{13}{16}$ (20.6)	$2\frac{7}{32}$ (21.4)	$\frac{9}{32}$ (7.1)	$\frac{1}{8}$ (3.2)
		JLLS	$2\frac{61}{64}$ (75.0)	$2\frac{23}{64}$ (59.9)	$\frac{3}{4}$ (19.1)	$\frac{13}{16}$ (20.6)	$1\frac{41}{64}$ (41.7)	$\frac{9}{32}$ (7.1)	$\frac{1}{8}$ (3.2)
110 – 200	3	JLLN	$2\frac{7}{16}$ (61.9)	$1\frac{1}{16}$ (42.9)	$\frac{7}{8}$ (22.2)	$1\frac{1}{16}$ (27.0)	$2\frac{7}{32}$ (21.4)	$1\frac{1}{32}$ (8.7)	$\frac{3}{16}$ (4.8)
		JLLS	$3\frac{1}{4}$ (82.6)	$2\frac{1}{2}$ (63.5)	$\frac{7}{8}$ (22.2)	$1\frac{1}{16}$ (27.0)	$1\frac{21}{32}$ (42.1)	$1\frac{1}{32}$ (8.7)	$\frac{3}{16}$ (4.8)
225 – 400	3	JLLN	$2\frac{3}{4}$ (69.9)	$1\frac{27}{32}$ (46.8)	1 (25.4)	$1\frac{5}{16}$ (33.3)	$5\frac{3}{64}$ (21.0)	$\frac{13}{32}$ (10.3)	$\frac{1}{4}$ (6.4)
		JLLS	$3\frac{5}{8}$ (92.1)	$2\frac{23}{32}$ (69.1)	1 (25.4)	$1\frac{19}{32}$ (40.5)	$1\frac{23}{32}$ (43.7)	$\frac{13}{32}$ (10.3)	$\frac{1}{4}$ (6.4)
450 – 600	3	JLLN	$3\frac{1}{16}$ (77.8)	$2\frac{1}{32}$ (51.6)	$1\frac{1}{4}$ (31.8)	$1\frac{19}{32}$ (40.5)	$\frac{7}{8}$ (22.2)	$3\frac{1}{64}$ (12.3)	$\frac{5}{16}$ (7.9)
		JLLS	$3\frac{63}{64}$ (101.2)	$2\frac{61}{64}$ (75.0)	$1\frac{1}{4}$ (31.8)	$2\frac{1}{16}$ (52.4)	$1\frac{49}{64}$ (44.8)	$3\frac{1}{64}$ (12.3)	$\frac{5}{16}$ (7.9)
700 – 800	3	JLLN	$3\frac{3}{8}$ (85.7)	$2\frac{7}{32}$ (64.3)	$1\frac{3}{4}$ (44.5)	$2\frac{1}{16}$ (52.4)	$\frac{7}{8}$ (22.2)	$3\frac{5}{64}$ (13.9)	$\frac{3}{8}$ (9.5)
		JLLS	$4\frac{21}{64}$ (109.9)	$3\frac{1}{64}$ (80.6)	$1\frac{3}{4}$ (44.5)	$2\frac{1}{2}$ (63.5)	$1\frac{55}{64}$ (47.2)	$3\frac{5}{64}$ (13.9)	$\frac{3}{8}$ (9.5)
900 – 1200	3	JLLN	4 (101.6)	$2\frac{17}{32}$ (64.3)	2 (50.8)	$2\frac{1}{2}$ (63.5)	$1\frac{1}{32}$ (26.2)	$3\frac{9}{64}$ (15.5)	$\frac{7}{16}$ (11.1)
		JLLS	5.27 (133.9)	3.80 (96.5)	2 (50.8)	2.63 (66.8)	2.30 (58.4)	0.67 (15.5)	0.44 (11.2)

Current-Limiting Effects of JLLN (300V) fuses

Short Circuit Current*	Apparent RMS Symmetrical Current for Various fuse ratings							
	30A	60A	100A	200A	400A	600A	800A	1200A
5,000	700	775	1,100	1,650	3,500	4,000	5,000	5,000
10,000	900	1,000	1,400	2,100	4,400	5,100	6,750	8,250
15,000	1,000	1,100	1,600	2,400	5,000	5,900	7,750	10,000
20,000	1,100	1,250	1,800	2,700	5,500	6,500	8,750	11,000
25,000	1,230	1,300	1,950	2,900	6,000	7,000	9,500	12,000
30,000	1,300	1,475	2,050	3,100	6,400	7,500	10,000	12,500
35,000	1,330	1,575	2,150	3,300	6,750	7,750	10,500	13,500
40,000	1,430	1,600	2,300	3,500	7,000	8,000	11,000	14,000
50,000	1,500	1,750	2,400	3,700	7,500	8,750	12,000	15,000
60,000	1,700	1,900	2,700	4,000	8,000	9,500	12,500	16,000
80,000	1,850	2,100	2,800	4,400	9,000	10,500	14,000	17,500
100,000	2,000	2,250	3,150	4,800	9,750	11,500	15,000	18,500
150,000	2,300	2,600	3,600	5,500	11,000	13,000	17,500	22,000
200,000	2,600	2,800	3,900	6,000	12,000	14,500	19,500	24,000

* Prospective RMS Symmetrical Amperes Short-Circuit Current
Note: Data Derived from Peak Let-Thru Curves

Current-Limiting Effects of JLLS (600V) fuses

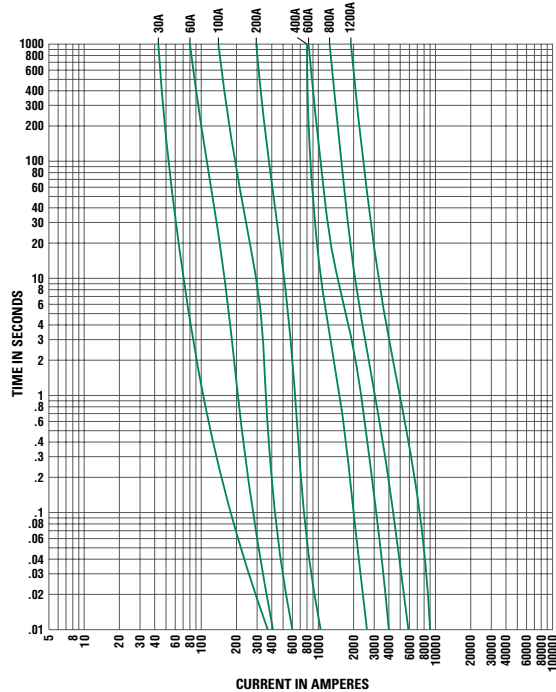
Short Circuit Current*	Apparent RMS Symmetrical Current for Various fuse ratings							
	30A	60A	100A	200A	400A	600A	800A	1200A
5,000	750	1,225	1,400	2,850	4,600	5,000	5,000	5,000
10,000	945	1,525	1,700	3,600	6,000	8,500	9,400	10,000
15,000	1,050	1,700	2,000	4,050	6,600	9,750	10,500	13,000
20,000	1,150	1,900	2,200	4,450	7,250	10,500	11,000	14,750
25,000	1,300	2,050	2,400	4,800	8,000	11,500	12,500	15,500
30,000	1,375	2,150	2,450	5,000	8,250	12,000	13,750	16,500
35,000	1,400	2,250	2,600	5,100	8,500	13,000	14,000	17,000
40,000	1,425	2,400	2,800	5,200	8,700	14,000	14,750	18,000
50,000	1,600	2,450	2,900	6,000	9,500	14,500	16,000	20,000
60,000	1,650	2,625	3,100	6,250	10,000	15,500	17,300	21,000
80,000	1,825	2,800	3,400	7,000	11,000	17,000	18,750	23,000
100,000	2,000	3,100	3,700	7,250	12,000	18,000	20,000	25,000
150,000	2,250	3,400	4,300	8,500	13,000	21,000	23,000	28,500
200,000	2,450	3,800	4,600	9,000	15,000	23,000	25,000	31,000

* Prospective RMS Symmetrical Amperes Short-Circuit Current
Note: Data Derived from Peak Let-Thru Curves

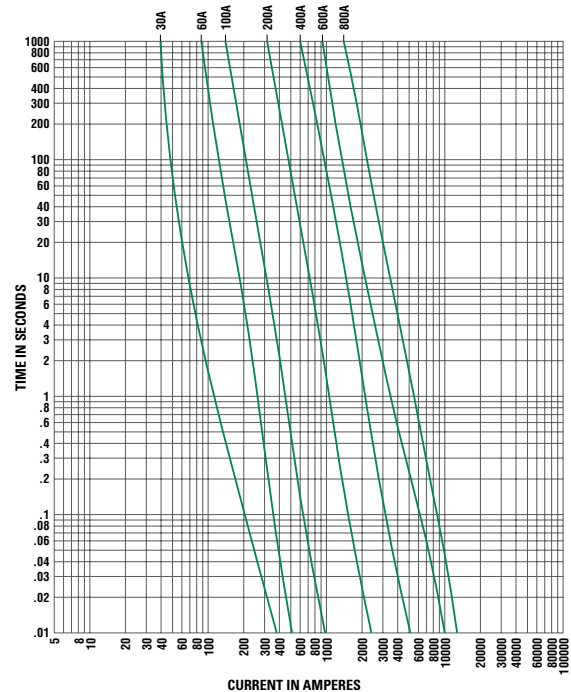
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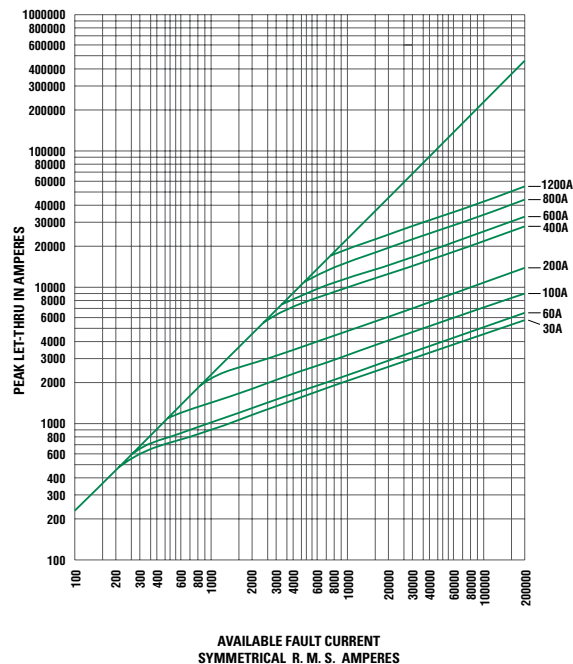
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