

LLNRK/LLSRK Series POWR-PRO® Class RK1

250/600 VAC ■ Dual-Element, Time-Delay ■ 1/10 – 600 Amperes

Littelfuse
POWR-GARD™ Products



SPECIFICATIONS

Voltage Ratings: AC: 250 Volts (LLNRK)
600 Volts (LLSRK)
DC: 125 Volts (LLNRK)
300 Volts (LLSRK)

Interrupting Ratings:

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

DC: 20,000 amperes

Ampere Range: 1/10 – 600 amperes

Approvals: AC: Standard 248-12, Class RK1
UL Listed (File No: E81895)
CSA Certified (File No: LR29862)
QPL: Federal Specification No. WF-1814
DC: Littelfuse self-certified

AMPERE RATINGS

$\frac{1}{10}$	1	$2\frac{1}{10}$	$6\frac{1}{10}$	25	90	300
$1\frac{1}{100}$	$1\frac{1}{2}$	3	7	30	100	350
$\frac{3}{10}$	$1\frac{1}{4}$	$3\frac{3}{10}$	8	35	110	400
$\frac{1}{4}$ *	$1\frac{1}{10}$	$3\frac{1}{2}$	9	40	125	450
$\frac{3}{10}$	$1\frac{1}{10}$	4	10	45	150	500
$\frac{4}{10}$	$1\frac{1}{10}$	$4\frac{1}{2}$	12	50	175	600
$\frac{1}{2}$	2	5	15	60	200	
$\frac{6}{10}$	$2\frac{1}{4}$	$5\frac{1}{10}$	$17\frac{1}{2}$	70	225	
$\frac{8}{10}$	$2\frac{1}{2}$	6	20	80	250	

* LLSRK Only.

Example part number (series & amperage): LLNRK 450

RECOMMENDED FUSE BLOCKS

LR250 series (LLNRK Series)
LR600 series (LLSRK Series)

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

Littelfuse LLNRK and LLSRK series POWR-PRO® fuses provide superior overload and short circuit protection for service entrance, main, feeder and general-purpose branch circuits up to 600 amperes.

LLNRK/LLSRK series fuses can be installed in existing Class H fuse blocks to upgrade systems containing lower interrupting rating Class H one-time or renewable fuses.

APPLICATIONS

All general-purpose circuits

Motors

Transformers

Solenoids

Fluorescent lighting

All system components with high in-rush currents

FEATURES/BENEFITS

- **Extremely current limiting** — Reduces damage to circuits and equipment under short-circuit conditions. Stops damaging short circuits faster than any mechanical protective device.
- **300kA Interrupting Rating** — Littelfuse self-certified to 300,000 amperes as standard. Meets future trend towards higher available short circuit currents.
- **Reduced costs** — Current limiting design often permits use of readily available, less costly equipment. Low resistance design reduces power consumption and utility bills.
- **Excellent time delay** — True dual-element construction, with separate non-fatiguing thermally-reversible spring-loaded thermal overload element, withstands repeated surges within rated time delay without opening needlessly. Eliminates needless downtime caused by power surges or equipment demands.

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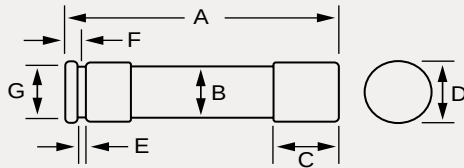


FIG. 1

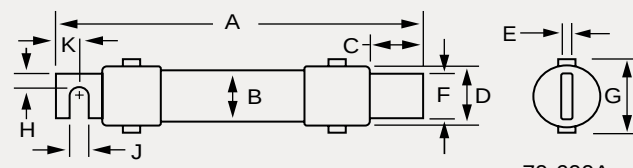
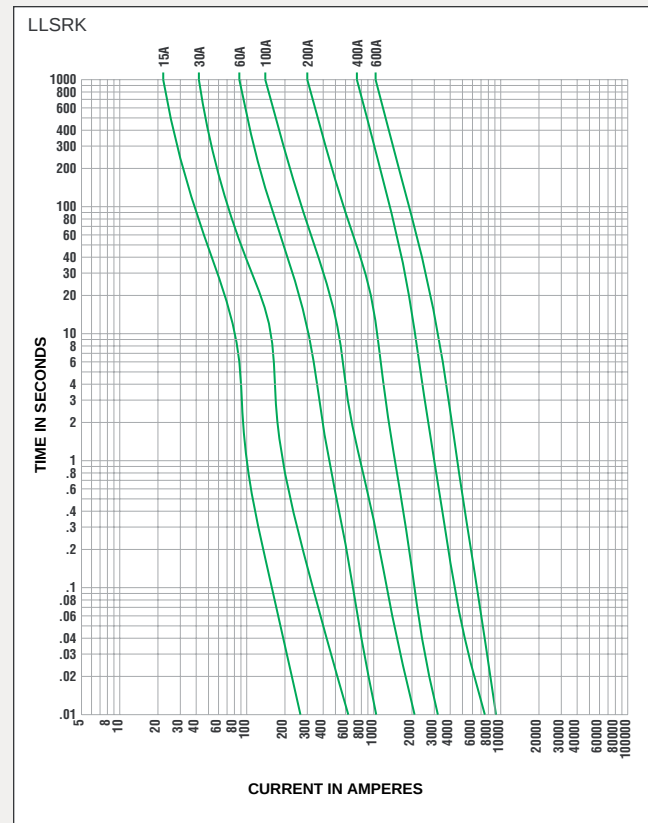
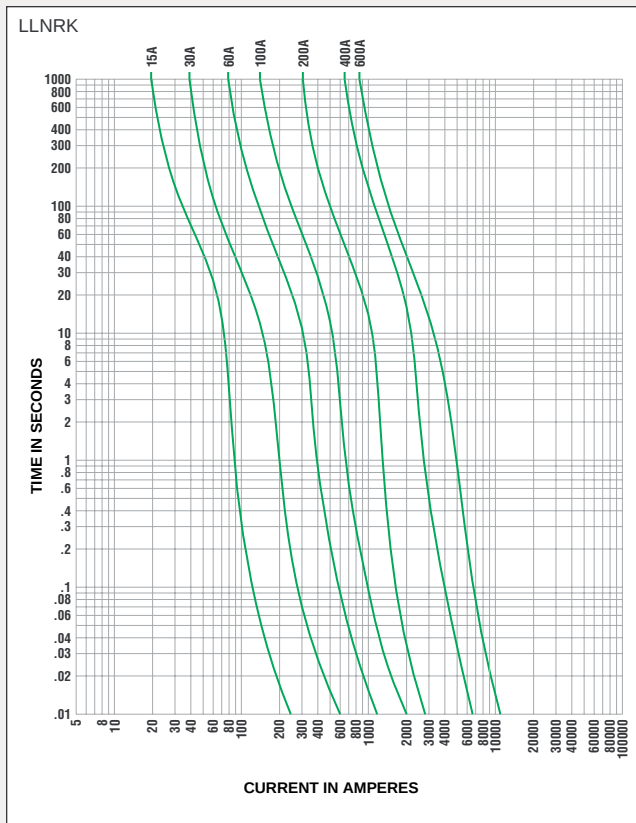


FIG. 2

70-600A

AMPERES	REFER TO FIG. NO.	SERIES	DIMENSIONS IN INCHES (mm in parentheses)									
			A	B	C	D	E	F	G	H	J	K
1/10 – 30	1	LLNRK	2 (50.8)	1/2 (12.7)	1/2 (12.7)	9/16 (14.3)	5/64 (2.0)	5/32 (4.0)	3/8 (9.5)	—	—	—
		LLSRK	5 (127.0)	3/4 (19.1)	5/8 (15.9)	13/16 (20.6)	3/32 (2.4)	3/16 (4.8)	5/8 (15.9)	—	—	—
35 – 60	1	LLNRK	3 (76.2)	3/4 (19.1)	5/8 (15.9)	13/16 (20.6)	3/32 (2.4)	3/16 (4.8)	5/8 (15.9)	—	—	—
		LLSRK	5-1/2 (139.7)	1 (25.4)	5/8 (15.9)	1-1/16 (27.0)	3/32 (2.4)	1/4 (6.4)	7/8 (22.2)	—	—	—
70 – 100	2	LLNRK	5-7/8 (149.2)	1 (25.4)	1-1/16 (27.0)	1-1/16 (27.0)	1/8 (3.2)	3/4 (19.1)	1-1/4 (31.8)	1/4 (6.4)	9/32 (7.1)	1/2 (12.7)
		LLSRK	7-7/8 (200.0)	1-1/4 (31.8)	1-1/16 (27.0)	1-5/16 (33.3)	1/8 (3.2)	3/4 (19.1)	1-1/2 (38.1)	1/4 (6.4)	9/32 (7.1)	1/2 (12.7)
110 – 200	2	LLNRK	7-1/8 (181.0)	1-1/2 (38.1)	1-15/32 (37.3)	1-19/32 (40.5)	3/16 (4.8)	1-1/8 (28.6)	1-27/32 (46.8)	7/16 (11.1)	9/32 (7.1)	11/16 (17.5)
		LLSRK	9-5/8 (244.5)	1-3/4 (44.5)	1-15/32 (37.3)	1-27/32 (46.8)	3/16 (4.8)	1-1/8 (28.6)	2-3/32 (53.2)	7/16 (11.1)	9/32 (7.1)	11/16 (17.5)
225 – 400	2	LLNRK	8-5/8 (219.1)	2 (50.8)	1-15/16 (49.2)	2-3/32 (53.2)	1/4 (6.4)	1-5/8 (41.3)	2-11/32 (59.5)	5/8 (15.9)	13/32 (10.3)	15/16 (23.8)
		LLSRK	11-5/8 (295.3)	2-1/2 (63.5)	2 (50.8)	2-19/32 (65.9)	1/4 (6.4)	1-5/8 (41.3)	2-27/32 (72.2)	5/8 (15.9)	13/32 (10.3)	15/16 (23.8)
450 – 600	2	LLNRK	10-3/8 (263.5)	2-1/2 (63.5)	2-3/8 (60.3)	2-19/32 (65.9)	1/4 (6.4)	2 (50.8)	2-27/32 (72.2)	3/4 (19.1)	17/32 (13.5)	1-1/8 (28.6)
		LLSRK	13-3/8 (339.7)	3 (76.2)	2-13/32 (61.1)	3-3/32 (78.6)	1/4 (6.4)	2 (50.8)	3-11/32 (84.93)	3/4 (19.1)	17/32 (13.5)	1-1/8 (28.6)



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Current-Limiting Effects of LLNRK (250V) fuses

* Prospective RMS Symmetrical Amperes Short-Circuit Current

** Apparent RMS Symmetrical

Note: Data derived from Peak Let-Thru Curves

Short Circuit Current*	Peak Let-Thru Current** for various fuse ratings					
	30A	60A	100A	200A	400A	600A
5,000	900	1,400	2,000	2,700	4,800	5,000
10,000	1,100	1,900	2,700	3,500	6,200	8,500
15,000	1,250	2,100	3,100	4,200	7,000	9,500
20,000	1,400	2,400	3,500	4,600	8,000	10,800
25,000	1,500	2,600	3,900	5,000	8,300	11,500
30,000	1,600	2,800	4,000	5,250	9,000	12,000
35,000	1,700	2,850	4,300	5,500	9,500	12,500
40,000	1,800	3,000	4,600	5,800	9,800	13,500
50,000	1,900	3,200	4,800	6,300	10,200	14,000
60,000	2,000	3,500	5,200	6,700	11,000	15,000
80,000	2,200	3,900	5,700	7,200	12,200	16,000
100,000	2,300	4,000	6,000	8,100	12,700	17,000
150,000	2,500	4,500	6,700	9,100	14,000	19,000
200,000	2,600	4,800	7,000	9,700	15,000	20,000

Current-Limiting Effects of LLSRK (600V) fuses

* Prospective RMS Symmetrical Amperes Short-Circuit Current

** Apparent RMS Symmetrical

Note: Data derived from Peak Let-Thru Curves

Short Circuit Current*	Peak Let-Thru Current** for various fuse ratings					
	30A	60A	100A	200A	400A	600A
5,000	1,060	1,600	2,100	2,600	4,100	—
10,000	1,350	2,000	2,800	3,400	5,250	8,000
15,000	1,600	2,300	3,200	3,900	6,000	9,000
20,000	1,700	2,600	3,600	4,500	6,700	10,000
25,000	1,900	2,800	3,800	4,800	7,500	11,000
30,000	2,000	3,000	4,100	5,200	8,000	12,000
35,000	2,100	3,100	4,400	5,700	8,500	12,500
40,000	2,200	3,300	4,600	6,000	9,000	13,000
50,000	2,400	3,500	4,900	6,500	9,500	14,000
60,000	2,500	3,800	5,200	7,000	10,000	15,000
80,000	2,700	4,000	5,700	7,750	11,000	17,000
100,000	2,900	4,200	6,200	8,500	12,000	18,000
150,000	3,200	4,600	7,300	10,000	14,000	21,000
200,000	3,300	4,700	8,000	11,000	16,000	23,000

