CLASS RK1 – LLNRK • LLSRK • LLSRK_ID SERIES FUSES

POWR-PRO® 250/600 Vac • Dual Element • Time-Delay • 1/10-600 A

Description

RK1 fuses are extremely current-limiting fuses meaning they greatly reduce or eliminate damage to circuits and equipment under short-circuit conditions. Replacing existing Class H, K and RK5 fuses with RK1 fuses is one of the easiest ways to immediately improve the protection of plant workers and equipment.

Applications

- All general purpose circuits
- Motors
- Transformers
- Safety upgrades

Features/Benefits

- POWR-PRO Performance
- Indication available
- Dual-element design
- Extremely Current-Limiting
- IEC Type 2 "No Damage" protection to IEC and NEMA type motor starters
- Indicating and DIN mount fuse holders available

Specifications

Voltage Ratings 600 Vac/300 Vdc (LLSRK/LLSRK_ID)
250 Vac/125 Vdc (LLNRK)

Interrupting Ratings AC: 200 kA rms symmetrical
300 kA rms symmetrical
(Littelfuse self-certified)
DC: 20 kA

Ampere Range 1/10 – 600 A

Approvals AC: Standard 248-12, Class RK1
UL Listed (File: E81895)
CSA Certified (File: LR29862)
DC: Littelfuse self-certified
Federal Specification WF-1814
(QPL- W-F-1814)

Recommended Fuse Holders

LFR60 Series • LFR25 Series

Ordering Information

AMPERE RATINGS						
1/10	1	2 8/10	6 1/4	25	80	250
15/100	1 1/8	3	7	30	90	300
2/10	1 1/4	3 2/10	8	35	100	350
1/4	1 4/10	3 1/2	9	40	110	400
3/10	1 6/10	4	10	45	125	450
4/10	1 8/10	4 1/2	12	50	150	500
1/2	2	5	15	60	175	600
6/10	2 1/4	5 6/10	17 1/2	70	200	
8/10	2 1/2	6	20	75*	225	

Note: All LLSRK_ID fuses rated 1 amp and above are Indicator® fuses.
**75 A is only available for the 600 V.*

600 V

TYPE	SERIES	AMP	CATALOG NUMBER	ORDERING NUMBER
INDICATING	LLSRK_ID	60	LLSRK060ID	LSRK060.TXID
NON-INDICATING	LLSRK	60	LLSRK060	LSRK060.T

250 V

TYPE	SERIES	AMP	CATALOG NUMBER	ORDERING NUMBER
NON-INDICATING	LLNRK	80	LLNRK080	LNRK080.V

Web Resources

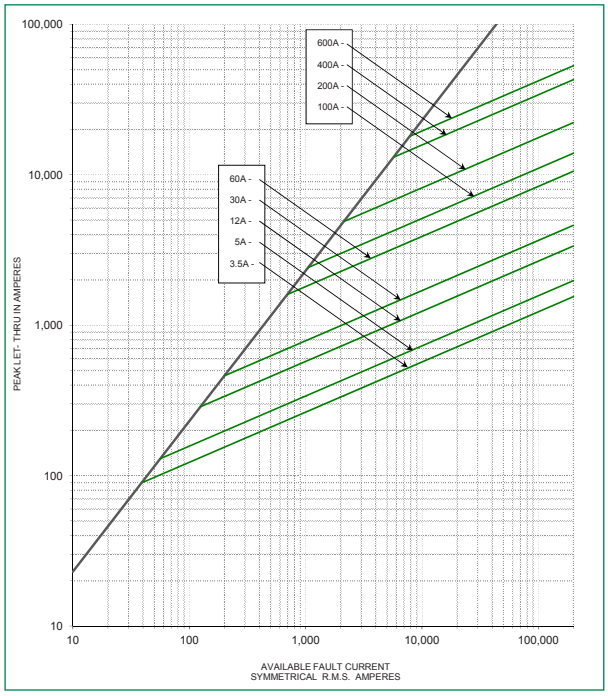
Download TC Curves, CAD drawings and other technical information: **littelfuse.com/llsrk**
littelfuse.com/llnrk

Dimensions

Please refer to the Class R dimensions page 3.

Peak Let-Thru Curve (600 V)

LLSRK & LLSRKID



Note: For more information, see Peak Let-Thru Table

CLASS RK1 – LLNRK • LLSRK • LLSRK_ID SERIES FUSES

Current-Limiting Effects of LLSRK and LLSRK_ID (600 V) Fuses

SHORT CIRCUIT CURRENT*	APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS							
	3.5 A	5 A	12 A	30 A	100 A	200 A	400 A	600 A
5,000	196	251	427	586	1,764	2,821	-	-
10,000	247	316	538	739	2,222	3,554	6,850	8,489
15,000	283	362	616	845	2,544	4,069	7,842	9,718
20,000	312	399	677	930	2,800	4,478	8,631	10,696
25,000	336	430	730	1,002	3,016	4,824	9,297	11,522
30,000	357	456	776	1,065	3,205	5,126	9,880	12,244
35,000	376	481	816	1,121	3,374	5,397	10,401	12,889
40,000	393	502	854	1,172	3,528	5,642	10,874	13,476
50,000	423	541	919	1,263	3,800	6,078	11,714	14,516
60,000	450	575	977	1,342	4,038	6,459	12,448	15,426
80,000	495	633	1,075	1,477	4,445	7,109	13,700	16,979
100,000	533	682	1,158	1,591	4,788	7,658	14,758	18,290
150,000	610	781	1,326	1,821	5,481	8,766	16,894	20,936
200,000	671	859	1,460	2,005	6,032	9,648	18,594	23,043

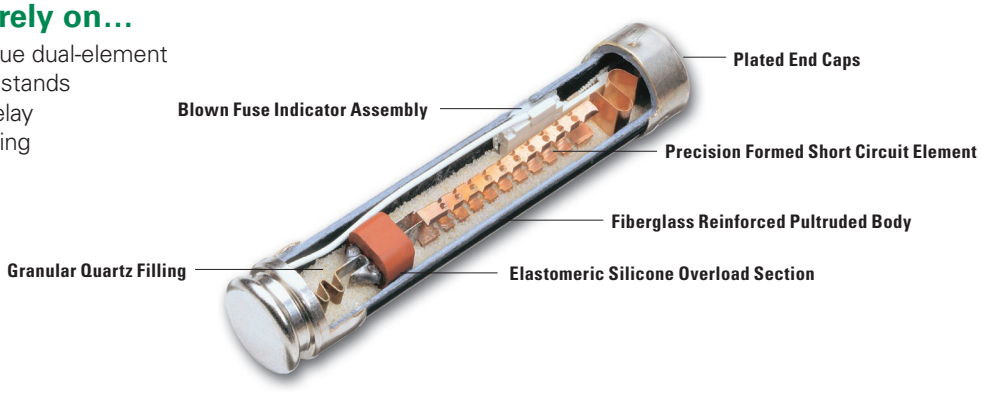
Current-Limiting Effects of LLNRK (250 V) Fuses

SHORT CIRCUIT CURRENT*	APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS					
	30 A	60 A	100 A	200 A	400 A	600 A
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

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

LLSRK_ID Fuses—Quality Construction for performance you can rely on…

Littelfuse **LLSRK_ID** Fuses feature true dual-element construction. This robust design withstands repeated surges within rated time delay without opening needlessly, eliminating downtime caused by power surges or equipment demands.



CLASS RK1 – LLNRK • LLSRK • LLSRK_ID SERIES FUSES

Dimensions

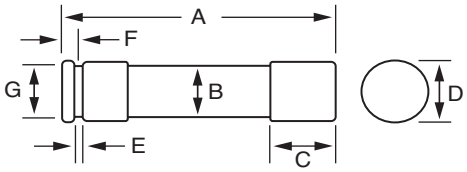
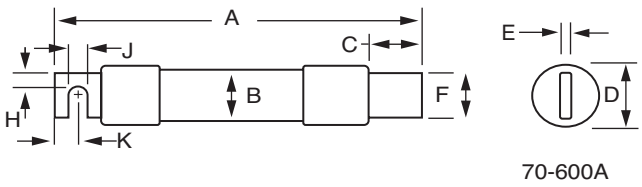


FIG. 1



70-600A

FIG. 2

AMPS	FIGURE NUMBER	SERIES	DIMENSIONS INCHES (mm)									
			A	B	C	D	E	F	G	H	J	K
1/10–30	1	LLNRK	2 (50.8)	½ (12.7)	½ (12.7)	9/16 (14.3)	5/64 (2.0)	5/32 (4.0)	3/8 (9.5)	—	—	—
		LLSRK LSRK_ID	5 (127.0)	¾ (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)	¾ (19.1)	5/8 (15.9)	13/16 (20.6)	3/32 (2.4)	3/16 (4.8)	5/8 (15.9)	—	—	—
		LLSRK LSRK_ID	5½ (139.7)	1 (25.4)	5/8 (15.9)	1 1/16 (27.0)	3/32 (2.4)	¼ (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)	¾ (19.1)	—	¼ (6.4)	9/32 (7.1)	½ (12.7)
		LLSRK LSRK_ID	7 7/8 (200.0)	1¼ (31.8)	1 1/16 (27.0)	1 5/16 (33.3)	1/8 (3.2)	¾ (19.1)	—	¼ (6.4)	9/32 (7.1)	½ (12.7)
110–200	2	LLNRK	7 1/8 (181.0)	1½ (38.1)	1 15/32 (37.3)	1 19/32 (40.5)	3/16 (4.8)	1 1/8 (28.6)	—	7/16 (11.1)	9/32 (7.1)	11/16 (17.5)
		LLSRK LLSRK_ID	9 5/8 (244.5)	1¾ (44.5)	1 15/32 (37.3)	1 27/32 (46.8)	3/16 (4.8)	1 1/8 (28.6)	—	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)	¼ (6.4)	1 5/8 (41.3)	—	5/8 (15.9)	13/32 (10.3)	15/16 (23.8)
		LLSRK LLSRK_ID	11 5/8 (295.3)	2½ (63.5)	2 (50.8)	2 19/32 (65.9)	¼ (6.4)	1 5/8 (41.3)	—	5/8 (15.9)	13/32 (10.3)	15/16 (23.8)
450–600	2	LLNRK	10 3/8 (263.5)	2½ (63.5)	2 3/8 (60.3)	2 19/32 (65.9)	¼ (6.4)	2 (50.8)	—	¾ (19.1)	17/32 (13.5)	1 1/8 (28.6)
		LLSRK LLSRK_ID	13 3/8 (339.7)	3 (76.2)	2 13/32 (61.1)	3 3/32 (78.6)	¼ (6.4)	2 (50.8)	—	¾ (19.1)	17/32 (13.5)	1 1/8 (28.6)