

# LLNRK / LLSRK / LLSRK\_ID SERIES INDICATOR® 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
- Indicator and Non-Indicator versions 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

<b>Voltage Ratings</b>	AC: 600 Vac or less (LLSRK/LLSRK_ID) 250 Vac or less (LLNRK) DC: 300 Vdc (LLSRK/LLSRK_ID) 125 Vdc (LLNRK)
<b>Ampere Range</b>	1/10 – 600 A
<b>Interrupting Ratings</b>	AC: 200 kA rms symmetrical 300 kA rms symmetrical (Littelfuse self-certified) DC: 20 kA
<b>Approvals</b>	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)
<b>Material</b>	LLNRK: 1/10-30 A: Fiber body, Bronze cap 35-60 A: Composite body, Bronze cap (nickel plated) 70-600 A: Composite body, Copper cap LLSRK: 1/10-60 A: Composite body, Bronze cap (nickel plated) 70-600 A: Composite body, Copper cap
<b>Country of Origin</b>	Mexico

## Ordering Information

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

Note: All LLSRK\_ID fuses rated 1 amp and above are Indicator® fuses.  
\*7.5 A is only available for the ID versions  
†75 A is only available for the 600 V

VOLTAGE	SERIES	AMP	INDICATION	CATALOG NUMBER	ORDERING NUMBER
600	LLSRK_ID	60	•	LLSRK060ID	LSRK060.TXID
600	LLSRK	60	–	LLSRK060	LSRK060.T
250	LLNRK	80	–	LLNRK080	LNLRK080.V

## Web Resources

Download TC Curves, CAD drawings and other technical information: [littelfuse.com/llsrk](http://littelfuse.com/llsrk)  
[littelfuse.com/llnrk](http://littelfuse.com/llnrk)

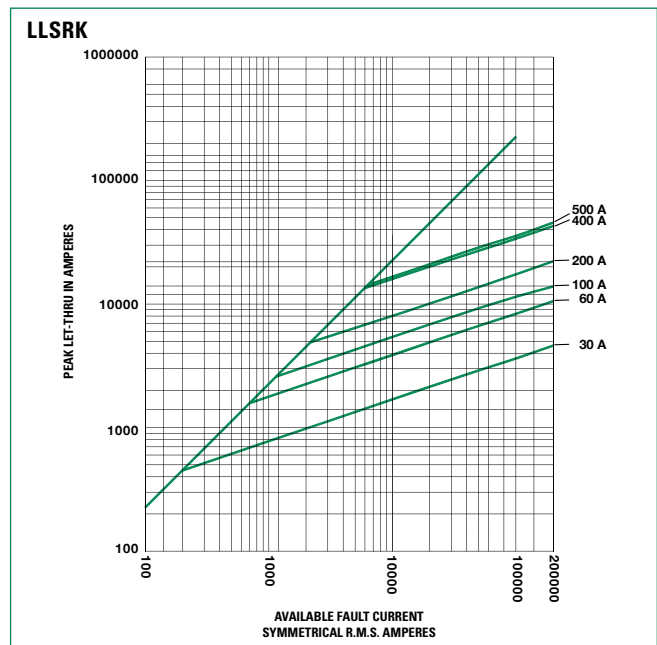
## Recommended Fuse Blocks

LFR Series ..... 88

## Dimensions

Please refer to the Class R dimensions..... 19

## Peak Let-Thru Curve (600 V)



Note: For more information, see Peak Let-Thru Table on pg. 14

# CLASS RK1 CURRENT LIMITING EFFECTS

1  
UL Class RK1 Fuses

## Current-Limiting Effects of LLSRK and LLSRK\_ID (600 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	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

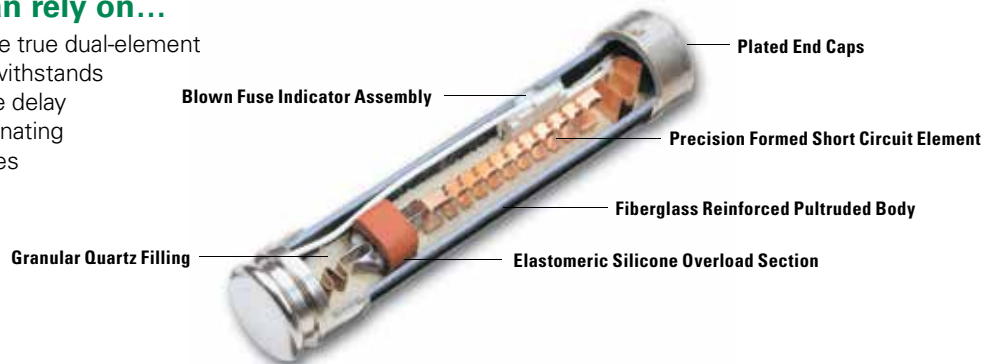
## Current-Limiting Effects of LLNRK (250 V) Fuses

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.



# KLNR / KLSR SERIES FUSES

250/600 Vac • Fast-Acting • 1-600 A



## Description

KLSR and KLNR series are an economical design providing the safety of a RK1 fuse. The single element design provides fast-acting overload and short-circuit protection.

Use POWR-PRO® LLNRK and LLSRK series RK1, dual-element, time-delay fuses in all new applications requiring the current-limiting ability of UL Class RK1 fuses or in existing applications where fast-acting RK1 or RK5 fuses have been opening on harmless system surges such as motor starting currents.

## Applications

- Resistance heaters
- Lighting circuits
- Non-inductive loads

## Features/Benefits

- Extremely Current-Limiting
- Indicating and DIN mount fuse blocks available

## Specifications

<b>Voltage Ratings</b>	AC: 600 Vac or less (KLSR) 250 Vac or less (KLNR) DC: 250 V (1 – 30 A KLSR); 300 V (35 – 600 A KLSR) 125 V (KLNR)
<b>Ampere Range</b>	1 – 600 A
<b>Interrupting Ratings</b>	AC: 200 kA rms symmetrical DC: 20 kA
<b>Approvals</b>	AC: Standard 248-12, Class RK1 UL Listed (File: E81895) CSA Certified (File: LR29862) DC: Littelfuse self-certified
<b>Material</b>	1-60 A: Composite body, Bronze cap (nickel plated) 70-100 A: Composite body, Copper caps 110-600 A: Melamine body, Copper caps
<b>Country of Origin</b>	Mexico

## Ordering Information

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

VOLTAGE	SERIES	AMP	CATALOG NUMBER	ORDERING NUMBER
600	KLSR	90	KLSR090	KLSR090.V
250	KLNR	90	KLNR090	KLNR090.V

## Web Resources

Download TC Curves, CAD drawings and other technical information: [littelfuse.com/klsr](http://littelfuse.com/klsr)  
[littelfuse.com/klnr](http://littelfuse.com/klnr)

## Recommended Fuse Blocks

LFR Series ..... 88

## Dimensions

Please refer to the Class R dimensions ..... 19

## Peak Let-Thru Curve (600 V)

