

LDC Series POWR-PRO® Class L Fuses

600 V AC/DC Time-Delay • 150 – 2000 Amperes



Littelfuse POWR-PRO LDC series Class L fuses represent another first in fuse protection. LDC series fuses are the first UL Listed 600 volts AC and DC Class L fuses. Since they may be used for both AC and DC, they eliminate the concern that AC only fuses may be inserted into DC circuits.

While LDC series fuses UL Listed DC interrupting rating is more than adequate for most applications (50,000 amperes at a 16 millisecond time constant), tests in our high power laboratory have shown that this remarkable fuse is capable of performing at much longer time

constants. This makes the fuse uniquely suited for applications such as crane rail circuits and mass transit systems. Contact the factory for application information.

For AC only systems, consider the use of POWR-PRO KLPC series fuses. They have a full 10 seconds time-delay at 500% rated current, and have a wider range of ratings.

Applications

- UPS protection, especially for large battery circuits
- DC distribution
- DC variable speed drives
- Protection of crane rail circuits and other large DC equipment such as electrical power shovels, ship and dock cranes, etc.
- Mass transit systems, including new light rail applications
- General purpose AC/DC circuits for mains, feeders, and branch circuits

Features/Benefits

- 600 Volt AC/DC rated — “All-purpose” Class L fuses reduce inventory requirements because the need for separate AC and DC fuses is eliminated.
- UL Listed 200,000 A.I.R. AC – 50,000 A.I.R. DC — Reliable interruption of all overcurrents up to their ratings. Minimizes the need for time consuming and expensive short-circuit studies.
- Moderate time-delay — Four seconds time-delay at 500% current provides adequate time-delay for many AC applications and most DC applications. They will withstand most harmless overloads or line surges. If your needs exceed the LDC capabilities, consider the use of KLPC fuses for AC applications.
- Selective coordination — LDC series fuses coordinate well with all Littelfuse fuses rated 600 amperes or less. A combination of LDC and IDSR series fuses provide a complete 600 volt rated DC system.
- Extremely current-limiting — Maximum current limitation reduces damage to circuits and equipment under short-circuit conditions. Stops damaging short-circuits faster than any mechanical protective device.

Specifications

Voltage Ratings:	AC: 600 Volts DC: 600 Volts
Interrupting Ratings:	AC: 200,000 amperes rms symmetrical DC: 50,000 amperes (16 millisecond time-constant)
Ampere Range:	150 – 2000 amperes
Approvals:	Standard 248-10, Class L UL Listed 601 – 2000 amps (File No: E81895) UL Recognized 150 – 600 amps (File No: E71611) CSA Certified 150 – 2000 amps (File No: LR29862)

Ampere Ratings

150	450	750	1300	1900
200	500	800	1350	2000
250	600	900	1400	
300	601	1000	1500	
350	650	1100	1600	
400	700	1200	1800	

Example part number (series & amperage): LDC 1200

Dimensions

Please refer to the KLPC dimensions

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Current-Limiting Effects of LDC (600V) Fuses

Short-Circuit Current*	Apparent RMS Symmetrical for Various Fuse Ratings			
	800A	1200A	1600A	2000A
5,000	5,000	5,000	5,000	5,000
10,000	8,500	10,000	10,000	10,000
15,000	9,750	14,000	15,000	15,000
20,000	10,500	15,000	19,000	20,000
25,000	11,500	16,000	21,000	25,000
30,000	12,000	17,000	22,000	26,000
35,000	12,500	18,000	23,000	28,000
40,000	13,500	19,000	24,000	30,000
50,000	14,000	21,000	26,000	32,000
60,000	15,000	22,000	28,000	34,000
80,000	16,000	24,000	30,000	36,000
100,000	18,000	25,000	33,000	40,000
150,000	20,000	30,000	38,000	44,000
200,000	23,000	32,000	41,000	46,000

* Prospective RMS Symmetrical Amperes Short-Circuit Current

Note: Data Derived from Peak Let-Thru Curves

