








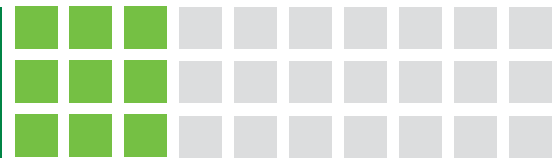








FUSE CLASS AND SELECTION CHART

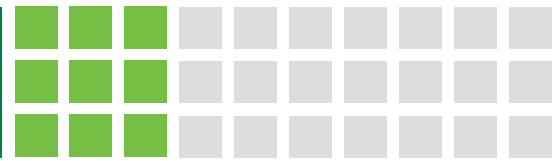
| UL CLASS | LITTELFUSE SERIES | OVERLOAD CHARACTERISTICS | AC RATINGS | | | DC RATINGS | | | RECOMMENDED ACCESSORIES |
|--|-------------------|--------------------------|-----------------|-------------------|------------------------|---------------------------------|---|----------------------------------|-------------------------------------|
| | | | VOLTAGE (VOLTS) | CURRENT (AMPERES) | INTERRUPTING (AMPERES) | VOLTAGE (VOLTS) | CURRENT (AMPERES) | INTERRUPTING (AMPERES) | |
|  L | KLPC | Time-Delay | 600 | 200–6000 | 200 K/300 K* | 480 | 200–6000 | 20,000* | - |
| | KLLU | Time-Delay | 600 | 601–4000 | 200,000 | 300 | 601–4000 | 20,000* | |
| | LDC | Fast-Acting | 600 | 150–2000 | 200,000 | 600 | 150–2000 | 50,000 | |
|  RK1 | LLNRK | Time-Delay | 250 | 0.1–600 | 200 K/300 K* | 125 | 0.1–600 | 20,000* | LFR25 |
| | LLSRK_ID | Time-Delay | 600 | 0.1–600 | | 300 | 0.1–600 | | LFR60 |
| | LLSRK | Time-Delay | 600 | 0.1–600 | | 300 | 0.1–600 | | LFR60 |
| | KLNR | Fast-Acting | 250 | 1–600 | 200,000 | 125 | 1–600 | | LFR25 |
| | KLSR | Fast-Acting | 600 | 1–600 | | 250 | 1–30 | | LFR60 |
|  RK5 | FLNR_ID | Time-Delay | 250 | 35–600 | 200 K/300 K* | 125 | 35–600 | 20,000 | LFR25 |
| | FLNR | | 250 | 0.1–600 | | 125 | 0.1–600 | | |
| | FLSR_ID | | 600 | 0.1–600 | | 300 | 0.1–600 | | |
| | FLSR | | 600 | 0.1–600 | | 300 | 0.1–600 | | |
| | IDSR | | 600 | 0.1–600 | | 600 | 0.1–600 | | |
|  J | JTD_ID | Time-Delay | 600 | 0.8–600 | 200 K/300 K* | 300 | 0.8–100 | 20,000* | LFR60 • LFPSJ |
| | JTD | Time-Delay | 600 | 0.8–600 | | 500 | 110–600 | | |
| | JLS | Fast-Acting | 600 | 1–600 | 200,000 | - | - | - | |
|  T | JLLN | Fast-Acting | 300 | 1–1200 | 200,000 | 160 | 1–60 | 20 K (1–30 A)* | LFT30 • LSCR (700–800 A) |
| | JLLS | | 600 | 1–1200 | | 300 | 1–1200 | 20 K (35–1200 A)* | LFT60 • LSCR (700–800 A) |
|  CC | CCMR | Time-Delay | 600 | 0.2–30 | 200 K/300 K* | 300 | 2/10–10 | 20,000* | L60030C |
| | KLDR | Time-Delay | 600 | 0.1–30 | 200,000 | 500 | 12–30 | | LPSC • 571 |
| | KLKR | Fast-Acting | 600 | 0.1–30 | 200,000 | 300 | 0.1–30 | | 572 |
|  CD | CCMR | Time-Delay | 600 | 35–60 | 200 K/300 K* | 250 | 35–60 | 20,000* | LFC60060 |
|  G | SLC | Time-Lag | 600 480 | 0.5–20 25–60 | 100,000 | 170 | 0.5–60 | 10,000* | LFG600 (½–20 A) LFG480 (25–60 A) |
|  K5 | NLN | Fast-Acting | 250 | 1–600 | 50,000 | 250 | 1–600 | 20 K (1–60 A) 50 K (70–600 A) | LFH25 |
| | NLS | | 600 | 1–600 | | 600 500 400 600 500 | 1–7 8–30 35–60 70–200 225–600 | 20 K (1–60 A) 50 K (70–600 A) | LFH60 |

* Littelfuse self-certified



| UL CLASS | LITTELFUSE SERIES | OVERLOAD CHARACTERISTICS | AC RATINGS | | | DC RATINGS | | | RECOMMENDED ACCESSORIES |
|---|-------------------|--------------------------|-----------------|-------------------|------------------------|-----------------|-------------------|---|---|
| | | | VOLTAGE (VOLTS) | CURRENT (AMPERES) | INTERRUPTING (AMPERES) | VOLTAGE (VOLTS) | CURRENT (AMPERES) | INTERRUPTING (AMPERES) | |
|  Midget (Supplementary) | BLF | Fast-Acting | 250 125 | 0.5–15 20–30 | 10,000 | – | – | – | L60030M 571 • 572 LEB • LEX • LPSM |
| | BLN | Fast-Acting | 250 | 1–30 | 10,000 | – | – | – | |
| | BLS | Fast-Acting | 600 250 | 0.2–5 6–10 | 10,000 | – | – | – | |
| | FLA | Time-Delay | 125 | 0.1–30 | 10,000 | – | – | – | |
| | FLM | Time-Delay | 250 | 0.1–30 | 10,000 | 125 | 0.1–30 | 10,000* | |
| | FLQ | Time-Delay | 500 | 0.1–30 | 10,000 | 300 | 0.1–30 | 10,000* | |
| | KLK | Fast-Acting | 600 | 0.1–30 | 100 K/200 K* | 500 | 0.1–30 | 50,000 | |
| | KLKD | Fast-Acting | 600 | 0.1–30 | 100 K/200 K* | 600 | 0.1–30 | 50,000 | |
| | KLQ | Time-Delay | 600 | 1–6 | 10,000 | – | – | – | |
| FLU | Fast-Acting | 1000 | 0.44/ 11 | 10,000 20,000 | 1000 | 0.44 11 | 10,000 20,000 | LPHV | |
|  Solar | SPF | Solar (gPV) | – | – | – | 1000 | 1–30 | 20,000 (1A–20 A) 50,000 (25–30 A) | LPHV |
| | SPFJ | | 600 | 125–450 | 200,000 | 1000 | 70–450 | 20 K (70–200 A) 10 K (250–400 A) 20 K (450 A) | LFJ10 • LSCR |
| | SPFI | | – | – | – | 1000 | 2–30 | 20,000 | Not Required |
| | SPNH | | – | – | – | 1500 | 50–400 | 30,000 | LFNH |
| | SPXV | | – | – | – | 1500 | 1–60 | 50 K (1–20 A)* 50 K (25–30 A) SPXV-M 50 K (35–60 A) | LFPXV LFXV150 |
| | SPXI | | – | – | – | 1500 | 1–32 | 30 K (1–20A) 30 K (1–20 A) SPXI-B 50 K (35–50 A) 50 K (35–60 A) SPXI-B 50 K (25–32 A) SPXI-M & SPXI-BM | Not Required |
| | SPXC | | – | – | – | 1500 | 1–4 | 50,000* | |
|  High-Speed | L15S | Very Fast-Acting | 150 | 1–1000 | 100,000 | 150 100 | 1–60 70–1000 | 20,000* | LSCR • 1LFS |
| | L25S | | 250 | 1–800 | 200,000 | 250 200 | 1–200 225–800 | | |
| | L50QS | | 500 | 35–800 | | 500 | 35–800 | 50,000 | LSCR |
| | L50S | | | 10–800 | 450 | 10–800 | 20,000 | LSCR • 1LFS | |
| | L60S | | 600 | 1–800 | – | – | – | – | |
| | L70QS | | 700 | 35–800 | 700 | 35–800 | 50,000 | LSCR | |
| | L75QS | | – | – | 750 | 35–800 | 50,000 | LSCR | |
| | L70S | | 700 | 10–800 | – | 650 | 10–800 | 20,000 | LSCR • 1LFS |
| | PSR | | 500–700 | 40–2250 | 200,000 | 450–600 | 40–2250 | 150,000 | MS3H1000C |
| | PSR | | 900–1300 | 50–1400 | 100,000 | 800–1000 | 50–1400 | 150,000 | MS7H1500C |
| PSX | – | – | – | 1500 | 80–1400 | 250,000 | MSXL2000C | | |
|  Telecom | L17T | Fast-Acting | – | – | – | 170 | 70–1200 | 100,000 | LTFD Series |
| | TLN | | – | – | – | | 1–600 | | LFR25 |
| | TLS | | – | – | – | – | 1–125 | | LTFD101 LFT30060 (cartridge) |
| | | | – | – | – | – | – | | |

* Littelfuse self-certified



CONDENSED CROSS REFERENCE GUIDE

This cross reference covers the most popular fuses for which there is a similar Littelfuse standard item. Furnished for your convenience, it is meant to serve as a guide for product selection. We suggest you check all applicable specifications before making substitutions. For special applications, more complete information, and for fuse block and medium voltage fuse cross referencing, visit Littelfuse.com or call 1-800-TEC-FUSE (1-800-832-3873).

| COMPETITOR | LITTELFUSE | COMPETITOR | LITTELFUSE | COMPETITOR | LITTELFUSE | COMPETITOR | LITTELFUSE |
|-------------------|--------------|------------|--------------|----------------|--------------|--------------------|--------------|
| TLN | NLN | C519 | 229 | JHC | JTD_ID | NOS | NLS |
| 10KOTS | NLS | C520 | 225 | JHL | LDFJ | NRN | NLN |
| 50KOTN | NLN | CHSF | L50QS | JJN | JLLN | NRN (15-60A) | NLKP |
| 50KOTS | NLS | CJ | JLS | JJS | JLLS | NRS | NLS |
| 170M | PSR | CJS | JLS | JKS | JLS | OT | NLN |
| A013F | L15S | CLF | KLPC or KLLU | KAA | L15S | OTM | BLF or BLN |
| A015F | L15S | CLL | KLLU or KLPC | KAB | L25S | OTN | NLN |
| A015R | L15S | CLU | KLLU or KLPC | KAC | KLC | OTS | NLS |
| A025F | L25S | CM | BLF | KBH | L50QS | PC_UD | PSR |
| A050F | L50QS | CRN-R | FLNR_ID † | KLM | KLKD | PSC | PSR |
| A060F | L60S | CRS-R | FLSR_ID | KLU | KLLU or KLPC | PV-(1-30)A10F | SPF |
| A070F | L70QS | CTN-R | KLNR | KN | KLNR | PV-(50A-200A)1XL15 | SPNH |
| A13X | L15S | CTS-R | KLSR | KON | NLN | REN | FLNR † |
| A25X | L25S † | DCT | SPF † | KOS | NLS | RES | FLSR † |
| A2D-R | LLNRK § | DFJ | LDFJ | KRP-C | KLPC | RF | FLNR † |
| A2K-R | KLNR | EBS | BLS | KS | KLSR | RFA | L15S |
| A3T | JLLN | ECNR | FLNR_ID † | KTK | KLK | RFC | KLC |
| A4BQ | KLPC | ECSR | FLSR_ID | KTKR | KLKR | RFL (750V) | L70S (700 V) |
| A4BT | KLLU or KLPC | ERN | FLNR † | KTNR | KLNR | RFN (Mersen) | FLNR † |
| A4BY | KLPC or KLLU | ERS | FLSR † | KTSR | KLSR | RFS (Mersen) | FLSR † |
| A4J | JLS | FNA | FLA | KTU 601-2000A | LDC | RFV | L50QS |
| A50P (type 1 & 4) | L50QS | FNM | FLM | KTU 2500-6000A | KLPC | RHN | KLNR |
| A50QS | L50QS | FNQ | FLQ | LCL | KLPC or KLLU | RHS | KLSR |
| A60X | L60S | FNQ-R | KLDR | LCU | LDC | S | SOO |
| A6D-R | LLSRK_ID § | FRN-R | FLNR_ID † | LENRK | LLNRK | SA | SAO |
| A6K-R | KLSR | FRS-R | FLSR_ID | LESRK | LLSRK_ID | SC | SLC |
| A6T | JLLS | FWA | L15S † § | LKU | KLLU | SEC | SLC |
| A70P | L70QS | FWH | L50QS | LONRK | LLNRK | SF13X | L15S |
| A70QS | L70QS | FVP | L70QS | LOSrk | LLSRK_ID | SF25X | L25S |
| ABC | 314 | FWX | L25S * † | LPCC | CCMR | SF50P | L50QS |
| ACK | CCK | GDA | 216 | LPJ (SP) | JTD_ID | SF60X | L60S |
| AG | SLC | GDB | 217 | LPNRK (SP) | LLNRK § | SF70P | L70QS |
| AGA | AGA | GDC | 218 | LPSRK (SP) | LLSRK_ID | SFE | SFE |
| AGC | 312 | GDL | 313 | MCL | KLK | SL | SLO |
| AGU (1-30A) | BLN | GEB | LEB | MCR | 251 | T | TOO |
| AGW | AGW | GEBN | LET | MDA | 326 | TJN | JLLN |
| AJT | JTD_ID | GFA | 251 | MDL | 313 | TJS | JLLS |
| AMG | MEG | GFN | FLA | MDQ | 313 | TL | TLO |
| AMI | MID | GGC | 312 | MDV | 315 | TR | FLNR_ID †/§ |
| ANL | CNL § | GGM | 235 | MDX | 313 | TRM | FLM |
| ANN | CNN_E | GLR | LGR | MEN | FLM | TRN-R | FLNR_ID †/§ |
| ASO | SPF | GMA | 235 | MEQ | FLQ | TRS | FLSR_ID § |
| ATC | ATO (287) | GMD | 239 | MID | FLA | TRS-R | FLSR_ID § |
| ATC | FLNR_ID † | GMT | 481 | MOF | BLN | XL25X | L25S |
| ATDR | CCMR § | HCLR | KLKR | MOL | BLF | XL50F | L50QS |
| ATM (Mersen) | KLKD | HCTR | KLDR | MTH | 312 | XL70F | L70QS |
| ATMR | KLKR § | HEB | LEB | NCLR | KLNR | | |
| ATQ | FLQ | HET | LET | NON | NLN | | |
| ATQR | KLDR | HLR | LHR | | | | |
| AX | 481 | HP10M | SPF | | | | |
| A_UD | PSR | HP6J | SPFJ * | | | | |
| BAF | BLF | HSJ | LDFJ | | | | |
| BAN | BLN | JDL | JTD_ID | | | | |
| BBS | BLS | JFL | JLS | | | | |

A fuse may be used in circuits where the fuse's voltage rating is equal to or greater than the circuit voltage, unless otherwise stated on the fuse. For example, the FLSR_ID indicating fuse has a voltage rating of 75-600 volts. This fuse can be used on 600 volts, 480 volts, 250 volts, 125 volts, or 75 volts. Never use a fuse in a circuit having a higher rated voltage than the fuse.

* Check specific mounting dimensions before substituting.

† Check characteristics and dimensions for application before substituting.

‡ For 1/10-30 amperes, order non-indicating FLNR series fuses.

§ Verify voltage for dc applications.

+ Littelfuse product is a non-renewable fuse.

LOCAL RESOURCES FOR A **GLOBAL** MARKET



[Littelfuse.com/Fuses](https://www.littelfuse.com/Fuses)

For a comprehensive library of resources including datasheets, product manuals, white papers, application guides, demos, online design tools, catalogs, and more, visit [Littelfuse.com/TechnicalResources](https://www.littelfuse.com/TechnicalResources)

North America

Littelfuse World Headquarters
8755 West Higgins Road, Suite 500
Chicago, IL 60631, USA

Littelfuse SymCom
1241 Concourse Drive
Rapid City, SD 57703, USA

Littelfuse Startco
140 – 15 Innovation Boulevard
(The Galleria Building)
Saskatoon, SK S7N 2X8, Canada
Tel: +1-306-373-5505

Hartland Controls now part of **Littelfuse**
807 Antec Road
Rock Falls, IL 61071, USA
Tel: +1-815-626-5170

Technical Support:
Tel: +1-800-TEC-FUSE
E-mail: techline@littelfuse.com

Customer Service:
Tel: +1-800-227-0029
E-mail: PG_CSG@littelfuse.com

Asia

Littelfuse
Unit 1604B Desay Building,
Gaoxin Nanyi Ave.
Hi-Tech Industrial Park
Nashan District
Shenzhen, 518057, China
+86 755 8207 0760

Europe

Littelfuse
Julius-Bamberger-Str. 8a
Bremen, D-28279, Germany
+49 421 82 87 3 147



Littelfuse products are certified to many standards around the world. To check certifications on specific components, please refer to the specific product datasheet on [Littelfuse.com](https://www.littelfuse.com).

Disclaimer Notice – Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/product-disclaimer.