

600 Vac • 300 Vdc • Time-Delay • 1/10-30 A





Description

KLDR fuses are time-delay fuses designed to protect control transformers, solenoids and similar inductive components with high magnetizing currents during the first half-cycle. They provide excellent protection of motor branch circuits containing IEC or NEMA rated motor controllers or contactors.

Features/Benefits

- · Meets UL and CSA standards
- Class CC fuses are the smallest 600 V, 200,000 A.I.R. fuses approved for branch circuit protection
- Rejection feature prevents use of fuses with lower interrupting ratings or voltage ratings when used with corresponding fuse holders
- Extremely current limiting reduces damage caused by heating and magnetic effects of short-circuit currents

Applications

• Transformer Protection

Web Resources

For additional informations, visit:

littelfuse.com/kldr

Recommended Fuse Holders

L60030C Series LPSC Touch-Safe Series

Specifications

Voltage Rating AC: 600 V DC: 300 V

Amperage Rating 1/10 - 30 A

Interrupting Rating AC: 200 kA rms symmetrical

DC: 20 kA

Material Body: Melamine

Caps: Nickel-plated Bronze

Fuse Weight .019 lb (8.62g)

Approvals AC: Standard 248-4, Class CC

UL Listed 1/10-30 A (File: E81895) CSA Certified 1/10-30 A (File: LR29862)

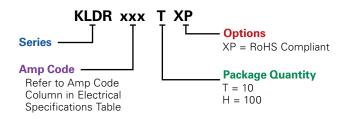
DC: Littelfuse self-certified

Environmental RoHS Compliant **Country of Origin** Mexico

Ordering Information

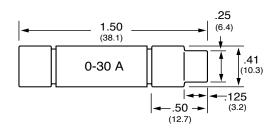
| AMPERAGE RATINGS | | | | | | | | |
|------------------|--------|--------------------|--------|--------|--|--|--|--|
| 1/10 | 6/10 | 1 8/10 | 4 1/2 | 10 | | | | |
| 1/8 | 3/4 | 2 | 5 | 12 | | | | |
| 15/100 | 8/10 | 2 1/4 | 5 6/10 | 15 | | | | |
| 3/16 | 1 | 2 1/2 | 6 | 17 1/2 | | | | |
| 2/10 | 1 1/8 | 2 8/10 | 6 1/4 | 20 | | | | |
| 1/4 | 1 1/4 | 3 | 7 | 25 | | | | |
| 3/10 | 1 4/10 | 3 ² /10 | 7 1/2 | 30 | | | | |
| 4/10 | 1 1/2 | 3 1/2 | 8 | _ | | | | |
| 1/2 | 1 6/10 | 4 | 9 | _ | | | | |

Part Numbering System



| SERIES | AMPERAGE | PACKAGE QUANTITY | CATALOG NUMBER | ORDERING NUMBER |
|--------|----------|---------------------|-------------------|--------------------|
| KLDR | 10 | 10 | KLDR 10 | KLDR010.TXP |

Dimensions Inches (mm)





Electrical Specifications

| ORDERING NUMBER | AMPERAGE RATING | VOLTAGE RATING | | INTERRUPTING RATING | | UPC | MELT (PRE-ARC) I ² T (A ² SEC) | TOTAL CLEARING I ² T (A ² SEC) | AGENCY APPROVALS | | |
|--------------------|--------------------|-------------------|-----|------------------------|-------|--------------|---|---|---------------------|-----|-----|
| | | AC | DC | AC | DC | | , , , | , , , | UL | CSA | RoH |
| KLDR.100TXP | 1/10 | 600 | 300 | 200 kA | 20 kA | 079458 96877 | 0.0004 | 0.0059 | • | • | • |
| KLDR.125TXP | 1/8 | 600 | 300 | 200 kA | 20 kA | 079458 96878 | 0.0007 | 0.0055 | • | • | • |
| KLDR.150TXP | 15/100 | 600 | 300 | 200 kA | 20 kA | 079458 96879 | 0.0016 | 0.0059 | • | • | • |
| KLDR.187TXP | 3/16 | 600 | 300 | 200 kA | 20 kA | 079458 96880 | 0.0040 | 0.0267 | • | • | • |
| CLDR.200TXP | 2/10 | 600 | 300 | 200 kA | 20 kA | 079458 79239 | 0.0018 | 0.0230 | • | • | • |
| KLDR.250TXP | 1/4 | 600 | 300 | 200 kA | 20 kA | 079458 79240 | 0.0138 | 0.0967 | • | • | • |
| KLDR.300TXP | 3/10 | 600 | 300 | 200 kA | 20 kA | 079458 79241 | 0.0111 | 0.1005 | • | • | • |
| KLDR.400TXP | 4/10 | 600 | 300 | 200 kA | 20 kA | 079458 79242 | 0.0579 | 0.1420 | • | • | • |
| KLDR.500TXP | 1/2 | 600 | 300 | 200 kA | 20 kA | 079458 79243 | 0.0877 | 0.3121 | • | • | • |
| KLDR.600TXP | 6/10 | 600 | 300 | 200 kA | 20 kA | 079458 79244 | 0.1404 | 0.3742 | • | • | • |
| KLDR.750TXP | 3/4 | 600 | 300 | 200 kA | 20 kA | 079458 79245 | 0.2911 | 1.972 | • | • | • |
| KLDR.800TXP | 8/10 | 600 | 300 | 200 kA | 20 kA | 079458 79246 | 0.2416 | 2.064 | • | • | • |
| KLDR001.TXP | 1 | 600 | 300 | 200 kA | 20 kA | 079458 79247 | 0.4494 | 5.883 | • | • | • |
| KLDR1.12TXP | 1-1/8 | 600 | 300 | 200 kA | 20 kA | 079458 79248 | 0.5049 | 5.149 | • | • | • |
| KLDR1.25TXP | 1-1/4 | 600 | 300 | 200 kA | 20 kA | 079458 79249 | 0.4367 | 7.354 | • | • | • |
| KLDR01.4TXP | 1-4/10 | 600 | 300 | 200 kA | 20 kA | 079458 79250 | 0.8135 | 7.639 | • | • | • |
| KLDR01.5TXP | 1-1/2 | 600 | 300 | 200 kA | 20 kA | 079458 79251 | 0.9302 | 5.885 | • | • | • |
| KLDR01.6TXP | 1-6/10 | 600 | 300 | 200 kA | 20 kA | 079458 79252 | 0.7495 | 6.682 | • | • | |
| KLDR01.8TXP | 1-8/10 | 600 | 300 | 200 kA | 20 kA | 079458 79253 | 0.9964 | 6.594 | • | • | |
| KLDR002.TXP | 2 | 600 | 300 | 200 kA | 20 kA | 079458 79254 | 0.8615 | 14.01 | • | • | • |
| (LDR2.25TXP | 2-1/4 | 600 | 300 | 200 kA | 20 kA | 079458 79255 | 1.126 | 26.41 | • | • | • |
| (LDR02.5TXP | 2-1/2 | 600 | 300 | 200 kA | 20 kA | 079458 79256 | 2.087 | 35.35 | • | • | • |
| (LDR02.8TXP | 2-8/10 | 600 | 300 | 200 kA | 20 kA | 079458 79257 | 21.28 | 45.47 | • | • | • |
| KLDR003.TXP | 3 | 600 | 300 | 200 kA | 20 kA | 079458 79258 | 23.21 | 55.99 | • | • | |
| (LDR03.2TXP | 3-2/10 | 600 | 300 | 200 kA | 20 kA | 079458 79259 | 37.92 | 57.27 | • | • | |
| KLDR03.5TXP | 3-1/2 | 600 | 300 | 200 kA | 20 kA | 079458 79260 | 21.42 | 109.4 | • | • | • |
| KLDR004.TXP | 4 | 600 | 300 | 200 kA | 20 kA | 079458 79261 | 83.81 | 258.6 | • | • | |
| (LDR04.5TXP | 4-1/2 | 600 | 300 | 200 kA | 20 kA | 079458 79262 | 83.89 | 110.6 | • | • | |
| KLDR005.TXP | 5 | 600 | 300 | 200 kA | 20 kA | 079458 79263 | 63.33 | 84.04 | • | • | |
| KLDR05.6TXP | 5-6/10 | 600 | 300 | 200 kA | 20 kA | 079458 79264 | 87.66 | 114.0 | • | • | |
| KLDR006.TXP | 6 | 600 | 300 | 200 kA | 20 kA | 079458 79265 | 129.5 | 161.9 | • | | |
| CLDR6.25TXP | 6-1/4 | 600 | 300 | 200 kA | 20 kA | 079458 79266 | 147.6 | 261.7 | • | | |
| KLDR007.TXP | 7 | 600 | 300 | 200 kA | 20 kA | 079458 79267 | 202.4 | 513.4 | • | | |
| KLDR07.5TXP | 7-½ | 600 | 300 | 200 kA | 20 kA | 079458 79268 | 321.8 | 813.0 | • | | |
| KLDR008.TXP | 8 | 600 | 300 | 200 kA | 20 kA | 079458 79269 | 111.2 | 1,145 | • | | |
| KLDR009.TXP | 9 | 600 | 300 | 200 kA | 20 kA | 079458 79270 | 73.40 | 1,334 | • | • | |
| KLDR010.TXP | 10 | 600 | 300 | 200 kA | 20 kA | 079458 79271 | 132.0 | 934.8 | • | | |
| KLDR010.TXI | 12 | 600 | 300 | 200 kA | 20 kA | 079458 79272 | 154.7 | 1,723 | | • | |
| KLDR012.TXP | 15 | 600 | 300 | 200 kA | 20 kA | 079458 79273 | 200.5 | 2,248 | • | | |
| KLDR015.TXP | 17-½ | 600 | 300 | 200 kA | 20 kA | 079458 79274 | 87.50 | 722.8 | | | |
| (LDR020.TXP | 20 | 600 | 300 | 200 kA | 20 kA | 079458 79274 | 123.8 | 1,363 | • | _ | |
| KLDR020.TXP | 25 | 600 | 300 | 200 kA | 20 kA | 079458 79275 | 226.0 | | • | | |
| (LDR030.TXP | 30 | 600 | 300 | 200 kA | | 079458 79276 | 299.6 | 1,710 1,990 | | | • |



Electrical Specifications

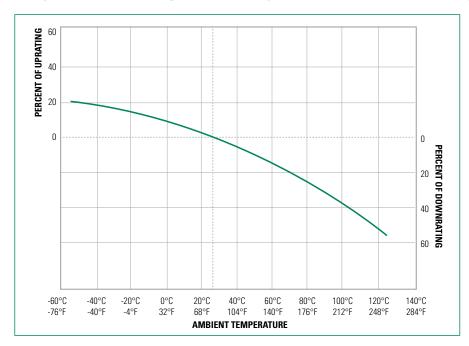
| ORDERING NUMBER | AMPERAGE RATING | WATTS LOSS AT 100% RATED CURRENT(W) | WATTS LOSS AT 80% RATED CURRENT(W) |
|--------------------|--------------------|---|---------------------------------------|
| KLDR001.TXP | 1 | 1.67 | 1.34 |
| KLDR005.TXP | 5 | 1.31 | 0.75 |
| KLDR010.TXP | 10 | 1.41 | .86 |
| KLDR015.TXP | 15 | 1.72 | 1.03 |
| KLDR020TXP | 20 | 2.3 | 1.39 |
| KLDR030.TXP | 30 | 2.75 | 1.62 |

Current-Limiting Effects

| SHORT CIRCUIT | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | | | | |
|---------------|---|------|-------|------|------|------|------|------|------|
| CURRENT* | 4 A | 6 A | 7.5 A | 8 A | 10 A | 12 A | 15 A | 20 A | 30 A |
| 5,000 | 349 | 420 | 521 | 437 | 359 | 369 | 435 | 456 | 621 |
| 10,000 | 440 | 529 | 656 | 551 | 452 | 465 | 548 | 575 | 783 |
| 15,000 | 504 | 605 | 751 | 631 | 517 | 532 | 627 | 658 | 896 |
| 20,000 | 554 | 666 | 827 | 694 | 569 | 585 | 690 | 724 | 986 |
| 25,000 | 597 | 718 | 890 | 748 | 613 | 630 | 743 | 780 | 1063 |
| 30,000 | 634 | 763 | 946 | 795 | 651 | 670 | 790 | 829 | 1129 |
| 35,000 | 668 | 803 | 996 | 837 | 686 | 705 | 832 | 872 | 1189 |
| 40,000 | 698 | 840 | 1041 | 875 | 717 | 737 | 870 | 912 | 1243 |
| 50,000 | 752 | 904 | 1122 | 942 | 772 | 794 | 937 | 983 | 1339 |
| 60,000 | 799 | 961 | 1192 | 1001 | 821 | 844 | 995 | 1044 | 1423 |
| 80,000 | 880 | 1058 | 1312 | 1102 | 903 | 929 | 1096 | 1149 | 1566 |
| 100,000 | 948 | 1139 | 1413 | 1187 | 973 | 1001 | 1180 | 1238 | 1687 |
| 150,000 | 1085 | 1304 | 1618 | 1359 | 1114 | 1146 | 1351 | 1417 | 1931 |
| 200,000 | 1194 | 1436 | 1781 | 1496 | 1226 | 1261 | 1487 | 1560 | 2125 |

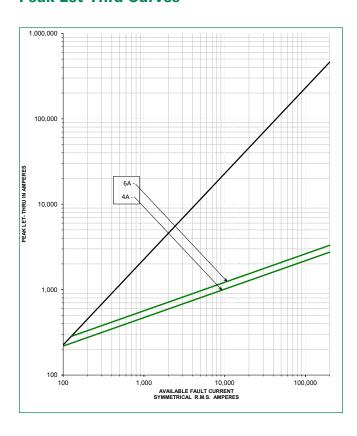
^{*}Prospective RMS Symmetrical Amperes Short-Circuit Current Note: Data Derived from Peak Let-Thru Curves

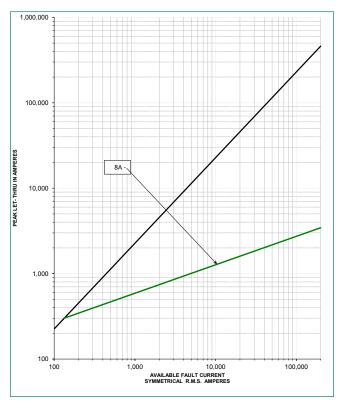
Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)

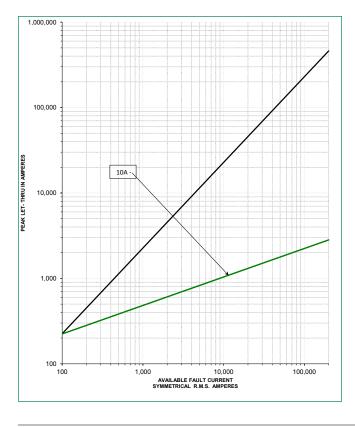


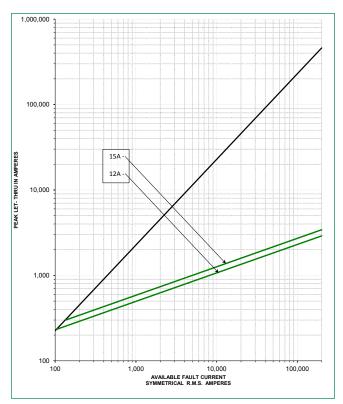


Peak Let-Thru Curves



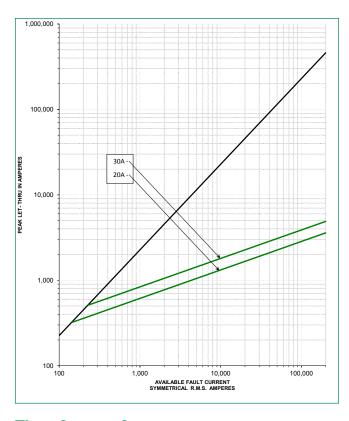




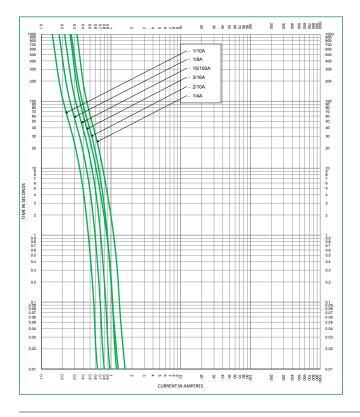


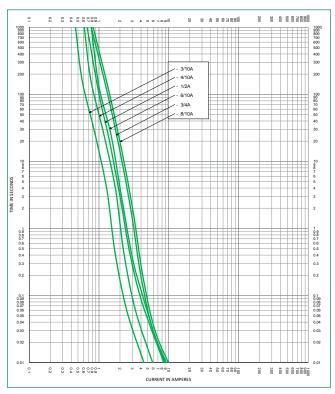


Peak Let-Thru Curves



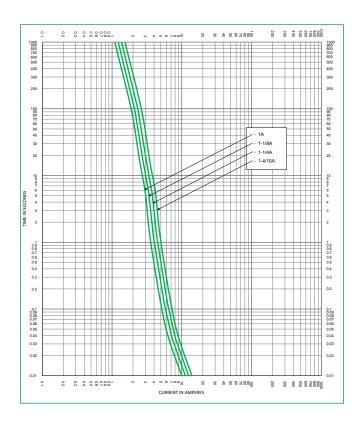
Time Current Curves

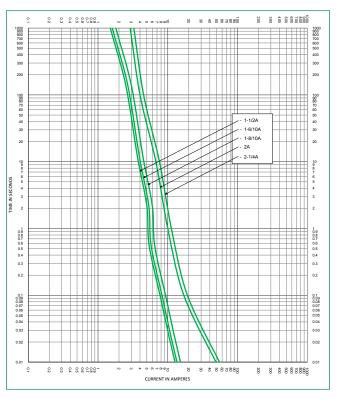


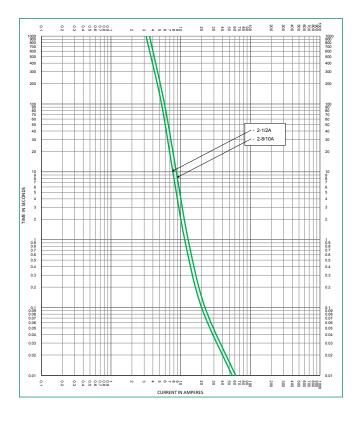


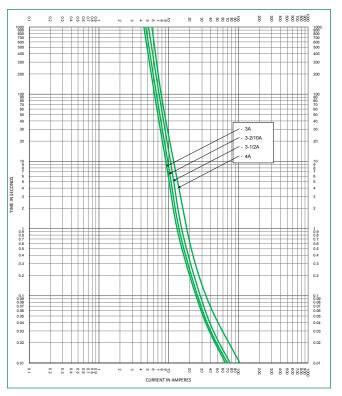


Time Current Curves











Time Current Curves

