

# CLASS CC KLDR SERIES FUSES

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

## Specifications

|                            |                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Voltage Rating</b>      | AC: 600 V<br>DC: 300 V                                                                                        |
| <b>Amperage Rating</b>     | 1/10 – 30 A                                                                                                   |
| <b>Interrupting Rating</b> | AC: 200 kA rms symmetrical<br>DC: 20 kA                                                                       |
| <b>Material</b>            | Body: Melamine<br>Caps: Nickel-plated Bronze                                                                  |
| <b>Fuse Weight</b>         | .019 lb (8.62g)                                                                                               |
| <b>Approvals</b>           | AC: Standard 248-4, Class CC<br>UL Listed 1/10-30 A (File: E81895)<br>CSA Certified 1/10-30 A (File: LR29862) |
| <b>Environmental</b>       | DC: Littelfuse self-certified                                                                                 |
| <b>Country of Origin</b>   | RoHS Compliant<br>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      | —      |

| AMPERAGE | PART NUMBER | ORDERING NUMBER |
|----------|-------------|-----------------|
| 10       | KLDR 10     | KLDR010.TXP     |

## Web Resources

For additional informations, visit:

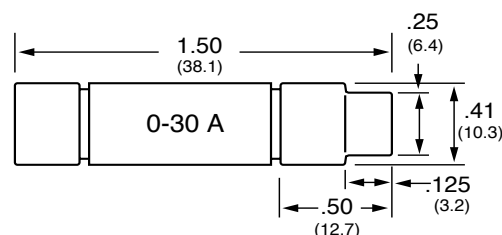
[littelfuse.com/klldr](http://littelfuse.com/klldr)

## Recommended Fuse Holders

L60030C Series

LPSC Touch-Safe Series

## Dimensions Inches (mm)



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## Electrical Specifications

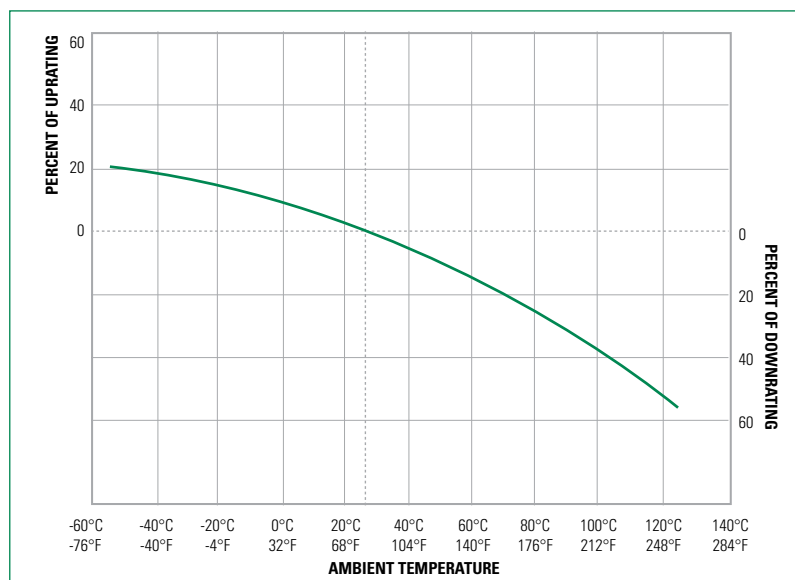
| ORDERING NUMBER | AMPERAGE RATING | VOLTAGE RATING |     | INTERRUPTING RATING |       | UPC         | WATTS LOSS AT 100% RATED CURRENT (W) | WATTS LOSS AT 80% RATED CURRENT (W) | TOTAL CLEARING I²T (A² SEC) 200 kA | AGENCY APPROVALS |     |      |
|-----------------|-----------------|----------------|-----|---------------------|-------|-------------|--------------------------------------|-------------------------------------|------------------------------------|------------------|-----|------|
|                 |                 | AC             | DC  | AC                  | DC    |             |                                      |                                     |                                    | UL               | CSA | RoHS |
| KLDR01.6TXP     | 1-6/10          | 600            | 300 | 200 kA              | 20 kA | 07945879252 | 3.56                                 | 1.40                                | 10                                 | •                | •   | •    |
| KLDR004.TXP     | 4               | 600            | 300 | 200 kA              | 20 kA | 07945879261 | 1.88                                 | 1.10                                | 40                                 | •                | •   | •    |
| KLDR07.5TXP     | 7-½             | 600            | 300 | 200 kA              | 20 kA | 07945879268 | 1.68                                 | 0.94                                | 1460                               | •                | •   | •    |
| KLDR020.TXP     | 20              | 600            | 300 | 200 kA              | 20 kA | 07945879275 | 2.30                                 | 1.39                                | 1700                               | •                | •   | •    |
| KLDR030.TXP     | 30              | 600            | 300 | 200 kA              | 20 kA | 07945879277 | 2.75                                 | 1.62                                | 1790                               | •                | •   | •    |

## Current-Limiting Effects

| SHORT CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS |      |       |      |      |      |      |      |      |
|------------------------|-----------------------------------------------------------|------|-------|------|------|------|------|------|------|
|                        | 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 |

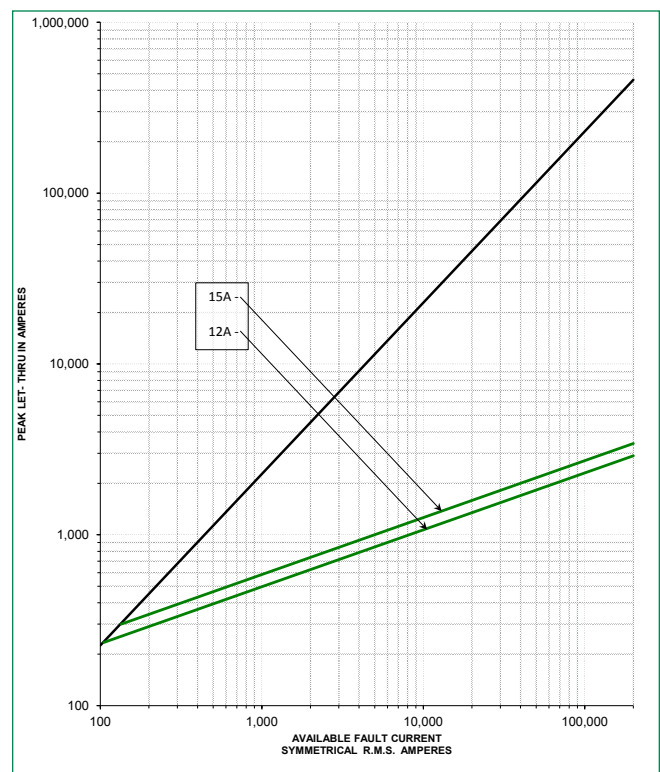
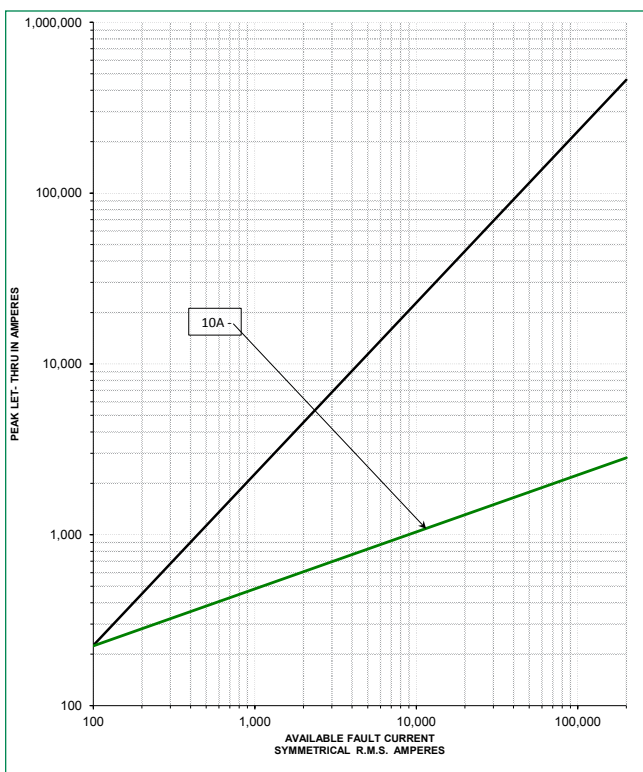
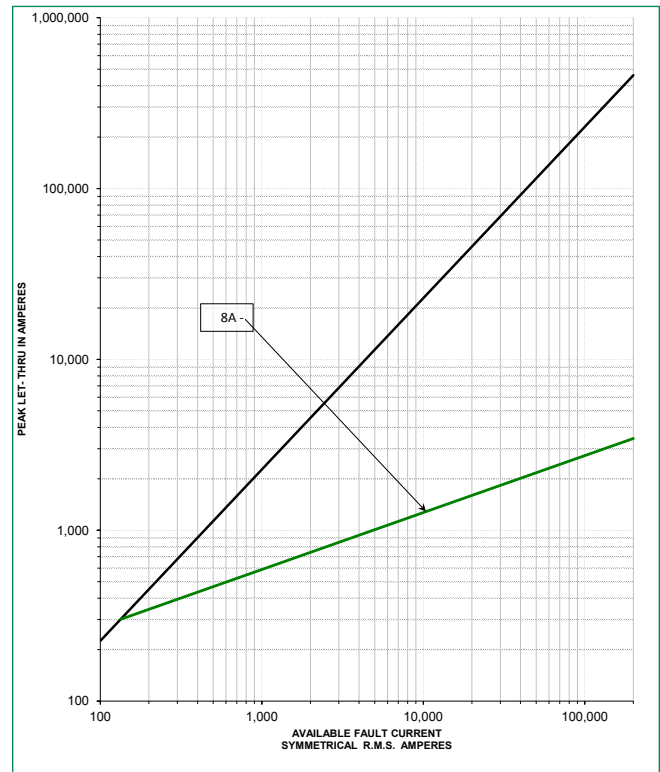
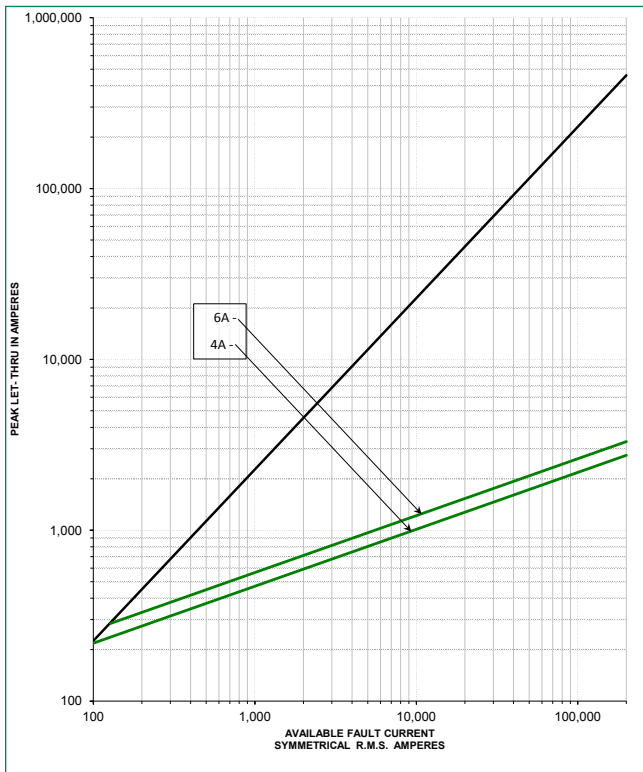
\*Prospective RMS Symmetrical Amperes Short-Circuit Current  
 Note: Data Derived from Peak Let-Thru Curves

## Temperature Derating Curve (Temperature of Air Immediately Surrounding Fuse)



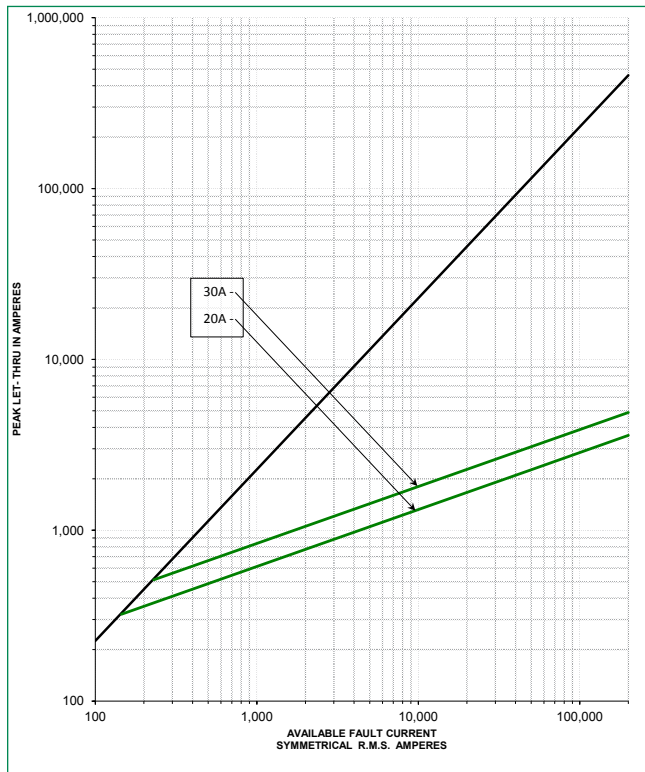
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## Peak Let-Thru Curves

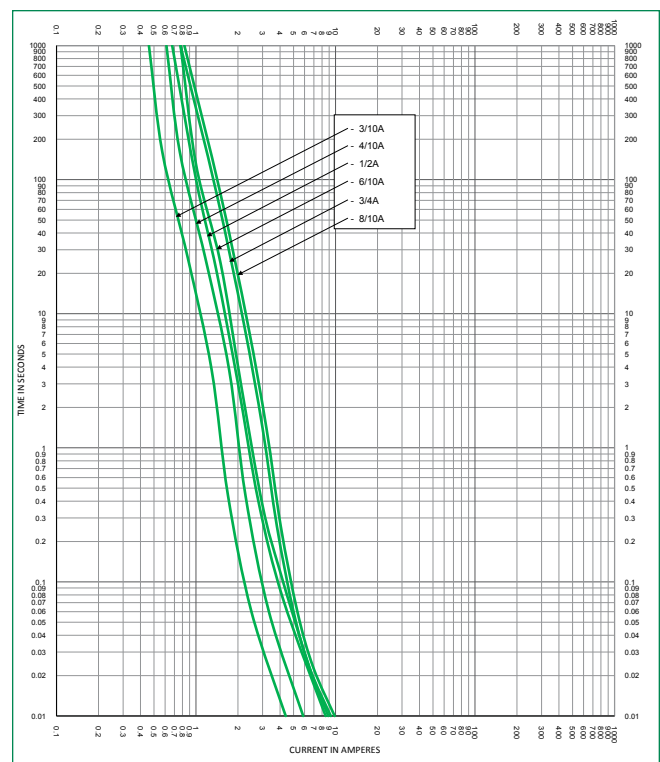
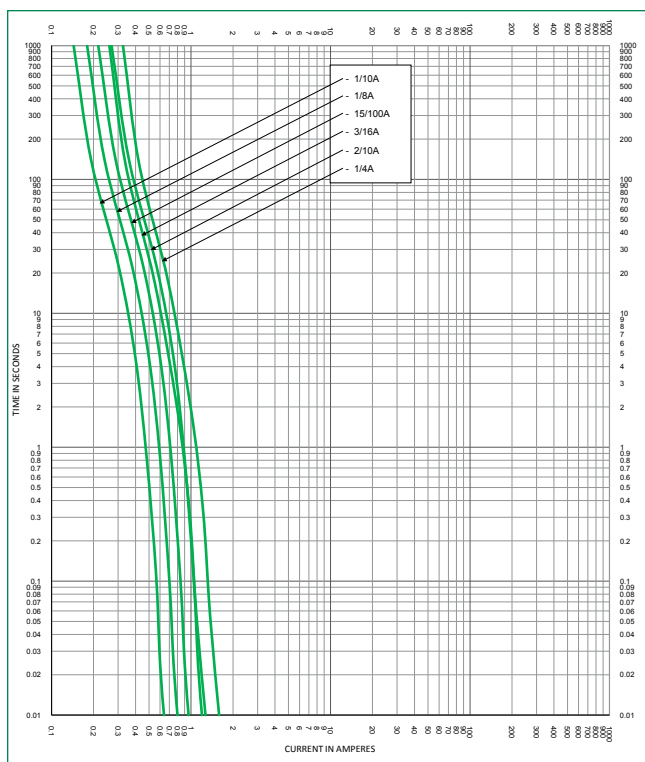


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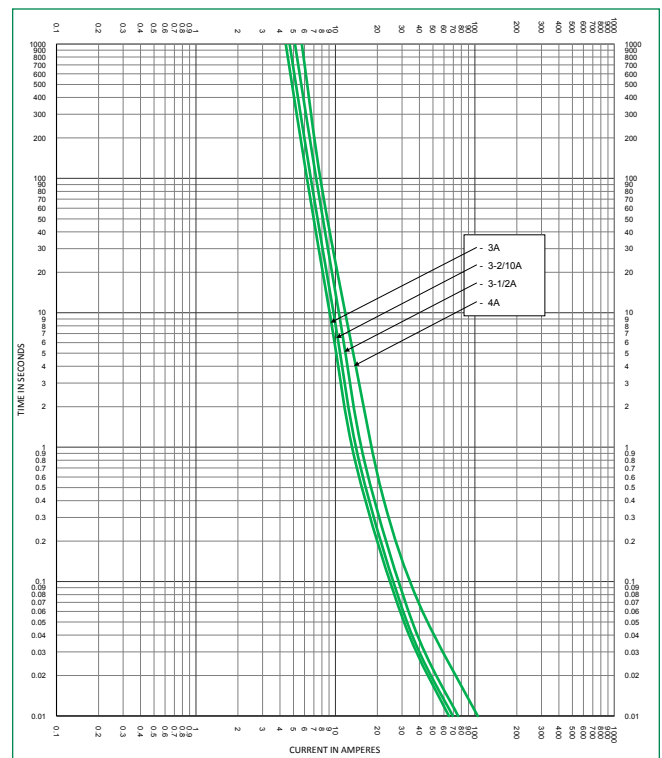
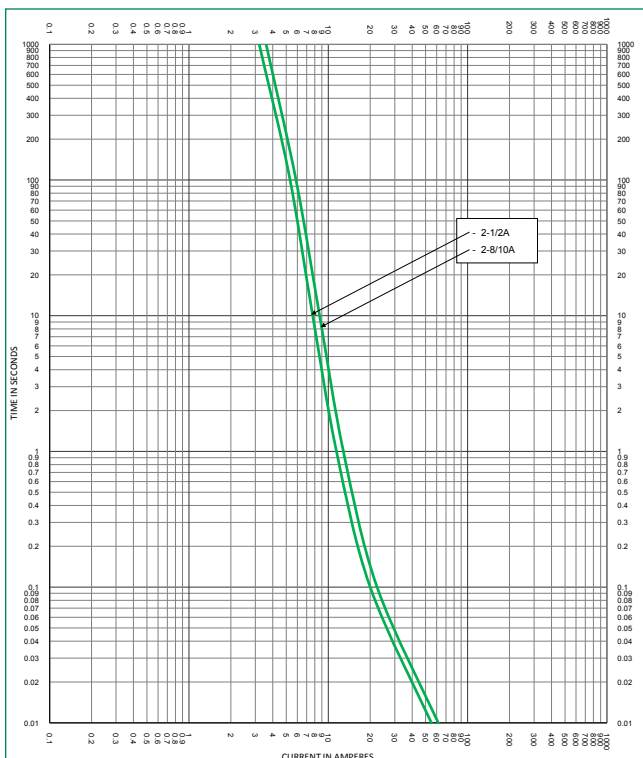
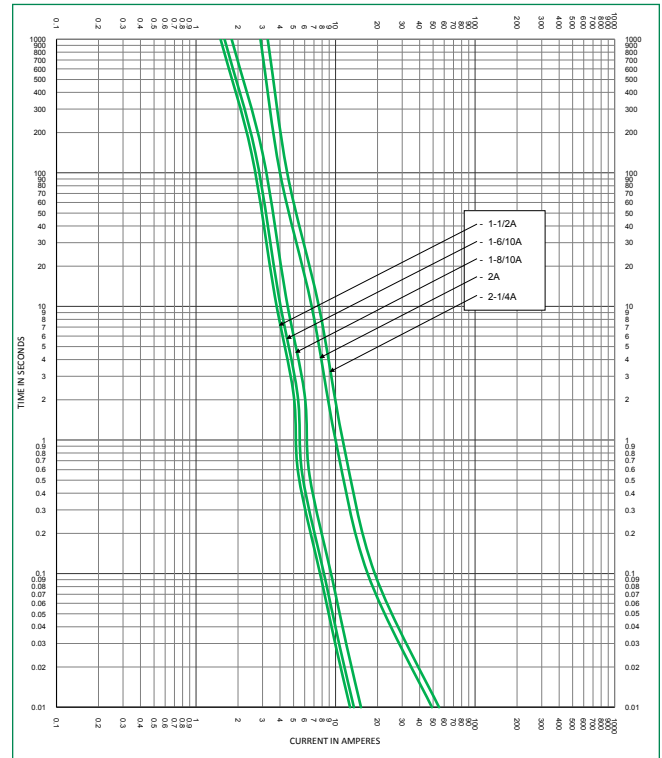
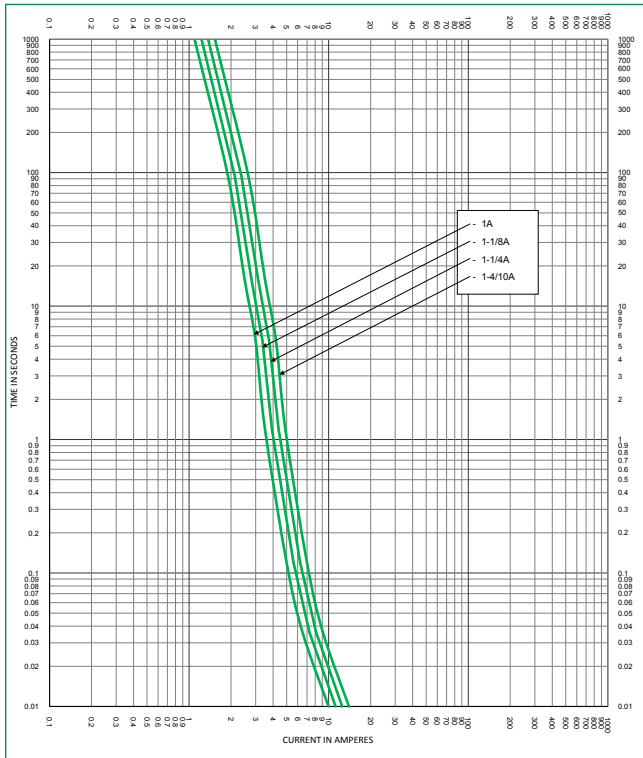


## Time Current Curves



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## Time Current Curves



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