

## APPENDIX C

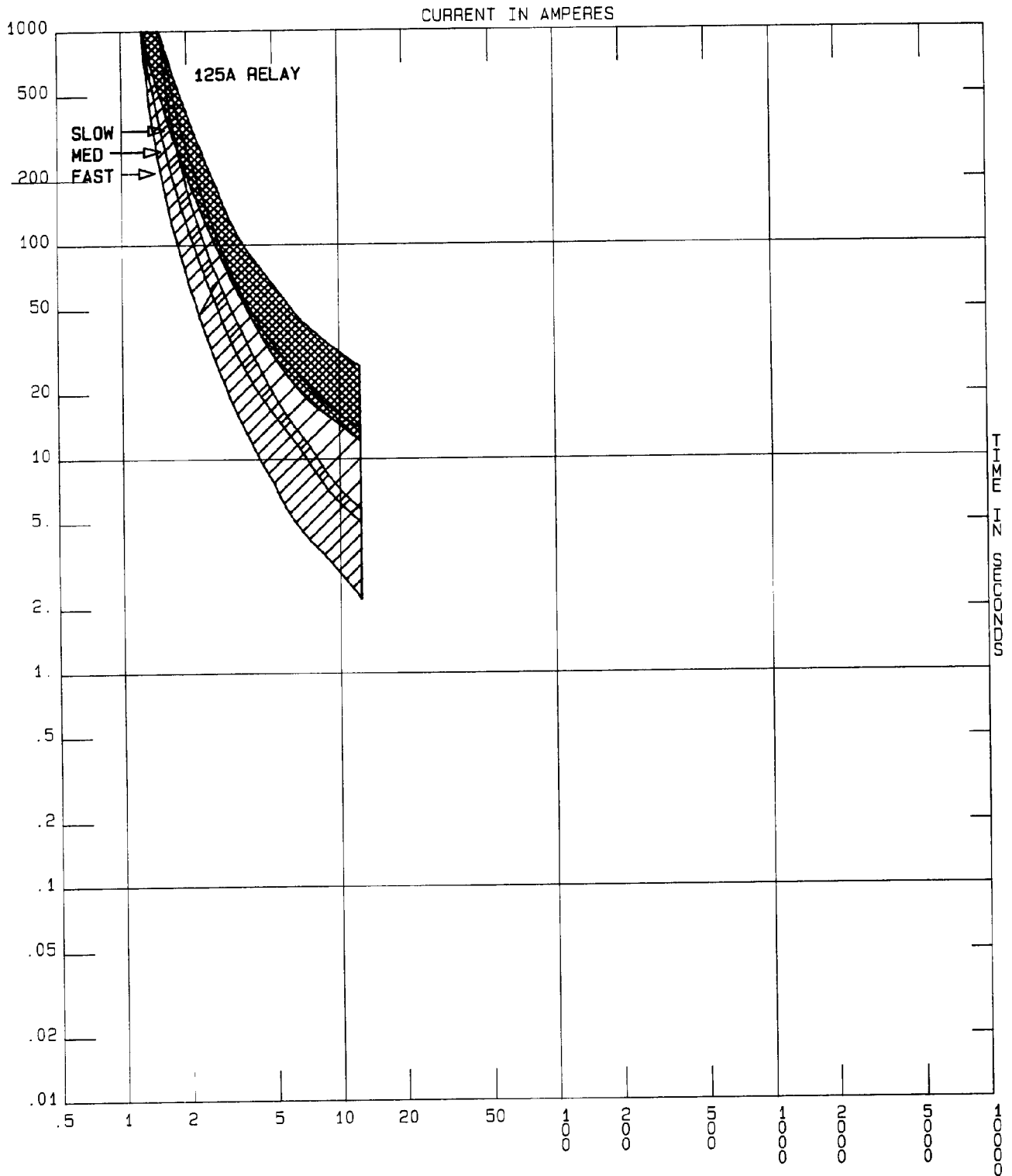
### TYPICAL TIME-CURRENT CHARACTERISTIC CURVES

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#### **C-1. Time-current characteristic curves**

This appendix contains time-current characteristic curves of overcurrent protective devices typically used on electrical distribution systems. Figures C-1

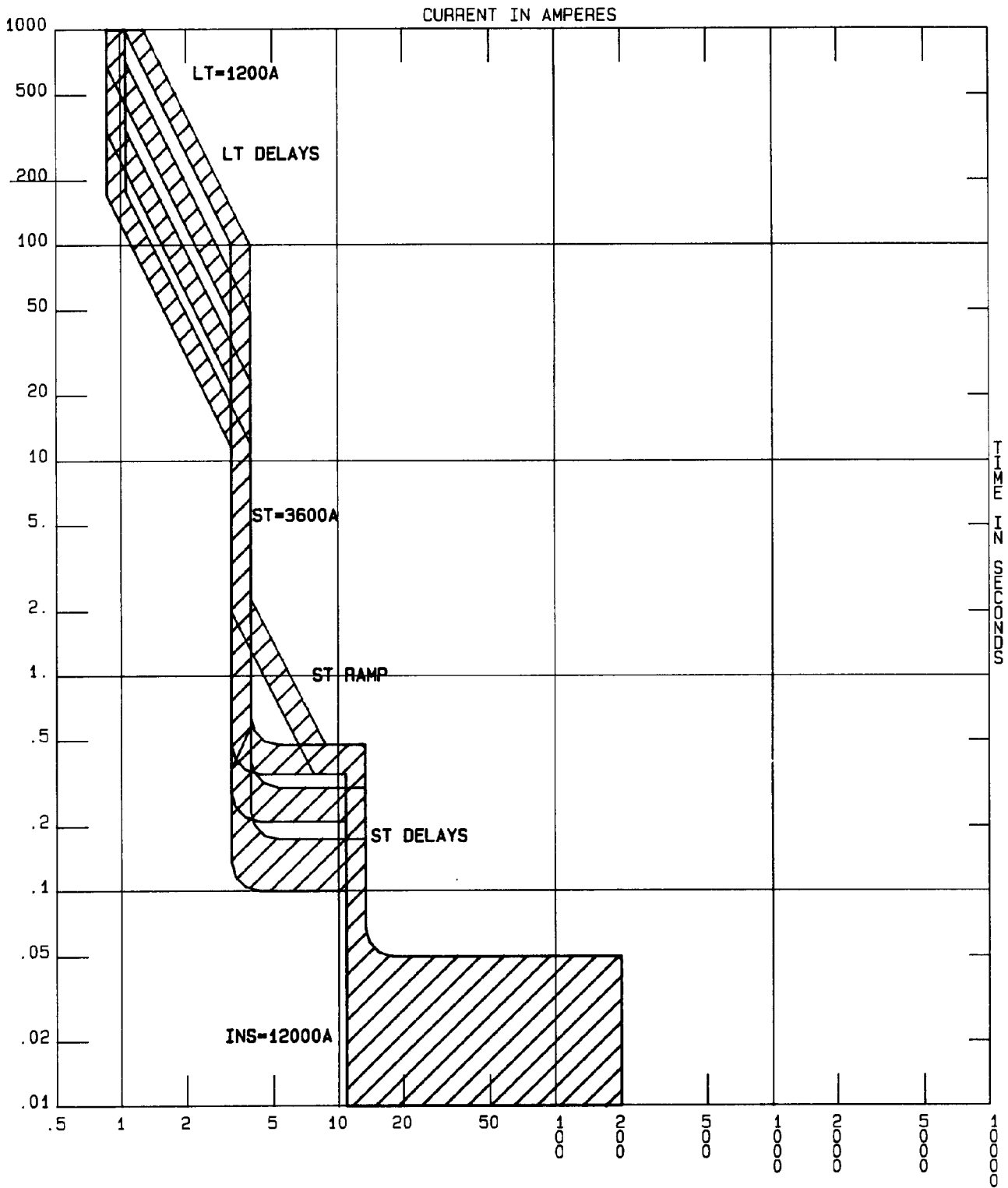
through C-5 illustrate motor overload relay, circuit breaker, ground-fault, protective relay, and fuse curves.



DRAWING C1 PLOT ELL: 480 SCALE: 10<sup>-2</sup>

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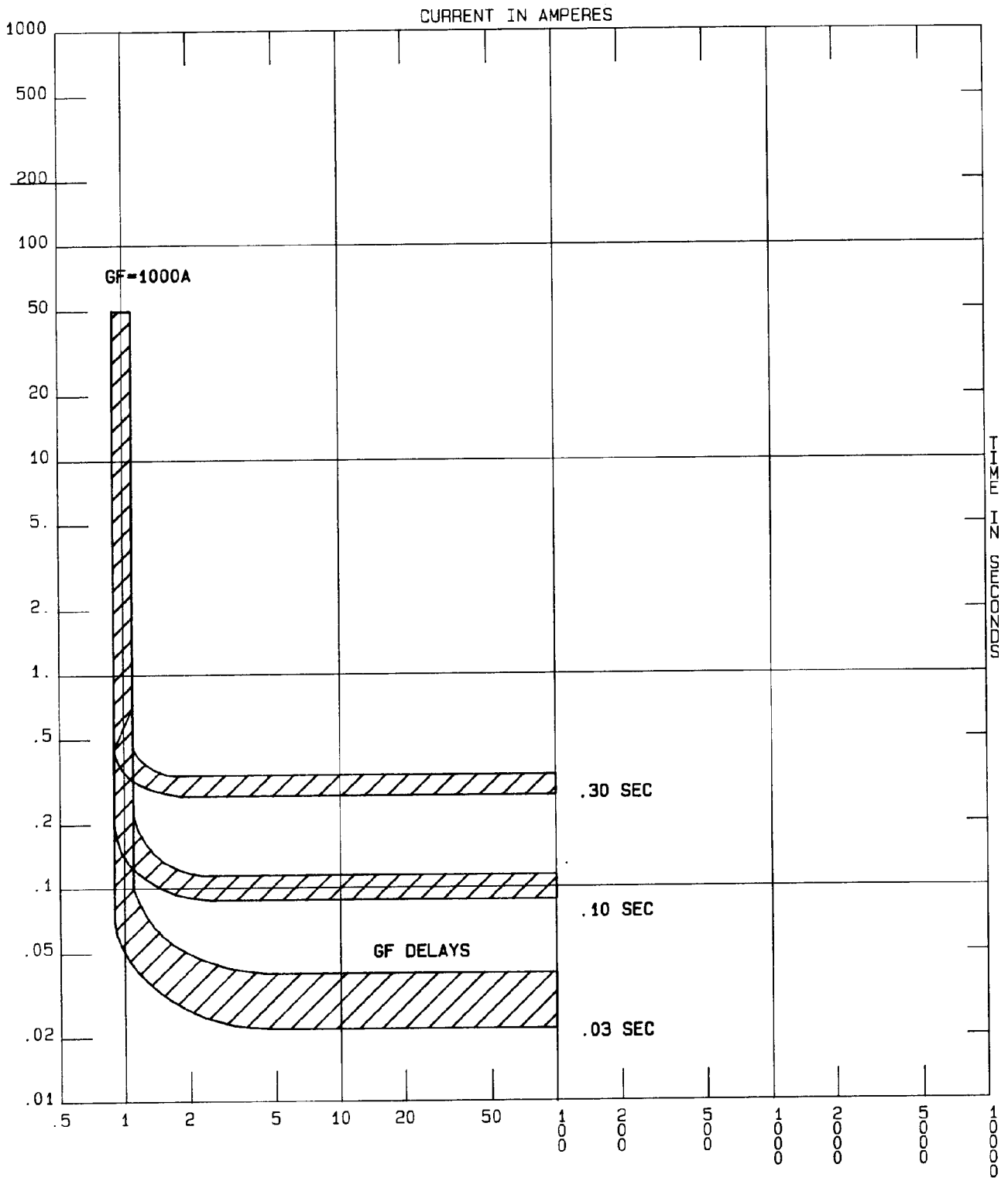
Figure C-1. Time-current characteristic curves for typical motor overload relay.



DRAWING C2 PLOT ELL: 480 SCALE: 10<sup>3</sup>

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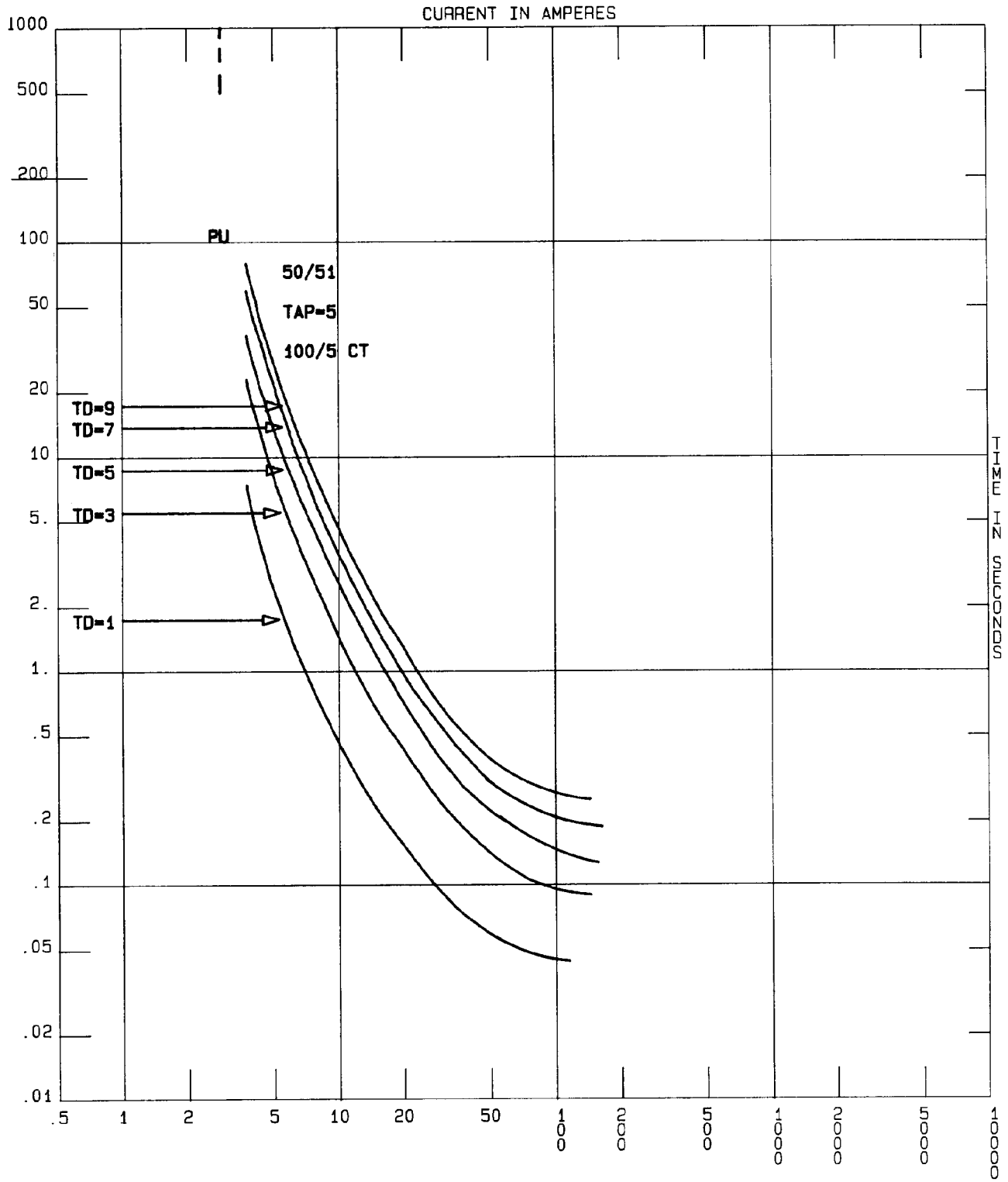
Figure C-2. Time-current characteristic curve for typical solid state circuit breaker.



DRAWING C3 PLOT ELL: 480 SCALE: 10<sup>3</sup>

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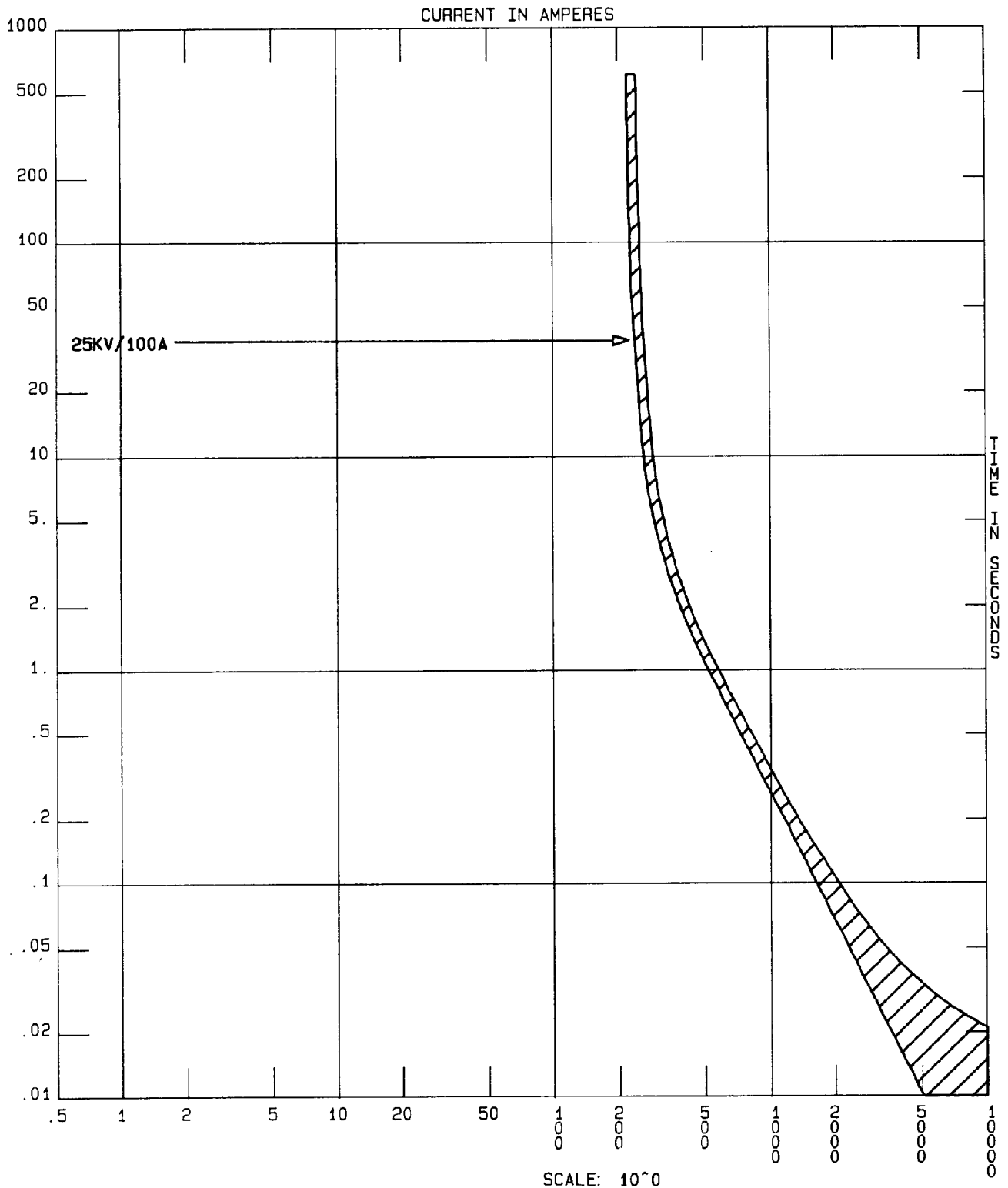
Figure C-3. Time-current characteristic curve for typical ground fault attachment.



DRAWING C4 PLOT ELL: 480 SCALE: 10<sup>-3</sup>

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Figure C-4. Time-current characteristic curve for typical protective relay (50/51).



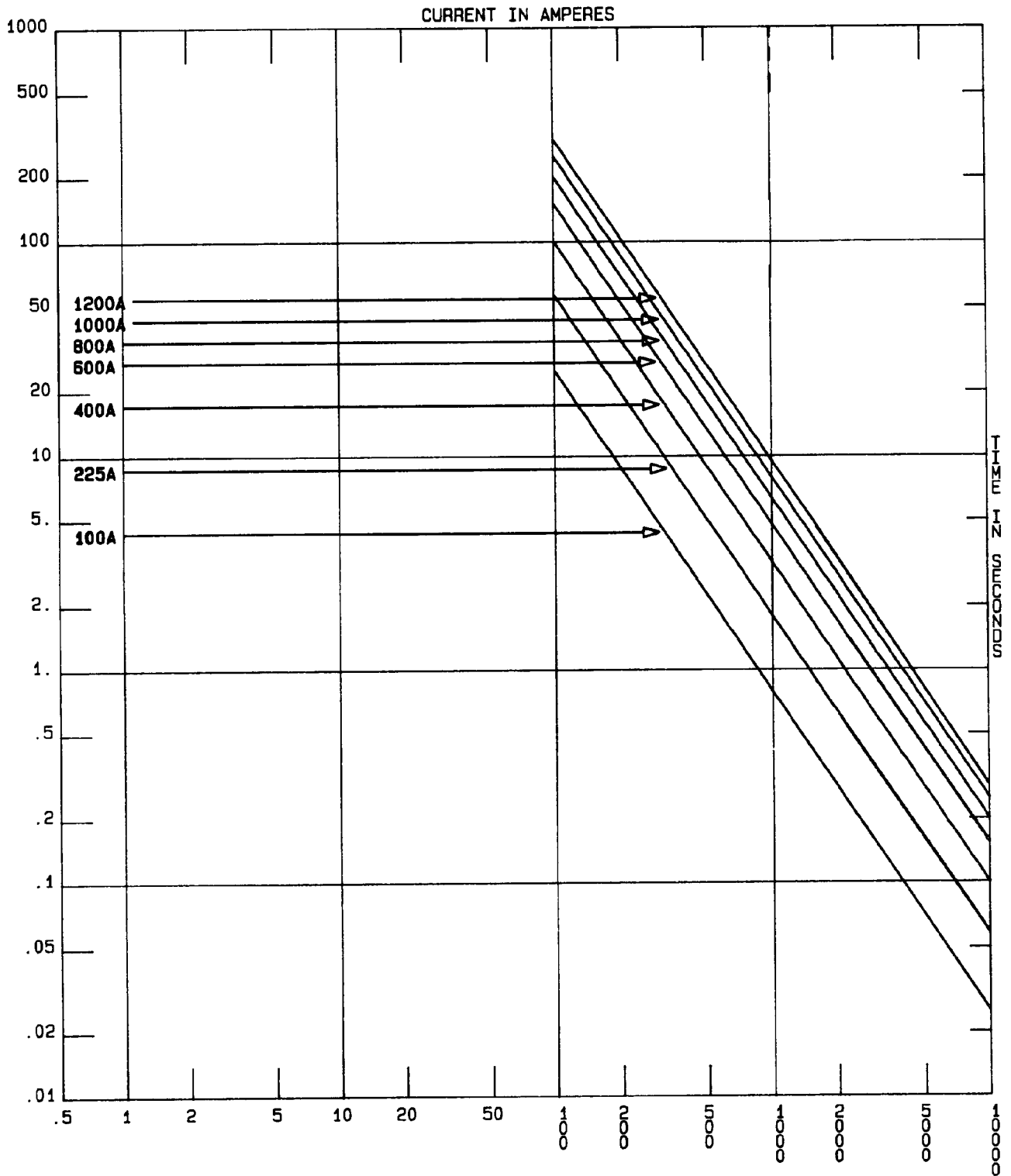
DRAWING C5 PLOT ELL: 25000

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Figure C-5. Time-current characteristic curve for typical medium voltage fuse.

**C-2. NEMA PB2.2 damage curves**

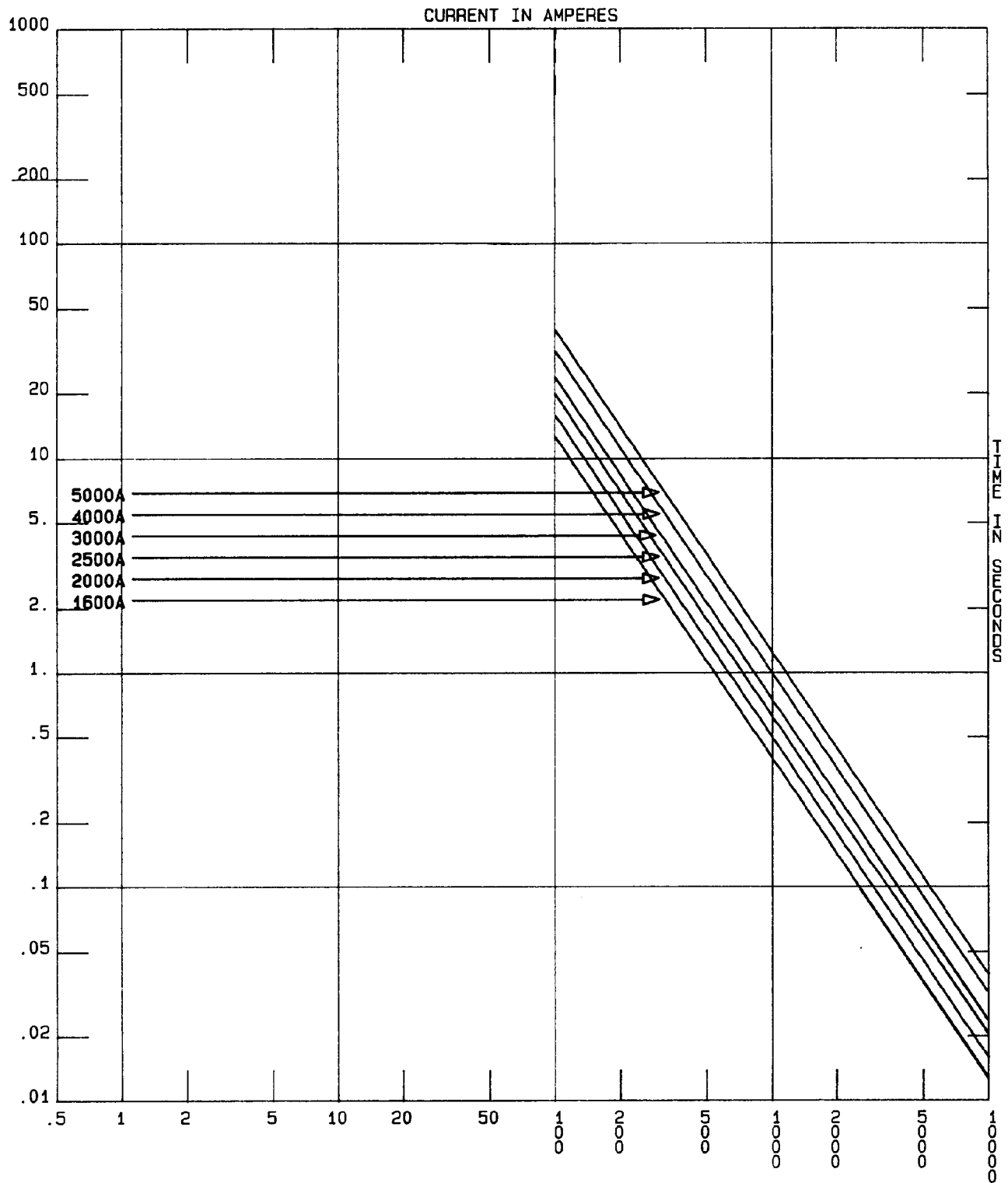
Figures 0-6 and 0-7 illustrate ground-fault damage curves recommended by NEMA PB2.2.



DRAWING C6 PLOT ELL: 480 SCALE: 10<sup>0</sup>

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Figure C-6. NEMA damage curves (through 1200A).



DRAWING C7 PLOT ELL: 480 SCALE: 10<sup>-1</sup>

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Figure C-7. NEMA damage curves (through 5000A).