IEEE Standards Interpretation for IEEE Std 1048™-1990 IEEE Guide for Protective Grounding of Power Lines

This is an interpretation of IEEE Std 1048-1990.

January 2005

Interpretation Request #1
Relevant Figure: Figure 8 - Fusing Current vs. Time for Copper Conductors **Topic:** Clarification

On X-axis it just states Current in Amperes; however, it is a log scale, hence, how would one know whether x10, x100, x1000 and/or x10000?

Interpretation Response #1
The plot shown in Figure 8 in Std 1048-1990 is a portion of the Fusing current time for copper conductors curves. These are based on the Onderdonk formula found in the Standard Handbook of Electrical Engineering.

The curves in the Handbook are: Y Axis 0.1 X Axis 1

The portion of this curve as found in IEEE Std 1048-1990 is the later portion for large conductors.

IEEE Std 1048-1990 Figure 8 curves are: Y Axis 0.1 X Axis 10,000

Interpretation Request #2
Numbers on both X and Y axis are not very legible, especially at the beginning (where X and Y meet). Is it (3,1), (0, 0.1)?

Interpretation Response #2: See Interpretation #1.