

# Errata to IEEE Guide for the Application of Surge Voltage Protective Equipment on AC Rotating Machinery 1000 V and Greater

Sponsor

**Surge Protective Devices Committee**

of the

**IEEE Power Engineering Society**

*Correction Sheet*

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**Page 4, Clause 3 Definitions, change the Note to read as follows:**

NOTE—The following definitions are purposely not alphabetized. Rather, the terms are arranged in such a way as to facilitate an understanding of the technical relationship between them. The terms proceed in order of technical dependency.

**Page 33, the paragraph below Equation (9) should read as follows:**

The attenuation factor  $\alpha_c$  is due to conductor skin effect,  $\alpha_d$  dielectric loss and  $\alpha_s$  semi-conductive layer loss. These losses are evaluated at 1 MHz in units of dB per meter as follows, and are then multiplied by the cable length, meters. Estimate skin effect loss  $\alpha_c$  at this frequency using Equation (A.10).

**Page 33, the first paragraph below Equation (10) should read as follows:**

Where  $K_m$  is a conductor material parameter and  $w$  is the surface width (mm) over which current flows [B22]. Values of  $K_m$  for common materials are 1.1 for copper, 1.5 for aluminum, 3.9 for lead, and 30 for steel (assuming a relative permeability of 100). For unshielded cables consider only one phase conductor since  $Z_c$  in Equation (A.10) is per phase. For shielded cables, the attenuation should be taken as the sum of losses in one phase conductor and its shield.

**Page 33, the third paragraph below Equation (10) should read as follows:**

For EPR or XLPE cables with semi-conductive layers, an additional semi-conductive loss effect,  $\alpha_s$ , is about  $0.2 \times 10^{-3}$  dB/m.