Corrections to
IEEE Recommended Practice for Electric Power Distribution for Industrial Plants

Sponsor
Power Systems Engineering Committee
of the
Industrial and Commercial Power Systems Department
of the
IEEE Industry Applications Society

Correction Sheet

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The following corrections should be made:

Page 161: In 4.7.1 item a), the value of X_s should be changed from $X_s = 15/R_s = 0.00165$ per unit to $X_s = 15 \cdot R_s = 0.00165$ per unit.

Page 174: In table 4A-1, the column headings were reversed. The first column heading should be changed from X_d' to X_d'', and the second column heading should be changed from X_d'' to X_d'. The corrected table is shown on the following page.

Page 402: Equation (9) should read as follows:

$$\%\ \text{power loss approximates}\ \frac{100}{\text{pf}^2} \tag{9}$$

$$\%\ \text{loss reduction} = 100\left[1-\left(\frac{\text{original pf}}{\text{improved pf}}\right)^2\right]$$

Page 448: The equation in 9.5.2 should read as follows:

$$\text{df} = \left(\frac{\text{sum of squares of amplitudes of all harmonics}}{\text{square of the fundamental amplitude}}\right)^{1/2} \cdot 100\%$$

Page 448: In 9.5.3, in the third line, 180° should be replaced with 360°.

Page 174: Table 4A-1 should appear as follows:

Table 4A-1—Typical reactance values for induction and synchronous machines, in per unit of machine kVA ratings*

	X_d''	X_d'
Turbine generators†		
2 poles	0.09	0.15
4 poles	0.15	0.23
Salient-pole generators with damper windings†		
12 poles or less	0.16	0.33
14 poles or less	0.21	0.33
Synchronous motors		
6 poles	0.15	0.23
8–14 poles	0.20	0.30
16 poles or more	0.28	0.40
Synchronous condensers†	0.24	0.37
Synchronous converters†		
600 V direct current	0.20	—
250 V direct current	0.33	—
Individual large induction motors, usually above 600 V	0.17	—
Smaller motors, usually 600 V and below	See tables 4-1 and 4-2.	

NOTE—Approximate synchronous motor kVA bases can be found from motor horsepower ratings as follows:
0.8 power factor motor—kVA base = hp rating
1.0 power factor motor—kVA base = 0.8 · hp rating

*Use manufacturer's specified values if available.
†X_d' not normally used in short-circuit calculations.

Page 450: Figure 9-3(a) should appear as follows: