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PE Electrical and Computer: Power Exam Review Guide
Errata

(updated 3/7/22)

This page will be updated regularly.

Introduction & Back Cover

p. xii & back cover: The book mentions that the NCEES *PE Electrical and Computer: Power Reference Handbook* is the only reference that can be used during the exam. To clarify, the standards listed on the exam specifications are also provided to examinees during the exam. No personal copies or outside materials may be brought into the exam.

Chapter 7

p. 7-4: Figure 7.2 contains some errors. The black line should represent Applied Voltage, and the red line should represent Reactive Power. See corrected figure below.

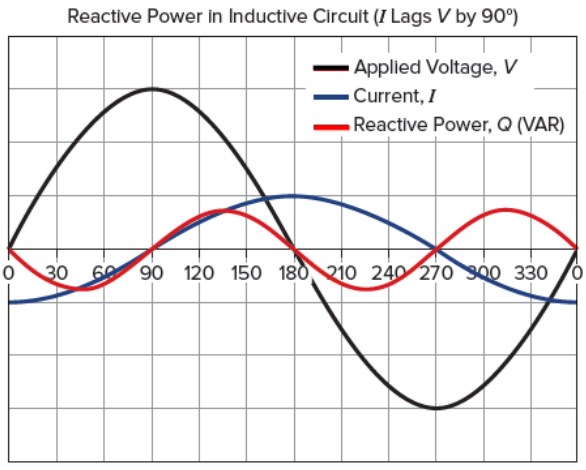

FIGURE 7.2 Reactive Power (Inductive) ELI (Voltage Leads Current in Inductor)

p. 7-5: Figure 7.3 contains some errors. The black line should represent Applied Voltage, and the red line should represent Reactive Power. See corrected figure below.

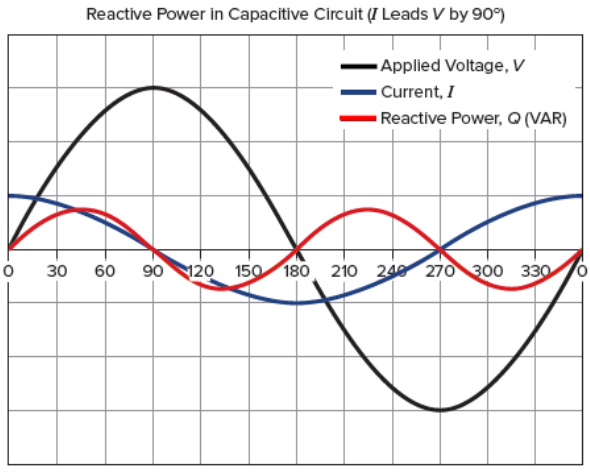

FIGURE 7.3 Reactive Power (Capacitive) ICE (Current Leads Voltage in Capacitor)

p. 7-30: Example 7.7 contains an error in the problem statement. See the correction in red below.

Example 7.7: Transformer Primary Impedance

An ideal single-phase transformer has primary resistance 5 Ω, secondary resistance of 7 Ω, and secondary reactance 7 Ω, Turn's ratio = 3. What is most nearly the effective primary impedance?

p. 7-37: Example 7.8 solution contains multiple errors. See corrections in red below.

Solution

4% (0.075/2) = 0.15%

Note: You must consider the upper and lower limits; ensure they are within 7.5% of each other.

Lower tolerance is 4% – 0.15% = 3.85%

Upper tolerance is 4% + 0.15% = 4.15%

U/L — 4.15%

4%

L/L — 3.85%

≤7.5% diff.

Therefore, the other transformers should have pu impedances in the range of 3.85% to 4.15%.

p. 7-41: An equation on this page contains an error. See correction in red below.

$$\frac{V_C}{V_{SE}} = \frac{N_C}{N_{SE}}$$

p. 7-43: Section 7.2.3.3.2 contains some errors. See corrections in red below.

The impedance is directly proportional to frequency. Therefore, line reactors will reduce current in the line associated with harmonic frequencies. The fifth harmonic of a 60-Hz system is 60 Hz (5) = 300 Hz. Therefore, if the impedance of a line reactor is 10 Ω at 60 Hz, it will be 50 Ω for the fifth harmonic currents.