

Hart Power Electronics, 1/e, Errata

Rev. 1/18/13

Page 54: In Example 2-12, the resistance value is 2Ω .

Page 60: Problem 2.9 – “in stantaneous” should be instantaneous

Page 61: Problem 2.13 — Missing Figure P2.13 label

Page 62: Problem 2.24 — A (amps) symbol missing from the end of the second equation. The voltage in Problem 2-25 has units of volts.

Page 67: In the equation for power, the resistance value should be 5 instead of 4. The numerical result of 1440 W is correct.

Page 71: In Example 3-2, ωt should be $\omega \tau$.

Page 77: Equation (3-23) — β should be θ . The correct equation is

$$A = \left(-\frac{V_m}{Z} \sin(\alpha - \theta) + \frac{V_{dc}}{R} \right) e^{\alpha/\omega\tau}$$

Page 80: In Eq. (3-31), dt should be $d(\omega t)$.

Page 90: In Eq. (3-47), ωt should be π in both instances.

Pages 91-92: In Example 3-9, C is 10^{-4} instead of 10^{-6} , but the value of ωRC is correct. In part (d), $\sin(8.43)$ should be $\sin(0.843)$, and 0.34 should be 0.24, but the result of 4.50A is correct.

Page 106: β should be θ in the equation.

Page 108: Problem 3.17 — $R = 1 \text{ k}\Omega$ (should be large letter Omega)

Page 109: Problem 3.26 — $R = 25 \Omega$ (should be large letter Omega)

Page 117: Example 4-1 — Typo in the equation for V_o . 200 should be 100. All numerical results are correct.

Page 144: The first y axis should be labeled i_o instead of i_D .

Page 185: “Load = voltage” in the last line on the page should be “Load voltage”

Page 189: The delta currents, I_{Δ} , are not specifically defined. They are the currents inside the delta of the load (i_{ab} , i_{bc} , and i_{ca}) by standard convention.

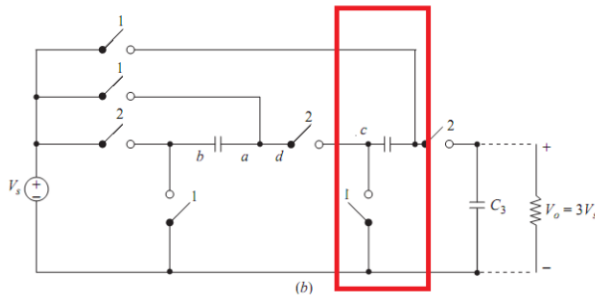
Page 211: The correct result for the capacitance is 15.6 μF instead of 0.16 μF .

Page 220: Equation 6-44 — The correct equation is

$$\eta = \frac{V_o^2 / R}{V_o^2 / R + \left(\frac{V_o / R}{1-D} \right)^2 r_L} = \frac{1}{1 + \frac{r_L}{R(1-D)^2}}$$

Page 247: Units of MA should be mA (milliamps).

Page 249: The correct configuration in Figure 6-25(b) is



Page 264: Problem 6.43 — delete the period between versus and t

Page 281: In Eq. (7-30), ΔT_x is missing from the middle term:

$$\frac{\Delta i_{Lm}}{\Delta T_x} = -\frac{V_s DT}{L_m \Delta T_x} = -\frac{V_s}{L_m} \left(\frac{N_1}{N_3} \right)$$

Page 281: Equation (7-33) has an extraneous “s” on the second line.

Page 291: In Eq. (7-50), V_p should be N_p : $V_o = 2V_s \left(\frac{N_s}{N_p} \right) D$

Page 302: Figure 7-16 (b) is missing. The figure is:

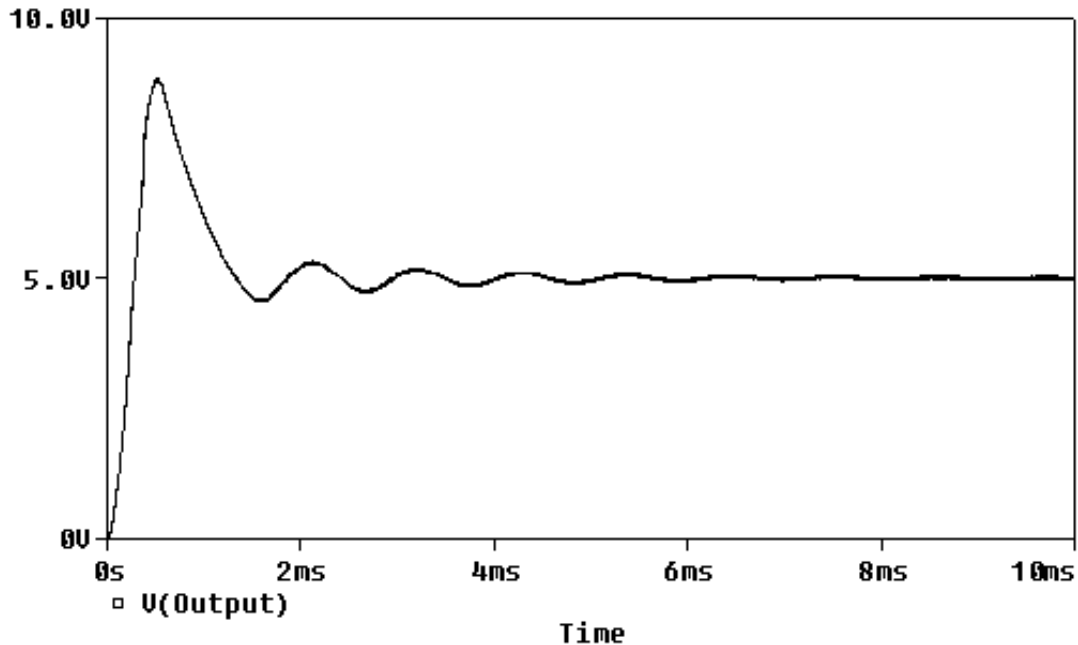


Figure 7-16 (b) Probe output showing the transient and steady-state voltage

Page 320: Equation 7-104 — add brackets [] for clarity:

$$K = \left[\tan \left(\frac{\theta_{\text{comp}} + 90^\circ}{4} \right) \right]^2$$

Page 327: Problem 7.1 -- Use $R = 6\Omega$ for continuous current. Using $R = 20\Omega$ is valid, but the current is discontinuous.

Page 328: Problem 7.10 – Use $L_x = 20 \mu\text{H}$.

Page 334: In Eq. 8-5, the negative sign before e in the second line should be omitted.

Page 336: Typo: “anitparallel” should be “antiparallel.”

Page 338: In Example 8-2. $V_{\text{dc}} = 400 \text{ V}$. All results are correct.

Page 354: Figure 8-13 — The top graph should be labeled v_o instead of v_3

Page 384-385. In Problem 8-3, the frequency is 60 Hz. In Problem 8-16, compute the normalized coefficients V_{dc}/V_m .

Page 438: Example 10.3 should refer to the circuit of Fig. 10-7a instead of 10-8a