

1. Which one describes the single phase AC standard in the US (120V, 60Hz)?
A. $120 \text{ V} \sin(376.8t)$. B. $170 \text{ V} \sin(376.8t)$.
C. $120 \text{ V} \sin(60t)$. D. $170 \text{ V} \sin(60t)$.

2. An AC power voltage source of $V_M \cos(\omega_d t)$ drives a capacitor C , on the capacitor
A. the current leads the voltage. B. the current lags the voltage.
C. the current is in phase with the voltage. D. the current is 0.

3. An AC power voltage source of $V_M \cos(\omega_d t)$ drives an inductor L , on the inductor
A. the current leads the voltage. B. the current lags the voltage.
C. the current is in phase with the voltage. D. the current is ∞ .

4. A range connected to the US AC standard of 240V, 60Hz produces 3,600 Joule of heat every second. What is the peak current in the range? ,
A. 15A. B. 60A.
C. 21A. D. 11A.