(21.10) a) $P_{av} = I_{rms} \cdot V_{rms} \cdot \cos \phi$

$1200\, W = I_{rms} \cdot (120\, V) \quad (1)$

or $I_{rms} = \frac{V_{rms}}{R}$

$R = \frac{V_{rms}}{I_{rms}} = \frac{120\, V}{10\, A} = 12\, \Omega$

b) $\uparrow 10\, A$

c) Max power is $2400\, W$, $\equiv (\text{Fig} \, 21.2)$