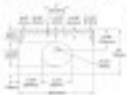


QUESTION

Two identical coils are connected in series to a 240 V AC supply.



When the current in the circuit is 10 A, the power dissipated in the two coils is 1000 W.

$$P = VI$$

$$1000 = 240 \times 10$$

$$1000 = 2400$$

$$P = VI$$

$$1000 = 240 \times I$$

$$I = \frac{1000}{240}$$

$$I = 4.17 \text{ A}$$

1000