

- 27** A mains electricity supply has a root-mean-square voltage of 240 V and a peak voltage of 340 V. When connected to this supply, a heater dissipates energy at a rate of 1000 W.

The heater is then connected to a 340 V d.c. supply and its resistance remains the same.

At what rate does the heater now dissipate energy?

**A** 1000 W  
W

**B** 1400 W  
**D** 2800 W

**C** 2000