

DO NOT WRITE IN THIS AREA

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2 This question is about electric current.

(a) State what is meant by the term **electric current**.

(1)

(b) Give the name of the particles that flow if there is an electric current in a wire.

(1)

(c) An electric heater contains wires that heat up when there is a current in the wires.

The electric heater has a power of 1.4 kW when connected to a mains voltage of 230 V.

(i) State the formula linking power, current and voltage.

(1)

(ii) Calculate the current in the wires.

(3)

current = A

(iii) Explain why the current in the wires causes the temperature of the wires to increase.

(2)

(Total for Question 2 = 8 marks)

