

Question number	Answer	Notes	Marks
2 (a) (i)	B - 960 joules per second;		1
(ii)	power = current x voltage;	allow equation as correct symbols and/or rearrangement e.g. $I = P \div V$	1
(iii)	appropriate calculation (including substitution OR rearrangement); answer to at least 2 sf seen anywhere; e.g. $960 = I \times 230$ (I =) 4.2 (A)	using 4 (A) to calculate power (920 W) or voltage (240 V) scores 1 mark max. (4.17391) allow 4.1 (A)	2
(b) (i)	any 3 of: MP1. large current to earth / in earth wire; MP2. fuse blows / melts / breaks; MP3. idea that circuit is broken; MP4. idea that the risk of shock is reduced / prevented;	ignore references to electricity or charge allow 'current surge' for large current 'ground' for earth ignore references to fire	3
(ii)	D - 13 A;		1
(c)	MP1. a way of measuring current e.g. ammeter; MP2. a method to vary current in fuse; MP3. a method of identifying that the fuse has broken e.g. lamp goes out, idea that current falls to zero etc.;	accept any points seen in diagram allow data logger allow variable power supply, variable resistor	3

Total 11 marks