

4.	A machine tool in a catalogue has a power of 2200 W and is to be connected to a 230 V 50 Hz AC supply. Its power factor is 0.707.		
	(a)	Work out the current that this machine should take if all the supply was used to provide power. Would a 13 A plug do?	3
	(b)	The retailer states that a 16 A supply is required.	
	(i)	Explain why this is the case.	2
	(ii)	Calculate the apparent power	3
	(iii)	Calculate the resulting current	2
	(iv)	What kind of reactive load does the motor provide? Explain your answer.	3

Total = 25 marks