

EXAMINATION : AUTHORISATION B

May 2015

Practical Test

Time Allowed - 1Hr

Name & Surname _____
(In Block letters)

Index No. _____

You are required to analyse the wiring diagrams of the motor starter shown in Fig. 1 and Fig. 2 for a 10kW AC motor.

1. Explain in steps how the control and power circuits function when the ON button is pressed and then released. Note that relay K1T is an ON-Delay relay timer. (16 marks)
2. What is the type of motor starter shown? (2 marks)
3. What is the special requirement of the motor in this case? (2 marks)
4. What is the biggest consideration to make about the relationship between torque and the motor load when using this type of starter? (3 marks)
5. What occurs when the OFF button is pressed? (2 marks)
6. What is the type of protection given by F2, and state how you size F2? (2 marks)
7. What modern way of starting has superseded the type of starter shown? (3 marks)
8. You are required to modify the control circuit of Fig. 1 to include:
 - i. An emergency stop pushbutton
 - ii. A remote start and stop
 - iii. Indicator lamps for stopped, running and tripped states. (10 marks)

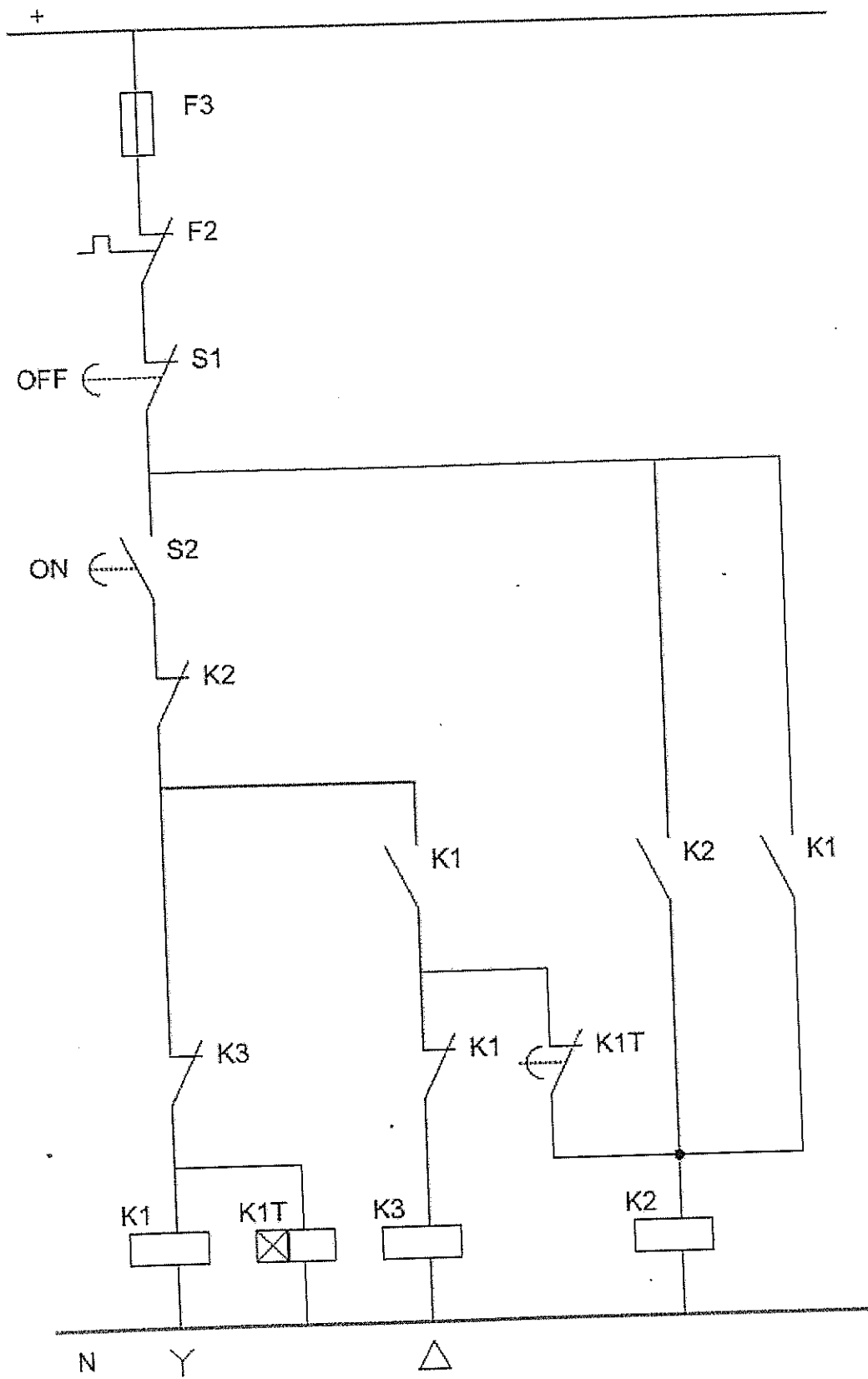


Fig. 1

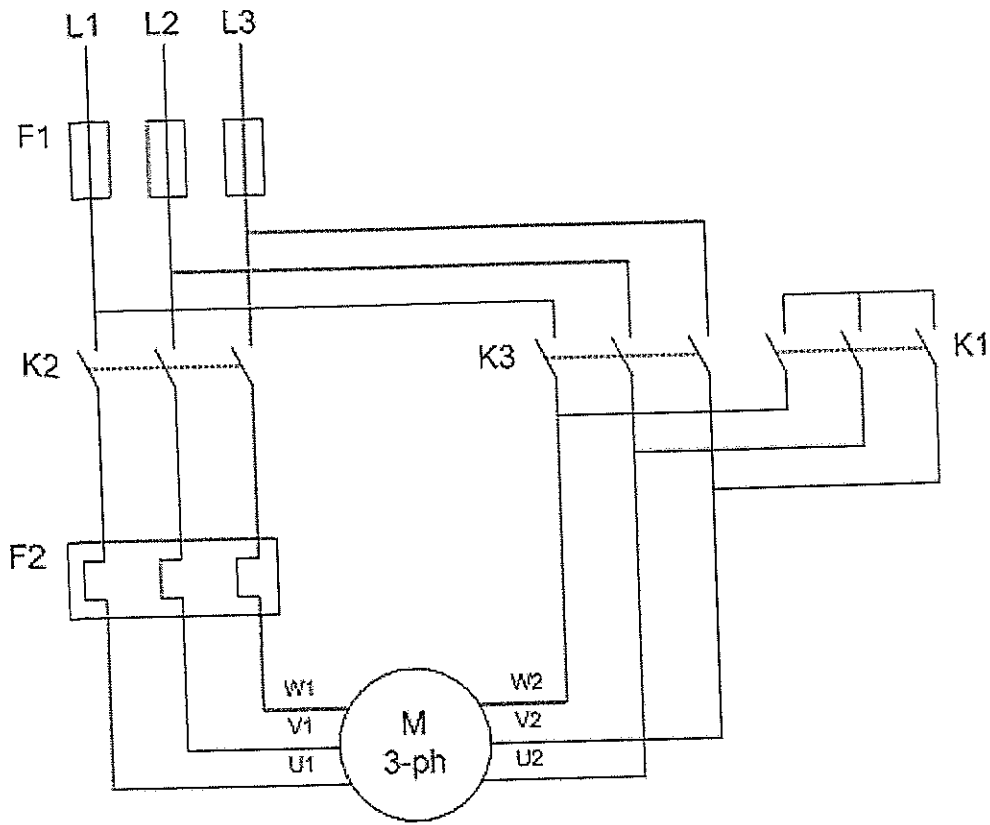


Fig. 2

END OF PAPER

