**Unit: Manual Motor Controls Job: 27**

**Title: Time-On and Time Off-Delay for 3 Phase Mtr. CLO# 1,2**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Station \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall further understand a Time-On and Time-Off Delay relay.
2. Student shall enhance motor control design skills.
3. Upon completion, a student shall have a more complete knowledge base for creating proficient motor control circuits.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this shop job. Grading shall be based on the Manual Motor Controls rubric.

**Instructions**

Design a time delay motor control circuit using two momentary pushbuttons and two time-delay relays. One pushbutton shall be a traditional “start”. When the motor is started, it shall run for 15 seconds then shut off. After a 10 second rest, it shall start again automatically. This shall be done using an On-Delay relay and an Off-Delay relay in conjunction with a three-phase motor starter. This shall continue until the “stop” pushbutton is pressed. The green light shall indicate “running”, the red light shall indicate “stopped” and the yellow light shall indicate “overload”. Use the space on the opposite side of this page to design the circuit. Once complete, review the design with the instructor. After obtaining approval, you may wire the circuit. Ensure to label all wires with the appropriate wire numbers. Have the instructor review the wiring before energizing the circuit.



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