**Unit: Manual Motor Controls Hands On: 5**

**Title: Stop/Start/Jog using Selector Switch for Three Phase Mtr. CLO# 1,2**

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

**Objectives**

1. Assess students understanding of motor jogging of a three-phase motor.
2. Evaluate the student’s ability to demonstrate how a stop/start motor circuit can be converted to a jogging circuit using a two-position selector switch.
3. Critique students motor circuit design skills for three-phase motor control.

**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 stop/start/jog motor control circuit using two momentary pushbuttons and a two-position selector switch. With the selector switch in “run” mode, whenever the start button is pressed, the motor shall start and stay running. Whenever the stop pushbutton is pressed the motor shall stop. With the selector switch in “jog” mode, whenever the start button is pressed, the motor shall start and run only while the button is being pressed. When the start button is released the motor shall stop. Ensure that the control circuit includes overload protection. Green light indicates that the motor is running. Red light indicates motor has stopped. Blue light indicates that the motor is in “jog” mode. The yellow light indicates an overload condition. Use the space on the opposite side of this page to design your circuit. You may ask the instructor to look over your schematic, but any instructor help shall be a deduction in points. You may wire the circuit without the instructor reviewing your drawing, but you may **not** energize the circuit once wired. Double check your drawing and wiring. Ensure to label all wires with the appropriate wire numbers. Once you are ready for a grade, have your instructor review the drawing and wiring before energizing and testing the circuit.



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