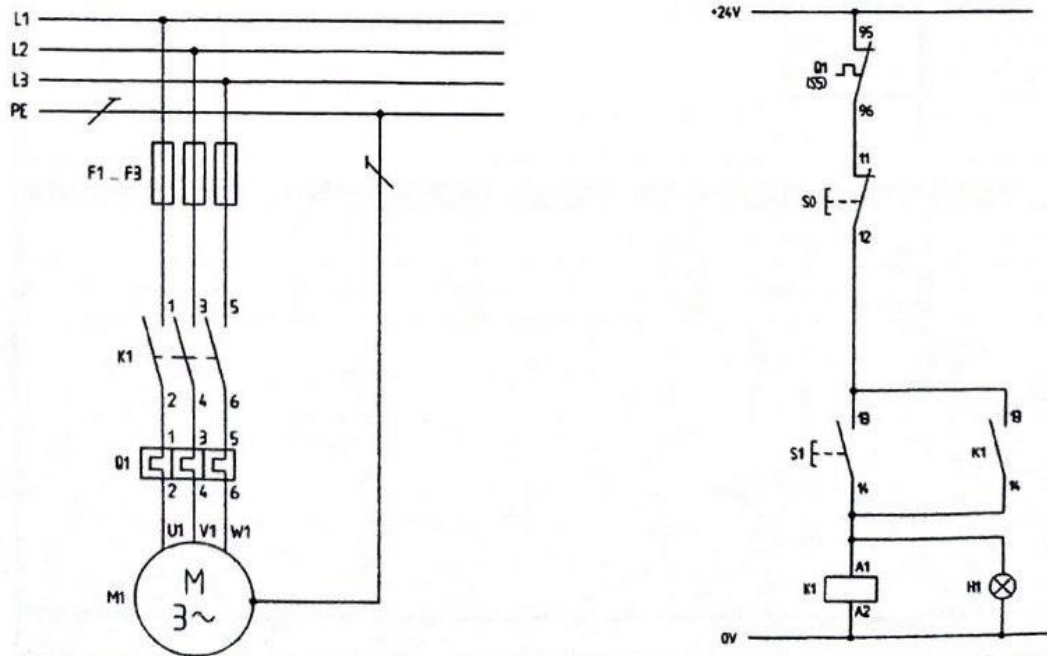


Experiment 2: Start and Stop of a three-phase asynchronous motor (one direction of rotation)

Circuit diagrams



Shown above are the power and control diagrams for the starting of a three-phase induction motor. Pressing the start push button S1 will start the motor and the indicator lamp H1 will turn ON. To stop the motor at any time, S0 is pressed. If S1 and S0 are simultaneously pressed, priority should be given to S0. S5 is included to simulate the thermal protection. Draw the GRAFCET, address inputs and outputs, and write a PLC program for the starting and stopping process described above.

Experiment 3: Start and Stop of a three-phase asynchronous motor with two directions of rotation (Forward and Reverse).

Shown below are the power and control diagrams for the starting of a three-phase induction motor. Pressing the start push button S1 will cause the motor to run in the forward direction and the indicator lamp H1 will turn ON. Pressing S2 will cause the motor to run in the reverse direction and the indicator lamp H2 will turn ON, but the motor MUST be stopped before changing its sense of rotation and to stop the motor at any time, S0 is pressed. If (S1 or S2) and S0 are simultaneously pressed, priority should be given to S0. S5 is included to simulate the thermal protection. Draw the GRAFCET, address inputs and outputs, and write a PLC program for the starting and stopping process described above.

Circuit diagrams

