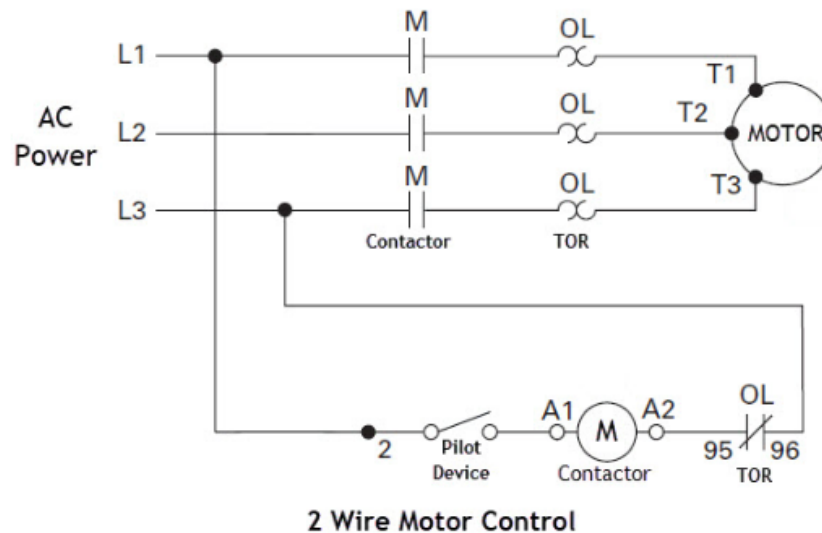


Product Group:
Number: AN-MC-005

Date Issued: 4/16/2020
Revision: Original

Title: 2 and 3-Wire Motor Control Circuits

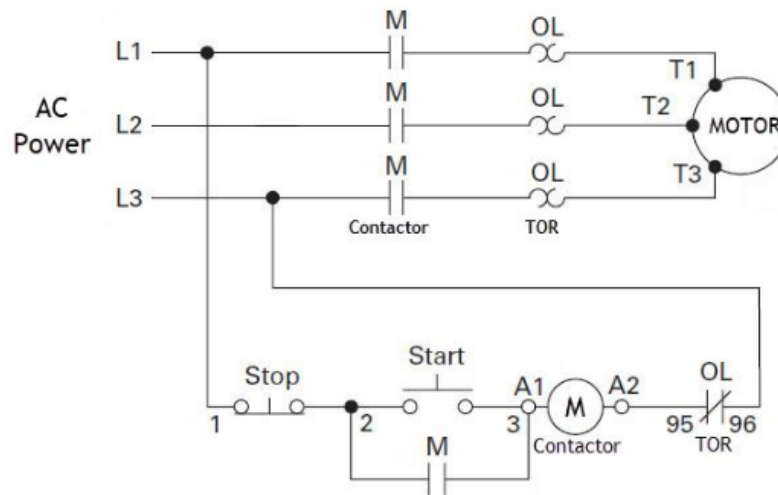
Summary: This application note explains the application and wiring of 2 Wire and 3 wire motor control circuits. Each diagram uses the line voltage for the control circuit.



Starter's coil is energized when the maintained contacts on pilot device are closed. This connects the load through the power circuit. When the contacts of the pilot device open, the coil is de-energized, and the starter disconnects the motor from the line voltage. Starter is de-energized during power outage/loss. If the pilot device's contacts remain closed during the power loss, the starter will be re-energized when power to the control circuit is restored.

- Utilizes maintained contact type of pilot device (e.g., thermostat, float switch)
- In event of power failure, motor re-energizes automatically upon restoration of power (if pilot device is ON)
- USE CAUTION: No personnel protection provided when power is restored

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3 Wire Motor Control

This circuit utilizes a momentary contact start switch and a holding circuit contact. This holding circuit (or seal-in circuit) is provided by an auxiliary contact on the contactor. Power outage will cause the starter to be de-energized. This circuit does NOT automatically restart when power is restored after an outage/loss. The Start switch must be pressed to restart the motor.

- Utilizes momentary contact switch and seal in contact on motor contactor
- Provides personnel safety protection in the event of power outage/loss
- Requires manual restart of motor after a power failure

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