

# Circuit diagrams

## Wye-delta

Reduced voltage starters

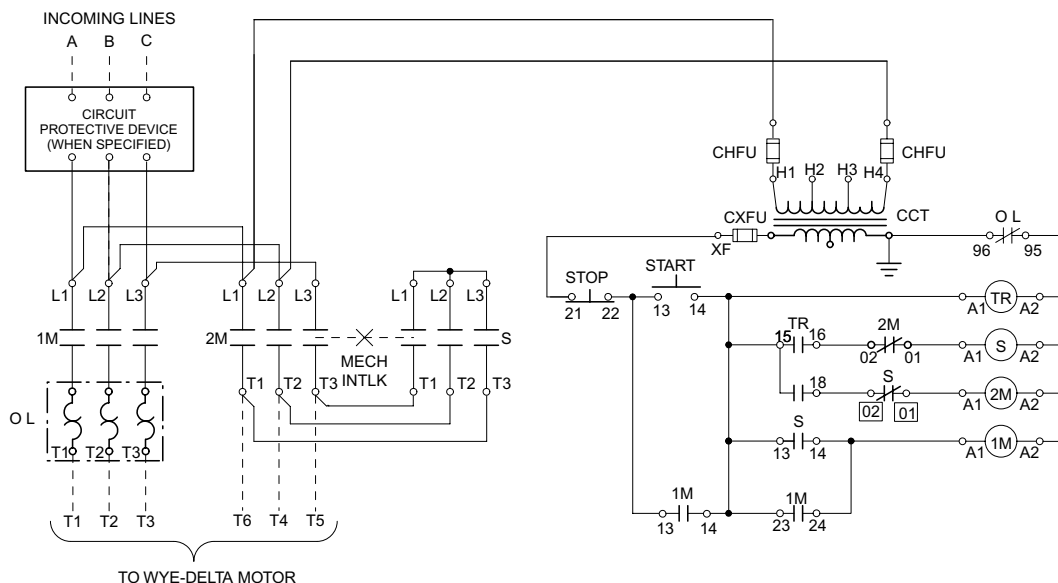
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### Wye-delta, open transition – STOP-START

The wye-delta open transition starter starts the motor by closing the S and 1M contactors which energize the windings in wye. The inrush current in wye is reduced to 33% of what it would be if the motor was started with an across the line starter.

The starting time in wye is adjustable with a timer. After the elapsed time, the S contactor opens which closes the 2M contactor; there is a short period (about 50ms) when the motor is not energized; and then the motor runs full voltage in delta.

A wye-delta starter requires a wye-delta wound motor with all six leads terminated outside the motor housing.



### Wye-delta, closed transition – STOP-START

The wye-delta closed transition starter works the same way as the open transition wye-delta starter except the closed transition version utilizes a set of resistors during the transition from start to run (wye to delta connection). These resistors eliminate the open circuit and prevent transient currents.

