

PLC Based Star Delta Motor Starter.

About This Project:

PLC based Star delta motor starter is a totally automated system project. In this project we including a PLC with star delta motor starter for whole system to do automatic operation. Most induction motors are started directly on line, but when very large motors are started that way, they cause a disturbance of voltage on the supply lines due to large starting current surges. To limit the starting current surge, large induction motors are started at reduced voltage and then have full supply voltage reconnected when they run up to near rotated speed. Two methods used for reduction of starting voltage are Star delta starting and Auto transformer starting. The Star Delta starting method is a motor starting mechanism that minimizes the large amount of starting current that motors draw in. In this work, A PLC based Star Delta starter is developed that draws two times starting current of the full load ampere of the motor connected. In large process plants PLCs are being increasingly used for automatic start up and shutdown of critical equipment's. A PLC ensures that an equipment cannot be started unless all the permissive conditions for safe start have been established. It also monitors the conditions necessary for safe running of the equipment and trip the equipment whenever any abnormality in the system is detected.

Drawing Diagram:

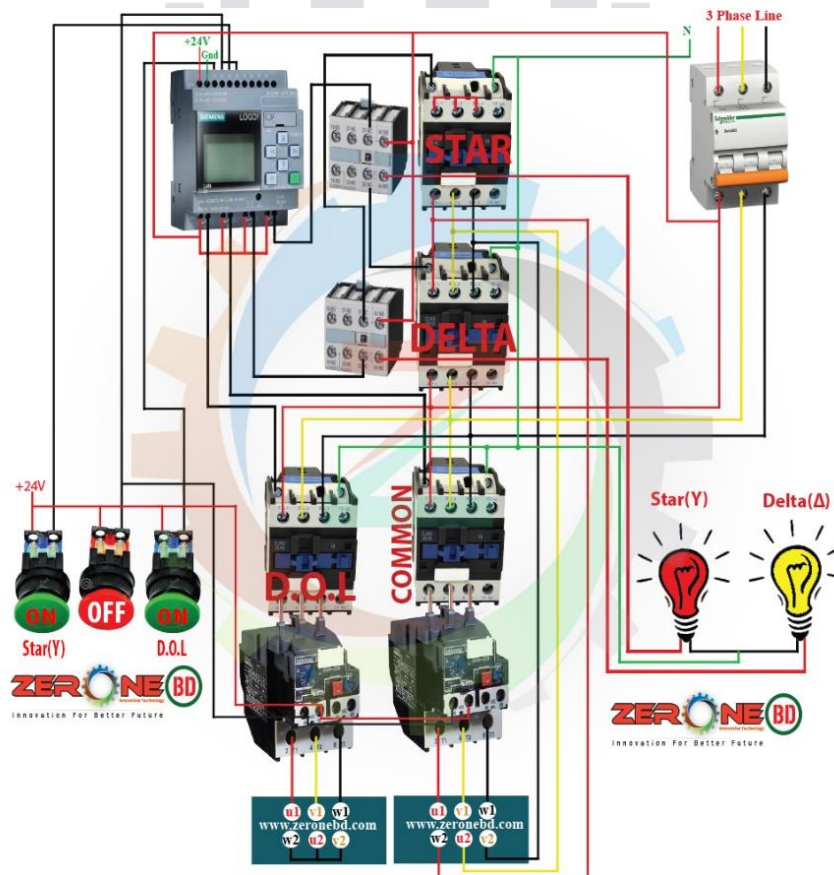


Figure: Drawing Diagram of PLC Based Star Delta Motor Starter.

Required Instrument:

- PLC (Programmable Logic Controller)
- Magnetic Conductor.
- Circuit Breaker.
- Push Switch.
- ON/OFF Switch.
- Thermal overload.
- Auxiliary contactor.
- Indicator Light.
- Connector.

Advantages:

- User friendly.
- The operation of the star-delta method is simple.
- Easy to Monitor Inputs and Outputs.
- To control hues amount of motor.
- Compact size and portable.
- Totally Automated System.

Applications:

The project has a major application in the

- The star-delta method is usually applied to low to medium voltage and light starting Torque motors.
- In Most of industries for motors above 7.5 KW Star-Delta Starters are used.
- Can be used in any factory as it is fully automated.

N.B: *Any modification of this project can be done as per your requirement. We will make the project according to your needs. Contact us with your any innovative engineering projects idea. We will help you to implement your project.*

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