

MICROCONTROLLER BASED MULTI MODE STARTER

ABSTRACT

In our project microcontroller based multi mode starter is very interesting one. In this project consists of three type of starter. To reduce the starting current we need different types of starters for start the induction motor. The type of the starter is varied with respect to motor ratings and type of supply voltages. DOL, semi automatic Star-Delta and automatic Star-Delta starters are used for start the three phase induction motors. But these motors are needed separate hard wired control circuits and enclosures.

The objective of this project is to design a simple, easy to install, microcontroller-based circuit to control the contactors through relays. The control circuit for various types of the starters is programmed in a single microcontroller IC. Selector switches are provide to select the mode of the starter like DOL, semi automatic Star-Delta and automatic Star-Delta starters of the motor. Hardware part contains 3 relays (main, star, delta). These relays are control by microcontroller. The controller used is a low power, cost efficient chip manufactured by atmega 16 microcontrollers. In this project we are demo the three type of starter using lamp only; do not connect the any motor.

Types of starter constructed in these projects,

- ❖ D.O.L starter
- ❖ Semi automatic Star-Delta starter
- ❖ Automatic Star-Delta starter

BLOCK DIAGRAM

