

## DAY 1

- Electricity at Work Regulations 1989, requirements and implementation • Working safely, including the importance of isolation procedures and lock out systems • Switches and Push Buttons, an explanation of the various types of switches and push buttons, the terminology and electrical symbols which are used in industry today, along with practical testing of functionality • Relays and Contactors, principles of operation, purpose and uses • Circuit design using BS electrical symbols and ladder diagrams, simple retaining circuits • Construction of the above circuit, demonstrating the techniques of cable termination.

## DAY 2

- 3 phase induction motors, synchronous and asynchronous • Description of the component parts of a 3 phase induction motor • Demonstration of how a 3 phase rotating magnetic field is produced and how to reverse it • Explanation of synchronous and asynchronous speed and slip • Effect of the number of poles on motor speed • Frame sizes
- Practical identification of various motors.

## DAY 3

- Principles of 3 phase induction motor control systems • Overload protection principles of operation and use
- Design and operation of a DOL (direct on line) starter • Construction of a DOL starter • Inspection and testing procedure for the above starter • Motor testing procedures.

## DAY 4

- DOL starter modifications • Importance of updating documentation • Design, construction and verification of reversing starter control and power circuits.

## DAY 5

- Star delta starters, principles of operation and uses • Design, construction and verification of star delta starter control and power circuits.

COST: £625 (+ VAT)

PREREQUISITE: Understanding of Basic Electrical Principles (MOD-01)

DURATION: 5 Days

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