

Electrical System & Design

1. INTRODUCTION TO POWER SUPPLY SYSTEMS

- 1.1 Electricity Supply Industry
- 1.2 Generation System
- 1.3 Transmission System
- 1.4 Distribution System
- 1.5 Low-Voltage System

2. CIRCUIT BREAKER

- 2.1 Specification and Operation
- 2.2 Miniature Circuit Breaker
- 2.3 Moulded Case Circuit Breaker
- 2.4 Air Circuit Breaker
- 2.5 Residual Current Circuit Breaker

3. CABLE AND SIZING OF CONDUCTOR

- 3.1 Cable Construction
- 3.2 Cable Type and Selection
- 3.3 Current Rating of Cable
- 3.4 Voltage Drop Calculation
- 3.5 Protection Against Overload
- 3.6 Protection Against Short Circuit

4. EARTHING AND EARTH FAULT PROTECTION

- 4.1 Earthing in a Utility System
- 4.2 Methods of System Earthing
- 4.3 Earthing in Low Voltage System
- 4.4 Earth Fault Protection

5. FUSES

- 5.1 Characteristic of Fuses
- 5.2 Miniature Fuse
- 5.3 Low Voltage Fuse
- 5.4 Application Guides

6. DESIGN PROCEDURE AND EXAMPLE

- 6.1 Design Current
- 6.2 Design Procedure
- 6.3 Example of a two storey Building
- 6.4 Example of a seven storey Building

7. CALCULATION OF SHORT CIRCUIT CURRENT

- 7.1 Sources of Fault Current
- 7.2 Step By Step Calculation

7.3 Systematic Circulation

7.4 Case Study

8. ECODIAL SOFTWARE FOR LOW VOLTAGE SYSTEM

8.1 Project Configuration

8.2 Load Data input

8.3 Short Circuit Calculation

8.4 Error Solving

8.5 Report Generating