



*Training Course:  
Power System Distribution Fundamentals*

*6 - 10 June 2027  
Cairo (Egypt)*

## Training Course: Power System Distribution Fundamentals

Training Course code: EN234883 From: 6 - 10 June 2027 Venue: Cairo (Egypt) - Training Course Fees: 4410 € Euro

### Introduction

Power distribution systems are essential for delivering electricity from transmission networks to end users efficiently, safely, and reliably. Understanding distribution fundamentals is critical for managing network performance, minimizing losses, and ensuring continuity of supply in modern power systems.

This program, designed by Global Horizon Training Center, equips participants with the foundational knowledge and practical insights required to analyze, operate, and maintain power distribution systems in accordance with industry standards.

### Course Objectives

By the end of this program, participants will be able to:

- Understand the structure and components of power distribution systems
- Analyze distribution network configurations and performance
- Identify key equipment used in distribution systems
- Apply basic load analysis and demand management principles
- Recognize common faults and protection methods
- Improve system reliability and efficiency
- Ensure compliance with safety and operational standards
- Support distribution planning and maintenance activities

### Target Audience

This program is designed for:

- Electrical and Power Engineers
- Distribution and Utility Engineers
- Maintenance and Operations Personnel
- Technicians working in power systems
- SCADA and Control Room Operators
- Professionals involved in electrical infrastructure

### Outline

#### Day 1: Fundamentals of Power Distribution Systems

- Overview of power distribution networks
- Distribution system structure and components
- Radial, ring, and interconnected systems
- Voltage levels and classifications
- Introduction to distribution planning

#### Day 2: Distribution Equipment and Components

- Transformers and substations
- Switchgear and protective devices
- Cables and overhead lines
- Capacitors and voltage regulators
- Equipment selection and operation

#### Day 3: Load Analysis and Network Performance

- Load types and demand characteristics
- Load forecasting and analysis
- Power losses and efficiency
- Voltage drop and power quality
- Network performance evaluation

#### Day 4: Protection and Fault Management

- Types of faults in distribution systems
- Protection schemes and coordination
- Relays and circuit breakers
- Fault detection and isolation
- System restoration strategies

#### Day 5: Operation, Maintenance, and Optimization

- Distribution system operation practices
- Maintenance strategies and planning
- Reliability improvement techniques
- Integration of distributed energy resources
- Case studies and real-world applications

## Registration form on the Training Course: Power System Distribution Fundamentals

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

### Easy Ways To Register

Telephone:  
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provisionally reserve your  
place.

Fax your completed  
registration  
form to: +20233379764

E-mail to us :  
info@gh4t.com  
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Complete & return the  
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to: Global Horizon  
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