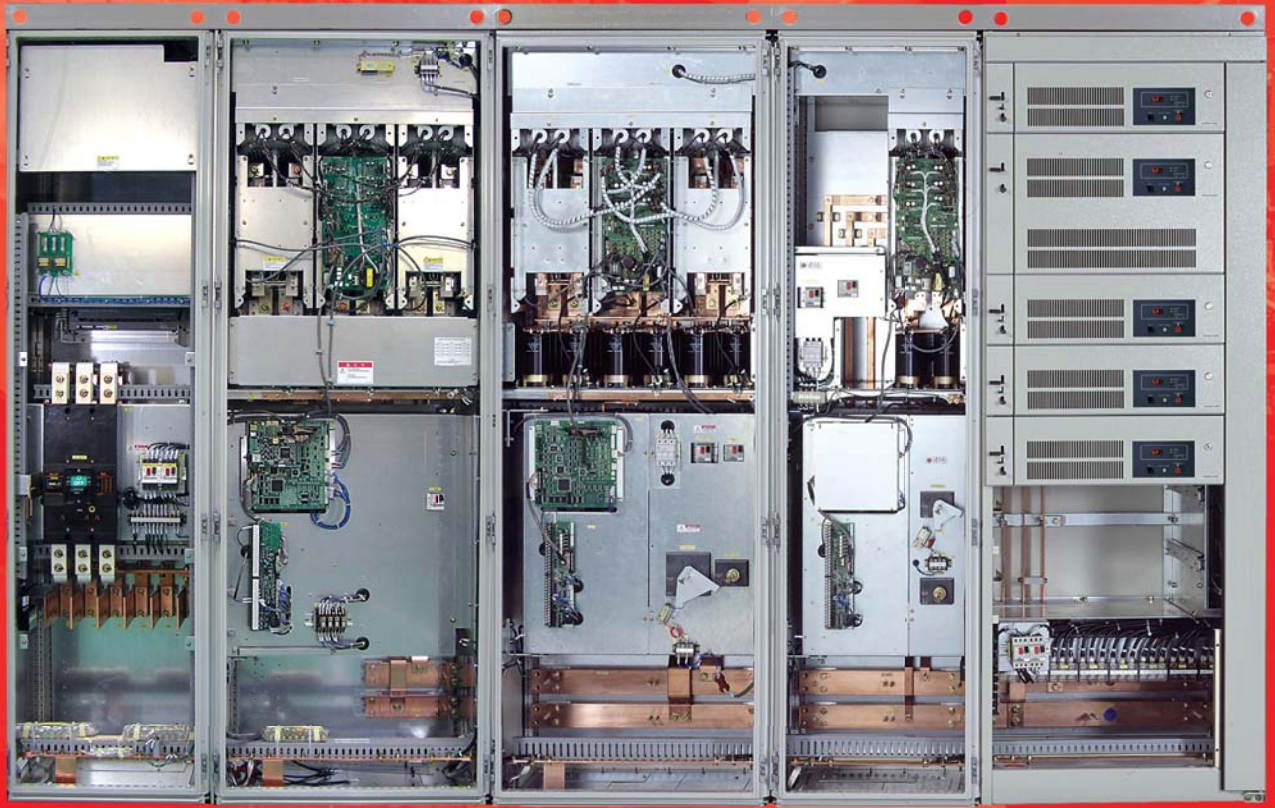


# TMdrive<sup>®</sup>-10 Maintenance Training



## Location: Roanoke, Virginia

- 4½-day training course for engineering and maintenance personnel
- Drive system hardware and software operation, maintenance and troubleshooting
- Hands-on classroom and lab exercises
- Presented by experienced industry service engineers

## Students will learn:

- ✓ Fundamentals of operation for the TMdrive<sup>®</sup>-10 and motor system
- ✓ To monitor, maintain and troubleshoot the TMdrive<sup>®</sup>-10 system
- ✓ To recognize normal and abnormal drive system operation
- ✓ The terminology and meaning of the diagnostic messages
- ✓ To replace and reconfigure components
- ✓ Preventive maintenance procedures

## Who should attend?

Qualified engineers and technicians involved in the operation and maintenance of a TMdrive®-10 drive system will benefit from this course.

## Course Overview

The TM-10 course provides instruction on the hardware and software for engineering and maintenance personnel to understand the operation, maintenance, and troubleshooting of their drive. Hands-on classroom and lab exercises include hardware identification and the PC based software tool.

*This class does not cover installation and commissioning of the equipment.*

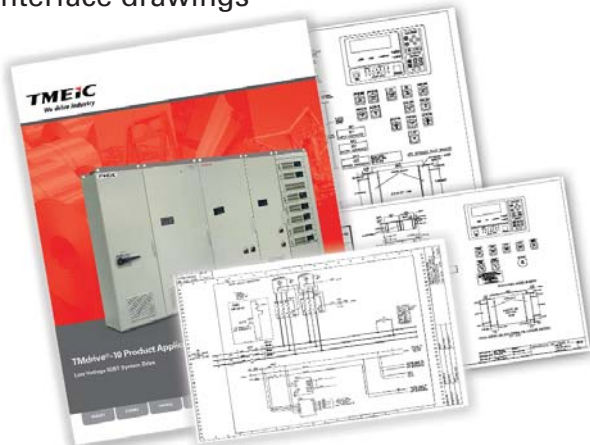
## Prerequisites

- A basic working knowledge of 3-phase electricity, variable speed drives and motors
- A working knowledge of sound safety procedures
- Reasonable personal computer and Microsoft® Windows® skills
- Course materials will be presented in English

## Student Materials

A notebook with paper and electronic copies of the following materials are part of the course package:

- Class presentations
- TMdrive®-10 and GECSS toolbox technical manuals
- TMEIC Drive System Elementary and Drive Interface drawings



## Topics

### Fundamentals of the operation of the TMdrive®-10 and motor system

### Description and definition of terminology and acronyms used

### Hardware Overview

- Function and designation of each component
- Where to find the component on the electrical drawings
- Physical location of each component
- How to tell if this component is not functioning properly
- How to change out and replace the component
- How to configure the replacement component, if either hardware jumper or software download is required

### Communication Networks

- PLC communication
- Diagnostic, and configuration network

### Inspection and Maintenance Schedules

### Running Maintenance and Diagnostic Tests

### Protective Functions

### Grounding and Cabling

### GECSS Toolbox PC based software tool

- General Information
  - File Permission
  - Parameter/Variable Structure
- Features
  - Control Panel
  - Help
  - Trending
  - Animated Block Diagram

### Troubleshooting

- Comparing normal vs. abnormal operation
- Faults and Alarms
- Traceback

### Spare and Renewal Parts

- What is recommended
- How to order

### Contacting our 24/7 Customer Support Team

### For more information please contact:

Michael Baldwin: 540-283-2320

Email: [training@tmeic.com](mailto:training@tmeic.com)