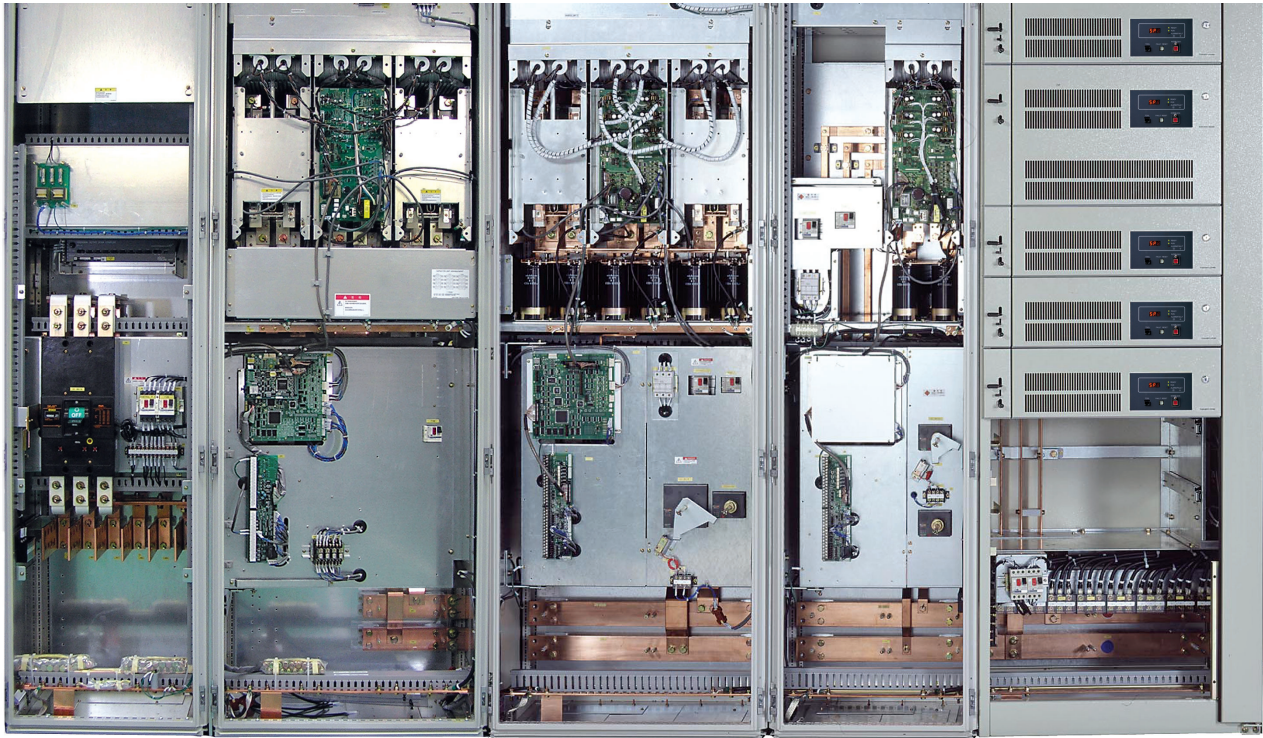


Maintenance Training



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®-10 and motor system
- ✓ To monitor, maintain and troubleshoot the TMdrive®-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

TMdrive-10 Maintenance Training

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.

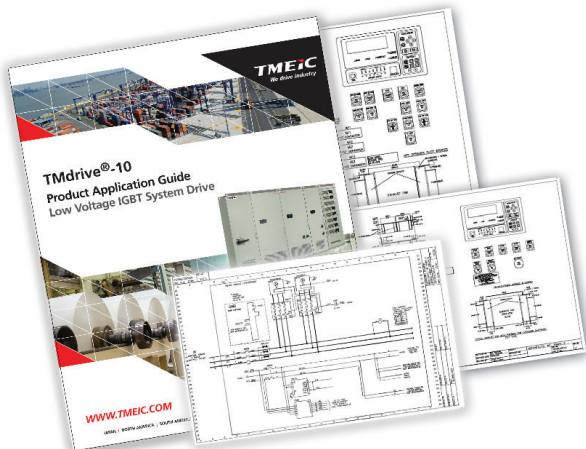
Prerequisites

- 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 *GECS* 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

GECS 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:

Darrin Quesenberry: 540-283-2239

Email: training@tmeic.com

WWW.TMEIC.COM