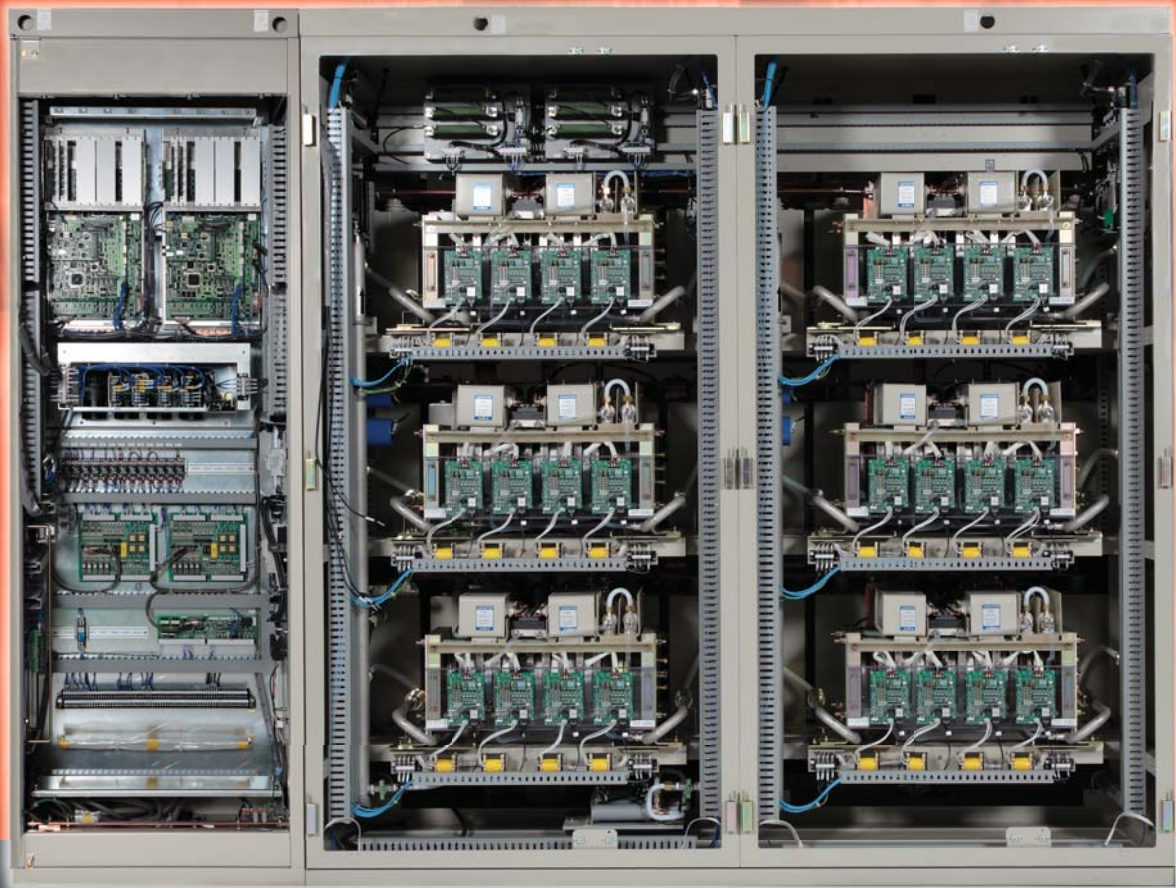


TMdrive-70 Maintenance Training



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-70 drive and motor system
- ✓ To monitor, maintain and troubleshoot the TMdrive-70 drive system
- ✓ To recognize normal and abnormal drive system operation
- ✓ The terminology and meaning of the diagnostic messages
- ✓ To quickly diagnose and identify externally-connected equipment failures
- ✓ To replace and reconfigure components

Who should attend?

Qualified engineers and technicians who wish to gain an understanding of the TMdrive-70 medium voltage drive system will benefit from this course.

Course Overview

The TMdrive-70 course provides instruction on the drive system hardware and software for engineering and maintenance personnel to understand the operation, maintenance, and troubleshooting. Hands-on classroom and lab exercises include hardware identification and the software tool – GE CSS Toolbox or TMdrive-Navigator (TMdN).

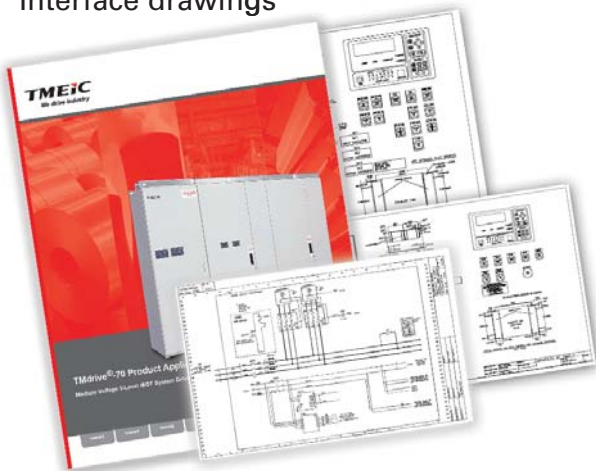
This class does not cover installation and commissioning of the equipment.

Prerequisites

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

Student Materials

- Class presentations
- TMdrive-70 technical manuals
- TMEIC Drive System Elementary and Drive Interface drawings



Topics

Fundamentals of PWM variable speed drives

- Power Conversion
- Induction and Synchronous Motor Theory

Review of the project and drive documentation

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
- Note - the TMdrive-70 training drive does not include the bridge cell stacks. Training on changing the cell stacks will be done with photos.

External Equipment and I/O

Cooling water and bearing lubrication systems

Learning the drive software

- General information
 - File permission
 - Parameter/variable structure
- Features
 - Operational control panel
 - Help
 - Trending
 - Animated/Live Block Diagram

Communication Networks

- PLC communication
- Diagnostic, and configuration network

Inspection and Maintenance Schedules

Running Maintenance and Diagnostic Tests

Protective Functions

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:

Andrew Ricker: 540-283-2091

Email: training@tmeic.com