

## CURRICULUM DESCRIPTION

# DCS880 Training Usage & Maintenance

### Tuition Fee

\$4,650 per student

### Description

This program provides the student with comprehensive instruction in the installation, wiring, and commissioning of a LV (low voltage) DC (direct current) drive including commissioning for frame size H1-H8 modules, and practices for standard analog controlled installation, and installations utilizing fieldbus communications.

### Student Profile

This program is intended for electricians, technicians, service and maintenance personnel, or engineers responsible for installing, servicing, or maintaining LV DC Drives.

### Training Type and Duration

This program is 24 hours (3 days) of instructor-led training that includes hands-on lab exercises to achieve program objectives.

### Prerequisites

Participants must have:

- Competence using Microsoft Windows
- Basic knowledge of motors, motor control, power electronics, and electrical circuits
- Experience working with power electrical equipment and voltage levels up to 690VAC
- Ability to use test equipment such as multi-meters or oscilloscopes and basic computer skills
- Completed all the eLearning modules prior to attending the classroom training

### Goal

This program provides customers, end users, and trained technicians with the knowledge and capability to Start-Up DCS880 Drives. The technician can perform the drive installation and configure the drive properly for service in the application.

### Learning Objectives

Upon successful completion of this program, students will obtain the following:

- Gain skills to apply basic safe work practices for installation and commissioning of LV DC Drives
- Understand the risks associated with LV DC Drives
- Understanding the installation requirements for a LV DC Drive
- Apply best wiring practices for LV DC Drives
- Commission a DCS880 including fieldbus communications
- Overview of the H1-H8 hardware
- Understanding Technical Details/Issues
- Perform basic commissioning fault diagnostics and quickly correct installation issues on site

### Student Materials

Upon completion each student will receive:

- Student manual with all presentations and exercises

### Training locations and scheduling

This is a classroom training held in New Berlin Wisconsin. For a schedule of other training opportunities please visit the Drives, PLC and Motion Training website at:

<http://new.abb.com/service/training/abb-university/united-states/drives>.

## Agenda

<p>Day 1</p> <p>8:00 a.m. ~ 5:00 p.m.</p> <ul style="list-style-type: none"> <li>• Welcome and Introductions</li> <li>• DCS880 Technical Presentation</li> <li>• DCS880 Dimensioning and Configuration</li> <li>• DCS880 Installation Mechanical</li> <li>• DCS880 Installation Electrical</li> <li>• Power Labs Exercise Safety</li> <li>• Basic Wiring &amp; Power Up Lab</li> </ul>	<p>Day 2</p> <p>8:00 a.m. ~ 5:00 p.m.</p> <ul style="list-style-type: none"> <li>• DCS880 Keypad Commissioning &amp; Macros</li> <li>• DCS880 Basic Commissioning Lab Exercise</li> <li>• DCS880 Before and After Power Up</li> <li>• DCS880 Field Supplies</li> <li>• Introduction to Drive Composer Lab Exercise</li> <li>• DCS880 12-Pulse &amp; Hard Paralleling Power Units</li> <li>• DCS880 Functional Safety STO</li> </ul>	<p>Day 3</p> <p>8:00 a.m. ~ 5:00 p.m.</p> <ul style="list-style-type: none"> <li>• DCS880 Connectivity</li> <li>• DCS880 Modbus TCP Lab</li> <li>• DCS880 Hardware H1-H4 20-1000</li> <li>• DCS880 Hardware H5-H8 900-5200</li> <li>• DCS880 Tech Support Issues</li> <li>• DCS880 Technical Details</li> <li>• DCS880 H1-H8 Service Lab</li> <li>• Troubleshooting Faults Lab</li> <li>• Q&amp;A Session - Wrap up</li> </ul>
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*Note: Students will have access to ABB provided laptop with software and tools used in the training at no additional cost. Students who wish to use their own PC's for training are required to purchase, install, and test the current software versions prior to attending a classroom training event. ABB will not troubleshoot student owned PC's.*

