

CURRICULUM DESCRIPTION

ACS580 DASC Training

DASC (Drives Authorized Service Contractor)

Tuition

Value: \$4,650

Tuition is at no cost to DASC Members. See [“Training Class Cancellation Policy”](#) for details.

Description

This program is specifically designed to provide students with the part replacement knowledge and exercises to service and repair drives in the field. The class will cover safe working practices, basic troubleshooting for major drive components, and disassembly / reassembly of LV drives. This DASC Service training program focuses on wall-mount drives up to 350HP.

Student Profile

This program is intended for electricians, technicians, and engineers responsible for installing, servicing and maintaining the ACX580 drives. The student must be an employee of an authorized DASC company. If the student is not a DASC company employee, please contact ABB Training for a more appropriate program. .

Training Type and Duration

This curriculum is 20 hours (2.5 days) using a combination of eLearning and instructor-led classroom training, including approximately 70 % hands-on lab exercises. The program contains required prerequisite e-learning courses which must be completed prior to attending the class.

Prerequisites

Participants must have:

- ACS580 or ACH580 or ACQ580 Authorized Startup
- Experience working with power electrical equipment and voltage levels of up to 690Vac
- Knowledgeable in using test equipment such as multi-meters, oscilloscopes, and computer skills
- Basic understanding of LV AC Drives
- Understanding of basic motor control
- Understanding of LV AC Drive operation
- ACS580 or ACH580 or ACQ580 operational knowledge
- Completed the ACX580 product introduction training program (ACS580 or ACH580 or ACQ580)
- Familiar with product commissioning PC tools

Goal

The goal of this program is to provide participants with the information, skills, and tools necessary to be self-sufficient when servicing ACX580 drives. Note: An extra ½ Day “adder” course is required for students seeking ACH580 or ACQ580 service authorization. Enrollment is required in those separate individual course(s).

Learning Objectives

The overall objective of this course is to teach students to: adjust, operate, maintain, troubleshoot, and repair the ACX580 AC Drive using available programming and troubleshooting tools.

Specifically, upon successful completion of this training, participants will be able to:

- Apply basic safe work practices for repair and verification of the ACX580 AC Drive
- Determine the risks associated with troubleshooting “live” LV Drives
- Mechanically and electrically install an ACX580 drive in conformance with the appropriate hardware manual
- Apply best wiring practices for LV Drives
- Commission an ACX580 drive including fieldbus communications
- Perform basic commissioning fault diagnostics and quickly correct installation issues on-site
- Troubleshoot and correct faults using available tools
- Repair and replace faulty hardware
- Update and verify drive firmware according to stated criteria
- Program and troubleshoot the drive using the Composer Pro PC tool
- Connect to and communicate with the ACX580 using various available operator interfaces and communication protocols
- Use available operator interfaces to program, commission, control, operate, and tune the ACX580 to satisfy application requirements

Student Materials

Upon completion each student will receive:

- Student Manual with all training materials
- Product installation and service manuals
- The Basic Guide to Installing an AC Drive

Training locations and scheduling

For a schedule of training opportunities please visit the Drives & PLC Training website at:

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

Agenda

Day 1	Day 2	Day 3
<ul style="list-style-type: none">• Introduction / About This Program / Lab Safety Procedures• ACX580 Warranty Directive / Repair & Replacement Policies• ACX580 Software Flow Diagrams• Power-up Safety & Wiring and Power-up Lab Exercise• Wire-up & Power-Up / Measurements Lab Exercise• Composer Pro PC Tool & Lab Exercise• ACX580 Platform Solutions Connectivity• ACX580 FENA-Modbus TCP or BACnet Fieldbus Lab Exercise• ACX580 Basic Service – Keypad and Drive FW Upgrade Procedures	<ul style="list-style-type: none">• ACX580 Troubleshooting and Faults – Tips from the Factory• ACX580 Technical Details• Schematics and Interconnects Review• Static Checks Review – What to look for• Factory Tour• ACX580 Block Diagram Review (R1 – R9)• Component Replacement Procedures (R1 – R9)• Parts Documents & Matrix Chart, Knowledge Base & Drive Services	<ul style="list-style-type: none">• ACX580 Repair & Power-up Testing Lab Exercises & Rotation (R1 – R9), Hardware & Firmware Troubleshooting & FW Upgrades• Summary / Conclusion of ACX580 Course• Additional ½ Day for students desiring DASC Service Authorization on the ACH580 or ACQ580 products)

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.

