

CURRICULUM DESCRIPTION

ACS580 Training Usage & Maintenance

Tuition Fee

\$4,650 per student

Description

This program is specifically designed to provide students with the knowledge and hands-on experience to properly apply the ACS580 drives and maximize their useful life. The class will cover safe working practices, installation, commissioning, preventative maintenance and basic troubleshooting. This training will aid the customer in reducing product down time and give them the knowledge to decrease total cost of ownership.

Student Profile

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

Training Type and Duration

This curriculum is a combination of eLearning and instructor-led training. Curriculum consists of 9 hours of eLearning and 28 hours of instructor-led classroom training, which includes approximately 70% hands-on lab exercises.

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 following eLearning modules prior to attending the classroom training
 - Qualification for Power Equipment
 - Lock-Out-Tag-Out Training Confirmation
 - LV_Drive_Safety-Presentation
 - LV_Drives Installation - Best Practices
 - Product Introduction (Hardware and software features)

Goal

The goal of this program is to educate students to install, start-up, adjust, operate, maintain, and troubleshoot the ACS580 AC Drives using available programming and troubleshooting tools.

Learning Objectives

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

- Apply basic safe work practices for installation and commissioning of LV Drives
- Understand the risks associated with LV Drives
- Understand the installation requirements for a LV AC Drive
- Apply best wiring practices for LV Drives
- Commission an ACS580
- Program and utilize standard software features of the drives
- Monitor signals in the ACS580 control panel for configuration and troubleshooting
- Configure the drive using the macros and Primary Settings available
- Configure the drive to interface with typical communications systems (PAC's)
- Develop programming and monitoring capabilities using the Drive Composer PC tool
- Identify the functions of drive components including circuit boards
- Perform basic fault diagnostics and quickly correct installation issues on site
- Troubleshoot and correct faults using available tools
- Plan and perform preventative maintenance drive

Student Materials

Upon completion each student will receive:

- Student manual with all presentations and exercises
- Product Installation and Commissioning manuals

Training locations and scheduling

This training is comprised of self-paced eLearning, and instructor-led classroom sessions. 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

Day 1	Day 2	Day 3	Day 4
Day 1 – 8:00 a.m. – 5:00 p.m.	Day 2 – 8:00 a.m. – 5:00 p.m.	Day 3 - 8:00 a.m. ~ 5:00 p.m.	Day 4 – 8:00a.am – 12:00 p.m.
ACS580 Installation – Mechanical (Wall-mount)	ACS580 – Review of Common Parameters	ACS580 FENA-Modbus TCP Fieldbus Lab Exercise & Review	Drive Repair Lab Exercises & Review (Lab Rotation)
ACS580 Installation – Electrical (Wall-mount)	ACS580 Macro Overview / Primary Settings	ACS580 Technical Details	Course Summary & Conclusion
PPE & Lock-Out-Tag-Out-Review	ACS580 Software Features Lab Exercise & Review	ACS580 Interconnect Diagrams / Review	
Basic Wiring and Power-up Lab Exercise & Review	ACS580 Programming and Labs & Review	Static Checks Review – What to look for	
Basic Start-up Lab Exercise – Power-Applied & Review	ACS580 Tech Support Issues	Block Diagram / Hardware (R1-R9)	
ACS580 Before & After Applying Power (Commissioning)	ACS580 Troubleshooting Faults & Alarms Worksheet Lab & Review	ACS580 Circuit Board Review (R1-R9)	
	Software Flow Diagram	ACS580 Drive Repair Lab Exercise & Review	
	Introduction to Drive Composer PC Tool Lab Exercise & Review		
	ACS580 Platform Solutions Connectivity		

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.

