

ACH550 Authorized Start-up Training

US9102 Program Description

This course is free (\$0) for ABB authorized distributor channel partners.

US9102 – Authorized Start-up for the ACH550

The Authorized Start-up program provides the student with comprehensive instruction in the installation, wiring, and commissioning of LV Drives.

The Authorized Start-up program for the ACH550 HVAC drive focuses on the ACH550 AC Drive commissioning and E-Clipse bypass. The instructor-led class includes commissioning practices for standard analog controlled installation and installations utilizing fieldbus communications.

Program Goals

To provide students with the necessary information, tools and training to be able to assess a LV Drive installation, to configure the drive, tune the drive, and perform complete commissioning services.

Program Duration

The program includes approximately 3 hours e-learning and 1 day instructor-led class with more than 50% of the instructor-led training being hands-on lab exercises

Program Type

This program utilizes online training, and an instructor-led class, including hands on labs to achieve course objectives.

Student Profile

This training program is intended for ABB authorized channel partners with experience working with and installing LV Drives. The students of an Authorized Start-up course would typically be responsible for installation and technical services related to maintaining LV Drives

Prerequisites

- Experience working with power electrical equipment and voltage levels of up to 690Vac
- Basic understanding of LV AC Drives
- Understanding of basic motor control
- Understanding of LV AC Drive operation
- Product operational knowledge of the ACH550 or prior experience using the ACH550 in Fan or Pump applications
- Attended a product overview training program for the ACH550
- Familiarity with product commissioning PC tools

Authorized Start-up Program

The Authorized Start-up program provides channel partner's trained technicians with the knowledge and capability to Start-up LV Drives. The authorized technician can perform and authorize the drive to properly install and configure for service in the application. Once the drive is commissioned and authorized, the product's warranty is enhanced per the supplemental warranty document.

Channel Partner advantages:

- Additional customer engagement
- Extended installed life of drive product
- Customer satisfaction
- Differentiation from box mover or web purchase
- Authorized Start-up is a component of life cycle management

Customer benefits:

- Properly installed and commissioning drive
- Enhanced warranty per the supplemental warranty document
- Extended life of drive product
- Increased production and process up time

Program Objectives

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

- Apply basic safe work practices for installation and commissioning of LV Drives
- Understand the risks associated with LV Drives
- Gain complete understanding of the installation requirements for a LV AC Drive
- Apply best wiring practices for LV Drives
- Commission an ACH550 including fieldbus communications
- Commission an ACH550 / E-Clipse Bypass including fieldbus communications
- Perform basic commissioning fault diagnostics and quickly correct installation issues on site

Student Materials

Each student will receive upon completion of the instructor-led class:

- Student binder with all training materials
- The Basic Guide to Installing an AC Drive
- The Basic Guide to Commissioning the ACH550

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Course Agenda

- Safety – Working with LV Drives
 - Slips, Trips and Falls
 - Personal Protective Equipment (PPE)
 - Use the right tools
 - Electric shock – prevention of
 - Lock Out / Tag Out
 - Unexpected operation of the drive and equipment
- Electro Static Discharge (ESD)
 - Protect the drive from ESD
- Brief overview of the ACH550
 - ACH550 drive and options
 - Bypass options
 - Multi-pulse drives
- Installation Practices
 - Mechanical Installation
 - Electrical Installation
 - Wiring Practices
 - Grounding
- Wiring the ACH550
 - Wall mount drive
 - Package drives
 - Drives mounted in other enclosure
- Commissioning an ACH550
 - Analog control
 - Typical parameter settings
- Commissioning an ACH550 / E-Clipse Bypass
 - Step by step for commissioning an ACH550 with E-Clipse Bypass
 - ACH550 E-Clipse bypass commissioning lab
- Tuning a PID loop in the ACH550
 - Basics of tuning PID
 - ACH550 tuning PID lab
- Start-up Fault trouble shooting basics

