MOTION ACADEMY TRAINING CENTER UNITED STATES

Professional Development Hours (PDH)

Professional training enhances employee skills and motivation, improves site safety, productivity and reduces downtime.

ABB provides classes that are made available for Professional Development Hour credits to help you achieve your professional objectives.

Your learning objectives

Enhance your knowledge of AC and DC Drives and motors and Variable Frequncy Drives (VFD)

You receive

PDH credits for enagaing in the technical training classes provided by ABB's experts

Information and insight about VFD technology trends and how they can positively impact your industry

How to apply and attend classes

Enroll online and classes are instantly availble on demand via your connected device or desktop computer

Our team

Drive and motor experts, with in depth experience of all industrial, water/wastewater and HVAC applications

Knowledge and techniques that may not be found in product manuals or sales flyers

Not just products, but solutions. Our experts will offer insights into topics that solve common application problems

Scan QR code or click on to.abb/R2oPBBXJ for latest class list, as we are adding all the time.

Classes with PDHs

Class Name	Description	Duration	
Overview of AC and DC Drives	This class is ideal for individuals that are new to motors and drives. This overview will describe briefly the history of AC and DC drives, how they work and where they are applied.	1hr	Link
Basics of AC Motors and AC Drives	The aim of this class is to teach a more comprehensive view of the fundamentals of AC motors and AC drives and how they function.	1hr	Link
Basics of DC Motors and Drives	The aim of this class is to teach a more comprehensive view of the fundamentals of DC motors and DC drives and how they function.	1hr	Link
Motor Technologies and VFDs	Efficiency is driving new developments in motor technology. Learn the basics of AC induction motors and high efficiency designs such as Permanent Magnet (PM) and Synchronous Reluctance (SynRM) motors.	1hr	Link
VFD '101'	Learn the basics of a VFD sometimes referred to as a VSD (Variable Speed Drive) Why would one want a VFD? What benefits are there to installing and leveraging a VFD. Most importantly how do they work!	1hr	Link
How do you select a drive?	Choosing a VFD might appear to be a challenge, but it is really quite easy. Watch the simple steps that need to be taken to correctly size a VFD and select any options needed to implement a successful installation.	1hr	Link
Why Cable Lengths Between VFDs and Motors Matter	VFD long motor lead applications have long concerned designers and end users. Learn where long cables can cause issues, the effects they can cause, and discover best practices and mitigation methods.	1hr	Link
Motor Grounding	When controlled by a VFD, you must consider required grounding requirements to mitigate effects of high frequency switching. Discover common failures, 'common mode voltage' effects, solutions and more.	1hr	Link
Output Filters	This class covers some of those applications that may need additional VFD output filters. When would you need them? Why would you need or want them? What do they do and how do they affect your application?	1hr	Link
VFD Line side filters	This is a basic introduction to the issues a VFD can cause and Line side filter remedies. After a quick VFD review you will learn about input filters, issues you can solve using an input filter, and which one to use.	1hr	Link
ABB VFD Schedule Generator	Learn how ABB's simple schedule generator tool helps generate VFD Schedules for Mechanical Drawings. A great addition to a VFD specification, these allow engineers to easily customize requirements for each drive.	1hr	Link
Basic VFD Troubleshooting	This class covers basic problems and nuisance trips that may be encountered with VFDs. Safety topics and wiring tips will be covered to help you ensure safe and reliable operation.	1hr	Link
Understanding Variable Speed Pumping	Learn about variable speed pumping system curves & pump curves, develop system curves and variable system curves and discover energy saving efficiencies when applying variable speed to pumps.	1hr	Link
Drives and Fan Curves	Understand fan applications, and the cost savings potential of using ABB VFDs while learning the constant speed control of air flow, affinity (Fan) laws and their relationship to fan performance and power.	1hr	Link
Harmonics 101	Explore power line harmonics caused by VFDs operating in electrical networks, understand the cause, what is IEEE-519, and review the different types of harmonic mitigating strategies used to meet IEEE-519.	1hr	Link
Harmonics 102	A follow up to Harmonics 101 , this advanced class will dive deeper into the physics and the math behind what causes harmonics and some of the more obscure but important problems that harmonics can cause.	1hr	Link
Harmonics Calculator	This class walks users through the basics of how to use the ABB Harmonics Calculation tool, designed for engineers to easily estimate the total harmonics in their system and select mitigating solutions.	1hr	Link
Operating VFDs on Generators (Gensets)	There are times when drives may need to be powered by generators. Learn about some of the system issues that need to be reviewed and considered in order to have a compatible, reliable VFD controlled system.	1hr	Link
VFD Installation & Commissioning	The Installation & Commissioning Training course provides the student with comprehensive instruction in the installation, wiring, and commissioning of ABB's VFDs. Available for each of the ACS580, ACQ580 and ACH580 Industry Drive variants - contact ABB for details.	40.2hr	

Also available: ABC of VFDs in Water/Wastewater, Drivetune and the Bluetooth Panel, Speed Controller Basics, Customizing a drive with Adaptive Programming, ACS880 Motor Thermal Protection, ACS880 FSO Safety Module, ACS880 Lead Follower Software. Always check to.abb/R2oPBBXJ for latest information.

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abb.com/drives

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