



ABB low voltage service Air circuit breaker maintenance training program

Power and productivity
for a better world™



Introduction to Low Voltage Training

In order to maintain a skilled and knowledgeable workforce, it is imperative for service personnel, engineers, and their respective supervisors to receive the best training possible.

By combining classroom theory and hands-on application in our training lab or on-site location, students gain real-world knowledge on ABB EMAX low voltage air circuit breakers. After a training course, students are readily equipped to troubleshoot, diagnose and perform basic maintenance on air circuit breakers relevant to the class he /she attended.



Training Benefits

- Stay up-to-date on the latest products and services available in the marketplace to help improve the performance and reliability of your low voltage circuit breakers.
- Gain technical knowledge needed to reduce the time and cost associated with maintenance of your equipment. - Develop the skills needed to improve your equipment's operating life.
- Improve your troubleshooting skills through training by experienced ABB field service technicians.
- Bring knowledge and expertise to your business through an improved understanding of your low voltage air circuit breakers.
- Work first-hand with functioning circuit breakers and life-size models in a training lab as ABB experts demonstrate maintenance and troubleshooting techniques.
- Get answers to all of your questions related to ABB's wide range of low voltage products from our experienced staff of engineers and service technicians.
- State-of-the-art training center opened improves the classroom experience - Customized curriculum available to meet specific customer needs



Factory training

ABB's breaker training facility in Verona, WI, is ideal for circuit breaker training, providing a state-of-the-art facility for hands-on experience. Our factory features a fully-equipped classroom setting adjacent to the training lab, complete with several fully-functional training circuit breakers. Additionally, attendees will have access to ABB specialists who will provide valuable insight into Emax maintenance in the field.

[Hotel and transportation options as well as a registration information can be found on page 6.](#)

On-site training

ABB offers the convenience of on-site training courses to make the most of your training budget. Our experienced instructors will facilitate courses at your location and work with you to tailor the course to your particular needs. With on-site instruction, you can avoid the costly travel expenses associated with sending a large group of people and maximize the number of participants. Pricing will be provided on a case-by-case basis depending on the customer's specifications. Customers shall provide the following conditions during onsite training on Emax maintenance:

- Free and clear room for the training
- One (1) computer per breaker
- Power for tools, lighting, and measurement equipment
- Schedule the training at least two weeks in advance

One (1) Emax circuit breaker per two (2) trainees is recommended for the training. ABB will supply training breakers as needed (shipping and usage charges for factory training breakers will apply).

Description of Service

ABB Low Voltage Service is pleased to offer “hands on” training seminars at our Verona, WI training center. Please note that courses can be designed and scheduled for specific customer needs and at the customer site. The maximum number of participants in the class is eight (8). The basic maintenance training course is designed to cover the following:

Scope of work: Field inspection & light maintenance

Preliminary Operations

- Ensure the breaker is de-energized, extracted from the fixed part, and the charging spring is discharged
- Download the breaker's trip unit/key plug report
- Remove and visually inspect the covers, accessories, trip unit, trip coil, and arch chambers and suppressors.

Power Section Cleaning and Checks

- Visually inspect for traces of wear, overheating, cracks on the external plastic structure, and foreign objects in the power section
- Clean off dirt, dust, traces of condensation and oxidation
- Check arch gap as necessary
- Check for tightness of structure screws and other hardware

Cleaning, greasing, and lubrication

- Remove dirt, dust, old grease & lubrication on supports of the drive shaft, opening & closing shafts, hooks, and springs
- Apply a new coat of grease and lubrication

Testing & Programming and final check

- Verify and adjust protection release settings as necessary
- Perform simulated injection testing using ABB hardware and software and verify opening and closing operations
- Test the circuit breaker accessories (if applicable)
- Re-assemble circuit breaker and protection release and download final report

Frequently Asked Questions

Q What do I need to bring?

A A cleaning kit purchased from ABB, a note taking device such as a laptop / tablet is not needed but may be helpful. To provide the highest level of learning possible, the training center and hands-on workshop is located inside an ABB center of excellence.

Q What do I need to know / study beforehand?

A There is no pre-training studying or coursework required. However, we recommend you have low voltage or power equipment experience.

Q Is there are cafeteria on site?

A Lunch will be provided.

Q Will I get experience working on a circuit breaker?

A Training includes classroom explanation and hands-on experience performing general maintenance procedures such as cleaning and greasing an Emax air circuit breaker.

Q What travel arrangements are available for individuals unfamiliar with driving in the US?

A Taxi cabs are available for commuting to and from the training center.

Q Where are the training classes held?

A Training is held at Low Voltage's breaker training facility: 275 Investment Court, Verona, WI 53593, or at the customer site.

Q What time does training start?

A Classes run from 8 AM to 5 PM each day.

Participation information

- Attendees must have basic technical knowledge of low voltage equipment.
- Attendees must obey safety rules of the instructor at all times.
- Attendees must wear appropriate work place attire.
- Courses run from 8 AM to 5 PM.
- Courses are conducted in English. Attendees will incur the cost of a translator to conduct courses in an alternative language.
- Attendees must notify ABB of special dietary needs.
- Registration and purchase order / payment must be received before each class begins.

Hotel Accommodations

Holiday Inn Express
515 W Verona Avenue
Verona, WI 53593
(608) 497-4500

Country Inn & Suites
6275 Nesbitt Road
Madison, WI 53719
(608) 270-1900

International & Local Airports

Dane County Regional Airport
4000 International Lane
Madison, WI
(608) 246-3380

Contact us

ABB Low Voltage Breaker
Training Facility
275 Investment Court
Verona, WI 53593
(Courses held here)

US Low Voltage Service Headquarters

ABB Inc.
Low Voltage Service
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Wauwatosa, Wisconsin 53226

www.abb.us/lowvoltage

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