

Transformer School and Pre-conference Workshop

December 14–17, 2026



**MMUA Training Center
Marshall, Minnesota**

Program details

Pre-conference workshop: Basic single-phase transformer connections and theory

The pre-conference workshop is designed to provide an introductory overview of transformer fundamentals. Topics include safety, transformer theory, calculations, connections, and equipment sizing, making the course an ideal opportunity to build a strong technical foundation or reinforce essential knowledge of the basics.

Transformer program: Three-phase transformer connections

The three-phase course will start with the basics of transformers, including turns ratios, polarities, calculations, connections, and troubleshooting. Participants will learn about the basic three-phase systems and the relationship of the phasor to the transformer itself. In the hands-on portion of the course, participants will work with miniature transformers that are energized and will blow fuses, thereby experiencing what happens when something is wired incorrectly. The class will further develop the miniature transformer banks and focus on troubleshooting techniques. Additionally, motor rotation as it relates to three-phase systems will be discussed, along with methods to prevent voltage surges when switching a three-phase bank. After completing the three-phase transformer connections course, participants will have a broader understanding of the following transformer-related topics:

- Basic three-phase connection
- Delta connection
- Wye connection
- Open delta connection
- Three-phase troubleshooting

Pre-conference Workshop Agenda

Monday, December 14

- 12:00–1:00 Registration
- 1:00–4:00 Basic single-phase connections

Tuesday, December 15

- 8:30–12:00 Basic single-phase connections
- 12:00–1:00 Lunch

Transformer School Agenda

Tuesday, December 15

- 12:00–1:00 Registration
- 1:00–4:00 Three-phase transformer connections

Wednesday, December 16

- 8:30–12:00 Three-phase transformer connections
- 12:00–1:00 Lunch
- 1:00–4:00 Three-phase transformer connections

Thursday, December 17

- 8:30–12:00 Three-phase transformer connections

What to bring

Please bring appropriate attire and materials, including:

- Fire-resistant clothing
- Safety glasses
- Rubber gloves
- Safety footwear
- Volt/amp meter

Registration information

Pre-conference workshop

Regular member: \$160 per person
Nonmember: \$240 per person

Transformer school

Regular member: \$830 per person
Allied/Affiliate: \$930 per person
Nonmember: \$1,245 per person

Registration fee includes school tuition, materials, and refreshment breaks. MMUA will issue a refund (less \$50 processing fee per person) provided MMUA is notified of the cancellation by 4:30 pm on November 30. Visit mmua.org/events to register. **Register by November 19 for best rate.** Registration fees increase \$50 after that date. Advanced registration ends November 30, 2026.

Hotel information

Marshall offers many hotel options in addition to the hotels listed below. MMUA has arranged for discounted lodging at these hotels. Please call the hotel directly and ask for MMUA's reduced rate when making your reservation. We recommend making your reservation as soon as possible since availability cannot be guaranteed.

AmericInn

1406 E Lyon St
Marshall
Phone: 507-537-9424

Everspring Inn & Suites

1500 E College Dr
Marshall
Phone: 507-532-3221