Accredited Africa Training Institute for Capacity Development
Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa
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COURSE BROCHURE

Medium Voltage Transformer Installation For Electrical Engineers Training

Physical Planning and Construction / Electrical Infrastructure Construction

Unit Standard 114660 · NQF Level 3 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips electrical engineers with the specialised knowledge and practical skills required to install medium voltage transformers safely and in compliance with South African standards. Participants will learn to interpret installation specifications, execute installation procedures, and verify correct operation, ensuring reliability and adherence to safety regulations.

Category	Physical Planning and Construction
Subfield	Electrical Infrastructure Construction
Unit Standard	114660
Accreditation	SAQA Accredited · NQF Level 3 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Interpret engineering drawings and specifications for medium voltage transformer installation.
- Apply safety procedures and regulations when handling and installing medium voltage transformers.
- Demonstrate correct installation techniques for medium voltage transformers, including connections and earthing.
- Verify transformer parameters and perform pre-commissioning tests.
- Evaluate installation compliance with relevant SANS, IEC, and OHS Act requirements.

WHO SHOULD ATTEND

- Electrical engineers and senior technicians responsible for the installation, commissioning, or maintenance of medium voltage transformers in industrial, commercial, or utility settings.

COURSE OUTLINE

Day 1: **Fundamentals of Medium Voltage Transformer Installation**

- Overview of MV transformers (oil-filled, dry-type, cast resin).
- Key components: bushings, tap changers, cooling systems, protective devices.
- Relevant SAQA standards, SANS 10242, and IEC 60076.
- Safety: lockout/tagout, arc flash boundaries, PPE.
- Site assessment: grounding, clearance, ventilation.
- Receiving, handling, and storage of transformers.
- Installation tools, lifting equipment, and rigging methods.
- Introduction to installation documentation and checklists.

Day 2: **Installation Procedures and Commissioning**

- Transformer placement, alignment, and anchoring.
- HV and LV bushing connections, cable termination techniques.
- Grounding system installation (grid, rods, bonding).
- Control wiring for tap changers, fans, and alarms.
- Protection devices: fuses, relays, surge arrestors.
- Pre-commissioning tests: insulation resistance, power factor, winding resistance.
- Oil sampling and analysis (if applicable).
- Documentation: as-built drawings, test reports, handover checklists.

Day 3: **Integration, Testing, and Maintenance Planning**

- Integration with MV switchgear: busbar connections, interlocks.
- Commissioning tests: ratio, polarity, vector group verification.
- Energisation procedure: step-by-step, monitoring inrush current.
- Maintenance planning: oil testing, thermal imaging, DGA.
- Troubleshooting: overvoltage, under-voltage, cooling failures.
- Condition monitoring tools: dissolved gas analysis (DGA), partial discharge.
- Asset management: life-cycle cost, refurbishment vs replacement.
- Final assessment and certification.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **6 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 13,200.00	**R 13,200.00**
1	In-House	R 17,800.00	**R 17,800.00**
1	On-Campus (Pretoria)	R 19,800.00	**R 19,800.00**

UPCOMING SESSIONS

Start	End	Method	Venue
02 Dec 2026	04 Dec 2026	On-Campus	Shenzhen, China
02 Dec 2026	04 Dec 2026	On-Campus	Dar es Salaam, Tanzania
08 Dec 2026	10 Dec 2026	On-Campus	Bangkok, Thailand
08 Dec 2026	10 Dec 2026	On-Campus	Blantyre, Malawi
08 Dec 2026	10 Dec 2026	On-Campus	Nairobi, Kenya
08 Dec 2026	10 Dec 2026	On-Campus	Kinshasa, DRC
08 Dec 2026	10 Dec 2026	On-Campus	Johannesburg, South Africa
08 Dec 2026	10 Dec 2026	On-Campus	Abu Dhabi, UAE

Contact us if no suitable date is listed — on-demand sessions can be arranged for groups.

HOW TO GET A QUOTATION OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 114660) and click **Get A Quotation**. Select your training method and number of delegates — your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to **apply@aaticd.co.za** — our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically — the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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