



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 And High Voltage Equipment Installation And Replacement Training

Physical Planning and Construction / Electrical Infrastructure Construction

Unit Standard 113883 · NQF Level 4 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to safely install and replace medium and high voltage electrical equipment. It covers compliance with South African regulations, safety protocols, and industry best practices for working with high-risk electrical systems.

Category	Physical Planning and Construction
Subfield	Electrical Infrastructure Construction
Unit Standard	113883
Accreditation	SAQA Accredited · NQF Level 4 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply relevant safety procedures and regulations when working with medium and high voltage equipment.
- Demonstrate correct methods for isolating, earthing, and testing medium and high voltage systems.
- Implement installation procedures for transformers, switchgear, and cables according to manufacturer specifications.
- Analyze fault conditions and identify appropriate corrective actions during equipment replacement.
- Evaluate the condition of existing equipment and determine suitability for replacement or repair.
- Design a safe work plan for the installation or replacement of medium and high voltage equipment.

WHO SHOULD ATTEND

- This course is designed for electricians, electrical technicians, and engineers who are involved in the installation, maintenance, or replacement of medium and high voltage equipment in industrial, commercial, or utility settings.

COURSE OUTLINE

Day 1: Fundamentals of Medium and High Voltage Systems

- Overview of medium (1kV-33kV) and high voltage (>33kV) systems.
- Key components: transformers, switchgear, circuit breakers, cables, and insulators.
- Electrical theory: voltage levels, current, insulation, and earthing.
- Safety standards: SANS 10142, OHS Act, and relevant SANS/NRS specifications.
- Personal protective equipment (PPE) and safe isolation procedures.
- Risk assessment and method statements for installation work.
- Introduction to equipment handling and storage requirements.

Day 2: Installation and Replacement Techniques

- Pre-installation checks: site preparation, equipment inspection, and documentation.
- Installation of transformers: positioning, connections, and cooling systems.
- Switchgear installation: mounting, busbars, and control wiring.
- Cable installation: laying, termination, and jointing techniques.
- Replacement procedures for circuit breakers, disconnectors, and fuses.
- Testing: insulation resistance, continuity, and high-potential tests.
- Commissioning steps: functional checks, protection settings, and energisation.
- Troubleshooting: identifying faults and corrective actions.

Day 3: Advanced Applications, Compliance, and Practical Integration

- Advanced topics: SF6 gas-insulated switchgear, vacuum circuit breakers, and dry-type transformers.
- Utility interface: metering, protection coordination, and grid connection.
- Regulatory compliance: quality assurance, documentation, and handover.
- Case studies: common installation failures and lessons learned.
- Review of practical exercises and assessment criteria.
- Final assessment: written test and practical evaluation.

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 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	05 Aug 2026	On-Campus	Cape Town, South Africa
03 Aug 2026	05 Aug 2026	On-Campus	Lagos, Nigeria
04 Aug 2026	06 Aug 2026	On-Campus	Dubai, UAE
04 Aug 2026	06 Aug 2026	On-Campus	Johannesburg, South Africa
05 Aug 2026	07 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	07 Aug 2026	On-Campus	Mauritius
10 Aug 2026	12 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE

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

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 113883) and click **Get A Quote / Apply**. 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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