



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

Mini Substation Installation And Ring Main Unit Replacement Training

Physical Planning and Construction / Electrical Infrastructure Construction

Unit Standard 113891 · NQF Level 3 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to safely install mini substations and replace ring main units (RMUs) in accordance with South African standards. It covers electrical safety, installation procedures, testing, and commissioning to ensure reliable and compliant power distribution.

Category	Physical Planning and Construction
Subfield	Electrical Infrastructure Construction
Unit Standard	113891
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

- Apply relevant safety regulations and procedures when working on mini substations and ring main units.
- Analyze site conditions and electrical load requirements to determine appropriate mini substation specifications.
- Demonstrate correct installation techniques for mini substations, including earthing, cabling, and terminations.
- Perform safe isolation, removal, and replacement of ring main units following manufacturer guidelines.
- Test and commission installed equipment to verify functionality and compliance with standards.
- Evaluate potential hazards and implement risk mitigation measures during installation and replacement activities.

WHO SHOULD ATTEND

- Electrical technicians, engineers, and maintenance personnel involved in the installation, maintenance, or replacement of mini substations and ring main units in industrial, commercial, or utility settings.

COURSE OUTLINE

Day 1: Fundamentals of Mini Substations and Ring Main Units

- Overview of mini substations: types, applications, and components
- Introduction to ring main units: function, configurations, and ratings
- Electrical safety principles: lockout/tagout, PPE, and safe working distances
- Relevant regulations: SANS 10142-1, OHS Act, and Eskom standards
- Tools and equipment: cable preparation tools, torque wrenches, testing instruments
- Pre-installation site assessment: civil works, cable routing, and access

Day 2: Installation Procedures and Cable Termination

- Mini substation installation sequence: foundation, enclosure, and equipment mounting
- Cable termination procedures: stripping, lugging, and glanding
- Ring main unit replacement: isolation, removal, and installation of new RMU
- Earthing system installation: earth electrodes, conductors, and bonding
- Testing and commissioning: insulation resistance, phase rotation, and functionality checks
- Documentation: as-built drawings, test reports, and handover certificates

Day 3: Fault Finding, Maintenance, and Safety Integration

- Fault finding methodology: visual inspection, testing, and interpretation of results
- Common faults: cable insulation breakdown, switchgear failures, and earthing issues
- Maintenance schedules: cleaning, lubrication, contact resistance measurement
- Emergency response: arc flash, electric shock, and fire procedures
- Integration of safety during replacement: switching procedures and permits to work
- Final practical assessment: install mini substation and replace RMU

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 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
05 Aug 2026	07 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	07 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	12 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Dubai, UAE
12 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	14 Aug 2026	On-Campus	Mauritius

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 113891) 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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