



POWER AND ELECTRICAL TRAINING

Vacuum and SF6 Circuit Breakers

3 day course

Classroom, online or in-house

Course overview

Vacuum and sulphur hexafluoride are the two interrupting technologies in general medium and high voltage service, and each fails and is maintained quite differently. This course covers both. Delegates work through the interruption physics of each, construction and operating mechanisms, and the specific maintenance each demands: vacuum integrity testing and contact erosion assessment for one, gas density, moisture and decomposition product handling for the other. The environmental obligations attaching to sulphur hexafluoride receive detailed treatment, including leak management, recovery and reporting. The course closes on condition assessment, life expectancy and the alternatives now entering service.

What you will learn

- Explain the interruption physics of vacuum and gas breakers
- Describe construction and operating mechanisms of each
- Test vacuum integrity and assess contact erosion
- Manage gas density, moisture and decomposition products
- Meet environmental obligations for sulphur hexafluoride handling
- Assess condition and estimate remaining life
- Evaluate the alternative interrupting technologies entering service

Who should attend

- Substation and electrical maintenance engineers
- Testing technicians
- Asset managers in utilities and heavy industry
- Environmental staff managing gas inventories
- Commissioning engineers

Course outline

- 01 Interruption physics: vacuum and gas
- 02 Construction and operating mechanisms
- 03 Vacuum integrity testing and contact erosion
- 04 Gas density, moisture and decomposition products
- 05 Environmental obligations and gas handling
- 06 Leak management, recovery and reporting
- 07 Condition assessment and life expectancy
- 08 Alternative technologies entering service

Upcoming dates

Dates	Venue	Format	Fee per delegate
7 to 9 October 2026	Maputo, Mozambique	Classroom	USD 995
19 to 21 October 2026	Durban, South Africa	Classroom	R14,950
23 to 25 December 2026	Kampala, Uganda	Classroom	USD 995
13 to 15 January 2027	Pretoria, South Africa	Classroom	R14,950



Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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