

POWER TRANSFORMERS

A division of ACTOM (Pty) Ltd

ACTOM

ACTOM Power Transformers, based in Wadeville, Germiston, South Africa, has manufactured power transformers for over 50 years. The basic designs have been developed and refined over the years from the original companies, English Electric, First Electric, Johnson & Phillips, GEC Alstom and Bonar Long, that were amalgamated to make up the present ACTOM Group in South Africa.

ACTOM Power Transformers has had a period of rapid development over the past 10 years. Large sums have been invested in new factory buildings, manufacturing and processing equipment which has enabled the Company to increase both production output and move into higher rated power transformers.

ACTOM South Africa manufactures transformers from 2MVA up to and including 315MVA with voltages up to 300kV. These transformers are supplied to electricity distribution utilities, the mining sector, industrial plants, public works authorities and turnkey contractors. The power transformers are mostly of the step-down type, equipped with on-load tap changers, either naturally cooled or, for larger units, incorporating forced oil and air-cooling.

The basic units are of three-phase, three-limb construction, comprising fully mitred low-loss cores of the boltless type with disc HV and helical or disc LV and tapping windings.



View of vertical winding machines.



Aerial view of Wadeville Works.

Specifications:

Rating

Ratings up to 315 MVA, complying with IEC 60076, BS 171 and SABS 780 specifications.

Voltage

All voltages up to and including 300 kV.

Cooling

Oil immersed with natural or forced air cooling, ONAN/ONAF. Larger units with forced oil and air -cooling, ODAF.

Core

Three-limb boltless core constructed of cold rolled grain oriented steel with interleaved mitre cut joints.

Windings

Double or auto-wound, with tertiary if required. Rectangular copper, paper insulated in the form of multi-layer disc or helix windings.

Tappings

For HV or LV voltage variation connected to off-circuit or on-load tap switches.

Tanks

Robustly constructed, with heavy gauge underbase and welded from high quality steel plate to withstand vacuum processing. Removable radiators connected to the tank via shut-off valves.

Painting and surface treatment

Prior to painting, the tank and related parts are shot blasted to grade SA 2,5 and external surfaces are treated with a rust preventative undercoat and two top coats of heavy duty outdoor oil paint. Special finishes for highly corrosive areas can be supplied if required.

Insulation

Oil impregnated high-grade electrical paper and pressboard. The windings are normally fully and uniformly insulated for lower voltages, and for the higher voltages partially graded or fully graded depending on the customer's requirements.

Impulse level

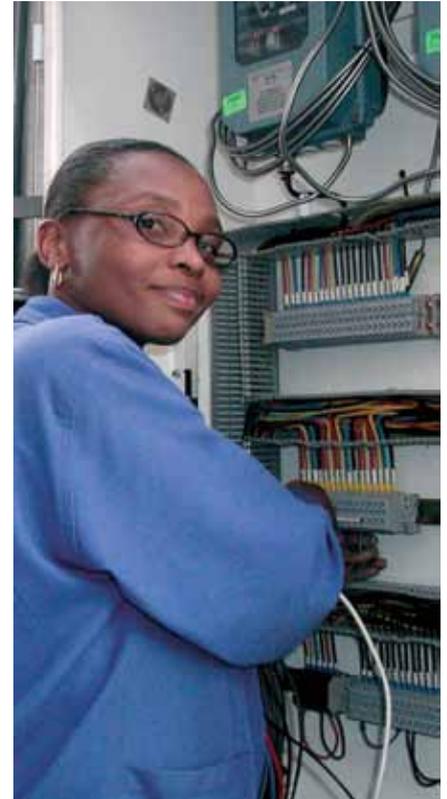
All ratings have been tested for impulse withstand levels in accordance with IEC 60076.

Fittings and accessories

A full range of standard and special fittings is available and can be incorporated as required.

Terminals

Open type bushings for outdoor use or cable boxes as required.



Wiring a marshalling box.



20MVA active part ready for tanking.

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