

ACTOM OIL FILLED INSTRUMENT TRANSFORMERS



Outdoor Oil Filled Metering Units - 11 to 33kV

HIGH VOLTAGE EQUIPMENT

A division of ACTOM (Pty) Ltd



ACTOM

ACTOM OUTDOOR OIL FILLED METERING UNITS: 11 TO 33KV

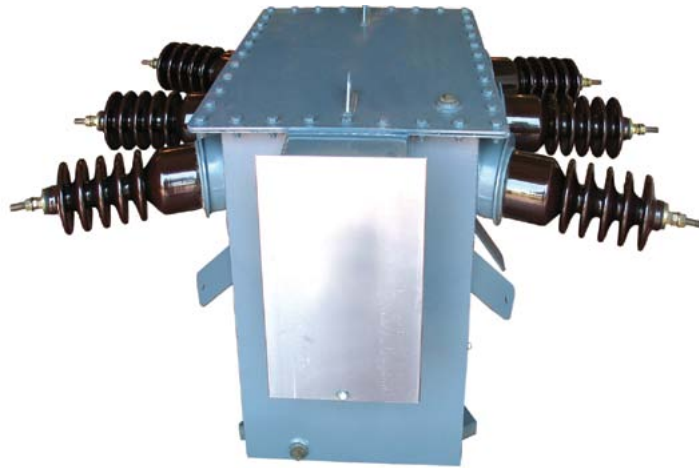
GENERAL

ACTOM's High Voltage Equipment Division manufactures 6.6, 11, 22 and 33kV metering units (combined current and voltage transformers) suitable for various conditions and applications. All metering units have a one year comprehensive guarantee, and are manufactured to highest quality of workmanship and materials. ACTOM High Voltage is ISO9001: 2015 accredited, and all units are type tested at SABS to IEC standards.

POLE MOUNTED

The unit is suitable for H pole construction. Manufactured to Eskom, Nampower and BPC specification, consisting of the following:

- Current transformers on all three phases, suitable for 4 wire metering
- Five limb three phase voltage transformer
- Can carry up to 1250A primary current
- Available in 6.6, 11, 22 and 33kV
- VT LV fuses in terminal box
- Oil level dipstick
- Surge arrester brackets



The pole mounted metering unit is suitable for H pole construction

GROUND MOUNTED

Manufactured to Eskom, Nampower and BPC specification which consists of the following:

- Current transformers on all three phases, suitable for 4 wire metering
- Five limb three phase voltage transformer
- Can carry up to 600A primary current
- Available in 6.6, 11 and 22kV
- LV fuses in terminal box
- Oil level dipstick
- Can be fitted with MV removable fuses



The ground mounted metering unit is available in 6.6, 11 and 22kV

CURRENT TRANSFORMER SECONDARY CORES

Secondary windings are situated between the source and load side of the HV bushings, one per phase.

The toroidal cores are made from high grade grain oriented silicon steel (grade M0H). The design of the core is dependent on the ratio, burden and class of accuracy. The core is annealed, allowed to cool down, covered with insulation material and the desired number of turns are wound. The core is tested according to the latest international standard.

VOLTAGE TRANSFORMER WINDINGS

The windings are of inductive three phase five limb type and are designed with a low flux density accommodating a voltage factor of 1.9V-30 sec. The VT normally has one secondary winding, but in some cases a second winding can be accommodated.

STEELWORK

The transformer tank is manufactured out of mild steel and is of fully welded construction. The steelwork can be either hot dipped galvanized or hot wire zinc metal sprayed and painted to customer requirements.

SECONDARY TERMINAL ENCLOSURE: (POLE MOUNTED UNITS)

The terminal enclosure of the units is of a weatherproof type fitted with a lockable sliding cover. Inside the enclosure, the secondary windings and VT terminations are brought out

through LV terminals. The VT windings are protected by 10 Amp fuses. The neutral side of the secondaries is brought out via links.

The bottom of the terminal enclosure has an insect proof air vent that prevents condensation. The glandplate is made from aluminium and is bolted to the bottom of the terminal enclosure.

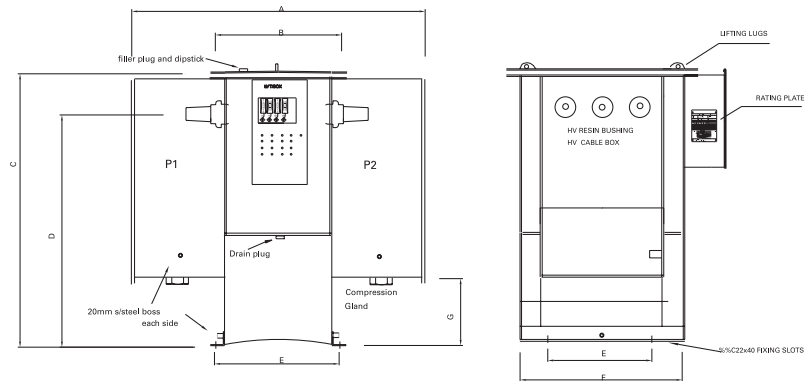
TERMINAL ENCLOSURE: (GROUND MOUNTED UNITS)

The HV bushings are enclosed in a large mild steel box and are covered with a bolted and gasketed removable lid. The bottom of the enclosure has a removable gland plate and is fitted with a cable gland type SCG no 8 or 9 to accommodate the HV 2XLPE cable.

The ground mounted unit consists of six HV 600 Amp cast resin screened insulators.

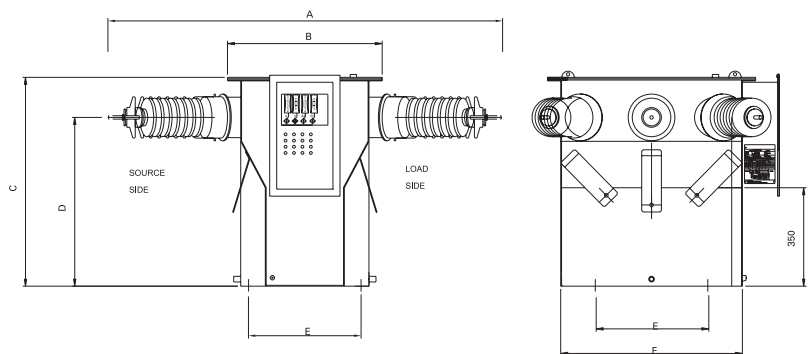
Ground mounted units can be fitted with

a LV enclosure that can accommodate a meter live indication lights and test blocks.



STANDARD DIMENSIONS (mm) GROUND MOUNTED METERING UNIT

Nominal System Voltage	Impulse Withstand Voltage	A Total Width	B Tank Width	C Height	D Height Bushing to base	E Fixing Centres	F Tank Length	G HV T/box to base	Phase to Phase Clearance	Phase to Earth Clearance	Total Mass (kg)
6.6kV	60kV	1112	452	1175	1055	400	680	255	135	90	270
11kV	95kV	1112	452	1175	1055	400	680	255	135	90	270
22kV	150kV	1112	460	1175	1055	400	680	255	135	90	280



STANDARD DIMENSIONS (mm) POLE MOUNTED METERING UNIT

Nominal System Voltage	Impulse Withstand Voltage	A Total Width	B Tank Width	C Height	D Height Bushing to base	E Fixing Centres	F Tank Length	G LV T/box to base	Phase to Phase Clearance	Phase to Earth Clearance	Total Mass (kg)
6.6kV	60kV	1350	500	720	555	400	545	310	190	290	270
11kV	95kV	1350	500	720	555	400	545	310	190	290	270
11kV 1200A	95kV	1350	550	720	565	800x400	1340	340	500	330	580
22kV	150kV	1440	550	750	610	400	740	350	395	355	380
33kV	200kV	1675	560	785	637	400	790	385	460	370	400



The HV terminal is fitted with a cable gland, type SCG no 8 or 9, to accommodate the HV XLPE cable



LV terminal enclosure is of a weatherproof type and fitted with a sliding cover

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