



ACTOM Mobile Miniature Substations

MV SWITCHGEAR
A division of ACTOM (Pty) Ltd

ACTOM

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ACTOM MV Switchgear used an innovative approach to design and manufacture its new range of mining minisubs by incorporating its quality workmanship and experienced manufacturing processes to produce 100kVA to 800kVA mobile minisubs for mining applications.

Complete with low voltage (LV) panel and medium voltage (MV) cable box fitted to outdoor distribution transformers, all mounted onto solidly galvanised mild steel base frames with axles and wheels to suit any rail gauge of choice. Alternatively go with skid base type of minisubs manufactured out of solidly galvanised mild steel skid bases, strengthened with 40mm diameter towing holes.



Figure 1, typical 250kVA mobile minisub



Figure 2 distribution transformers SANS 780

Both designs are solid and robust enough for work in underground or surface mining applications.

The Actom mobile minisub with power ratings of 100kVA up to and including 800kVA fitted with oil cooled, Dyn 11, ONAN, distribution transformers complying with SANS 780 is the minisub of choice for mining applications.



Figure 3, typical skid base type minisub

The LV panel manufactured from 5mm thick mild steel fitted with 3mm thick arc fault blow out covers relieves any bursting pressure build up inside the LV enclosure from possible arc faults occurring and ensures an IP rating of IP54 with doors closed and IP23 with doors open. LV bushings of the transformers are completely shrouded by polycarbonate material providing zero touch potential insulating barrier between live parts and accessible parts of LV switchgear and control gear.



Figure 4, typical 400v LV panel



Figure 5, LV panel enclosure IEC 62271-202

Various LV panel models are available for different outgoing circuit breaker requirements for rated 400v or 550v low voltage systems.

The LV panel enclosure complies with IEC 62271-202.



Figure 6, LV panel IP 54 rating



Figure 7, MV cable box IP 54

Lifting lugs ensure easy manoeuvrability and positioning of the mobile unit down mine shafts.