

**3300 V INTERVOLT CABLES**

3300 V Intervolt cables was developed with the intention to provide a reasonably low cost solution for long distance installations where the inherent reduced reliability was considered to be a fair trade off. The tendency is to more often make use of this product for the purpose of wiring of premises where failures leads to dissatisfied customers. The purpose of this bulletin is to provide some cautionary notes when using this product.

This cable is unarmoured and very prone to external damage either during installation or subsequent 3rd party activity.

SANS 10142-1: The wiring of premises Part1 Low-voltage installations does not cover 3.3kV, but should be adhered to as a minimum requirement. Specific reference to clauses 6.3.6.1(f) and 6.4.4.2 (0.5m depth & earth leakage).

Foil constructions are cautioned with higher voltages when used in high lightning areas. NRS 077: XLPE INSULATED CABLES AND ACCESSORIES FOR SYSTEMS WITH NOMINAL VOLTAGES OF 44 kV, 66 kV, 88 kV and 132 kV Clause 4.3.6.1 states the following in a note: "Users are cautioned regarding the use of cable with a laminated aluminium/polyethylene sheath in areas having both high lightning activity and high soil resistivity's due to the low lightning puncturing withstand strength of the aluminium foil. Since the laminated aluminium/polyethylene sheath forms the radial water barrier for the cable, puncturing of the metallic sheath will result in the ingress of moisture into the cable."

There is a tendency to treat 3.3kV as low-voltage cable, but one should realize it is operating at 8 times the voltage of a 400V cable installation.

Where life beyond standard warranty (1 year) period is expected we recommend the use of cable with hard grade PVC insulation with Bedding, Galvanised steel wire armouring and Sheath when used for the wiring of premises.

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ISO 9001 | ISO 14001 | ISO 45001