

### 11kV 400mm<sup>2</sup> x 3 XLPE Cables

Requests for the above cable has caused some concern as they do not carry the SABS mark. This bulletin serves to correct any misunderstanding around the matter.

Compulsory standard VC 8077 (See TB16) demands that any Medium Voltage XLPE cables used in RSA must comply with SANS 1339.

CBI-electric: african cables MV XLPE products comply with all the requirements of SANS 1339. These include all routine, sample and type tests. (NB Accelerated ageing test). The construction tables in SANS 1339 only cover the range 16 to 300mm<sup>2</sup> for 3 core cables. 400mm<sup>2</sup> details can be found under the single core tables.

Proposals for extending this range to include 400mm<sup>2</sup> have been made to the SABS Working Group commissioned to review SANS 1339.

On construction tables 17 and 21, which do not cater for 400mm<sup>2</sup>, CBI-electric african cables has the adopted the design as listed in column 14 of the tables below:

### Proposed amendment to Table 17 – Construction table for 6.35/11kV three-core type A cables (SANS 1339-2006 Ed 3.2)

1	2	10	11	12	13	14
Conductor size	mm <sup>2</sup>	150	185	240	300	400
Nominal diameter over conductor	mm	14.6	16.4	18.8	21.4	24.3
Insulation thickness						
Nominal	mm	3.4	3.4	3.4	3.4	3.4
Minimum at a point	mm	2.96	2.96	2.96	2.96	2.96
Nominal diameter over insulation	mm	23.9	25.7	28.1	30.7	33.6
Nominal diameter over semi-conducting core screen	mm	25.9	27.7	30.1	32.7	35.6
Nominal thickness of copper tape	mm	0.1	0.1	0.1	0.1	0.1
Nominal diameter over copper tape	mm	26.8	28.6	31	33.6	36.5
Nominal diameter over laid-up cores	mm	57.8	61.6	66.8	72.4	78.7
Bedding thickness						
Nominal	mm	1.6	1.7	1.8	1.9	2.0
Minimum at a point	mm	1.26	1.34	1.43	1.51	1.6
Nominal diameter over bedding	mm	61.3	65.4	70.8	76.6	83.1
Nominal diameter of steel armour wires	mm	3.15	3.15	3.15	3.15	3.15
Nominal diameter of armour wires	mm	67.6	71.7	77.1	82.9	89.4
Minimum cross-section of armour	mm	467.6	498.8	537.7	584.5	639.0
Outer sheath thickness						
Nominal	mm	3.1	3.2	3.4	3.6	3.8
Minimum at a point	mm	2.28	2.36	2.52	2.68	2.84
Nominal overall diameter of cable	mm	74.4	78.7	84.5	90.8	97.7

Proposed amendment to Table 21 – Construction table for 6.35/11kV three-core type B cables (SANS 1339-2006 Ed 3.2)

1	2	10	11	12	13	14
Conductor size	mm <sup>2</sup>	150	185	240	300	400
Nominal diameter over conductor	mm	14.6	16.4	18.8	21.4	24.3
Insulation thickness						
Nominal	mm	3.4	3.4	3.4	3.4	3.4
Minimum at a point	mm	2.96	2.96	2.96	2.96	2.96
Nominal diameter over insulation	mm	23.9	25.7	28.1	30.7	33.6
Nominal diameter over semi-conducting core screen	mm	25.9	27.7	30.1	32.7	35.6
Nominal thickness of copper tape	mm	0.1	0.1	0.1	0.1	0.1
Nominal diameter over copper tape	mm	26.8	28.6	31.0	33.6	36.5
Nominal diameter over laid-up cores	mm	57.8	61.6	66.8	72.4	78.7
Outer sheath thickness						
Nominal	mm	2.9	3	3.1	3.3	3.5
Minimum at a point	mm	2.37	2.45	2.54	2.71	2.88
Nominal overall diameter of cable	mm	64.1	68.2	73.6	79.7	86.4

