

# Medium Voltage ABC Cables

XLPE F7JA..... Primary group code  
SANS Steel Catenary Type B ...SGB Finish code

Aluminium 3 Core + Catenary  
19000/33000V  
Type B  
SANS 1713

| Size code                  | ...naaa...          | 3050    | 3070    | 3095    | 3120    | 3150    | 3185    |
|----------------------------|---------------------|---------|---------|---------|---------|---------|---------|
| Conductor size             | mm <sup>2</sup> nom | 50      | 70      | 95      | 120     | 150     | 185     |
| Conductor diameter         | mm app.             | 8.5     | 10.0    | 12.0    | 13.5    | 14.5    | 16.0    |
| Insulation diameter        | mm app.             | 26.2    | 27.6    | 29.5    | 31.4    | 32.3    | 33.8    |
| Core diameter (PVC sheath) | mm app.             | 32.9    | 34.3    | 36.4    | 38.3    | 39.4    | 40.9    |
| Assembled diameter         | mm app.             | 77.24   | 80.04   | 84.26   | 89.94   | 92.06   | 94.96   |
| Cable mass                 | kg/m app.           | 3.91    | 4.27    | 4.78    | 5.42    | 5.81    | 6.30    |
| Gross mass (500 m )        | kg app.             | 2609    | 2804    | 3061    | 3922    | 4118    | 4363    |
| Bending radius             | mm min.             | 1159    | 1201    | 1264    | 1349    | 1381    | 1424    |
| Current rating             | Amps                | 188     | 232     | 283     | 325     | 367     | 420     |
| Resistance                 |                     |         |         |         |         |         |         |
| dc @ 20°C                  | Ω/km max            | 0.641   | 0.443   | 0.320   | 0.253   | 0.206   | 0.164   |
| ac @ 90°C                  | Ω/km max            | 0.822   | 0.568   | 0.411   | 0.325   | 0.265   | 0.211   |
| Reactance                  | Ω/km                | 0.153   | 0.143   | 0.134   | 0.128   | 0.126   | 0.122   |
| Impedance                  | Ω/km                | 0.836   | 0.586   | 0.432   | 0.349   | 0.293   | 0.244   |
| Short circuit ratings      |                     |         |         |         |         |         |         |
| Symmetrical                | kA (1sec)           | 4.0     | 5.8     | 8.0     | 10.2    | 12.5    | 15.7    |
| Earth fault                | kA (1sec)           | 2.4     | 2.5     | 2.7     | 2.9     | 2.9     | 3.1     |
| Finish code                | ....SGB             | ....SGB | ....SGB | ....SHB | ....SHB | ....SHB | ....SHB |
| Steel Carrier size         |                     | 50      | 50      | 50      | 70      | 70      | 70      |
| Design load (UTS/2.5)      | kN max              | 24.6    | 24.6    | 24.6    | 34.9    | 34.9    | 34.9    |
| Conductor diameter         | mm app.             | 9.0     | 9.0     | 9.0     | 10.8    | 10.8    | 10.8    |
| Core diameter(PVC sheath)  | mm app.             | 11.5    | 11.5    | 11.5    | 13.5    | 13.5    | 13.5    |

Last updated May 2006

When ordering please quote: primary + size + finish code  
e.g. F2JA 3095 SGB



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