



Cable - Medium Voltage XLPE

Cable Description: 3 X 185 MM2 CIRCULAR COMPACT AL XLPE COPPER TAPE SCREEN LDPE SWA  
LDPE BLACK 19/33 KV IEC60502 PT 2 : SHEATHING

Design and Construction Data

|                                                 |                                                          |             |
|-------------------------------------------------|----------------------------------------------------------|-------------|
| Reference Manufacturing Standards               | IEC 60228 IEC 60502 PT 2                                 |             |
| Max. Permissible Continuous Conductor Temp      | °C                                                       | 90          |
| Max. Conductor Short Circuit Temp for 5 Seconds | °C                                                       | 250         |
| Rated Voltage ' Uo / U '                        | kV                                                       | 19/33       |
| Number of Conductors x Cross-Section            | mm <sup>2</sup>                                          | 3 x 185     |
| Conductor Material & Shape                      | Aluminum & Stranded Class 2 Circular Compact Round Shape |             |
| Insulation Material                             | XLPE                                                     |             |
| Conductor Screen Thickness                      | mm                                                       | 0.70        |
| Insulation Nominal Thickness                    | mm                                                       | 8.00        |
| Insulation Screen Thickness                     | mm                                                       | 0.70        |
| Insulation Color Stripes                        | RED,YELLOW,BLUE                                          |             |
| Shield Material Type/Size                       | mm                                                       | Copper Tape |
| Bedding Material                                | mm                                                       | LDPE        |
| Bedding Nominal Thickness                       | mm                                                       | 2.20        |
| Armour Material Type                            | Galvanized Steel Wire (SWA)                              |             |
| Nominal Armour Wire Size                        | mm                                                       | 3.15 -5%    |
| Outer Sheath Material                           | mm                                                       | LDPE        |
| Sheath Material Thickness                       | mm                                                       | 4.20        |
| Colour of Outer Sheath                          | Black                                                    |             |
| Approximate Cable Overall Diameter              | mm                                                       | 98.96       |
| Approximate Cable Weight                        | Kg/km                                                    | 12107       |
| Cable Length                                    | Meter                                                    | 400 ± 5%    |

Electrical Data

|                                                      |                                      |       |
|------------------------------------------------------|--------------------------------------|-------|
| Max Conductor DC resistance @ 20 °C                  | ohm/km                               | 0.164 |
| High Voltage Test at 63 kV for 5 min                 | No Breakdown Shall Occur             |       |
| Partial Discharge test (max)                         | pC                                   | 10    |
| Max Phase Conductor Short Circuit Current @ 1 Second | kA                                   | 17.39 |
| Current Carrying Capacity                            |                                      |       |
| Laid in Free air @ 30 °C Ambient Temperature         | Amp                                  | 354   |
| Laid in Duct @ 20 °C                                 | Amp                                  | 262   |
| Laid in Ground @ 20 °C                               | Amp                                  | 293   |
| Depth of laying in ground                            | m                                    | 0.80  |
| Soil Thermal Resistivity                             | K.m/W                                | 1.5   |
| Minimum Bending Radius                               | mm                                   | 12 D  |
| The Cable shall meet all Test requirements           | IEC 60228 IEC 60502 PT 2 IEC 60332-1 |       |

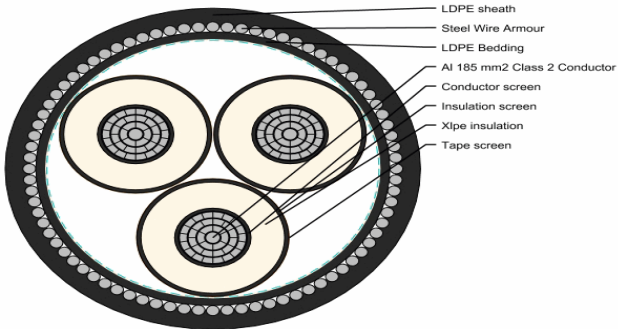
Cable Marking

|                                                                                                 |
|-------------------------------------------------------------------------------------------------|
| 3X185 MM SQ AL/XLPE/LDPE/SWA/LDPE 33 kV IEC 60228, 60502-2 FAST CABLES LTD Y.O.M - METER MARKED |
|-------------------------------------------------------------------------------------------------|

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**Cable Drawing**



| 3 X 185 MM2 CIRCULAR COMPACT AL XLPE COPPER TAPE<br>SCREEN LDPE SWA LDPE BLACK 19/33 KV IEC60502 PT 2 :<br>SHEATHING |    | Approx. Diameter |
|----------------------------------------------------------------------------------------------------------------------|----|------------------|
| Stranded Aluminum Conductor with Round shape                                                                         | mm | 15.30~16.80      |
| XLPE Insulated                                                                                                       | mm | 34.20            |
| Laid up cores                                                                                                        | mm | 79.06            |
| Bedding                                                                                                              | mm | 84.26            |
| Galvanized Steel Wire Armour (SWA)                                                                                   | mm | 90.56            |
| Outer Sheathing                                                                                                      | mm | 98.96            |