



HT XLPE CABLE

Document ID: TE/QMS/F/02

DESIGN CODE : MVIS17AXSFY2003C070SA001S

| Particulars | 3 Core X 70 Sq.mm |
|---|---|
| Name of Manufacturer | POLYCAB INDIA LTD |
| Type of Cable | A2XFY |
| Voltage Grade kV | 6.35/11 (E) |
| No of cores X size in sqmm | 3 Core X 70 Sq.mm |
| Maximum conductor temperature under normal operating conditions | 90°C |
| Maximum conductor temperature at the termination of short circuit | 250°C |
| Permissible Voltage Variation | ± 10% |
| Permissible Frequency Variation | ± 5% |
| Combined Voltage & Frequency variation | ± 10% |
| Conductor | |
| a) Material | H4 Grade Aluminium as per Class 2 of IS: 8130, latest |
| b) Maximum d.c. resistance of conductor at 20° C (ohm/km) | 0.443 |
| c) Shape | Stranded Compacted Circular |
| Conductor Screening | |
| a) Material | Extruded Semi-conducting Compound |
| b) Nominal thickness (mm) | 0.3 |
| Insulation | |
| a) Material | XLPE as per IS 7098(Pt-2)/2011 |
| b) Nominal thickness (mm) | 3.6 |
| c) Core identification | By Coloured strips(Red,Yellow,Blue) |
| Insulation Screening | |
| (i) Non - Metallic | |
| a) Material | Extruded Semi-conducting Compound |
| b) Nominal thickness (mm) | 0.3 |
| (ii) Metallic | |
| a) Material | Single Layer of Copper Tape |
| b) Approximate thickness (mm) | 0.03 |
| c) Earth fault Current withstand capacity of Cu Tape for 1 sec (KA) | 0.46 kA for 1 Sec, All 3 Cores Combined |
| Inner Sheath | |
| a) Material | Extruded PVC Type ST2 to IS:5831, latest |

| | | |
|--|--|--|
| b) | Minimum thickness (mm) | 0.5 |
| Armouring | | |
| a) | Material | Galvanised Steel |
| b) | Type of armouring | Flat Strip |
| c) | Nominal size of armour (mm) | 4.0 x 0.8 |
| d) | Tolerance on armour dimensions | ± 10% |
| Outer Sheath | | |
| (i) | Material | Extruded PVC Type 'ST2' as per IS:5831, latest |
| (ii) | Thickness (mm) | 1.88 (Min.) |
| (iii) | Colour of sheath | Black |
| Electrical Parameters | | |
| a) | Max. a.c. resistance of conductor at 90° C (ohm/km) | 0.568 |
| b) | Approx. Cable Capacitance (mfd/km) | 0.25 |
| c) | Approx. Cable reactance (ohm/km) | 0.106 |
| d) | Impedance of cable (ohm/km) | 0.578 |
| Continuous Current carrying capacities :- | | |
| (a) | In Ground at 30°C (A) | 161 |
| (b) | In Air at 40°C (A) | 184 |
| | Short Circuit rating of conductor for the duration of 1 sec (kA) | 6.61 |
| | Standard to which the cables confirm | IS 7098 Part 2/2011, IS 8130/2013, IS 5831/1984, IS 3975/1999 etc. with latest up to date amendments |
| | Approx. Overall diameter (mm) | 47.5 ± 2.0 |
| | Embossing | YEAR POLYCAB ELECTRIC 6.35/11 KV (E) GRADE XLPE |
| | Printing | YEAR POLYCAB ELECTRIC 6.35/11 KV (E) GRADE XLPE CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. |
| | Minimum Bending radius(mm) | 15 times Overall diameter |
| | Standard Drum Length (mtr) | 500 +/- 5% |
| | Non-Standard Drum Length (Mtr.) | Maximum 5% of order quantity |