

Document ID: TE/QMS/F/02 Rev. No. : 00 Issued Date : 02/04/2018

**Cable Description:** 1100V, Solid Class 1 Copper Conductor, XLPE insulated, Wrapping of Tape inner sheath, Galvanised Flat strip armour, Extruded FR-LSH PVC Type ST2 Outer sheath as per IS 7098 Part 1/1988

| I    | Technical Data Sheet of LT XLPE Cable                             | CABLE SIZE   |
|------|---|--|
|      | CABLE CODE  | LVIS09CXSFYL016C2.5SA004S  |
| S.No | Particulars   | 16 Core X 2.5 Sq.mm  |
| 1    | Name of Manufacturer  | Polycab India Ltd.   |
| 2    | Type of cable   | 2XFY   |
|      | Voltage Grade V   | 1100   |
| 4    | No of cores X size in sqmm  | 16 Core X 2.5 Sq.mm  |
| 5    | Conductor   |  |
| a)   | Material  | Plain annealed Copper as per Class 1 of IS:8130/2013   |
| b)   | Max. d.c. resistance of conductor at 20° C (ohm/km)               | 7.41   |
| C)   | Shape of the conductor  | Solid Circular   |
| 6    | Insulation  |  |
| a)   | Material  | XLPE as per IS 7098(Pt-1)/88, Latest   |
| b)   | Nominal thickness (mm)  | 0.7  |
| C)   | Core Identification   | All cores Grey with number printing  |
| 7    | Inner Sheath  |  |
| a)   | Material  | Wrapping of Tapes  |
| b)   | Minimum thickness (mm)  | 0.3  |
|      | Armouring   |  |
|      | Material  | Galvanised Steel   |
| b)   | Type of armouring   | Flat Strip   |
|      | Nominal size of armour (mm)                                       | 4.0 x 0.8  |
|      | Tolerance   | +/-10%   |
|      | Outer Sheath  |  |
| a)   | Material  | Extruded FR-LSH PVC Type ST2 as per IS:5831/84   |
|      | Thickness (mm)  | 1.40 (Min.)  |
|      | Colour of outer sheath.   | Black  |
|      | Electrical Parameters   |  |
|      | Max. a.c. resistance of conductor at 90° C (ohm/km)               | 9.45   |
|      | Calculated Cable reactance (ohm/km)                               | 0.0983   |
|      | Impedance of cable (ohm/km)                                       | 9.45   |
|      | Approx. Cable Capacitance (mfd/km)                                | 0.19   |
|      | Maximum conductor temperature under normal operating              |  |
| 11   | conditions  | 90°C   |
| 12   | Maximum conductor temperature at the termination of short circuit | 250°C  |
| 13   | Short Circuit rating of conductor for the duration of 1 sec (kA)  | 0.36   |
| 14   | Continuous Current carrying capacities :-                         |  |
| (a)  | In Ground at 30°C (A)   | 18   |
| (b)  | In Air at 40°C (A)  | 16   |
| 15   | Applicable Standard   | IS 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up   |
| 16   | Approx. overall diameter of the cable in mm                       | to date amendments<br>21.0 ± 2   |
|      | Minimum bending radius  | 12 times Overall diameter  |
|      | Minimum bending radius<br>Max. Tensile strength                   |  |
|      | for Cables pulled with stocking (Newtons)                         | 9 x D², D is the cable OD in mm  |
|      |   |  |
|      | for Cables pulled with pulling eyes (N)<br>Embossing              | 2,000<br>POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH   |
| 19   | LINDOSSING  | FOLICAD ELECTRIC TIUU VOLIS GRADE ALPE FR-LSH  |
| 20   | Printing  | YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE<br>CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. |
| 21   | Standard Drum Length (Mtr.)                                       | 1000 ± 5%  |
|      | Non- Standard Drum Length (Mtr.)                                  | Maximum 5% of order quantity   |
|      | FR-LSH PROPERTIES   |  |
|      | Oxygen Index  | Min. 29% as per ASTM D- 2863   |
|      | Temperature Index   | Min. 250 Deg.C as per ASTM D- 2863   |
|      | Smoke Density Rating  | Max. 60% as per ASTM D- 2843   |
|      | Acid Gas Generation   | Max. 20% as per IEC- 754- 1  |
|      |   |  |
| e)   | Flammability Test   | As per IEC:332-I   |