



LT XLPE CABLE

TDS Doc.No:PIL/TE/250425/001476

DESIGN CODE : LVIS09AXSFYL3.5C400SA002S

Particulars		3.5 Core X 400 Sq.mm
Name of Manufacturer		Polycab India Ltd
Type of cable		A2XFY
Voltage Grade V		1100
No of cores X size in sqmm		3.5 Core X 400 Sq.mm
Conductor		
a)	Material	H2/H4 Grade Aluminium as per Class 2 of IS: 8130/2013, latest
b)	Max. d.c. resistance of conductor at 20° C (ohm/km) Main	0.0778
	Neutral	0.164
c)	Shape of the conductor	Stranded Compacted Sector
Insulation		
a)	Material	XLPE as per IS 7098(Pt-1)/88, Latest
b)	Nominal thickness (mm) Main	2.0
	Neutral	1.6
c)	Core identification	Red, Yellow, Blue, Black
Inner Sheath		
a)	Material	Extruded PVC Type ST2 as per IS:5831/84
b)	Minimum thickness (mm)	0.7
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		
a)	Material	Extruded FR-LSH PVC Type 'ST2' as per IS:5831
b)	Thickness (mm)	2.52 (Min.)
c)	Colour of outer sheath.	Black
Electrical Parameters		
a)	Max. a.c. resistance of conductor at 90° C (ohm/km)	0.102

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b) Calculated Cable reactance (ohm/km)	0.0702
c) Impedance of cable (ohm/km)	0.124
d) Approx. Cable Capacitance (mfd/km)	0.72
Maximum conductor temperature under normal operating conditions	90°C
Maximum conductor temperature at the termination of short circuit	250°C
Short Circuit rating of conductor for the duration of 1 sec (kA)	37.79

Continuous Current carrying capacities :-

(a) In Ground at 30°C (A)	420
(b) In Air at 40°C (A)	526
Applicable Standard	IS 7098 Part I/88, IS 8130/2013, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments
Approx. overall diameter of the cable in mm	63.5 +/- 3.0
Minimum bending radius	12 times Overall diameter
Max. Tensile strength	
(i) for Cables pulled with stocking (Newtons)	9 x D ² , D is the cable OD in mm
(ii) for Cables pulled with pulling eyes (N)	41,550
Embossing	POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH
Printing	YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval.
Standard Drum Length (Mtr.)	500 ± 5%
Non-Standard Drum Length (Mtr.)	Maximum 5% of order quantity

FR-LSH PROPERTIES

a) Oxygen Index	Min. 29% as per ASTM D- 2863
b) Temperature Index	Min. 250 Deg.C as per ASTM D- 2863
c) Smoke Density Rating	Max. 60% as per ASTM D- 2843
d) Acid Gas Generation	Max. 20% as per IEC- 754- 1
e) Flammability Test	As per IEC:332-I