CABLES

POLYCAB





HT XLPE CABLE

TDS Doc.No:PIL/TE/250425/002422 **DESIGN CODE : MVIS12AXSFYL003C400SA001S**

Particulars	3C X 400 Sqmm
Name of Manufacturer	Polycab India Ltd
Type of Cable	A2XFY
Voltage Grade kV	12.7/22
No of cores X size in sqmm	3 X 400
Maximum conductor temperature under normal operating conditions	90°C
Maximum conductor temperature at the termination of short circuit	250°C
a) Permissible Voltage Variation	± 10%
b) Permissible Frequency Variation	± 5%
c) Combined Voltage & Frequency variation	± 10%
Conductor	
a) Material	H4 Grade Aluminium as per Class 2 of IS: 8130/2013, latest
b) Maximum d.c. resistance of conductor at 20° C (ohm/km)	0.0778
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)	6.0
c) Core identification	By Coloured strips(Red,Yellow,Blue)
Insulation Screening	
Non - Metallic	
a) Material	Extruded Semi-conducting Compound
b) Nominal thickness (mm)	0.3
Metallic	
a) Material	Single Layer of Copper Tape
b) Approximate thickness (mm)	0.03
c) Earth fault Current withstand capacity of Cu Tape kA for 1 sec	0.46 kA for 1 Sec, 3 Core Combined

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Inner Sheath	
a) Material	Extruded PVC Type 'ST2' as per IS:5831, latest
b) Minimum thickness (mm)	0.7
Armouring	
a) Material	Gal.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, latest
b) Thickness (mm)	3.00 (Min.)
c) Colour of sheath	Black
Electrical Parameters	
a) Max. a.c. resistance of conductor at 90° C (ohm/km)	0.102
b) Approx. Cable Capacitance (mfd/km)	0.32
c) Approx. Cable reactance (ohm/km)	0.0914
d) Impedance of cable (ohm/km)	0.137
Continuous Current carrying capacities :-	
a) In Ground at 30°C (A)	400
b) In Air at 40°C (A)	519
Short Circuit rating of conductor for the duration of 1 sec (kA)	37.79
Standard to which the cables confirm	IS 7098 Part 2/2011, IS 8130, IS 5831, IS 3975 etc. with latest up to date amendments
Approx. Overall diameter (mm)	91.0 ± 3.0
Embossing	YEAR POLYCAB ELECTRIC 12.7/22 KV (E) GRADE XLPE FR-LSH
Printing	YEAR POLYCAB ELECTRIC 12.7/22 KV (E) GRADE XLPE FR-LSH, CABLE SIZE, CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval.
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

Note:-The values given above are subject to tolerances as per the relevant standards

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