



HT XLPE CABLE

TDS Doc.No:PIL/TE/250425/002534

DESIGN CODE : MVIS12AXAFYL001C630SA001S

Particulars		1 Core X 630 Sqmm
Name of Manufacturer		Polycab India Ltd
Type of Cable		A2XFaY
Voltage Grade kV		12.7/22
No of cores X size in sqmm		1 X 630
a) Maximum conductor temperature under normal operating conditions		90°C
b) 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)		0.0469
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		Natural
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

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c)	Earth fault Current withstand capacity of Cu Tape kA for 1 sec	0.15 kA for 1 Sec
Inner Sheath		
a)	Material	Extruded PVC Type ST2 to IS:5831, latest
b)	Minimum thickness (mm)	0.5
Armouring		
a)	Material	Aluminium
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 FR-LSH PVC Type 'ST2' as per IS:5831, latest
(ii)	Thickness (mm)	2.04 (Min.)
(iii)	Colour of sheath	Black
Electrical Parameters		
a)	Max. a.c. resistance of conductor at 90° C (ohm/km)	0.06
b)	Approx. Cable Capacitance (mfd/km)	0.39
c)	Approx. Cable reactance (ohm/km)	0.0949
d)	Impedance of cable (ohm/km)	0.114
Continuous Current carrying capacities :-		
(a)	In Ground at 30°C (A)	496
(b)	In Air at 40°C (A)	770
	Short Circuit rating of conductor for the duration of 1 sec (kA)	59.52
	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)	52.0 ± 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