



HT XLPE CABLE

Document ID: TE/QMS/F/02

DESIGN CODE : MVIS12AXSWY2003C185SA001S

Particulars	3 Core X 185 Sq.mm
Name of Manufacturer	POLYCAB INDIA LTD
Type of Cable	A2XWY
Voltage Grade kV	12.7/22 (E)
No of cores X size in sqmm	3 Core X 185 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)	0.164
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
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)	0.7
Armouring		
a)	Material	Galvanised Steel
b)	Type of armouring	Round Wire
c)	Nominal size of armour (mm)	3.15
d)	Tolerance on armour dimensions	± 0.080 mm
Outer Sheath		
(i)	Material	Extruded PVC Type 'ST2' as per IS:5831, latest
(ii)	Thickness (mm)	2.84 (Min.)
(iii)	Colour of sheath	Black
Electrical Parameters		
a)	Max. a.c. resistance of conductor at 90° C (ohm/km)	0.211
b)	Approx. Cable Capacitance (mfd/km)	0.24
c)	Approx. Cable reactance (ohm/km)	0.102
d)	Impedance of cable (ohm/km)	0.234
Continuous Current carrying capacities :-		
(a)	In Ground at 30°C (A)	270
(b)	In Air at 40°C (A)	336
Short Circuit rating of conductor for the duration of 1 sec (kA)		17.48
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)		76.0 ± 3.0
Embossing		YEAR POLYCAB ELECTRIC 12.7/22 KV (E) GRADE XLPE
Printing		YEAR POLYCAB ELECTRIC 12.7/22 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