





Stranded Aluminium Conductor Extruded Semi-Conducting Compound XLPE Insulation Extruded Semi-Conducting Compound

Metallic Screen

Extruded Inner Sheath

Filler Material

Gal. Steel Round Wire Armour Extruded PVC type ST2 Outer Sheath



HT XLPE CABLE

DESIGN CODE: MVIS12AXSWY2003C185SA001S Document ID: TE/QMS/F/02

Type of Cable 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 Maximum conductor temperature at the termination of short circuit Permissible Voltage Variation ± 10% Permissible Frequency Variation A2XWY 250°C 250°C ± 10%	unient ib. 1E/Qivi3/F/02	5251G11 GG52 : M1115 12/ M311 12000 G1000/ (0)		
Type of Cable Voltage Grade kV Voltage Grade kV Voltage Grade kV No of cores X size in sqmm Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit 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 (hm/km) c) Shape Stranded Compacted Circular Conductor Screening a) Material Extruded Semi-conducting Compound 0.3 Insulatival Screening b) Nominal thickness (mm) 6 c Core identification By Coloured strips (Red, Yellow, Blue) Insulatival Screening (i) Non - Metallic a) Material Extruded Semi-conducting Compound 0.3 Insulatival Screening (ii) Mon - Metallic a) Material Extruded Semi-conducting Compound 0.3 Material Screening (iii) Mon - Metallic a) Material Single Layer of Copper Tape 0.03 (iii) Metallic a) Material Single Layer of Copper Tape 0.04 Approximate thickness (mm) 0.03 Extruded Semi-conducting Combined Insulatival Single Layer of Copper Tape 0.04 Approximate thickness (mm) 0.03 Extruded Semi-conducting Combined Insulatival Single Layer of Copper Tape 0.04 Approximate thickness (mm) 0.03 Extruded Semi-conducting Combined Insulatival Single Layer of Copper Tape 0.04 Approximate thickness (mm) 0.03 Extruded Semi-conducting Combined Insulatival Single Layer of Copper Tape 0.04 Approximate thickness (mm)	Particulars	3 Core X 185 Sq.mm		
Voltage Grade kV No of cores X size in sqmm Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit Permissible Voltage Variation Permissible Frequency Variation Combined Voltage & Frequency variation Extraorded Compacted Circular ### A Grade Aluminium as per Class 2 of IS: 8130, latest ### B Maximum d.c. resistance of conductor at 20° C (ohm/km) c) Shape Material ### A Grade Aluminium as per Class 2 of IS: 8130, latest ### B Waterial ### B Waterial ### B Extruded Semi-conducting Compound ### D Nominal thickness (mm) c) Core identification ### B W Coloured strips (Red, Yellow, Blue) ### Instruded Semi-conducting Compound ### D Nominal thickness (mm) c) Core identification ### B Waterial ### B W Coloured strips (Red, Yellow, Blue) ### Instruded Semi-conducting Compound ### D Nominal thickness (mm) c) Core identification ### B Waterial ### B W Coloured strips (Red, Yellow, Blue) ### Instruded Semi-conducting Compound ### D Nominal thickness (mm) c) Single Layer of Copper Tape b) Nominal thickness (mm) c) Earth fault Current withstand capacity of Cu Tape for 1 sec (KA) ### Instruction ### 10% ### 250°C ###	Name of Manufacturer	POLYCAB INDIA LTD		
No of cores X size in sqmm Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit Permissible Voltage Variation Permissible Frequency Variation Combined Voltage & Frequency variation Ending the strength of	Type of Cable	A2XWY		
Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit Permissible Voltage Variation	Voltage Grade kV	12.7/22 (E)		
operating conditions Maximum conductor temperature at the termination of short circuit Permissible Voltage Variation Permissible Frequency Variation End Waterial Maximum d.c. resistance of conductor at 20° C (ohm/km) c) Shape Stranded Compacted Circular Conductor a) Material Binaterial b) Nominal thickness (mm) c) Core identification Insulation (ii) Metallic a) Material Extruded Semi-conducting Compound b) Nominal thickness (mm) (iii) Metallic a) Material b) Nominal thickness (mm) (iii) Metallic a) Material b) Nominal thickness (mm) (iii) Metallic a) Material b) Approximate thickness (mm) c) Gree for 1 sec (KA) Inner Sheath	No of cores X size in sqmm	3 Core X 185 Sq.mm		
short circuit Permissible Voltage Variation	Maximum conductor temperature under normal operating conditions	90°C		
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) c) Shape Stranded Compacted Circular Conductor Screening a) Material Extruded Semi-conducting Compound 0.3 Insulation a) Material XLPE as per IS 7098(Pt-2)/2011 6 8 by Coloured strips(Red,Yellow,Blue) Insulation Screening (i) Non - Metallic	Maximum conductor temperature at the termination of short circuit	250°C		
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)	Permissible Voltage 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) 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 Extruded Semi-conducting Compound b) Nominal thickness (mm) 0.3 (iii) 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) Inner Sheath	Permissible Frequency Variation	± 5%		
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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	b) Nominal thickness (mm)	0.3		
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c) Earth fault Current withstand capacity of Cu Tape for 1 sec (KA) O.46 kA for 1 Sec, All 3 Cores Combined Inner Sheath	a) Material	Single Layer of Copper Tape		
for 1 sec (KA) Inner Sheath	b) Approximate thickness (mm)	0.03		
	()	0.46 kA for 1 Sec, All 3 Cores Combined		
a) Material Extruded PVC Type ST2 to IS:5831, latest	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 C (kA)	Circuit rating of conductor for the duration of 1 sec	17.48
Standa	rd 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	c. Overall diameter (mm)	76.0 ± 3.0
Embos	sing	YEAR POLYCAB ELECTRIC 12.7/22 KV (E) GRADE XLPE
Printing	9	YEAR POLYCAB ELECTRIC 12.7/22 KV (E) GRADE XLPE CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval.
Minimu	um Bending radius(mm)	15 times Overall diameter
Standa	rd Drum Length (mtr)	500 +/- 5%
Non-St	andard Drum Length (Mtr.)	Maximum 5% of order quantity

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