

Document ID: TE/QMS/F/02

Rev. No.: 00 Issued Date: 02/04/2018

Cable Description: 1100V, Stranded Class 2 Copper Conductor, XLPE insulated, Wrapping of Tapes inner sheath, Galvanised Flat strip armour, Extruded FR-LSH PVC Type ST2 Outer sheath as per IS 7098 Part 1/1988

Technical Data Sheet of LT XLPE Cable			
1. Name of Manufacturer	ı	Technical Data Sheet of LT XLPE Cable	CABLE SIZE
Name of Manufacturer	П	CABLE CODE	LVIS09CXSFYL024C2.5SA002S
2 Yype of cable 22FY 1100 1	S.No	Particulars	24 Core X 2.5 Sq.mm
3 Voltage Grade V	1	Name of Manufacturer	Polycab India Ltd.
4 No of scores X size in signm	2	Type of cable	2XFY
Standard	3	Voltage Grade V	1100
Material Plain annealed Copper as per Class 2 of IS8130/2013	4	No of cores X size in sqmm	24 Core X 2.5 Sq.mm
Max	5	Conductor	
Shape of the conductor Stranded Circular	a)	Material	Plain annealed Copper as per Class 2 of IS:8130/2013
Solution	b)	Max. d.c. resistance of conductor at 20° C (ohm/km)	7.41
a) Material	c)	Shape of the conductor	Stranded Circular
Dominal thickness (mm)	6	Insulation	
c) Core Identification All cores Grey with number printing 7 Inner Sheath 9 Material Wrapping of Tapes 9 Material Galvanised Steel 9 Type of armouring 9 Material Galvanised Steel 9 Type of armouring 9 Material Galvanised Steel 9 Type of armouring 9 Flat Strip 9 Nominal size of armour (mm) 4.0 x 0.8 9 Outer Sheath 10 Tolerance 5 + 7-10% 11 Thickness (mm) 1,40 (Min.) 12 Colour of outer sheath. 13 Max a.c. resistance of conductor at 90° C (ohm/km) 9,45 15 Calculated Cable reactance (ohm/km) 9,45 16 Calculated Cable reactance (ohm/km) 9,45 17 Approx. Cable Capacitance (mfd/km) 9,45 18 Approx. Cable Capacitance (mfd/km) 9,45 19 Approx. Cable Capacitance (mfd/km) 9,45 10 Short Circuit rating of conductor for the duration of 1 sec (kA) 10 In Air at 40°C (A) 16 11 Air at 40°C (A) 16 12 Approx. Cable Standard 15 S 8130/2013,IS 7098 Part 1/88, IS S831/84, IS 3975/1999 etc. with latest up to date amendments 16 Approx. Caverall diameter of the cable in mm 24.0 ± 2.0 18 Max Tensile strength 16 Crables pulled with pulling eyes (N) 9 AD 15 CABLE SIZE CABLE TIPE CITIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SQUENTIAL MARKING at every one meter interval. 20 Short Circuit arting of Conductors (Mir.) 9 AD 2, D is the cable OD in mm 6 AD 2, D 2, D 3, D 3, S 3, D 3, D 3, D 3, D 3, D 3	- /		XLPE as per IS 7098(Pt-1)/88, Latest
7	- /		
Material Wrapping of Tapes	c)	Core Identification	All cores Grey with number printing
Diminimum thickness (mm)	7	Inner Sheath	
B	a)	Material	Wrapping of Tapes
Material Galvanised Steel	b)	Minimum thickness (mm)	0.3
Description Flat Strip Aux No. Aux A	8	Armouring	
Nominal size of armour (mm)			Galvanised Steel
Dicerance	b)	Type of armouring	Flat Strip
9 Outer Sheath	c)	Nominal size of armour (mm)	4.0 x 0.8
Material	d)	Tolerance	+/- 10%
b) Thickness (mm) c) Colour of outer sheath. b) Electrical Parameters 1.40 (Min.)	9	Outer Sheath	
b) Thickness (mm) c) Colour of outer sheath. Black Blas Black Black Blas	a)	Material	Extruded FR-LSH PVC Type ST2 as per IS:5831/84
c) Colour of outer sheath. Black Blectrical Parameters a) Max. a.c. resistance of conductor at 90° C (ohm/km) b) Calculated Cable reactance (ohm/km) c) Impedance of cable (ohm/km) d) Approx. Cable Capacitance (mfd/km) Maximum conductor temperature under normal operating conditions 250°C Maximum conductor temperature at the termination of short circuit short circuit short circuit short circuit rating of conductor for the duration of 1 sec (kA) Continuous Current carrying capacities: Applicable Standard Bayloid Standard Saloy Colours Standard Is 8130/2013,IS 7098 Part I/88, IS 5818/84, IS 3975/1999 etc. with latest up to date amendments Approx. overall diameter of the cable in mm Approx. overall diameter of the cable in mm Approx. overall diameter of the cable in mm Awax. Tensile strength for Cables pulled with stocking (Newtons) PolyCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. Short Circuit rating of conductor for the duration of 1 sec (kA) Temperature Index Min. 250 Deg.C as per ASTM D- 2863 Max. 20% as per ASTM D- 2863 Max. 20% as per IEC- 754- 1	b)	Thickness (mm)	
Delictrical Parameters Section			
b) Calculated Cable reactance (ohm/km) c) Impedance of cable (ohm/km) d Approx. Cable Capacitance (mfd/km) 11 Maximum conductor temperature under normal operating conditions 12 Maximum conductor temperature under normal operating conditions 13 Short Circuit sting of conductor for the duration of 1 sec (kA) 14 Continuous Current carrying capacities: 15 In Ground at 30°C (A) 16 In Air at 40°C (A) 17 Applicable Standard 18 Approx. overall diameter of the cable in mm 19 X 12 times Overall diameter 19 Max. Tensile strength 10 for Cables pulled with stocking (Newtons) 10 Embossing 11 Embossing 12 Standard Drum Length (Mtr.) 13 Calculated Cable in Embossing 14 CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 15 Standard Drum Length (Mtr.) 16 CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 17 Removerness 18 Reposition of order quantity 19 Femperature Index 10 Days on Standard Drum Length (Mtr.) 20 Space Pastin D - 2863 21 Standard Drum Length (Mtr.) 22 Reposition of the cable of the cable on the cable of the cable one maximum one meter interval. 22 Standard Drum Length (Mtr.) 23 Reposition of the cable (Mtr.) 24 Standard Drum Length (Mtr.) 25 Reposition of the cable (Mtr.) 26 Space Pastin D - 2863 27 Space Pastin D - 2863 28 Space Pastin D - 2863 29 Space Pastin D - 2863 30 Acid Gas Generation 4 Max. 20% as per IEC- 754- 1		Electrical Parameters	
c) Impedance of cable (ohm/km) d Approx. Cable Capacitance (mfd/km) 11 Maximum conductor temperature under normal operating conditions 12 Maximum conductor temperature at the termination of short circuit 13 Short Circuit as of conductor for the duration of 1 sec (kA) 14 Continuous Current carrying capacities: 16 In Ground at 30°C (A) 17 Applicable Standard 18 Approx. overall diameter of the cable in mm 19 Applicable Standard 19 Coto Standard 19 Coto Standard 19 Coto Standard 19 Coto Standard 10 In Air at 40°C (A) 11 In Air at 40°C (A) 12 Is 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 10 Approx. overall diameter of the cable in mm 10 Cables pulled with stocking (Newtons) 10 In Cables pulled with stocking (Newtons) 11 Embossing 19 Embossing 10 POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 10 VEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 11 CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 12 Standard Drum Length (Mtr.) 13 CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 14 CONSTRUCTION OF STANDARD ASSISTED ASSISTED OR STANDARD ASSISTED OR STANDA	a)	Max. a.c. resistance of conductor at 90° C (ohm/km)	9.45
d Approx. Cable Capacitance (mfd/km) Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit Short Circuit rating of conductor for the duration of 1 sec (kA) Continuous Current carrying capacities: (a) In Ground at 30°C (A) (b) In Air at 40°C (A) Applicable Standard Short Circuit rating of conductor for the duration of 1 sec (kA) Applicable Standard Shapprox. overall diameter of the cable in mm Approx. overall diameter Minimum bending radius Max. Tensile strength (i) for Cables pulled with stocking (Newtons) (ii) for Cables pulled with pulling eyes (N) Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) Non- Standard Drum Length (Mtr.) Approx. overall diameter YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 22 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- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1	b)	Calculated Cable reactance (ohm/km)	0.099
Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit 3	c)	Impedance of cable (ohm/km)	9.45
Maximum conductor temperature under normal operating conditions Maximum conductor temperature at the termination of short circuit 3	d	Approx. Cable Capacitance (mfd/km)	0.21
Maximum conductor temperature at the termination of short circuit Short Circuit rating of conductor for the duration of 1 sec (kA) 14 Continuous Current carrying capacities: (a) In Ground at 30°C (A) In Air at 40°C (A) Applicable Standard Special Standard Minimum bending radius Max. Tensile strength (i) for Cables pulled with stocking (Newtons) PolyCaB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH Tensing Printing PolyCaB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) Sonygen Index Min. 29% as per ASTM D- 2863 D Smoke Density Rating Max. 60% as per ASTM D- 2843 Max. 60% as per IEC- 754- 1	11	Maximum conductor temperature under normal	90°C
Short Circuit rating of conductor for the duration of 1 sec (kA) 14 Continuous Current carrying capacities:- (a) In Ground at 30°C (A) 15 In Ground at 30°C (A) 16 In Air at 40°C (A) 17 Applicable Standard 18 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 19 Approx. overall diameter of the cable in mm 10 Approx. overall diameter of the cable in mm 11 Approx. overall diameter of the cable in mm 12 Approx. overall diameter of the cable in mm 13 Applicable Standard 14 Is 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 16 Approx. overall diameter of the cable in mm 17 Applicable Standard 18 Max. Tensile strength (i) for Cables pulled with stocking (Newtons) 19 Embossing 10 POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTR	12	Maximum conductor temperature at the termination of	250°C
14 Continuous Current carrying capacities:- (a) In Ground at 30°C (A) 16 (b) In Air at 40°C (A) 14 15 Applicable Standard Is 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 16 Approx. overall diameter of the cable in mm 24.0 ± 2.0 17 Minimum bending radius 12 times Overall diameter 18 Max. Tensile strength 5 or Cables pulled with stocking (Newtons) 9 x D², D is the cable OD in mm (ii) for Cables pulled with pulling eyes (N) 3,000 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 20 Printing CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 500 ± 5% 22 Non- Standard Drum Length (Mtr.) Maximum 5% of order quantity 23 FR-LSH PROPERTIES 29 Oxygen Index Min. 29% as per ASTM D- 2863 20 Smoke Density Rating Max. 60% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1	13	Short Circuit rating of conductor for the duration of 1 sec	0.36
(a) In Ground at 30°C (A) 16 (b) In Air at 40°C (A) 14 15 Applicable Standard Is 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 16 Approx. overall diameter of the cable in mm 24.0 ± 2.0 17 Minimum bending radius 12 times Overall diameter 18 Max. Tensile strength 9 x D², D is the cable OD in mm (ii) for Cables pulled with stocking (Newtons) 9 x D², D is the cable OD in mm (iii) for Cables pulled with pulling eyes (N) 3,000 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 20 Printing YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 500 ± 5% 22 Non- Standard Drum Length (Mtr.) Maximum 5% of order quantity 23 FR-LSH PROPERTIES 24 Oxygen Index Min. 29% as per ASTM D- 2863 25 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			
(b) In Air at 40°C (A) Applicable Standard IS 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 16 Approx. overall diameter of the cable in mm Applicable Standard 12 times Overall diameter 18 Max. Tensile strength (i) for Cables pulled with stocking (Newtons) 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) Standard Drum Length (Mtr.) Applicable Standard Drum Length (Mtr.) Applicable Standard Drum Length (Mtr.) Standard Drum Length (Mtr.) Applicable Standard Drum Length (Mtr.) Maximum 5% of order quantity Printing Applicable Standard Drum Length (Mtr.) Maximum 5% of order quantity Min. 29% as per ASTM D- 2863 Di Temperature Index Min. 250 Deg.C as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1			16
Applicable Standard S 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with latest up to date amendments 16			*
Approx. overall diameter of the cable in mm 24.0 ± 2.0 17 Minimum bending radius 12 times Overall diameter 18 Max. Tensile strength 19 For Cables pulled with stocking (Newtons) 9 x D², D is the cable OD in mm 3,000 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 20 Printing YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH 20 CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 500 ± 5% 22 Non- Standard Drum Length (Mtr.) Maximum 5% of order quantity 23 FR-LSH PROPERTIES 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	(-)	. ,	IS 8130/2013,IS 7098 Part I/88, IS 5831/84, IS 3975/1999 etc. with
17 Minimum bending radius 18 Max. Tensile strength (i) for Cables pulled with stocking (Newtons) (ii) for Cables pulled with pulling eyes (N) 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 22 Non- Standard Drum Length (Mtr.) 30 Oxygen Index Min. 29% as per ASTM D- 2863 D Smoke Density Rating Max. 20% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1	16	Approx, overall diameter of the cable in mm	24.0 ± 2.0
18 Max. Tensile strength (i) for Cables pulled with stocking (Newtons) (ii) for Cables pulled with pulling eyes (N) 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 22 Non- Standard Drum Length (Mtr.) 3 FR-LSH PROPERTIES a) Oxygen Index Min. 29% as per ASTM D- 2863 b) Temperature Index CSMOKE Density Rating Max. 60% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1			
(i) for Cables pulled with stocking (Newtons) (ii) for Cables pulled with pulling eyes (N) 20 Printing 21 Standard Drum Length (Mtr.) 22 Non- Standard Drum Length (Mtr.) 23 FR-LSH PROPERTIES 24 Oxygen Index 3 D oxygen Index 3 D is the cable OD in mm 3,000 POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. Maximum 5% of order quantity 25 FR-LSH PROPERTIES 26 Oxygen Index 3 D Oxygen Index 4 Min. 29% as per ASTM D- 2863 5 Smoke Density Rating 4 Acid Gas Generation 4 Max. 20% as per ASTM D- 2843 Max. 20% as per IEC- 754- 1		3	
(ii) for Cables pulled with pulling eyes (N) 19 Embossing POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 22 Non- Standard Drum Length (Mtr.) 3 FR-LSH PROPERTIES a) Oxygen Index Doxygen Index Min. 29% as per ASTM D- 2863 Doxygen Index Max. 60% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1			9 x D². D is the cable OD in mm
POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH YEAR POLYCAB ELECTRIC 1100 VOLTS GRADE XLPE FR-LSH CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) S00 ± 5% Non- Standard Drum Length (Mtr.) Maximum 5% of order quantity 3 FR-LSH PROPERTIES a) Oxygen Index Min. 29% as per ASTM D- 2863 b) Temperature Index C) Smoke Density Rating Max. 60% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1			
Printing CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. 21 Standard Drum Length (Mtr.) 22 Non- Standard Drum Length (Mtr.) 33 FR-LSH PROPERTIES a) Oxygen Index b) Temperature Index C) Smoke Density Rating d) Acid Gas Generation CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every one meter interval. Maximum 5% of order quantity	` '	, , , , , , , , , , , , , , , , , , , ,	
22 Non- Standard Drum Length (Mtr.) 23 FR-LSH PROPERTIES a) Oxygen Index b) Temperature Index C) Smoke Density Rating d) Acid Gas Generation Max. 20% as per LEC- 754- 1	20	Printing	CABLE SIZE CABLE TYPE WITH SEQUENTIAL MARKING at every
22 Non- Standard Drum Length (Mtr.) 23 FR-LSH PROPERTIES a) Oxygen Index b) Temperature Index C) Smoke Density Rating d) Acid Gas Generation Max. 20% as per LEC- 754- 1	21	Standard Drum Length (Mtr.)	500 + 5%
23 FR-LSH PROPERTIES a) Oxygen Index b) Temperature Index c) Smoke Density Rating d) Acid Gas Generation Min. 29% as per ASTM D- 2863 Max. 60% as per ASTM D- 2843 Max. 20% as per IEC- 754- 1	_	3	
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		· ·	iviaxiinum 5% of order quantity
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	-		Min 200/ oc nor ACTM D 2002
c) Smoke Density Rating Max. 60% as per ASTM D- 2843 d) Acid Gas Generation Max. 20% as per IEC- 754- 1		, ,	·
d) Acid Gas Generation Max. 20% as per IEC- 754- 1		·	
·		<u> </u>	
e) Flammability Test As per IEC:332-l			·
	e)	Flammability Test	As per IEC:332-I