

8212248/2023/EE/RT/ENE/31

FINECAB WIRES &amp; CABLES PVT LTD

2.For EPC contractors only.

Guaranteed Technical Particulars

Customer : Transmission corporation of Andhra Pradesh Limited (APTransco)			
PROJECTNAME:-		AS APPLICABLE	
PO :-			
Contractor: AS APPLICABLE		Drawing approval subject to valid vendor registration	
TITLE: Power Cable			
SR. NO	PARTICULARS	Unit	1 C X 300
	Description	Unit	Confirmation/Commitment by the Supplier/Bidder
1	Name of Manufacturer.		FINECAB WIRES & CABLES PVT LTD (BRAND NAME-FINECAB)
2	Applicable Standard.		IS : 7098 (PART-1) 1988
3	Voltage Grade.	Volts	1100
4	Permission variation in a)Voltage	%	±10
	b)Frequency	%	±5
	c) Combined	%	±10
5	Wheather Suitable for Earthed or Uearthed System		Both
6	SIZE	SQ.MM	1 C X 300
7	Type.		A2XFaY
8	Conductor :		
a.	Material		H2 GRADE ALUMINIUM AS PER IS 8130 : 2013 CLASS 2
b.	Nominal Size	SQ.MM	300
c.	Number of wires in each conductor	Nos.	37
d.	Diameter of Each Wire (Before Stranding)	mm	3.22
e.	Shape of conductor		STRANDED CIRCULAR
f.	DC Resistance at 20°C (MAX.)	Ohms/K m	0.100
g.	AC Resistance at 90°C (MAX.)	Ohms/K m	0.128
h.	Direction of lay of Conductor		RIGHT HAND LAY
a.	Material.		EXTRUDED XLPE
b.	IS Reference		IS : 7098 (PART-1) 1988
c.	Nominal Thickness.	mm	2.1
d.	Cores identification		NATURAL
e.	Cores identification		Confirming to : IS 7098 Part 1
10	Armouring		
a.	Material & Type		ALUMINIUM FLAT STRIP
b.	Extruded OR Wrapped		Wrapped
c.	IS Reference		IS: 7098(P-1)1988
d.	Nominal Diameter	mm	4X0.8
e.	minimum fictitious diameter over armour	mm	25.30
f.	Direction of lay of armour		LEFT HAND LAY
g.	Min . Coverage of armour		upto 90 %
11	Outer Sheath		
a.	Material		EXTRUDED PVC
b.	Type.		ST-2 WITH FRLS PROPERTIES
c.	IS Reference		IS : 5831 - 1984
d.	Minimum Thickness	mm	1.56
e.	Colour		BLACK
f.	minimum fictitious diameter over outhersheath	mm	28.42

**CHIEF ENGINEER/PROJECTS**  
**APTRANSCO/VS/VIJAYAWADA**




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12	FRLS PROPERTIES		
a.	Oxygen Index (Minimum)	%	29
b.	Temperature index (Minimum)	Deg C	250
c	Smoke Density (Maximum)	%	60
d.	Acid Gas Generation (HCL%) Maximum	%	20
e.	Flamibility Test a.Unefected Portion (min.)	mm	50
	b. Flame Duration (Max.)	sec.	60
	Insulation		
	d) Minimum volume resistivity at (ohm-cm)		
	(i) 27 deg. C.		$1 \times 10^{14}$
	(ii) 70 deg. C.		NA
	(iii) 90 deg. C.		$1 \times 10^{12}$
	Minimum tensile - strength of insulation	N/mm <sup>2</sup>	12.5(min)as per IS 7098(Part-1):1988
	Minimum elongation at break	%	200(min)as per IS 7098(Part-1):1988
	Minimum tensile - strength of sheath	N/mm <sup>2</sup>	12.5(min)as per IS 5831:1984
	Minimum elongation at break	%	150(min)as per IS 5831:1984
	Minimum tensile - strength of armour	Mpa	300-500 as per IS 3975:1999
	Minimum elongation at break	%	10 (min) as per IS 3975:1999
	High voltage test and duration (PVC cables)		
	a) At room temperature		NA
	b) Under water		NA
	XLPE Cable		
	a) High voltage test		3KV for 5mint as per IS 7098:1988
	b)Current carrying capacity in air and corresponding assumptions/conditions of installation		As per IS : 1255
13	ELECTRICAL CHARACTERISTICS		
a.	laying up of cable is accordance with		Confirming to : IS : 1255
b.	Short Circuit Rating for 0.12 Sec. Duration	KA	45.0
c.	Conductor Temperature allowed for Continues Operation condition (Max.)	°C	90
d.	Conductor Temperature allowed for the short circuit condition (Max.)	°C	250
14	GENERAL		
a.	Standard drum length	Mts	500/1000 ( ±5 %) OR ACTUAL
b.	Cable - Drum		Shall confirm to IS 10418 only
c.	Recommended min. Bending radius of cable	mm	12 X OVERALL DIA OF A CABLE
d.	Recommended Max. Safe pulling force		
	i) When Cable Pulled by pulling eye	N	9000
e.	Packing Material		NON RETURNABLE WOODEN DRUM
f.	Embossing on Cable		PROVIDE AS PER IS-7098 (PART-1)1988, Name of Customer, Year of manufacturing, FRLS, APTRANSCO
g.	Cable should be ISI Marked		Yes , All cable furnish with ISI - Marked only
h.	Sequential marking of length (Printing)		PROVIDE EVERY METER
i	End cap		Provided both end of cable
			
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