APAR INDUSTRIES LTD (UNIT: UNIFLEX CABLES)
Survey No. 82/2P,88,861/1,862/1,863/1, Khata No. 1049, Manekpur Road, Khatalwada
PO Manekpur- 396 120, DIST VALSAD, GUJARAT,
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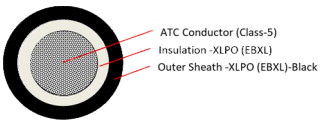
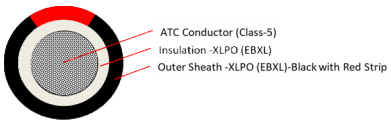
TECHNICAL PARTICULARS

1.0/1.0 KV AC OR 1.5/1.5 KV DC (Nom)(1.8 KV DC(Max.) SOLAR CABLE

Date : 21/11/2020





Sr.No.	PARTICULARS		SIZE : UNIT	1 X 6 Sq.mm
1.	NAME OF MANUFACTURER			APAR INDUSTRIES LTD (UNIT : UNIFLEX CABLES)
2.	APPLICABLE STANDARD			AS PER EN-50618/2014
3.	TYPE OF CABLE			SOLAR CABLE
4.	VOLTAGE GRADE		KV	1.0/1.0 KV (AC)
			KV	1.5 KV (DC)(Nom)
				(both Conductor to Conductor & Conductor to Earth)
				1.8 KV (DC)(Max)
5	NO. OF CORES		No.	1
6.	CONDUCTOR	a) Material		FINE WIRE STRANDS ANNEALED TINNED COPPER
		b) Nom. Size	Sq.mm.	6
		c) Shape		FLEXIBLE (CLASS - 5) AS PER IEC 60228:2004
		d) No.of strands		84
		e) Max.Wire dia.(Before stranding)	mm	0.31
		f) Approx.Conductor Diameter	mm	2.98
		g) Max. D.C. Resistance at 20°C	Ohm/Km	3.39
7.	INSULATION	a) Material		ELECTRON BEAM CROSS LINKED CO-POLYMER HALOGEN FREE (XLPO) (POLYOLEFIN))
		b) Nom. Thickness	mm	0.7
		c) Colour of Insulation		NATURAL
		d) Min Insulation Resistance		500 Mega Ohm.KM AT 20°C
8	OUTER SHEATH	a) Material		ELECTRON BEAM CROSS LINKED CO-POLYMER HALOGEN FREE (XLPO) (POLYOLEFIN)
		b) Nom. Thickness	mm	0.8
		c) Colour		Black(50% Qty),Black with red strip(50% Qty)
9	OVERALL DIAMETER OF CABLE		mm	6.1+/-0.3 mm
10	APPROX. NET WEIGHT OF CABLE		Kg/Km	75
11	PROPERTY OF CABLE			
	- Test Voltage			6.5 KV AC FOR 5 min.(Equivalent DC Voltage 15KV)
	- Tinned fine copper strands (Class - 5)			CONFIRM (AS PER IEC : 60228 - 2004)
	- Conductor Temperature			
		a) Max.conductor temperature at rated current	^{0}C	90
		b) Short circuit Temperature	^{0}C	250 for 5 Second
		c) Conductor temperature when oveload capacity	^{0}C	120
		d) Min.conductor temperature at rated current	^{0}C	- 40
		e) Operating Temperature	^{0}C	- 40 to +120
	- Service life			EXPECTED SERVIVE LIFE 25 YEARS
	- Acid & Alkalki Resistance on sheath			AS PER EN : 60811-404
	- Weathering & UV Resistance on sheath			AS PER EN-50618/2014
	- Ozone Resistance on complete cable			Method A (AS PER EN : 60811-403)
	- Thermal Endurance Test			AS PER EN : 60216
	- Dynamic Penetration Test			AS PER EN-50618/2014
	- Damp heat Test			AS PER EN : 60068-2-78

Sr.No.	PARTICULARS	SIZE : UNIT	1 X 6 Sq.mm
	- Smoke emission		60 % TRANSMITTANCE (Min.) (AS PER IEC : 61034)
	-Water Resistance(Long Term Resistance of Insulation to DC)		AS PER EN: 50395
	-Surface Resistance on Sheath		AS PER EN: 50395
	- Halogen free		AS PER IEC : 60754 - 1
	- Vertical Flame Propogation Test		AS PER IEC : 60332-1
	- Min. Bending radius of cable	mm	5 TIMES O.D.
	Current Rating a) In Air (upto 60^{o}C)	Amp	70
	Current Rating b) Single cable on surface	Amp	67
	Current Rating c) Two cables adjecent on surface	Amp	57
12	STANDARD PACKING LENGTH	Mtrs.	1000/2000 ± 5%
13	CABLE END SEALING		END CAP WITH SUITABLE MATERIAL
14	NON STANDARD LENGTH		10%-20% QUANTITY TO BE SUPPLIED IN NON STD.LENGTHS.
	ORDER QUANTITY TOLERANCE		±5%
15	PRINTING		0000M APAR-UNICAB INDIA 1.8KV DC EBXL XLPO/XLPO 120°C " H1Z2Z2-K" SOLAR CABLE (As per EN 50618) ZH-FRLS "FRNC " size in sqmm 2020

Note : The No. of strands & Strand diameter shall be such that it meets the conductor resistance as per relevant standard.