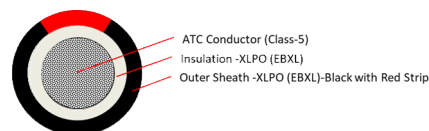
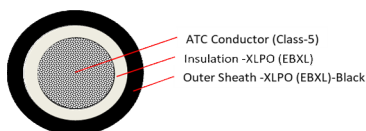


**TECHNICAL PARTICULARS****1.0/1.0 KV AC OR 1.5/1.5 KV DC (Nom)(1.8 KV DC(Max.) SOLAR CABLE**

Date : 13/12/2023



Sr.No.	PARTICULARS	SIZE :	1 X 6
		UNIT	mm <sup>2</sup>
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		FINE WIRE STRANDS ANNEALED TINNED COPPER
	a) Material		
	b) Nom. Size	mm <sup>2</sup>	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		ELECTRON BEAM CROSS LINKED CO-POLYMER HALOGEN FREE (XLPO) (POLYOLEFIN))
	a) Material		
	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		ELECTRON BEAM CROSS LINKED CO-POLYMER HALOGEN FREE (XLPO) (POLYOLEFIN)
	a) Material		
	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	°C	90
	b) Short circuit Temperature	°C	250 for 5 Second
	c) Conductor temperature when oveload capacity	°C	120
	d) Min.conductor temperature at rated current	°C	- 40
	e) Operating Temperature	°C	- 40 to +120
	- Service life		EXPECTED SERVICE LIFE 25 YEARS
	- Acid & Alkali 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

Sr.No.	PARTICULARS	SIZE :	1 X 6
		UNIT	mm <sup>2</sup>
	- Damp heat Test		AS PER EN : 60068-2-78
	- 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 Propagation Test		AS PER IEC : 60332-1
	- Min. Bending radius of cable	mm	5 TIMES O.D.
	Current Rating a) In Air (upto 60°C)	Amp	70
	b) Single cable on surface	Amp	67
	c) Two cables adjacent on surface	Amp	57
12	STANDARD PACKING LENGTH	Mtrs.	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 2023

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