

责任、效率、坚韧、开放

Responsibility、efficiency、tenacity、open



# ADSS 全介质自承式光缆

全介质自承式光缆 (All Dielectric Self-Supporting Optical Fiber Cable, 简称ADSS光缆), 是一种全部由介质材料组成、自身可承载负荷、直接悬挂于电力杆塔上的非金属光缆, 主要用于架空高压输电系统的通信路线。

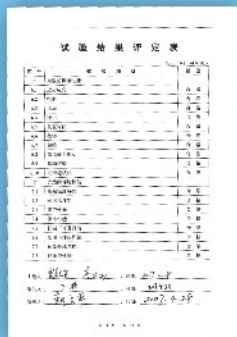
ADSS具有以下特点:

- (1) 全绝缘介质的自承式架空光缆, 结构中不含金属材料, 主要应用于电力系统
- (2) 芯数大、重量轻, 可与电力线同塔架设, 节约资源
- (3) 施工、维护方便, 大多不需停电
- (4) 采用抗拉强度高的芳纶材料承受较强张力, 可防止鸟啄和枪击;
- (5) 热膨胀系数较小, 在温度变化很大时, 光缆线路的弧度变化小
- (6) 不涉及防雷问题, 可用于多雷暴地区

ADSS(All Dielectric Self-Supporting Optical Fiber Cable) is a non-metal optical cable composed of dielectric material, self-supporting and hang on the transmission tower. It is main used in Overhead high voltage transmission system and telecommunication line.

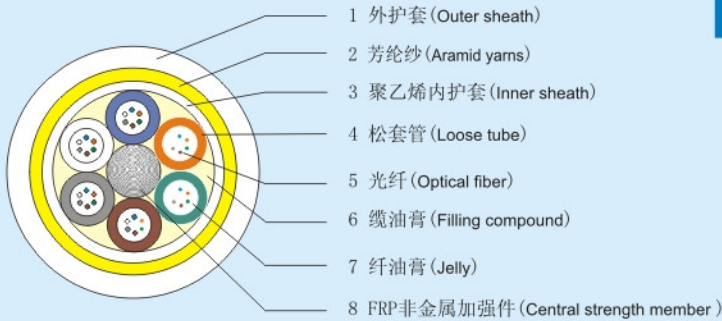
Features:

- 1. All insulation dielectric Self-Supporting Optical Fiber Cable
- 2. Multi-core, light weight, can be laid with the power line at the same tower and save resources.
- 3. Easy construction and maintenance, mostly no need to cut the power.
- 4. Made of high tensile strength of aramid materials to bear strong tension and prevent the birding pecking and shooting
- 5. Small Thermal expansion coefficient, when there is big change of temperature, the radian of optical cable line will be small.
- 6. Can be used in more thunderstorm area.





## ADSS-光缆横截面图



### ADSS-结构参数

序号 (NO)	项目 (Project)	单位 (Unit)	取值 (Value)						
1	型号 (model)		ADSS						
2	芯数 (fiber num)	芯	24						
3	适用跨距 (span)	m	200	300	400	500	600	700	800
4	外径 (outer diameter) nb	mm	11.5	11.8	12.2	12.5	12.8	14.3	14.5
5	重量 (unit weight)	kg/km	114	120	126	130	136	175	180
6	截面积 (area)	mm	103.87	109.36	116.90	122.72	128.68	160.61	165.13
7	额定抗拉强度 (RTS)	kN	16.25	22.5	28.75	32.5	38.75	51.25	56.25
8	最大使用张力 (MAT)	kN	6.50	9.00	11.50	13.00	15.50	20.50	22.50
9	年平均运行张力 (EDS)	kN	2.93-4.06	4.05-5.63	5.18-7.19	5.85-8.13	6.98-9.69	9.23-12.81	10.13-14.06
10	极限运行张力 (UOS)	kN	9.75	13.5	17.25	19.5	23.25	30.75	33.75
11	杨氏模量 (module)	kN/mm	14.21	17.80	20.90	22.52	25.22	27.17	28.76
12	热膨胀系数 (Thermal expansion coefficient)	10 <sup>-6</sup> /°C	3.33	2.05	1.28	0.96	0.53	0.62	0.41
13	最小弯曲半径(运行)(mini dynamic bending radius)	mm	115	118	122	125	128	143	145
14	最小弯曲半径(敷设)(mini static bending radius)		230	236	244	250	256	286	290
15	抗压强度(长期)(long-term Pressure-resisting strength)	N/100mm	1000						
16	抗压强度(短期)(short-term Pressure-resisting strength)		2200						
17	最大敷设区电势(maximum laying electric potential)	kV	12~25						
18	适应温度范围 (fitting temperture range)	°C	-40~+70						
19	光纤余长(fiber beyond length)	%	0.5~0.7						
20	最大盘长(maximum length of drum)	km	6						