

Optical Fibre Composite Overhead Ground Wire (OPGW)



Optical fibre composite overhead ground wire (OPGW) includes fibre and at the same time maintains all the original performance and functions of the existing overhead ground wire which opens up the high-performance optical transmission channel, giving it both lightning-resistant and communication functions.

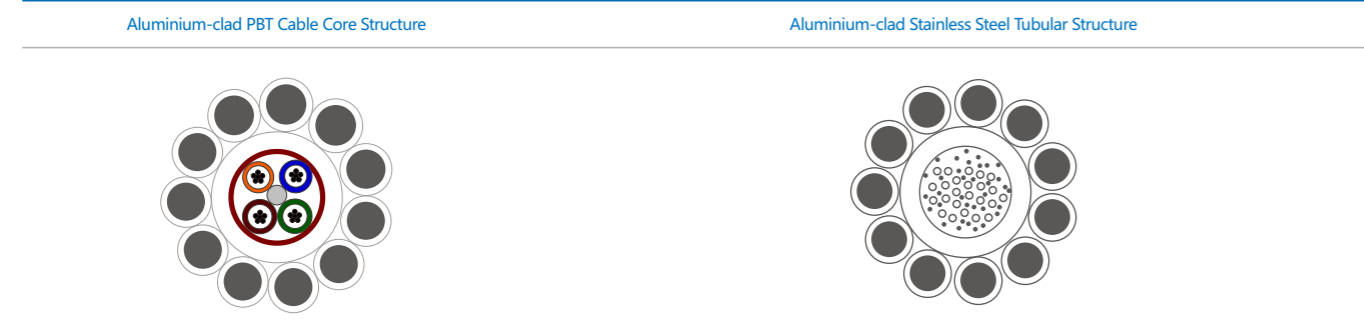
Properties:

Conductor: OPGW
Temperature range: -40°C to 60°C
Voltage rating: 11kV - 1100kV
According to IEEE 1138, IEC 60794-4

OPGW Cable Structure Type:



Aluminium-clad Optical Fibre Unit Structure:



Structure Parameters:

Model			OPGW-24B1-90	OPGW-24B1-100	OPGW-30B1-100	OPGW-30B1-100	OPGW-36B1-135	OPGW-36B1-135	OPGW-36B1-145	OPGW-36B1-145	OPGW-48B1-165	OPGW-48B1-165	
Structure parameters	Center	Center	1	1	1	1	1	1	1	1	1	1	
		Normal diameter	mm	2.6	2.6	2.85	2.85	3.2	3.2	3.3	3.3	3.5	3.8
		Material		20SA	20SA	20SA	20SA	20SA	20SA	20SA	20SA	20SA	20SA
	First layer	PCS		5	5	5	5	5	5	5	5	5	5
		Normal diameter	mm	2.5	2.5	2.75	2.75	3.1	3.1	3.2	3.2	3.4	3.6
		Material		20SA	20SA	20SA	20SA	20SA	40SA	20SA	40SA	20SA	20SA
	Second layer	PCS		12	11	11	11	12	12	12	12	12	12
		Normal diameter	mm	2.5	2.85	3.1	3.1	3.1	3.1	3.2	3.2	3.4	3.6
		Material		20SA	20SA	20SA	LHA2	20SA	40SA	20SA	40SA	20SA	20SA
	Stainless steel tube optical unit	PCS		1	1	1	1	1	1	1	1	1	1
		Normal diameter	mm	2.5	2.5	2.7	2.7	3	3	3.1	3.1	3.3	3.4
		Maximum quantity of optical fibre		24B1	24B1	30B1	30B1	36B1	36B1	36B1	36B1	48B1	48B1
Normal diameter			mm	12.6	13.3	14.55	14.55	15.6	15.6	16.1	16.1	17.1	18.2
Sectional area	Al-clad steel wire	mm ²	88.76	100.03	119.1	36.08	136.35	136.35	145.28	145.28	163.97	184.8	
	AA	mm ²	-	-	-	83.02	-	-	-	-	-	-	
	Total	mm ²	88.76	100.03	119.1	119.1	136.35	136.35	145.28	145.28	163.97	184.8	
Mass per unit length			kg/km	615.4	691.2	819.2	489.3	934.7	662.8	994.6	704.9	1125	1261.9
Rated breaking force			kN	107.04	120.63	143.64	68	164.44	83.45	174.97	88.91	193.32	211.15
20°C DC resistance			Ω/km	0.9718	0.8626	0.7244	0.3421	0.6326	0.3215	0.5937	0.3018	0.526	0.4678
Elastic Modulus			Gpa	162	162	162	94.38	162	109	162	109	162	162
Linear expansion coefficient				13	13	13	17.8	13	15.5	13	15.5	13	15.5
Short circuit current thermal capacity				34.88	44.3	62.8	114.01	82.31	127.76	93.44	145.03	119.03	150.51