

Central Tube OPGW
Single/Double Armour layers
Optical Fiber Composite Overhead
Ground Wire(OPGW)

Typical Parameters :

Single Layer

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	ShortCircuit (kA ² s)
OPGW-32[40.6;4.7]	12	7.8	243	40.6	4.7
OPGW-42[54.0;8.4]	24	9.0	313	54.0	8.4
OPGW-42[43.5;10.6]	24	9.0	284	43.5	10.6
OPGW-54[67.8;13.9]	36	10.2	394	67.8	13.9
OPGW-54[55.9;17.5]	36	10.2	356	55.9	17.5
OPGW-61[73.7;17.5]	48	10.8	438	73.7	17.5
OPGW-61[55.1;24.5]	48	10.8	358	55.1	24.5
OPGW-68[80.8;21.7]	54	11.4	485	80.8	21.7
OPGW-75[63.0;36.3]	60	12.0	459	63.0	36.3
OPGW-76[54.5;41.7]	60	12.0	385	54.5	41.7
OPGW-79[51.2;49.5]	72	12.3	403	51.2	49.5

Double Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	ShortCircuit (kA ² s)
OPGW-96[121.7;42.2]	12	13.0	671	121.7	42.2
OPGW-127[141.0;87.9]	24	15.0	825	141.0	87.9
OPGW-127[77.8;128.0]	24	15.0	547	77.8	128.0
OPGW-145[121.0;132.2]	28	16.0	857	121.0	132.2
OPGW-163[138.2;183.6]	36	17.0	910	138.2	183.6
OPGW-163[99.9;213.7]	36	17.0	694	99.9	213.7
OPGW-183[109.7;268.7]	48	18.0	775	109.7	268.7
OPGW-183[118.4;261.6]	48	18.0	895	118.4	261.6

OPGW With Stranded Layers

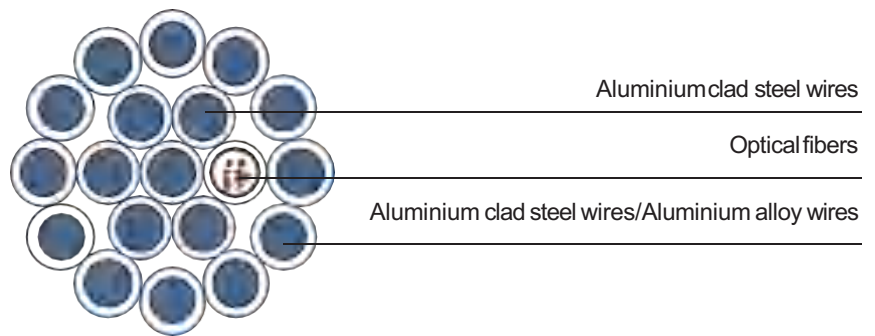
Optical Fiber Composite Overhead Ground Wire(OPGW)



OPGW With Stranded Layers, Single Tube And Multitube Are Available

Double /Three Armour Layers

The stainless steel tube is stranded by double or three layers of aluminium clad steel wires(ACS) or mix ACS wires and aluminium alloy wires.



Characteristic and Application

- larger cable diameter and much more fiber count.
- larger tensile strength and fault current capacity to reach a better balance of electrical and mechanical performance.
- The amount of Stainless Steel Tube could be 1, 2 or 3 (max. at present).
- Optimum stranding design to reach a suitable secondary fiber excess length.
- The stranded layers could be double layers or three layers, the stranded wires could be AS wires with/or AA and AI wires.

OPGW With Stranded Layers

Optical Fiber Composite Overhead Ground Wire(OPGW)

Typical Parameters :

Double Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-89[55.4;62.9]	24	12.6	381	55.4	62.9
OPGW-91[53.6;66.4]	24	12.7	377	53.6	66.4
OPGW-110[90.0;86.9]	24	14.0	600	90.0	86.9
OPGW-104[64.6;85.6]	28	13.6	441	64.6	85.6
OPGW-127[79.0;129.5]	36	15.0	537	79.0	129.5
OPGW-137[85.0;148.5]	36	15.6	575	85.0	148.5
OPGW-145[98.6;162.3]	48	16.0	719	98.6	162.3
OPGW-164[100.2;214.8]	48	17.1	687	100.2	214.8
OPGW-120[70.0;117.6]	72	15.0	509	70.0	117.6
OPGW-137[79.7;152.2]	96	16.0	574	79.7	152.2
OPGW-174[98.6;246.5]	128	18.2	724	98.6	246.5

Three Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-232[343.0;191.4]	28	20.15	1696	343.0	191.4
OPGW-254[116.5;554.6]	36	21.0	889	116.5	554.6
OPGW-347[366.9;687.7]	48	24.7	2157	366.9	687.7
OPGW-282[358.7;372.1]	96	22.5	1938	358.7	372.1

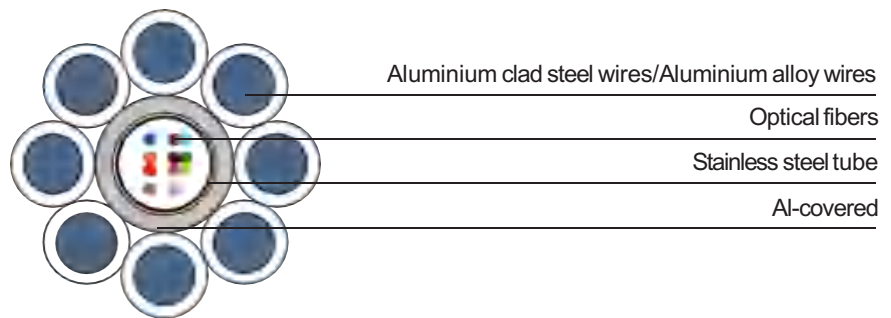
Central Al-covered stainless steel tube OPGW

Optical Fiber Composite Overhead Ground Wire(OPGW)



Central Al-covered stainless steel tube OPGW Single/Double Armour Layers

The central Al-covered steel tube is surrounded by single or double layers of aluminium clad steel wires(ACS) or mix ACS wires and aluminium alloy wires.



Characteristic and Application

- Al-covered Stainless Steel tube design increases the cross section of AL, to reach a better fault current and lightning resistance performance.
- Good anti-corrosion performance.
- Apply to the transmission line which requires small diameter and large fault current.

**Central Al-covered stainless
steel tube OPGW**
Optical Fiber Composite Overhead
Ground Wire(OPGW)

Typical Parameters :

Single Layer

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-78[78.7;37.6]	24	11.6	498	78.7	37.6
OPGW-77[63.6;41.6]	28	11.6	451	63.6	41.6
OPGW-77[78.6;36.2]	28	11.6	496	78.6	36.2
OPGW-111[58.9;103.7]	48	13.8	511	58.9	103.7
OPGW-187[75.3;308.2]	48	18.0	679	75.3	308.2
OPGW-81[63.2;46.7]	48	11.9	458	63.2	46.7
OPGW-74[68.5;36.4]	60	11.4	444	68.5	36.4
OPGW-84[42.4;59.9]	60	12.1	383	42.4	59.9

Double Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-191[110.8;296.0]	24	18.0	809	110.8	296.0
OPGW-146[84.3;172.0]	28	15.8	625	84.3	172.0
OPGW-146[72.7;177.4]	28	15.8	591	72.7	177.4
OPGW-199[115.3;322.2]	48	18.4	845	115.3	322.2
OPGW-226[128.6;414.2]	60	19.7	954	128.6	414.2

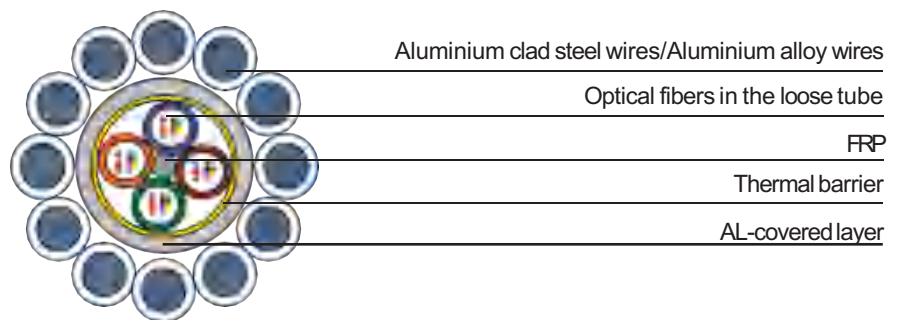
Aluminium tube OPGW

Optical Fiber Composite Overhead Ground Wire(OPGW)



Aluminium tube OPGW Single/Double Armour Layers

The Aluminium tube is surrounded by single or double layers of aluminium clad steel wires(ACS) or mix ACS wires and aluminium alloy wires.



Characteristic and Application

- Good anti-corrosion performance.
- Material and structure are uniform, good resistance to vibration fatigue.
- Short circuit current has small effect on the optical fiber transmission properties.
- Good anti-lightning performance.

Aluminium tube OPGW

Optical Fiber Composite Overhead Ground Wire(OPGW)

Typical Parameters :

Single Layer

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	ShortCircuit (kA's)
OPGW-81[73.9;43.6]	24	12.5	488	73.9	43.6
OPGW-86[76.8;49.5]	24	12.8	510	76.8	49.5
OPGW-103[93.8;68.9]	24	13.8	611	93.8	68.9
OPGW-85[76.8;46.8]	32	12.8	509	76.8	46.8
OPGW-85[50.5;54.5]	32	12.8	445	50.5	54.5
OPGW-112[106.7;80.0]	36	14.7	688	106.7	80.0
OPGW-112[86.0;90.3]	48	14.7	627	86.0	90.3
OPGW-112[62.7;104.5]	48	14.7	498	62.7	104.5
OPGW-122[65.6;123.9]	48	15.2	534	65.6	123.9
OPGW-132[121.0;108.7]	60	16.0	810	121.0	108.7
OPGW-132[63.9;148.0]	60	16.0	545	63.9	148.0
OPGW-135 [99.8;132.2]	72	16.3	751	99.8	132.2
OPGW-146 [109.0;154.9]	96	17.1	813	109.0	154.9

Double Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	ShortCircuit (kA's)
OPGW-174[101.0;247.7]	24	17.7	744	101.0	247.7
OPGW-244[141.2;479.7]	24	20.7	1030	141.2	479.7
OPGW-249[147.0;501.4]	48	21.1	1065	147.0	501.4
OPGW-207[121.8;348.1]	48	19.4	892	121.8	348.1
OPGW-233[135.8;441.9]	60	20.6	999	135.8	441.9
OPGW-289 [166.4;675.0]	72	22.9	1246	166.4	675.0
OPGW-314 [158.7;826.4]	96	24.0	1277	158.7	826.4

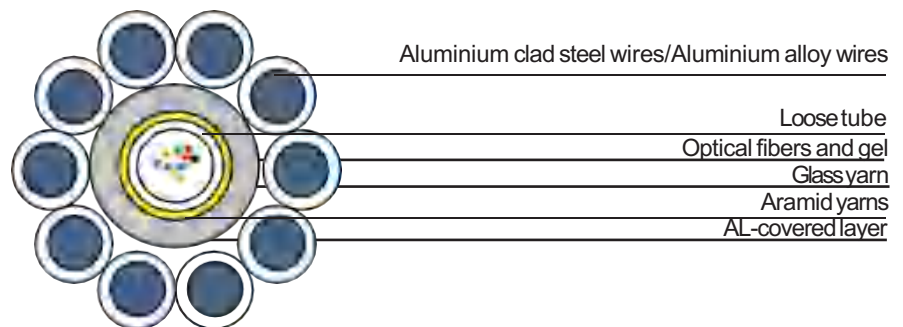
Central Type Aluminum Tube OPGW

Optical Fiber Composite Overhead Ground Wire(OPGW)



Central Type Aluminum Tube OPGW Single/Double Armour Layers

The Central Type Aluminum Tube is surrounded by single or double layers of aluminium clad steel wires(ACS) or mix ACS wires and aluminium alloy wires.



Characteristic and Application

- Good anti-corrosion performance.
- Material and structure are uniform, good resistance to vibration fatigue.
- Short circuit current has small effect on the optical fiber transmission properties.
- Good anti-lightning performance.

Central Type Aluminum Tube OPGW

Optical Fiber Composite Overhead Ground Wire(OPGW)

Typical Parameters :

Single Layer

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-73 [55.7;39]	12	11.6	407	55.7	39.0
OPGW-84 [66.0;50]	16	12.4	471	66.0	50.0
OPGW-102 [83.6;71.8]	24	13.6	580	83.6	71.8
OPGW-109 [88.2;82.1]	24	14.0	613	88.2	82.1
OPGW-100 [79.4;69.7]	32	13.6	561	79.4	69.7
OPGW-107 [84.2;80.4]	36	14.0	596	84.2	80.4
OPGW-119 [97.7;96.2]	36	14.8	674	97.7	96.2
OPGW-111 [89.0;86.7]	48	14.4	628	89.0	86.7
OPGW-119 [94.1;98.2]	48	14.8	665	94.1	98.2
OPGW-136 [104.5;130.5]	60	16.0	752	104.5	130.5
OPGW-144 [110.2;148.4]	60	16.4	794	110.2	148.4

Double Layers

Standard	Fiber Count(Max)	Diameter (mm)	Weight (kg/km)	RTS (kN)	Short Circuit (kA ² s)
OPGW-165 [96.1;221.5]	24	17.0	699	96.1	221.5
OPGW-198 [115.3;315.9]	24	18.6	830	115.3	315.9
OPGW-215 [126.7;376.5]	48	19.6	916	126.7	376.5
OPGW-264 [149.7;561.7]	48	21.6	1112	149.7	561.7
OPGW-308 [171.7;764.8]	60	23.4	1300	171.7	764.8