



# OPGW(II)

## Application:

Optical fiber composite ground wire (OPGW) is suitable for installation on new power lines with double function of ground wire and communication, especially for installation on normal voltage and extra-high voltage power lines. OPGW can replace conventional ground wire of old power line with increasing fiber communication function. They conduct short circuit current and provide lightning resistance.

## Features:

- Up to 48 fibers.
- Cable diameter and weight approximate with another ground wire, less additional load to tower, high tensile strength.
- Stainless steel tube centrally situated has good excess length Optical fibers are protected by stainless steel tubes.
- Excellent security, good bullet resist performance
- ACSW, AAW stranded around SST design provide wide range combination of electrical conductivity and mechanical tensile strength.



## Technical data:

TYPE OF OPGW	Unit	OPGW-C-12B1/45 (51.1-13.5)	OPGW-C-36B1/55 (64.2-22.3)	OPGW-C-48B1/65 (72.5-31.3)	OPGW-C-24B1/125 (80.0-125.0)
		Area ratio: AA /AS	Area ratio: AA /AS	Area ratio: AA /AS	Area ratio: AA /AS
		0/45	0/55	0/65	
Outer Diameter	mm	9.0	10.2	11.1	14.8
Loading section	Mm <sup>2</sup>	42	55	65	125
Cable Weight	Kg/Km	323	410	473	580
Diameter of central SST		4.0/6.0	4.0/6.0	5.8/7.8	5.8/7.8
Rated tensile strength (RTS)	KN	51.1	64.2	72.5	80.0
Maximum stress MAT (40%RTS)	KN	20.4	25.7	31.1	32.0
Every day strain per year EDS (20%RTS)	KN	10.2	12.8	15.6	16.0
Modulus of elasticity	KN/mm <sup>2</sup>	162.0	162.0	162.0	103.6
Co-efficient of linear expansion	10 <sup>-6</sup> /K	13.0	13.0	13.0	16.8
Short circuit current capacity: (I <sub>2t</sub> )	KA <sup>2</sup> ·s	13.5	22.3	31.3	125.0
D.C. Resistance (20°C)	Ω/Km	1.910	1.50	1.276	0.347
Min. bending radius	mm	180	200	220	300
Install temperature range	°C	-10~+50	-10~+50	-10~+50	-10~+50
Operational temperature range	°C	-40~+70	-40~+70	-40~+70	-40~+70
Standard reel length	m	3000;4000 or(as customers' requests)			