

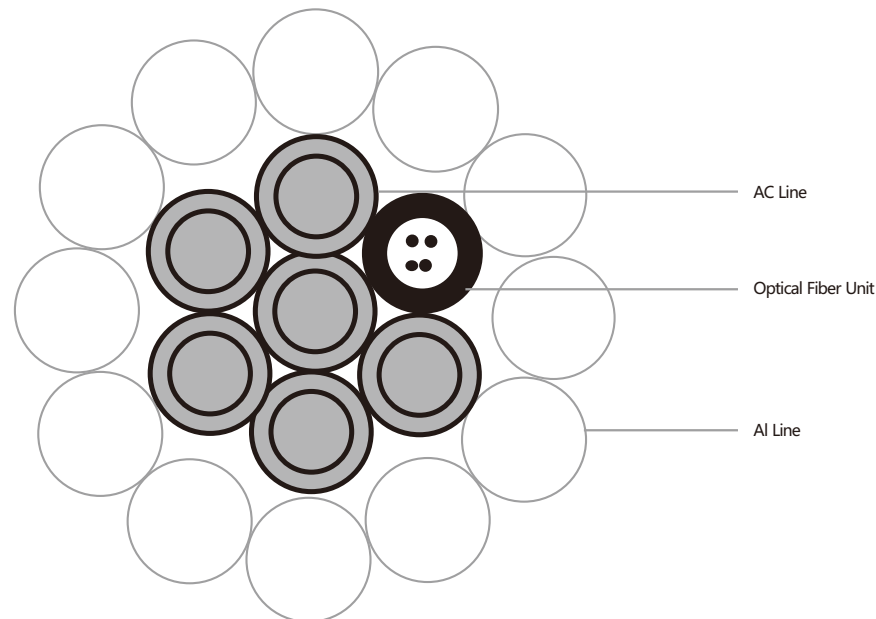
# Optical Fibre Composite Overhead Phase Conductor (OPPC)



Optical fibre composite overhead phase conductor (OPPC) is a new type of special power composite cable which combines optical fibre unit and traditional phase conductor in the wire.

## Properties:

Conductor: OPPC
Temperature range: -40°C to 70°C
Voltage rating: 10kV - 220kV
According to IEEE 1138, IEC 60794-4



## Structure Parameters:

Model			OPPC-16B1-85/25	OPPC-16B1-90/25	OPPC-16B1-95/25	OPPC-16B1-110/25	OPPC-16B1-120/25	OPPC-16B1-150/25	OPPC-16B1-150/30	OPPC-16B1-185/25	OPPC-16B1-185/40	OPPC-16B1-210/25	OPPC-16B1-210/30	OPPC-16B1-240/30	OPPC-16B1-240/50	OPPC-20B1+4A1a-400/35	
Structure parameters	Center	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		Normal diameter	mm	2.3	2.4	3.25	2.35	2.4	2.35	2.55	2.35	2.85	2.3	2.55	2.45	3.25	2.5
		Material		20AS	20AS	14AS	20AS	20AS	20AS	14AS	20AS	14AS	20AS	14AS	20AS	14AS	14AS
	First layer	PCS	5	5	5	5	5	5	5	5	5	5	5	5	5	5	15
		Normal diameter	mm	2.3	2.4	3.25	2.35	2.4	2.35	2.55	2.35	2.85	2.3	2.55	2.45	3.25	2.5
		Material		20AS	20AS	20AS	20AS	20AS	20AS	14AS	20AS	14AS	20AS	14AS	20AS	14AS	SUSLGI4
	Stainless steel tube optical unit	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Normal diameter	mm	2.3	2.4	3.25	2.35	2.4	2.35	2.55	2.35	2.85	2.3	2.55	2.45	3.25	2.5
		Maximum quantity of optical fibre		16B1	20B1	48B1	16B1	20B1	16B1	24B1	16B1	30B1	16B1	24B1	20B1	48B1	20B1+A1a
	Second layer	PCS	9	9	12	8	8	11	12	10	12	9	10	9	12	10	
		Normal diameter	mm	2.45	3.6	3.2	4.2	4.35	2.6	2.55	3	2.8	3.35	3.22	3.6	3.2	3.22
		Material		AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	HAL
	Third layer	PCS	/	/	/	/	/	17	18	16	18	15	16	15	18	22	
		Normal diameter	mm	/	/	/	/	/	2.6	2.55	3	2.8	3.35	3.22	3.6	3.2	3.22
		Material		/	/	/	/	/	AL	AL	AL	AL	AL	AL	AL	AL	HAL
Normal diameter		mm	13.8	14.4	16.5	15.45	15.9	17.45	17.85	19.05	19.75	20.3	20.53	21.75	22.56	26.82	
Sectional area	Al-clad steel wire	mm <sup>2</sup>	84.13	91.61	96.51	110.84	118.89	148.66	153.21	183.78	184.73	211.54	211.73	244.29	241.27	294.5	
	Al	mm <sup>2</sup>	24.93	27.14	49.77	26.02	27.14	26.02	30.64	26.02	38.28	24.93	30.64	28.29	49.77	390.88	
	Total	mm <sup>2</sup>	109.1	118.8	146.3	136.9	146.0	174.7	183.9	209.8	223.0	236.5	242.4	272.6	291.0	420.3	
Mass per unit length		kg/km	410	446	645	491	521	597	659	693	803	762	819	875	1045	1321	
Rated breaking force		kN	42.2	45.9	83.3	47.3	49.9	54.1	67.3	58.7	82.2	63.9	74.3	73.1	104.2	103.9	
20°C DC resistance		Ω/km	0.3106	0.2852	0.2665	0.2101	0.2242	0.1831	0.1799	0.1496	0.1489	0.1309	0.1317	0.1135	0.1141	0.0725	
Reference carrying capacity	40~70°C		251	265	281	293	305	344	349	387	391	415	419	456	459	620	
	40~80°C		307	233	345	359	374	423	430	478	484	515	519	567	571	760	
	40~90°C		352	371	397	415	430	487	195	552	560	595	601	657	663	869	
Conduct wire			LGI-95/15	LGI-95/20	LGI-95/55	LGI-120/20	LGI-120/25	LGI-150/25	LGI-150/35	LGI-185/45	LGI-210/25	LGI-210/25	LGI-210/35	LGI-240/30	LGI-240/55	LGI-400/35	