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FUJIKURA HENGTONG AERIAL CABLE SYSTEM LTD.



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Version Number: KFH-DW-2012-01

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中国坚强智能电网之核心发起者
OPGW、OPPC国家标准起草单位
全球电网重点工程疑难解决方案供应商

Core initiator of China Strong and Smart Grid
Drafting unit of OPGW & OPPC national standard
Solution provider for difficulties from global key grid projects

FUJIKURA HENG TONG
AERIAL CABLE SYSTEM

目录

CONTENTS

01 关于藤仓亨通	> About KFH
03 资质荣誉	> Qualification & Honor
05 研发创新	> R & D And Innovation
07 先进设备	> Advanced Equipment
09 品质保证	> Quality Assurance
11 售后服务	> After-sales Service
13 经典业绩	> Classic Performance
15 产品信息	> Products
光纤复合架空地线 (OPGW)	OPTICAL FIBER COMPOSITE OVERHEAD GROUND WIRE (OPGW)
光纤复合架空相线 (OPPC)	OPTICAL FIBER COMPOSITE OVERHEAD PHASE CONDUCTOR (OPPC)
全介质自承式光缆及普通光缆 (ADSS)	ALL DIELECTRIC SELF-SUPPORTING FIBER OPTIC CABLE AND FIBER OPTIC CABLE (ADSS)
光纤复合低压电缆 (OPLC)	OPTICAL FIBER COMPOSITE LOW-VOLTAGE CABLE (OPLC)
架空导线、地线 (铝包钢绞线、 特种导线)	OVERHEAD CONDUCTORS, GROUND WIRE (AL-CLAD STEEL WIRE/SPECIAL WIRE)
相关金具	RELEVANT HARDWARE FITTINGS

关于藤仓亨通

ABOUT KFH

KFH精神

创新、专注、责任、国际

专注，KFH创造卓越品质的力量；
责任，KFH营造和谐合作氛围的根基；
创新，KFH以科技引领企业发展的活力；
国际，KFH打造百年企业的经营路径。

KFH SPRIT

Innovation, focus, responsibility, internationalization

Focus – Strength of KFH to deliver excellent quality

Responsibility – Foundation of KFH to create harmonious cooperation atmosphere

Innovation – Vitality of KFH to guide enterprise for scientific development

Internationalization – Business approach of KFH to build to last.

核心价值观

人品先于产品，地位源于作为，发展高于发财，
竞合优于竞争。

品牌理念

不仅要为社会提供高性价比的产品及优质的服务，
更要传递企业的核心价值、创新精神和责任意识，
推动人类社会的文明与进步。

质量理念

全员、全流程、全系统的严格、严明、严密、
严谨是零缺陷质量的保证

服务理念

全员服务，服务到客户感动

管理理念

企业管理科学化、质量管理标准化、现场管理有
序化、营销管理规范化、服务管理星级化；

CORE VALUES

Moral quality is ahead of product quality, position sources
from behavior, development is more important than making
Money, and consistence is prior to competition.

BRAND CONCEPT

Not only provide high cost-efficient products and high grade service
to society, but also convey core values, innovation sprit And responsibility
awareness of our enterprise, so as to promote civilization and advancement
of human society.

QUALITY CONCEPT

Zero defect guarantee via strict, impartial, rigorous and precise execution
on all employees, all processes and entire system.

SERVICE CONCEPT

Customers will be served by every our employee until they get moved.

MANAGEMENT CONCEPT

Scientific enterprise management, standardized quality management,
ordered on-field management, regulated Marketing management, and
star-level service management;



江苏藤仓亨通光电有限公司（简称：KFH）成立于2003年5月13日，注册资本2300万美金，坐落于苏州市最南端素有“太湖明珠、鱼米之乡”著称的七都工业园区。公司经营范围：光纤复合架空地线（OPGW）、光纤复合相线（OPPC）、架空电力线（ACSR、AAAC、AC线、铝合金线等）及电气化铁路设备器材（铜合金接触线、承力索及配套产品）的制造、销售及技术服务。是中国智能电网产品的核心发起者，国家标准起草单位，全球电网重点工程疑难解决方案供应商。

Fujikura Hengtong Aerial Cable System LTD. (KFH) established in May 13, 2003 and is situated in Qidu Industrial Park which is to the uttermost south of Suzhou and known as bright pearl of Taihu Lake and a land of abundance. The registered capital USD 23 Million and the business scope is as follows: manufacture, sale and technical supporting of OPGW, OPPC, overhead conductors (ACSR, AAAC, AC, aluminum alloy wire etc.) and electric railway equipment and facilities (copper alloy contact wires, messenger wire and matched products). KFH is a core initiator of China Strong and Smart Grid, drafting unit of OPGW & OPPC national standard and solution provider for difficulties from global key grid projects.

资质荣誉

QUALIFICATION & HONOR

- 中国电器工业协会电线电缆分会第七届理事会副理事长单位
- 中国电器工业协会常务理事单位
- 2010中国民营企业制造业100家第55位
- 2010中国民营企业500家第85位
- 江苏省名牌产品证书
- 中国能源集团500强
- 2010苏高500强
- 2010年度苏州市地标型企业
- 2010年度吴江市十大纳税企业
- 2010年度吴江市工业企业科技创新先进企业
- 2010年度吴江市百强企业
- 中国电线电缆行业“十二五”发展规划编制单位
- 2011年中国电子信息百强企业
- 2011年江苏省模范劳动关系和谐企业
- The Deputy Director Unit of the 7th Council of Wires and Cables Sub-branch of China Electrical Equipment Industry Association
- Standing Director Unit of China Electrical Equipment Industry Association
- No. 55 of Top 100 China Private Manufacturing Enterprise 2010
- No. 85 of Top 500 China Private Enterprise 2010
- Certificate of Famous Brand in Jiangsu
- Top 500 Energy Groups in China
- Top 500 Jiangsu Enterprise 2010
- Landmarking Enterprise in Suzhou 2010
- Top 10 Taxpayer in Wujiang 2010
- Advanced Industrial Enterprise of Scientific Innovation in Wujiang 2010
- Top 100 Enterprise in Wujiang 2010
- Preparing unit for the 12th Five-year Planning of wires and cables industry in China
- Top 100 China IT Enterprise 2011
- Model Enterprise of Harmonious Labor Relationship in Jiangsu 2011



研发创新

R&D AND INNOVATION

创下OPGW大截面、大容量、大跨越、抗雷击、重覆冰的世界业界纪录
创下OPPC国内最高电压等级线路的业界纪录

A world industrial record of large cross-section, large capacity, wider crossing span, anti-lightning, heavy ice coating of OPGW
A domestic industrial record of the highest OPPC voltage level line



KFH是国家重点高新技术企业，始终坚持推进“科技-质量-服务”三位一体的全球化品牌战略，以技术创新和应用引领公司发展方向，打造研发型企业，提高自主创新能力，努力培育自主知识产权。

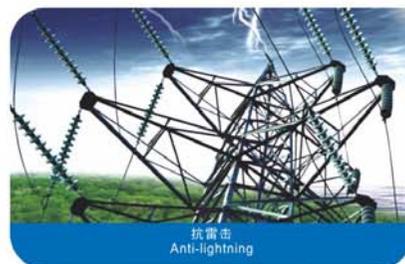
KFH is a key High-tech enterprise in China, has been permanently insisting on promoting 3-in-1 (technology-quality-service) globalized brand strategy in the manner of innovative technology and application-oriented development, so as to build a research-based enterprise, upgrade independent R&D capability, and cultivate independent intellectual property rights.

自创建之初，KFH就注重在充分融合亨通和藤仓研发经验及技术成果的基础上，不断提升自主创新能力。依托位于苏州和东京的两大技术中心，引进优秀人才和国际先进设备，建立激励机制，鼓励研发创新，培育技术研发团队，为公司产品的科技创新打下了坚实基础。

In the initial stage, KFH has been focusing on combining research experience and technical results of Hengtong and Fujikura, and upgrading independent R&D capability. By dint of two R&D Centers in Suzhou and Tokyo, we introduced excellent talents and cutting-edge equipment, establish incentive system, encourage innovation, cultivate R&D team, so as to tamp the foundation for technical innovation of the company products.



特高压、超高压及直流
UHV, EHV and DC



抗雷击
Anti-lightning



大跨越
Longer crossing span



重覆冰
Heavy ice coating

先进设备

ADVANCED EQUIPMENT

主要产品产能:

OPGW, 3500KM/月; OPPC, 3500KM/月; 铝包钢绞线, 2000吨/月。

Capacity of the main products:

OPGW, 3500KM / month; OPPC 3500KM / month; al-clad steel wire, 2,000 tons / month.



品质保证

QUALITY ASSURANCE

作为国家电网OPGW、OPPC国家标准起草单位，藤仓亨通自成立起，就不断引进各类国际优秀人才，以及一流的生产设备和检测仪器。公司已导入6S、ISO9001、ISO14001、OHSAS18001等多种管理体系，并在业内率先采用计算机局域网实施现场管理（国家信息化管理试点），以及ERP、OA、SOP、J-SOX等多种管理系统。

As OPGW and OPPC national standard draft unite of National Grid, KFH has been absorbing various international talents, first-class equipments and inspecting apparatus since its foundation. The company has adopted multiple management system, such as 6S, ISO 9001, ISO 14001 and OHSAS 18001 and has adopted local area network to carry out operation sites management (pilot of national information management) and various management systems such as ERP, OA, SOP, J-SOX and so on.

优质的原材料、先进的生产工艺和严格的质量控制，保证了藤仓亨通所供产品的卓越品质，藤仓亨通独特的大跨越、抗覆冰、耐雷击OPGW、ACSR，已在世界众多重大工程中得到广泛应用和严格考验【巴西、俄罗斯西伯利亚、加拿大萨斯卡通、澳大利亚温德姆、海南、广东、广西、福建、云南、贵州、江西、四川、重庆、湖北、山西、黑龙江、内蒙、新疆等强雷电、重覆冰区】

High quality raw materials, advanced production technology and strict quality control can ensure the high quality of its products. KFH's unique products, OPGW and ACSR, which are wider crossing span, anti-icing and anti-lightning have been widely used and strictly tested (some heavy lightning and ice coating areas, like Brazil, Russia, Siberia, Saskatoon of Canada, Wyndham of Australia, Hainan, Guangdong, Guangxi, Fujian, Yunnan, Guizhou, Jiangxi, Sichuan, Chongqing, Hubei, Shanxi, Heilongjiang, Mongolia, Xinjiang etc.). It turns out that products of KFH are safe, stable and reliable.



售后服务

AFTER-SALES SERVICE

售后服务项目：盘测、施工督导、光纤熔接、带电施工、故障抢修等。

Service projects: reel test, construction supervision, fiber splicing, charged construction, fault repair.

服务响应时间：接到用户要求服务的通知，立即响应，并提供24小时电话远程解答；如需相关人员到现场处理的，原则上6小时内赶到现场，边远地区12小时内赶到现场。

Service response time: user received a request for service notice, to respond immediately, and provides 24-hour telephone remote answer; For more personnel to the scene to deal with, in principle, within 6 hours, arrived on the scene, rushed to the scene within 12 hours of the remote areas.

经典业绩

CLASSIC PERFORMANCE

OPGW&OPPC经典业绩

- 2012年,哈密南-郑州±800kV特高压直流输电线路工程十二五重点工程,超高压,低损耗
- 2012年,哈密南-郑州±800kV特高压直流输电线路工程黄河大跨越十二五重点工程,超高压,低损耗,大跨越
- 2012年,新疆与西北联网750kV第二通道输电工程
- 2012年,那曲青龙至北拉35kV输电工程
- 2011年,张山营110千伏输电工程
- 2011年,220kV水城变-110kV玉舍变OPPC光缆
- 2011年,亚马逊大跨越工程(最大跨距2130米)
- 2011年,110kV江界河变~35kV高水变35kV线路工程
- 2010年,110 kV(瘦阳曹楼输电变)工程
- 2010年,贵州电网公司都匀供电局35kV冷水变等线路OPPC供货,131km
- 2009年,呼伦贝尔(伊敏)~辽宁(木家)±500kV直流输电线路提供OPGW
- 2008年,750kV晋长电厂~乾县线路工程、宝鸡变~乾县线路工程提供OPGW
- 2008年,KFH为国内首条1000kV晋东~南阳~荆门特高压交流试验示范工程供应OPGW
- 2008年,向美国、巴西、哥斯达黎加、约旦、越南、泰国等供应OPGW共7102km
- 2007年KFH为巴西电力成功研制、生产超强耐雷击OPGW3126km
- 2006年KFH向中东、南亚及赞比亚供应OPGW累计达4396km
- 2005年KFH承担世界首条连续穿越5个重冰区、最大覆冰50~70mm的四川省电力公司500kV晋提~思黎~华阳376km的新建通信线路OPGW的研制生产任务

CLASSIC PERFORMANCE OF OPGW&OPPC

- 800kV UHV DC Transmission Line Project (Haminan - Zhengzhou), 2012
- The wider span 800kV UHV DC Transmission Line Project crossing the Yellow River (Haminan - Zhengzhou), 2012
- The 2nd channel transmission and transformation line project of 750kV Xinjiang - Northwest Grid Interconnection, 2012
- 35kV transmission line project (Niqiu Qinglong - Beila), 2012
- The highest altitude OPCC line in the world, heavy ice coating line
- Zhangshanying 110 kV transmission and transformation line project, 2011
- The first temperature-detecting and dual-loop OPCC line in China
- OPCC optical fiber cable line (Z20kV Shuicheng transformer substation - 110kV Yushu transformer substation), 2011
- The first 220kV OPCC line in China
- The wider span transmission line project crossing the Amazon River, 2011 (the maximum crossing span: 2130 m)
- Same tower, dual-loop, crossing span 2140 m, tower height 296 m
- 35kV transmission line project (110kV Jiangjiehe transformer substation - 35kV Gaoshui transformer substation), 2011
- 110 kv, heavy ice coating line
- 110 kV Puyang - Caelou transmission and transformation line project, 2010

- The first 110kV OPCC line in China
- OPCC supplies for 35kv cooling water transformation line etc. of Douyun Power Supply Bureau of Guizhou Grid (131 km), 2010
- Provide OPGW to ±500kV DC transmission line (Hulunbeier-Yimin) ~ Liaoning <Mujia>, 2009
- Provide OPGW to 750kV DC transformation line (Binchang Power Plant - Ganxian line project, Baoji Transformer Sub-station - Ganxian transformation line project), 2008
- KFH provided OPGW to the first 1000kV UHV AC model test project (Jindong - Nanyang - Jinmen), 2008
- Provided 7102km OPGW to USA, Brazil, Costa Rica, Jordan, Vietnam and Thailand etc., 2008
- In 2007, KFH successfully developed and produced 3126km of ultra anti-lightning OPGW for Brazil
- In 2006, KFH provided 4396 km OPGW to Middle East, South Asia and Zambia accumulatively
- In 2005, for the first time KFH undertook R&D and production of OPGW for newly-build communication line of 500kv Puti - Simeng - Huayang (376km) of Sichuan Power Grid, which is the first in the world and continuously covering 5 heavy ice disaster areas and the maximum ice thickness 50~70mm.

铝包钢绞线经典业绩

- 2012年,云南电网公司,500kV圭山(召夸)输变电工程、圭山变~禄七甸~罗平 I、II回500kV线路工程,供货34.7T
- 2012年,云南电网公司,500kV喜平输变电工程,供货30.15T
- 2012年,云南电网公司,鲁地拉电站500kV送出工程,供货67.9T
- 2011年,陕西省电力公司,750kV秦岭电厂~渭南变送电线路工程供货26.19T
- 2008年,贵州电力调度通信局,500kV鸭塘线提高抗冰能力技术改造工程施工供货48T
- 2008年,四川省电力公司,普天线500kV线路改造(冰灾后重建)工程施工供货22T

CLASSIC PERFORMANCE OF AL-CLAD STEEL WIRE

- Provided 34.7T to 500kv Guishan (Zhaokua) transformation and transmission line project, and Guishan Transformer Sub-station n connecting to 500kv transmission line of Ouxun - Luppang I & II Loop of Yunnan Power Grid, 2012
- Provided 30.15T to 500kv Xiping transformation and transmission line project of Yunnan Power Grid, 2012
- Provided 67.9T to 500kv Ludila transmission line project of Yunnan Power Grid, 2012
- Provided 26.19T to Weinan transformation and transmission line project of 750kv Qinling Power Plant of Shanxi Power Grid, 2011
- Provided 48T to 500kv Yafeng transmission line of Guizhou Power Mobilization & Communication Bureau for technical reconstruction project of strengthening anti-ice capability, 2008
- Provided 22T to the reconstruction of 500kv Putian transmission line (rebuilt after ice disaster) of Sichuan Power Grid, 2008

- 光纤复合架空地线 (OPGW)
OPTICAL FIBER COMPOSITE OVERHEAD
GROUND WIRE (OPGW)
- 光纤复合架空相线 (OPPC)
OPTICAL FIBER COMPOSITE OVERHEAD PHASE
CONDUCTOR (OPPC)
- 全介质自承式光缆及普通光缆 (ADSS)
ALL DIELECTRIC SELF-SUPPORTING FIBER OPTIC
CABLE AND FIBER OPTIC CABLE (ADSS)
- 光纤复合低压电缆 (OPLC)
OPTICAL FIBER COMPOSITE LOW-VOLTAGE
CABLE (OPLC)
- 架空导线、地线 (铝包钢绞线、特种导线)
OVERHEAD CONDUCTORS, GROUND WIRE
(AL-CLAD STEEL WIRE/SPECIAL WIRE)

产品信息

PRODUCTS

DATA

光纤复合架空地线 (OPGW)

OPTICAL FIBER COMPOSITE OVERHEAD GROUND WIRE (OPGW)

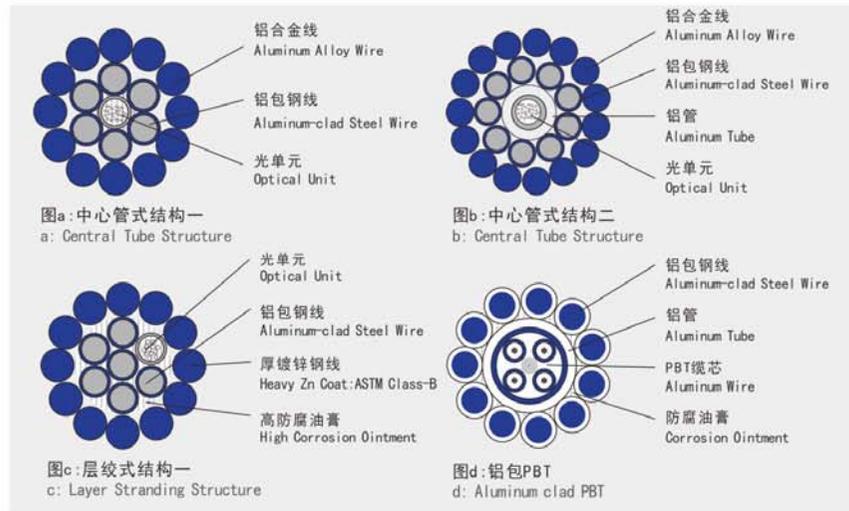
产品描述 PRODUCT DESCRIPTION

OPGW在保持原有架空地线的一切性能、功能不变的前提下加入光纤，开辟高性能的光传输通道，使之兼备避雷和通信功能，是一种具有传统架空地线和通信能力的双重功能的线。

Optical fiber composite overhead ground wire (OPGW) adds fiber into it 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 anti-lightning and communications functions. It is a kind of wire that combines the functions of overhead ground wire and communications capabilities.



结构示意图 STRUCTURE



常用产品参数 COMMONLY USED PRODUCT PARAMETERS

型号 type	结构参数 structure parameters						截面面积 section area				单位长度重量 weight per unit length	额定拉断力 rated breaking force	20℃时直流电阻 DC resistance	拉重比 P/B weight ratio	弹性模量 Elastic modulus	线膨胀系数 Coefficient of linear expansion	短路电流热容量 The heat capacity of the short-circuit current	推荐匹配地线 Recommended matching ground wire
	中心 不锈钢管光单元 center stainless steel tube light unit		外层 Outer layer		直径 nominal diameter	材料 Material	铝包钢线 AL	铝合金线 AS	总计 total									
	根数 number	直径 nominal diameter	根数 number	直径 nominal diameter						mm								
OPGW-24B1-40 (51;8.0)	1	3.00	24B1	6	3.00	LB20	9.00	42.41	—	42.41	303.6	51.15	2.0275	17.19	162.00	13.00	7.96	GJ-50
OPGW-30B1-50 (58;10.3)	1	3.20	30B1	6	3.20	LB20	9.60	48.25	—	48.25	342.7	58.20	1.7819	17.33	162.00	13.00	10.31	GJ-50
OPGW-36B1-55 (64;13.1)	1	3.40	36B1	6	3.40	LB20	10.20	54.48	—	54.48	389.3	64.23	1.5785	16.83	162.00	13.00	13.14	—
OPGW-40B1-60 (66;14.8)	1	3.50	40B1	6	3.50	LB20	10.50	57.73	—	57.73	411.1	65.98	1.4896	16.38	162.00	13.00	14.75	—
OPGW-40B1-60 (70;16.5)	1	3.60	40B1	6	3.60	LB20	10.80	61.07	—	61.07	433.4	69.81	1.4080	16.43	162.00	13.00	16.51	—
OPGW-48B1-70 (77;20.5)	1	3.80	48B1	6	3.80	LB20	11.40	68.05	—	68.05	480.1	76.55	1.2636	16.27	162.00	13.00	20.50	JLB20A-70-7

型号 type	结构参数 structure parameters						截面面积 section area				单位长度重量 weight per unit length	额定拉断力 rated breaking force	20℃时直流电阻 DC resistance	拉重比 P/B weight ratio	弹性模量 Elastic modulus	线膨胀系数 Coefficient of linear expansion	短路电流热容量 The heat capacity of the short-circuit current	推荐匹配地线 Recommended matching ground wire						
	中心 center		内层(第1层) first layer		外层(第2层) second layer		不锈钢管光单元 stainless steel tube light unit		直径 nominal diameter	铝包钢线 AL									铝合金线 AS	总计 total				
	根数 number	直径 nominal diameter	根数 number	直径 nominal diameter	根数 number	直径 nominal diameter	根数 number	直径 nominal diameter													mm	mm ²	mm ²	mm ²
OPGW-24B1-90 (107;34.9)	1	2.60	LB20	5	2.50	LB20	12	2.50	LB20	1	2.50	24B1	12.60	88.76	—	88.76	615.4	107.04	0.9718	17.75	162.00	13.00	34.88	JLB20A-95-7
OPGW-24B1-100 (121;44.3)	1	2.60	LB20	5	2.50	LB20	11	2.85	LB20	1	2.50	24B1	13.30	100.03	—	100.03	691.2	120.63	0.8626	17.81	162.00	13.00	44.30	GJ-100
OPGW-30B1-120 (144;62.8)	1	2.85	LB20	5	2.75	LB20	11	3.10	LB20	1	2.70	30B1	14.55	119.10	—	119.10	819.2	143.64	0.7244	17.89	162.00	13.00	62.80	GJ-120
OPGW-30B1-120 (68;114.0)	1	2.85	LB20	5	2.75	LB20	11	3.10	LHA2	1	2.70	30B1	14.55	36.08	83.02	119.10	489.3	68.00	0.3421	14.18	94.38	17.80	114.01	JLB40-120-19
OPGW-36B1-135 (164;82.3)	1	3.20	LB20	5	3.10	LB20	12	3.10	LB20	1	3.00	36B1	15.60	136.35	—	136.35	934.7	164.44	0.6326	17.95	162.00	13.00	82.31	—
OPGW-36B1-135 (83;127.8)	1	3.20	LB40	5	3.10	LB40	12	3.10	LB40	1	3.00	36B1	15.60	136.35	—	136.35	662.8	83.45	0.3215	12.85	109.00	15.50	127.76	—
OPGW-36B1-145 (175;93.4)	1	3.30	LB20	5	3.20	LB20	12	3.20	LB20	1	3.10	36B1	16.10	145.28	—	145.28	994.6	174.97	0.5937	17.95	162.00	13.00	93.44	—
OPGW-36B1-145 (89;145.0)	1	3.30	LB40	5	3.20	LB40	12	3.20	LB40	1	3.10	36B1	16.10	145.28	—	145.28	704.9	88.91	0.3018	12.87	109.00	15.50	145.03	JLB40-150-19
OPGW-48B1-165 (193;119.0)	1	3.50	LB20	5	3.40	LB20	12	3.40	LB20	1	3.30	48B1	17.10	163.97	—	163.97	1125.0	193.32	0.5260	17.53	162.00	13.00	119.03	—
OPGW-48B1-185 (211;150.5)	1	3.80	LB20	5	3.60	LB20	12	3.60	LB20	1	3.40	48B1	18.20	184.38	—	184.38	1261.9	211.15	0.4678	17.08	162.00	13.00	150.51	—

注1: 型号中光纤芯数为光单元所承受的最大芯数; 2: 产品性能参数均为标称值; 3: 光纤类型以B1类举例; 4: 除单位长度重量, 其它参数均未考虑光单元因素; 5: 短路电流热容量: 温度范围取40℃~200℃。

光纤复合架空相线 (OPPC)

OPTICAL FIBER COMPOSITE OVERHEAD PHASE CONDUCTOR (OPPC)

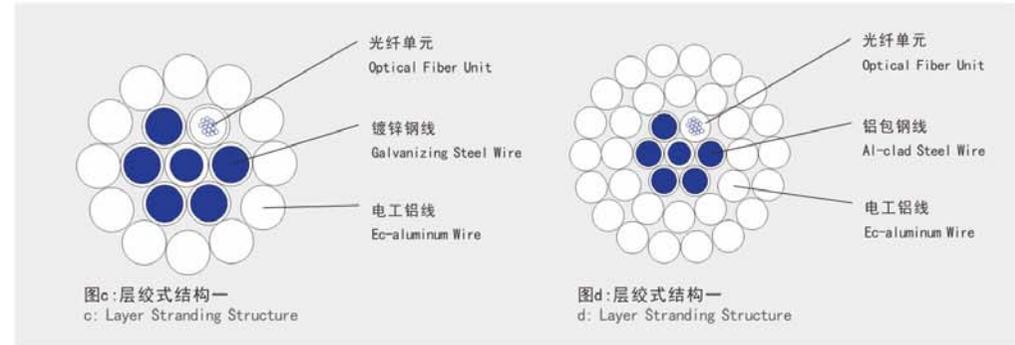
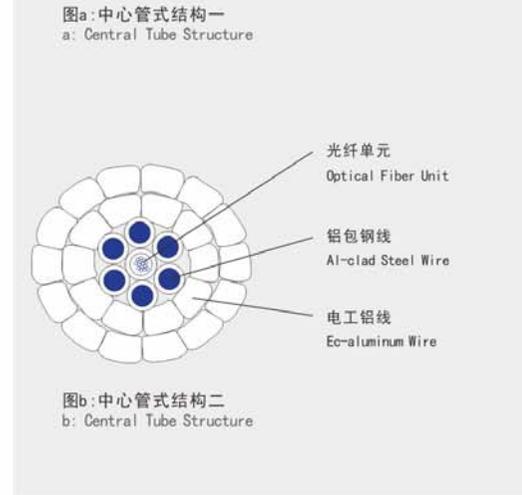
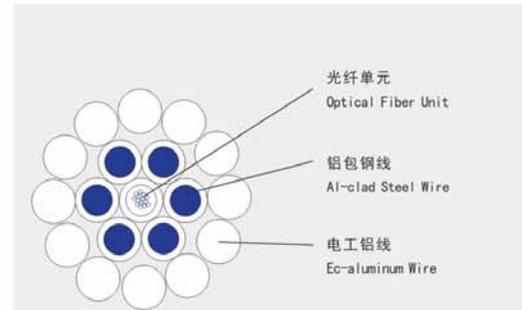
产品描述 PRODUCT DESCRIPTION

光纤复合架空相线OPPC是一种特殊的复合电力光缆, 将传统架空相线结构中的一根或多根镀锌钢丝(或铝包钢线)替换为不锈钢光纤单元, 使其具有传输电能及通信的双重功能。

Optical fiber composite overhead phase conductor (OPPC) is a new type of special power composite cable, which combines optical fiber unit and traditional phase structure in the wire. It makes full use of its own line power system resources, particularly the power distribution network system, to avoid conflict with the outside world in aspects such as frequency resources, routing coordination, electromagnetic compatibility, which gives it dual functions of power transmission and communication.



结构示意图 STRUCTURE



常用产品参数 COMMONLY USED PRODUCT PARAMETERS

型号 type	结构参数 structure parameters												截面积 section area			单位长 重量 per unit length	额定 拉断力 rated breaking force	20℃时 直流电阻 DC resistance	参考载流量 interception amount for reference			导线 wire				
	中心 center		第一层 first layer		不锈钢管光单元 stainless steel tube light unit		第二层 second layer		第三层 third layer		直径 nominal diameter	铝包 钢线 AL	铝合 金线 AS	总计 total	40~ 70℃				40~ 80℃	40~ 90℃						
	根数 no.	直径 diameter mm	材料 material	根数 no.	直径 diameter mm	材料 material	根数 no.	直径 diameter mm	材料 material	根数 no.											直径 diameter mm		材料 material	mm ²	mm ²	mm ²
OPPC-1681-85/25	1	2.3	20AS	5	2.3	20AS	1	2.3	1681	9	3.45	AL	/	/	AL	13.8	84.13	24.93	109.1	410	42.2	0.3106	251	307	352	L6J-95/15
OPPC-1681-90/25	1	2.4	20AS	5	2.4	20AS	1	2.4	2081	9	3.6	AL	/	/	AL	14.4	91.61	27.14	118.8	446	45.9	0.2852	265	233	371	L6J-95/20
OPPC-1681-95/50	1	3.25	14AS	5	3.25	14AS	1	3.25	4881	12	3.2	AL	/	/	AL	16.15	96.51	49.77	146.3	645	83.3	0.2665	281	345	397	L6J-95/55
OPPC-1681-110/25	1	2.35	20AS	5	2.35	20AS	1	2.35	1681	8	4.2	AL	/	/	AL	15.45	110.84	26.02	136.9	491	47.3	0.2401	293	369	412	L6J-120/20
OPPC-1681-120/25	1	2.4	20AS	5	2.4	20AS	1	2.4	2081	8	4.35	AL	/	/	AL	15.9	118.89	27.14	146.0	521	49.9	0.2242	305	374	430	L6J-120/25
OPPC-1681-150/25	1	2.35	20AS	5	2.35	20AS	1	2.35	1681	11	2.6	AL	/	/	AL	17.45	148.66	26.02	174.7	597	54.1	0.1831	344	423	487	L6J-150/25
OPPC-1681-150/30	1	2.55	14AS	5	2.55	14AS	1	2.55	2481	12	2.55	AL	/	/	AL	17.85	153.21	30.64	183.9	659	67.3	0.1799	349	430	195	L6J-150/35
OPPC-1681-185/25	1	2.35	20AS	5	2.35	20AS	1	2.35	1681	10	3.0	AL	/	/	AL	19.05	183.78	26.02	209.6	693	58.7	0.1496	387	478	552	L6J-185/45
OPPC-1681-185/40	1	2.85	14AS	5	2.85	14AS	1	2.85	3081	12	2.8	AL	/	/	AL	19.75	184.73	38.28	223.0	803	82.2	0.1489	391	484	560	L6J-210/25
OPPC-1681-210/25	1	2.3	20AS	5	2.3	20AS	1	2.3	1681	9	3.35	AL	/	/	AL	20.3	211.54	24.93	236.5	762	63.9	0.1309	415	515	595	L6J-210/25
OPPC-1681-210/30	1	2.55	14AS	5	2.55	14AS	1	2.55	2481	10	3.22	AL	/	/	AL	20.53	211.73	30.64	242.2	819	74.3	0.1317	419	519	601	L6J-210/35
OPPC-1681-240/30	1	2.45	20AS	5	2.45	20AS	1	2.45	2081	9	3.6	AL	/	/	AL	21.75	244.29	28.29	272.6	875	73.1	0.1135	456	567	657	L6J-240/30
OPPC-1681-240/50	1	3.25	14AS	5	3.25	14AS	1	3.25	4881	12	3.2	AL	/	/	AL	22.55	241.27	49.77	291.0	1045	104.2	0.1141	459	571	663	L6J-240/55
OPPC-20B1+4A1a-400/35	1	2.5	LB14	5	2.5	SUS LB14	1	2.5	20B1+4A1a	10	3.22	HAL	22	3.22	HAL	26.82	29.45	390.88	420.33	1321	103.9	0.0725	620	760	869	L6J-400/35

全介质自承式光缆及普通光缆 (ADSS)

ALL DIELECTRIC SELF-SUPPORTING FIBER OPTIC CABLE AND FIBER OPTIC CABLE (ADSS)

产品描述 PRODUCT DESCRIPTION

ADSS, 全介质自承式光缆 (简称ADSS光缆), 是一种全部由介质材料组成、自身包含必要的支撑系统、可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, 也可用于雷电多发地带、大跨度等架空敷设环境下的通信线路。

ADSS, all dielectric self-supporting cables (ADSS cable for short), is a kind of all by a dielectric material itself contains the necessary support systems, can be directly hung on electricity towers of the non-metallic fiber optic cable lightning multiple communication line in the aerial installation environment of the Strip, large span and other, mainly for overhead high voltage transmission systems of the communication route can also be used.



结构示意图 STRUCTURE



常用产品参数

COMMONLY USED PRODUCT PARAMETERS

26-48芯 ADSS技术规范 26-48 core the ADSS technical specifications								
型号 type	光缆外径 Cable diameter	光缆额定拉断力RTS(N) rated breaking force	最大允许使用张力MAT(N) The maximum allowable tension MAT (N)	极限运动张力UOS(N) The extreme sports Tension UOS (N)	年平均运行张力EDS(N) Average annual operating tension EDS (N)	线热膨胀系数1/k Linear thermal expansion coefficient of 1 / k	综合模量Gpa Comprehensive modulus Gpa	光缆重量kg/km Cable Weight kg / km
ADSS-4KN	13.5	11160	4464	6696	2790	12.33	5.592	136
ADSS-9KN	14.0	23400	9360	14040	5850	5.729	9.846	148
ADSS-12KN	14.5	29520	11808	17712	7380	4.382	11.348	156
ADSS-15KN	15.0	38700	15480	23220	9675	3.062	13.641	166
ADSS-20KN	15.5	50940	20376	30564	12735	1.982	16.565	178
ADSS-25KN	16.0	63180	25272	37908	15795	1.304	19.103	191
ADSS-29KN	16.5	72360	28944	43416	18090	0.955	20.473	201
ADSS-31KN	18.0	78480	31392	47088	19620	0.732	18.61	206
ADSS-35KN	18.5	87660	35064	52596	21915	0.500	19.61	216
ADSS-38KN	19.0	93780	37512	56268	23445	0.385	19.86	223
ADSS-54KN	20.5	135600	54240	81360	33900	-0.246	24.46	265

2-24芯 ADSS技术规范 2-24 core the ADSS technical specifications								
型号 type	光缆外径 Cable diameter	光缆额定拉断力RTS(N) rated breaking force	最大允许使用张力MAT(N) The maximum allowable tension MAT (N)	极限运动张力UOS(N) The extreme sports Tension UOS (N)	年平均运行张力EDS(N) Average annual operating tension EDS (N)	线热膨胀系数1/k Linear thermal expansion coefficient of 1 / k	综合模量Gpa Comprehensive modulus Gpa	光缆重量kg/km Cable Weight kg / km
ADSS-4KN	12.5	11160	4464	6696	2790	11.512	5.99	117
ADSS-7KN	13.0	17280	6912	10368	4320	7.308	8.237	125
ADSS-11KN	13.5	26460	10584	15876	6615	4.393	11.388	135
ADSS-14KN	14.0	35640	14256	21384	8910	2.923	14.075	146
ADSS-18KN	14.5	44820	17928	26892	11205	2.036	16.372	156
ADSS-23KN	15.0	57060	22824	34236	14265	1.263	19.345	169
ADSS-26KN	15.5	66240	26496	39744	16560	0.882	20.962	180
ADSS-30KN	16.0	75420	30168	45252	18855	0.592	22.341	190
ADSS-34KN	17.5	84600	33840	50760	21150	0.316	20.9	198
ADSS-36KN	18.0	90720	36288	54432	22680	0.207	21.16	206
ADSS-39KN	18.5	96840	38736	58104	24210	0.112	21.37	214
ADSS-54KN	19.5	135600	54240	81360	33900	-0.424	26.81	250

光纤复合低压电缆 (OPLC)

OPTICAL FIBER COMPOSITE LOW-VOLTAGE CABLE (OPLC)

产品描述 PRODUCT DESCRIPTION

OPLC是一种将光纤单元复合在低压电力电缆内，具有电力传输和光通信传输双重能力的复合电缆，适用于额定电压0.4KV。

OPLC fiber composite low-voltage cable is a type of composite cable that combines optical fiber light with low-voltage cable. It has dual function of power transmission and communication and can be used at rate constant voltage of 0.4KV.



产品规格及结构说明 SIZE AND STURCTURE

一、型号示例说明 I.model specification

示例一：GD-VY23 0.6/1kv 3×240+1×120+G1-12B1

说明：包含12芯B1类光纤非金属层绞式光缆单元的铜芯聚氯乙烯绝缘钢带铠装聚乙烯护套光纤复合电缆，额定电压0.6/1kv，3芯加1芯，导体标称截面，240mm²（主），120mm²

Example 1: GD-VY23 0.6/1kv 3×240+1×120+G1-12B1

notes: includes PE, isolative steel tape armored and PVC outer sheath fiber composite cable with copper core of 12-core B1-category non-metallic layer stranded fiber cable unit, rated voltage 0.6/1kv, 3 cores plus 1 core, conductor nominal interception:240cm² (major), 120mm².

示例二：GD-YJY 0.6/1kv 2×10+G4-4B1

说明：包含4芯B1类光纤蝶形光缆单元的铜芯交联聚乙烯绝缘聚乙烯护套光纤复合电缆，额定电压0.6/1kv，2芯，导体标称截面，10mm²

Example 2: GD-YJY 0.6/1kv 2×10+G4-4B1

notes: includes XLPE, and isolative PVC outer sheath fiber composite cable with copper core of the 4-core B1-category butterfly optical fiber cable unit, rated voltage 0.6/1kv, 2 cores, conductor nominal interception: 10 mm² (major).

GD--光纤复合电缆

G1--非金属层绞式光缆单元

G2--非金属中心束管（全干式）光缆单元

G3--配线光缆单元

G4--蝶形光缆单元

GD--optical fiber composite cable

G1--non-metallic layer hinged cable unit

G2--non-metallic centre beam tube fiber (full dry) optic cable unit

G3--wiring cable unit

G4--butterfly cable unit

二、产品结构说明

II.description of product structure

A类：用户缆，主要用于家庭接入，电缆可垂直或水平进入家庭，引入智能电表和光器件终端。

Category A: User cable, mainly for home access; the cable can enter individual family vertically or horizontally, and introduce smart meters and optical device terminal.



GD-VY 0.6/1kv 2×6+G4-1B1 GD-VY 0.6/1kv 2×6+G3-2B1

B类：配线缆，主要用于小区和办公楼等进行配线段分支，由管道接入楼底或门前光-电分配箱。

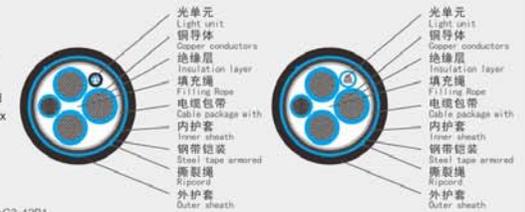
Category B: Wiring cable, mainly for branches of wiring section in residential and office buildings, which is connected to the electric distribution box at the first floor or the building entry.



GD-VY 0.6/1kv 3×25+1×16+G2-4B1 GD-VY 0.6/1kv 3×25+1×16+G3-4B1

C类：主要用于小区和办公楼等进行配线段分支，由隧道或直埋等接入楼底或门前光-电分配箱。

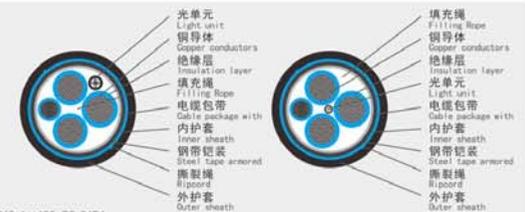
Category C: Mainly for branches of wiring section in residential and office buildings; it is connected to the optical-electric distribution box at the basement storey or in front of the door through tunnel or by burying directly.



GD-VY 0.6/1kv 3×25+1×16+G2-12B1 GD-VY 0.6/1kv 3×25+1×16+G3-12B1

D类：主要用于主干线路，由隧道或直埋等连接中心光-电机房至小区光-电配线箱。

Category D: Mainly used for trunk lines; it connects the central optical-electric room with the optical-electric distribution box in residential area through tunnel or by burying directly.



GD-VY23 0.6/1kv 3×240+1×120+G1-72B1 GD-VY23 0.6/1kv 3×240+1×120+G2-24B1

架空导线、地线（铝包钢绞线、特种导线） OVERHEAD CONDUCTORS, GROUND WIRE (AL-CLAD STEEL WIRE/SPECIAL WIRE)

产品描述 PRODUCT DESCRIPTION

公司主要导线产品各类有：铝绞线系列、铝合金绞线系列、铝包钢绞线系列、耐热铝合金绞线系列、钢芯铝绞线系列、钢芯铝合金绞线系列、钢芯耐热铝合金绞线系列、铝包钢绞线系列、铝包钢芯铝绞线系列、铝包钢芯铝合金绞线系列和英霸耐热铝合金绞线系列。

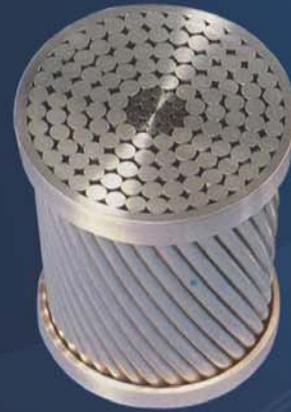
公司具有自主生产铝包钢单线，铝单线和铝合金单线的生产能力。架空导线的外径，重量，抗拉强度，电阻率等可根据客户的具体要求进行设计、制造。

管绞，框绞，笼绞组合使用，满足生产各种导线的需求。

The main products of wires are: aluminum wire series, aluminum alloy wire series, aluminum alloy core aluminum wire series, refractory aluminum alloy wire series, steel core aluminum wire series, steel core aluminum alloy wire series, steel core refractory aluminum alloy wire series, al-clad steel wire series, al-clad steel core aluminum wire series, al-clad steel core aluminum alloy wire series, and Invar refractory aluminum alloy wire series.

KFH is provided with the capacity to produce al-clad steel wire, aluminum wire and aluminum alloy wire independently. The outer diameter, weight, tensile strength and resistivity of overhead conductors can be designed and manufactured according to the specific requirements of customer.

Tube stranding, frame stranding and cage stranding can be used in combination so as to satisfy various requirements of different wires.



2, 700mm² 钢芯铝绞线 (ACSR2, 700mm²)
2,700 mm², steel core aluminum wire (ACSR2, 700mm²)



810mm² 60% conductivity, steel core refractory aluminum alloy wire (60TACSR 810mm²)



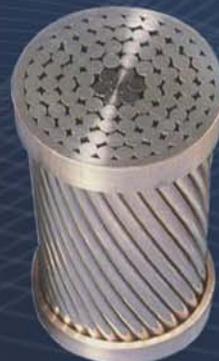
610mm² 覆铝钢芯耐热铝合金绞线 (TACSR/AC610mm²)
610 mm², al-clad steel core refractory aluminum alloy wire (TACSR/AC610mm²)



410mm² 覆铝钢芯耐热铝绞线 (ACSR/AC10mm²)
410 mm², al-clad steel core refractory aluminum wire (ACSR/AC 10mm²)



160mm² 镀亚铝镁合金一芯超耐热铝合金绞线 (ZTACIR160mm²)
160 mm², aluminum-magnesium alloy, single-core ultra-refractory aluminum alloy wire (ZTACIR 160mm²)



1,520mm² 60% conductivity, steel core refractory aluminum alloy wire (60TACSR1,520mm²)
1,520 mm², 60% conductivity, steel core refractory aluminum alloy wire (60TACSR1,520mm²)



810mm² 减噪音钢芯耐热铝绞线 (DNACSR810mm²)
810 mm², low noise, steel core refractory aluminum wire (DNACSR 810mm²)



420mm² 带鳍低损失电线 (SB TACSR/EGS 420mm²)
420 mm², low wastage wire with fin (SB TACSR/EGS 420mm²)



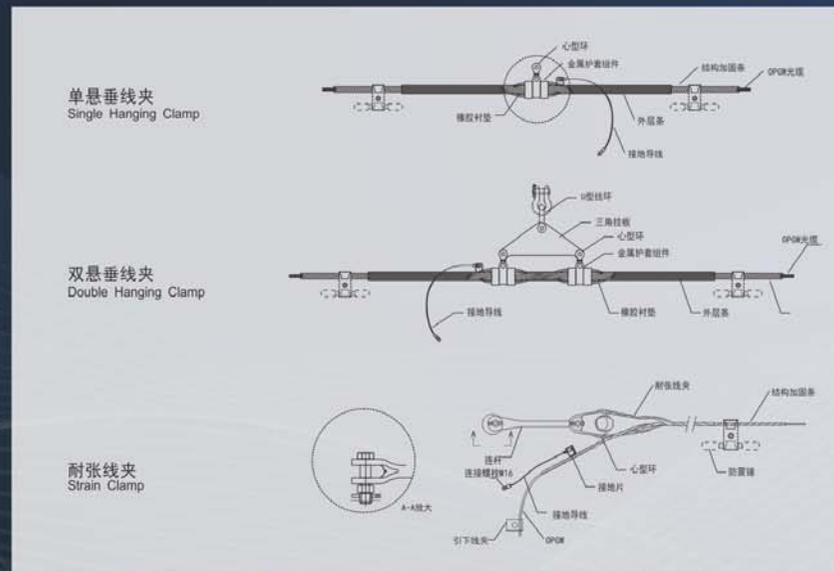
140mm² 低噪音型覆铝钢芯高力耐热铝合金绞线 (LN-K TACSR/AC 140mm²)
140 mm², low noise, al-clad steel core high-strength refractory aluminum alloy wire (LN-K TACSR/AC 140mm²)



铝包钢绞线
Al-clad steel wire

相关金具 RELEVANT HARDWARE FITTINGS

OPGW相关金具 OPGW RELEVANT HARDWARE FITTINGS



OPPC相关金具 OPPC RELEVANT HARDWARE FITTINGS

OPPC线路采用预绞式耐张金具和垂直金具与杆塔绝缘子串相连接。

We connect the pole insulator with preformed tension clamp and suspension clamp in the OPPC circuit.

OPPC的防振设计可参照OPGW的防振方案，或者参照架空导线的设计规范DL/T5092-1999中的防振方案。

The anti-vibration design of OPPC can refer to that of OPGW, or the anti-vibration program of DL/T5092-1999 (the standard of the overhead conductors design).

OPPC的连续是整个工程中的技术关键，要求在接头盒中采用“高压隔离绝缘”技术进行安全可靠的光电分离，保证线路的运行安全。

Fiber splicing of OPPC is the key point of the whole project. The joint box uses "high-voltage isolated insulation" technology to separate the photoelectric to insure safety operating of the circuit.

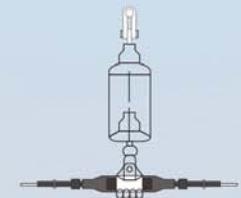
OPPC接头盒采用同样电压等级的“硅橡胶复合绝缘子”。根据使用方式的不同分为中间接头盒和终端绝缘接头盒，通常中间接头盒采用“导电式非绝缘接头盒”，在上接头河进行一次光纤熔接；终端接头盒采用“高压隔离绝缘接头盒”，在上、下街头盒进行两次光纤熔接。

The joint box of OPPC uses "silicone rubber composite insulator" with the same voltage level. they are divided into intermediate joint box and terminal insulated joint box according to different usage. the intermediate joint box uses "conductive non-insulated joint box" to finish fiber splice in the higher joint box; the terminal insulated joint box uses "high voltage isolated insulated joint box" to finish two fiber splices in the higher and lower joint.

耐张金具示意图
The Diagram Of Tension Clamp



悬垂金具示意图
The Diagram Of Suspension Clamp



中间接头盒示意图
The Diagram Of Intermediate Joint Box



终端接头盒示意图
The Diagram Of Terminal Joint Box

