南洋藤仓
NANYANGFUJIKURA

“藤仓扁型”

超多芯、超高速电梯电缆

复合光缆电梯电缆

"Fujikura Flat"

Ultra-multi-core, ultra-high-speed elevator cable

Elevator cable with composite fiber-optic cable






上海南洋－藤仓电缆有限公司

Shanghai Nanyang－Fujikura Cable Co., Ltd.

公 司 简 介

上海南洋-藤仓电缆有限公司是中日合资企业，公司成立于1995年10月。

公司拥有先进的工艺制造装备和电缆行业内最全面完善的研发检测设备，通过引进吸收日本藤仓世界领先的电缆制造技术和严格高效的管理模式，专业致力于研发制造一流的电线电缆产品。

电梯随行电缆、电梯井道控制电缆、电梯安装用各种连接导线等全系列电梯电缆是本公司一大类主导产品。公司还具备电梯电缆端末接插件装配、电梯井道线束集成等全面综合制造能力。拥有并掌握复合光缆电梯电缆产品中光纤融接等先进技术。

公司生产制造的“藤仓扁型”电梯随行电缆是我国目前唯一在模拟电梯运行状态下通过300万次弯曲寿命试验的产品。“南洋藤仓”牌电梯电缆以其优质的性能和高质量的品牌被广大用户所认可，为国内绝大多电梯制造厂商配套（用户名单见封三）。公司每年有20%的产品出口日本、韩国、东南亚、南美洲和欧盟国家。

作为行业领先者，上海南洋-藤仓电缆有限公司是中国电梯电缆CCC认证《补充技术标准》的制订和起草单位之一。电梯电缆最早获得中国质量认证中心颁发的CCC认证证书。同时还获得出口欧盟的CE认证证书。

公司在2007年率先在国内研发制造出复合光缆电梯随行电缆。

在2008年通过从日本藤仓引进技术，研制开发成功超多芯、超高速复合光缆电梯随行电缆，能为提升高度400米、运行速度12.5米/秒的超高速超高层电梯配套。该产品的研发成功不仅填补了国内空白，还在电梯电缆制造领域一举赶上和达到世界先进水平。

Profiles

Shanghai Nanyang-Fujikura Cable Co., Ltd. (NFC) is a joint venture company, established by Shanghai Urban Electric Power Investment & Development Company, Shanghai Cable Works Company, Shanghai Qizhong Group and Japan Fujikura Ltd. in Oct 1995 with a set up capital of US$7.5 million.

With the transfer of modern technology and effective management from Fujikura Japan, our goal is to become the best manufacturer in China through leveraging on our strength in having state-of-art equipments, integrated R&D and high level quality products.

The main products in our company are all kinds of Elevator Cables which includes flat traveling cable, hoistway control cable and various type power and control cables. Moreover, we have our strong in-house capability for producing prefabricated hoistway cable harnessing and so on. We have also mastered the advanced technique of fusion splicing for optical fiber composite traveling cable.

Our Flat Traveling Cable, branded as 'Fujikura Flat' is so far the only product which can pass the 3 million times bend life testing in an elevator moving simulator. The elevator cable of brand 'Nanyang-Fujikura' is accepted by many users for its high-grade capability and high-quality brand image. Now this cable is used by most of the domestic elevator manufacturers. (Please see the Customer List in back cover). Around 20% of our products are exported to Japan, Korea, Southeast Asia, South America and EU every year.

As the flagship company in the calling, Shanghai Nanyang-Fujikura Cable Co., Ltd. is one of the committee members who drew and drafted out the 'Complementary Technical Standards' of China Elevator Cable CCC Certification. We are the first company to secure the CCC Certification from China Quality Certification Center. At the same time, we also got the CE Certification which allows our products to be exported into EU.

In 2007, we took the lead in studying and making the optical fiber composite traveling elevator cable in China.

In 2008, we succeed in researching and developing the ultra-multi-core and ultra-high-speed with optical fiber composition traveling elevator cable which can match the speed and height of the high-rise and high-speed elevator (traveling height: 400 meter and 12.5m/sec speed) with the technological support from of Fujikura Japan.

For this success, we not only filled up the domestic technical gap but also caught up and reached the international technological level.


CERTIFICATE

管理体系认证证书

上海南洋-藤仓电缆有限公司

GB/T 19001-2000 idt ISO 9001:2000标准要求

方圆标志认证集团


IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and CQM hereby certify that the organization

SHANGHAI NANYANG—FUJIKURA CABLE CO.,LTD.

No.2188, Guanghua Road, Minhang District, Shanghai, P.R.China

Postcode:201111

is in conformity with

ISO 9001:2000 Standard

This certificate is valid to the following product(s)/service:

Design and production of lift cable, power cable of rated voltage 0.6/1kv, cables for electric cable of rated voltages up to and including 450/750V, cable harness for lift and aerial insulated cables with rated voltages up to and including 10KV

Issued on: 2007-01-27

Validity date: 2010-01-26

Dr. Fabio Roversi, President of IQNet

Zhang Wei, CEO of CQM


中国国家强制性产品认证证书

申请人名称及地址

上海南洋-藤仓电缆有限公司

制造商名称及地址

上海南洋-藤仓电缆有限公司

生产企业名称及地址

上海南洋-藤仓电缆有限公司

产品名称和系列、规格、型号

产品标准和技术要求

上述产品符合强制性产品认证实施规则的要求，特发此证。


VERIFICATION OF LVD COMPLIANCE

CERTIFIKAT


外商投资先进技术企业

证　书（副本）

CERTIFICATE FOR

FOREIGN-FUNDED ENTERPRISES WITH ADVANCED TECHNOLOGY

根据《国务院关于鼓励外商投资的规定》及有关实施办法，

上海南洋－藤仓电缆有限公司　　为　二〇〇六　年度

考核合格的上海市外商投资先进技术企业。

上海市外国投资工作委员会

上海市对外经济贸易委员会


CERTIFICATION OF ENTERPRISES WITH CREDIT IN HONORING THE CONTRACTS

SHANGHAI NANYANG-FUJIKURA CABLE CO., LTD.

守合同重信用企业

公示证书

上海南洋－藤仓电缆有限公司

为2004-2005年度守合同重信用企业

公司产品研发和检测中心 *(Product R & D and test center)*

检测中心 ***Test Center***

投影仪 ***Projector***

拉力机 ***Tension tester***

密度测试仪 ***Density Tester***

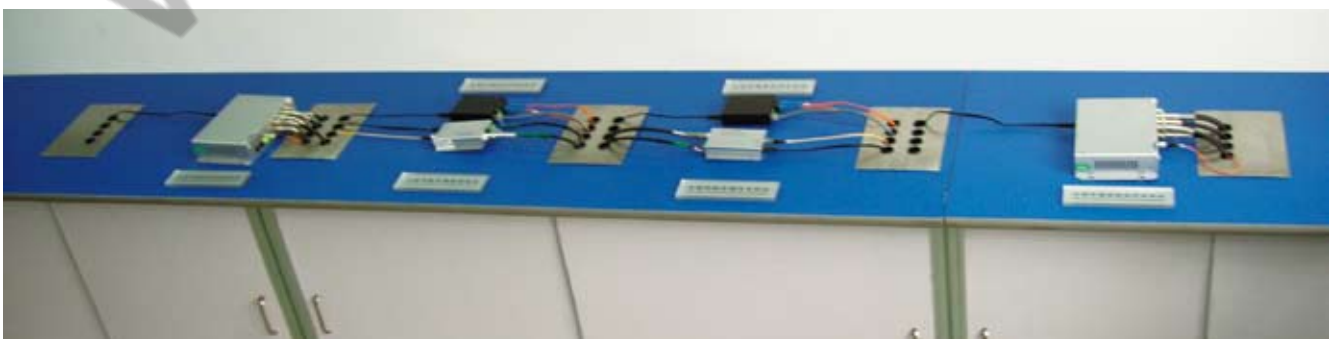
RoHS测试仪 ***RoHS Tester***

电桥、特性阻抗和衰减测试仪
Bridge, characteristic impedance and attenuation tester

老化箱 ***Ageing oven***

超低温试验室 ***Ultralow-temperature Lab***

电梯电缆寿命试验在线检测
Longevity test of elevator cables Online Detection



复合光缆寿命试验在线检测 ***Longevity test composite fiber-optic cable Online detection***

“藤仓扁型”电梯电缆的五大性能 *(Merits of the “Fujikura Flat” elevator cables)*

1. 高速运行性能*(High speed travelling property)*

超多芯带加强芯的扁型电梯电缆的运行速度最高可达990米/分，广泛使用于超高层超高速电梯。

The flat elevator cable with tension member has the excellent high speed travelling property up to 990m/min. The cable is used widely for high speed elevator of lofty buildings.

2. 运行中不易扭转*(No torsion during travelling)*

相反绞向线芯对称放置的内部结构及扁的外形结构使电缆在运行中不易扭转和晃动。

The cable construction which is the balanced assembly of opposite stranded groups of cores and the flat external form make it not easy twist and swing during operation.

3. 使用寿命长*(Long-term durability)*

经过模拟弯曲寿命试验的三百万次循环后，电缆无断线等异常。

No abnormality such as wire breakage occurred after 3 million times simulated bending life test.

4. 节省空间*(Saving Space)*

扁型电梯电缆的安装更简便快捷，而且其较小的弯曲半径更节省了空间。

The flat elevator cable can be installed easily and speedly. The flat elevator cable saves a lot of space because of the smaller bending radius.

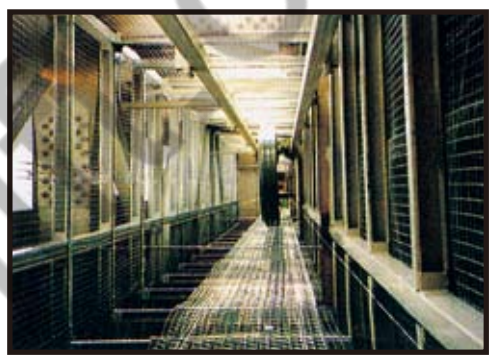
5. 其它性能*(Other Properties)*

扁型电梯电缆还具有优越的不延燃、耐油、柔软、防老化、耐低温等性能。

The advantages of the flat elevator cable is also providing flame-retardant, oil-resistance, flexibility, age-resistance.

扁型电梯电缆的运行

Movement of the Flat Elevator Cable



模拟寿命试验装置

The Device of the Simulated Endurance Test

电缆的允许电流(超多芯产品)

Current rating of the cable (Ultra-multi-core products)

导体标称截面 Norminal sectional area of conductor (mm^2)	导体结构 Conductor Construction (No./mm)	许容电流 Current rating (A)
0.75	30/0.18	5.5
1.5	30/0.25	7
2	37/0.26	8

长期允许工作温度：70℃

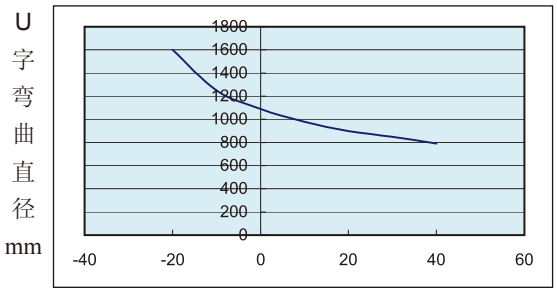
Max. permissible continuous operating temperature: 70℃

环 境 温 度：-20～40℃

Ambient temperature: -20～40℃

电梯电缆的U字形弯曲直径(超多芯产品)

U bend diameter of the cable (Ultra-multi-core products)



电缆的允许电流（一次绞对产品）

Current rating of the cable (A twist on the Product)

导体标称截面 Norminal sectional area of conductor (mm^2)	导体结构 Conductor Construction (No./mm)	许容电流 Current rating (A)
0.75	30/0.18	6
1.5	30/0.25	8
2	37/0.26	9

长期允许工作温度：70℃

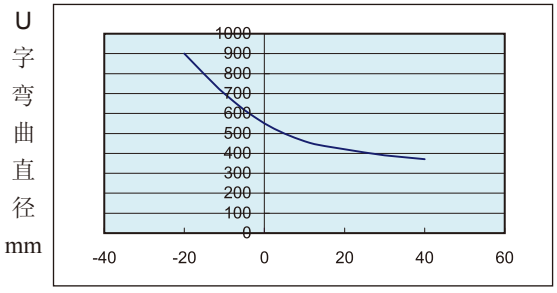
Max. permissible continuous operating temperature: 70℃

环 境 温 度：-20～40℃

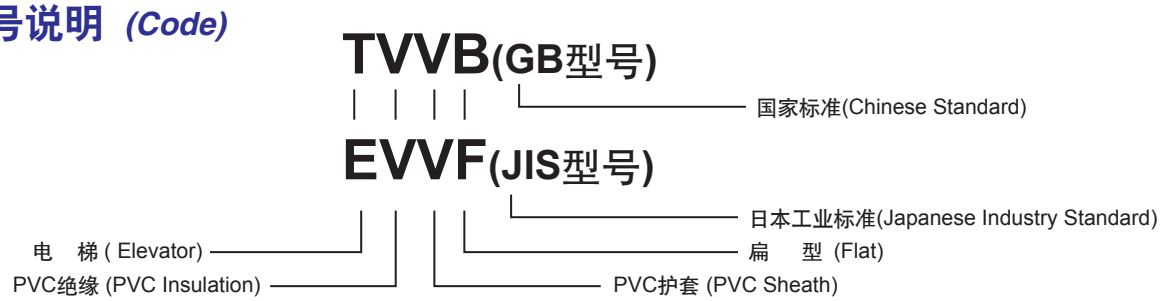
Ambient temperature: -20～40℃

电梯电缆电缆的U字形弯曲直径（一次绞对产品）

U bend diameter of the cable (A twist on the Product)



产品型号说明 *(Code)*



TVVBG	G: 带钢丝加强芯 G : With steel wire to strengthen the core
TVVBG-OPS	G-OPS: 带钢丝加强芯复合光缆和5类线对 G-OPS: Composite fiber-optic cable with strengthening steel wire & core of CAT-5
EVVF(SR)	SR: 带钢丝加强芯 SR : With steel wire to strengthen the core
EVVF-H	H: 带钢丝加强芯 H : With steel wire to strengthen the core
EVVF(SR-OPS)	SR-OPS: 带钢丝加强芯复合光缆和5类线对 SR-OPS: Composite fiber-optic cable with strengthening steel wire & core of CAT-5
EVVF-H-OPS	H-OPS: 带钢丝加强芯复合光缆和5类线对 H-OPS: Composite fiber-optic cable with strengthening steel wire & core of CAT-5

产品用途分类 *(Cable Usage)*

复合光缆电梯电缆 *(Elevator cables with composite fiber-optic cable)*

电梯升降行程 *Travelling Hight* 电梯运行速度 *Running Speed*	用　途 *Usage*	选用电缆型号 *Type of the Cable*	
100m ~ 180m 100 meters to 180m 4m/秒及以下 4m/s and Below	控制和动力 Control and power 电话和对讲 Telephone and intercom 摄像监控 Camera surveillance 信号多重传输 Multiple signal transmission 移动TV和多媒体传输 Mobile TV and multimedia transmission	绞合排列 Strand arranged	TVVBG-OPS EVVF(SR-OPS) EVVF-H-OPS

超多芯、超高速电梯电缆 *(Ultra-multi-core, ultra-high-speed elevator cable)*

电梯升降行程 *Travelling Hight* 电梯运行速度 *Running Speed*	用　途 *Usage*	选用电缆型号 *Type of the Cable*	
120m ~ 400m 120 meters to 400m 12.5m/秒及以下 12.5m/s and Below	控制和动力 Control and power	二重绞合排列 Strand arranged with two re	TVVBG EVVF(SR) EVVF-H
	控制和动力 Control and power 电话和对讲 Telephone and intercom 摄像监控 Camera surveillance 信号多重传输 Multiple signal transmission 移动TV和多媒体传输 Mobile TV and multimedia transmission		TVVBG-OPS EVVF(SR-OPS) EVVF-H-OPS

产品规格说明 *(Explaining for sample)*

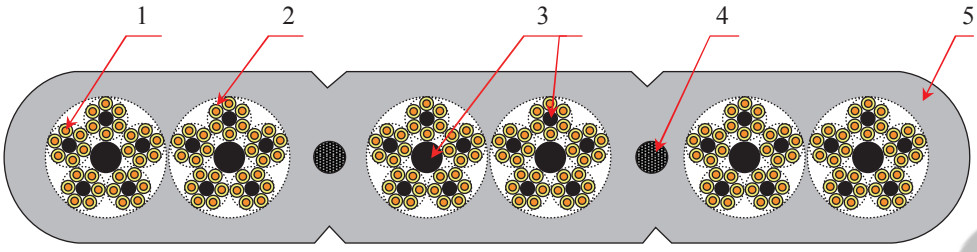
例:

EVVF(SR-OPS) 48c × 0.75sqmm + 6c x 2sqmm + 2PS × 0.75sqmm + 4 × G50/125

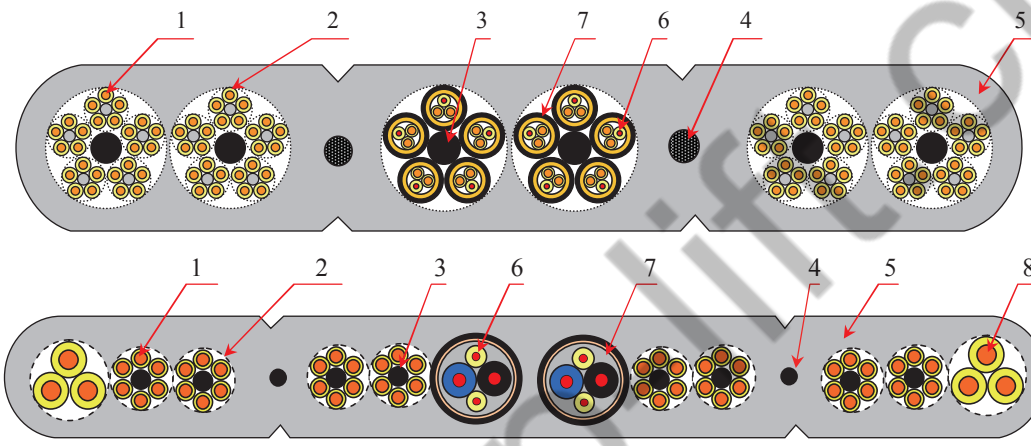
48c × 0.75sqmm	为 48芯控制线芯，导体截面为0.75sqmm	(48 Line of control Core, conductor cross-section for 0.75 sqmm)
6c × 2sqmm	为 6芯动力线芯，导体截面为2sqmm	(6 Line of power core, conductor cross-section for 2 sqmm)
2PS × 0.75sqmm	为 2对5类线对，导体截面为0.75sqmm	(2 pairs of 5 core of CAT-5 , conductor cross-section for 0.75 sqmm)
4 × G50/125	为 4芯光缆	(4 core fiber-optic cable)

产品结构说明 *(Construction)*

TVVBG、EVVF(SR) 或 EVVF-H



TVVBG-OPS、EVVF(SR-OPS) 或 EVVF-H-OPS



1 — 导体	*Conductor*	5 — PVC弹性体护套	*PVC flexible sheath*
2 — PVC绝缘层	*PVC insulation*	6 — 光缆	*Optical*
3 — 填衬	*Filler*	7 — 5类线对	*CAT-5 cable*
4 — 加强芯	*Wire rope*	8 — 动力线芯	*Power cores*

* 线芯和线对识别 *(Core Indentification)*

出口和国内市场：
Export & Domestic market:

线芯绝缘为黄色，表面连续打印黑色号码，黄/绿色接地线除外。
5类线对在四对及以下时采用不同颜色绝缘线芯识别；
四对以上在线对护套表面连续打印白色号码。

The color of insulation is yellow, mark black number on surface of insulation, Green/Yellow is for earth wire.
If the quantity of CAT-5 cable is lower than four cores or equal to four cores, we offer different color of wire,
If the quantity of CAT-5 cable is more than four cores, we will mark white number on the surface of wire.

出口欧洲市场：
Europe Market:

线芯绝缘为黑色，表面连续打印白色号码，黄/绿色接地线除外。5类线对识别同上。

The color of insulation is black, mark white number on surface of insulation, Green/Yellow is for earth wire. Core of CAT-5 is same as above.

电缆表面印字 *(Cable Marking)*

国内市场：(1)电缆型号 (2)电压等级 (3)电缆规格 (4)制造厂名称或商标

Domestic market: (1)Cable type (2)Rated voltage (3)Description (4)Manufacture or trading mark

* 可按用户要求对绝缘线芯颜色进行分色。分色一般不超过6种：黄、白、橙、浅绿、浅蓝、粉红。

User requirements can be the core of the insulated wire color for color separation.

Color generally not more than six kinds of: Yellow, white, orange, light green, light blue and pink.

复合光缆电梯电缆
(Elevator cables with composite fiber-optic cable)

型号(Type): TVVBG-OPS、EVVF(SR-OPS)或EVVF-H-OPS

额定电压(Rated voltage U0/U): 300/500V

执行标准(Standard): JIS C 3408-2000、企业标准

工作温度(Operating temperature): 70℃

环境温度(Ambient temperature): -20℃～+40℃

最大行程(Max. travelling height): 180m

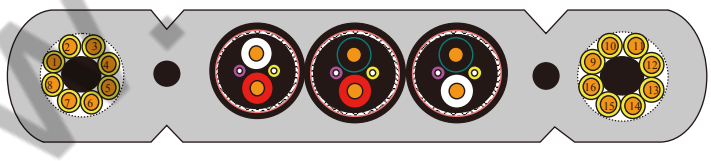
运行速度(Max. travelling speed): 4m/s及以下

U型悬挂直径(Suspend diameter): 430mm～500mm

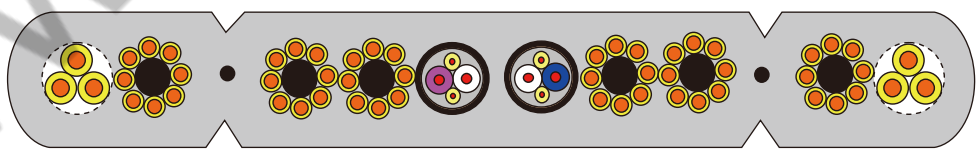
* 规　格 Specification No. × mm²		导体结构 Conductor Construction No./mm	绝缘标称厚度 Norminal thickness of Insulation mm		加强芯 Reinforced Member 直径 Diameter mm	加强芯 Reinforced Member 破断拉力 Tensile strength kN	成品电缆近似尺寸 Approx. Dimension mm×mm	成品电缆重量 Approx. Weight kg/km	20℃导体直流电阻 D.C. Resistance at 20℃ Ω/km		20℃导体绝缘电阻 Insulation Resistance at 20℃ MΩ·km		光纤衰减带宽 Optical Cable Attenuation & Bandwidth G50/125
①	16×0.75 +3PS×0.75 +6×G50/125	30/0.18	0.5	–	4	12.5×2	11.8×77.0	1150	26		20	200	850nm: ≤ 3.5dB/Km ≥600MHz·Km 1300nm: ≤ 1.5dB/Km ≥ 1200MHz·Km
②	48×0.75 +6×2 +2PS×0.75 +4×G50/125	30/0.18 37/0.26	0.5	0.8	4	12.5×2	11.8×100.0	2150	26	9.98	20	200	
③	64×0.75 +4PS×0.75 +8×G50/125	30/0.18	0.5	–	4	12.5×2	11.8×121	2650	26	26	20	200	

电缆结构示意图 Construction of the cable

①



②



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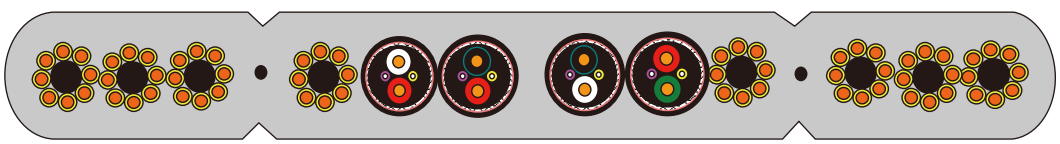


* 在成品电缆最大外径尺寸短轴 × 长轴=15mm × 122mm范围内，可根据用户需要选择不同的控制线芯数、动力线芯数和5类线对数、光缆芯数组合。

Finished product at the largest cable diameter size range of short axis × long axis = 15mm × 122mm, May be required based on user selection in combinations with different core number of the line of control and type of 5 kinds of core and fiber optic cable core number.

超多芯、超高速电梯电缆
(Ultra-multi-core, ultra-high-speed elevator cable)

型号(Type): TVVBG、EVVF(SR)或EVVF-H；TVVBG-OPS、EVVF(SR-OPS)或EVVF-H-OPS

额定电压(Rated voltage U0/U): 300/500V

执行标准(Standard): JIS C 3408-2000、企业标准

工作温度(Operating temperature): 70℃

环境温度(Ambient temperature): -20℃～+40℃

最大行程(Max. travelling height): 400m

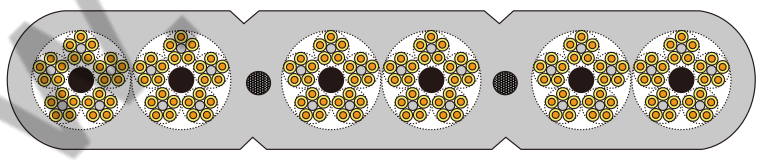
运行速度(Max. travelling speed): 4m/s~12.5m/s

U型悬挂直径(Suspend diameter): 650mm～1000mm

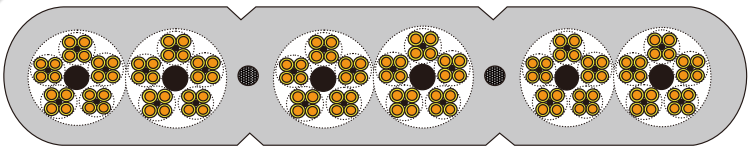
	* 规　格 *Specification* No. × mm²	导体结构 *Conductor Construction* No./mm	绝缘标称厚度 *Norminal thickness of Insulation* mm	加强芯 *Reinforced Member* 直径 *Diameter* mm	加强芯 *Reinforced Member* 破断拉力 *Tensile strength* kN	成品电缆近似尺寸 *Approx. Dimension* mm×mm	成品电缆重量 *Approx. Weight* kg/km	20℃导体直流电阻 *D.C. Resistance at 20℃* Ω/km		20℃导体绝缘电阻 *Insulation Resistance at 20℃* MΩ·km		光纤衰减带宽 *Optical Cable Attenuation & Bandwidth* G50/125
①	150×0.75	30/0.18	0.4	6.35	31.1×2	22.5×122	3980	26		20		
②	120×0.75	30/0.18	0.4	6.35	31.1	17.5×110	2910	26		20		
③	100×0.75 +10PS×0.75 +10×G50/125	30/0.18	0.4	6.35	31.1×2	22.5×125	4210	26	26	20	200	850nm: ≤ 3.5dB/Km≥ 600MHz·Km 1300nm: ≤ 1.5dB/Km ≥ 1200MHz·Km

电缆结构示意图 Construction of the cable

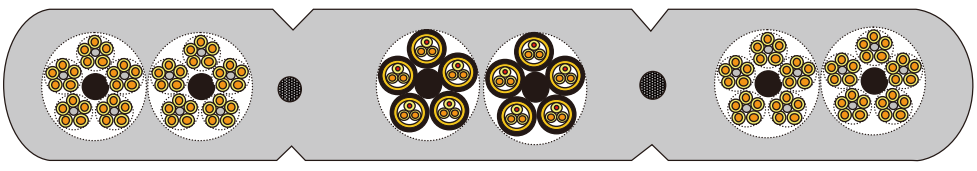
①



②



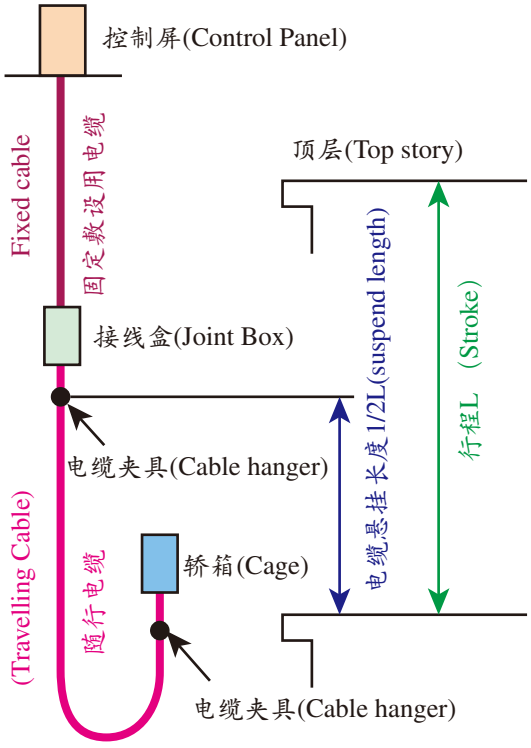
③



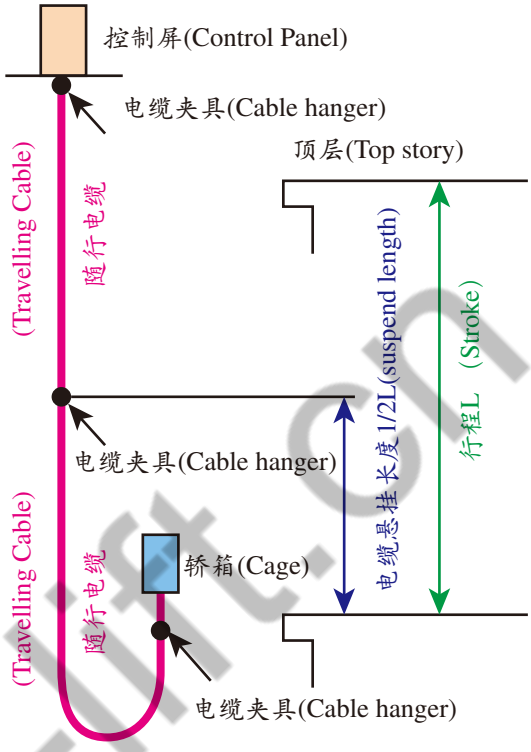
* 在成品电缆最大外径尺寸短轴 × 长轴=25mm × 125mm范围内，可根据用户需要选择不同的控制线芯数、动力线芯数和5类线对数、光缆芯数组合。

Finished product at the largest cable diameter size range of short axis × long axis = 25mm × 125mm, May be required based on user selection in combinations with different core number of the line of control and type of 5 kinds of core and fiber optic cable core number.

电梯随行电缆的安装 *(Cable Installation)*



半挂方式示意图 Semi-way diagram



全挂方式示意图 Whole- way diagram

井道墙面安装示意图
Wall-mount of Well Road diagram

井道导轨安装示意图
Well Road, rail installation diagram

电梯随行电缆安装注意事项 *(Elevator cable Installation note):*

1. 电缆两端必须用特制夹具予以固定。一端固定在电梯轿箱底部;一端固定在电梯井道墙面或电梯导轨上。
   Cable at both ends must be fixed in a special fixture.. One end fixed at the bottom of the elevator car. The other end fixed at the wall elevator shafts or Elevator Guide Rail.
2. 采用全挂方式时，在电缆中间必须用夹具固定。
   Linked to the use of the Whole- way approach, the cable must be fixed in clamp .
3. 为防止夹具损坏电缆护套，请使用橡胶或塑料垫片对电缆加以保护（夹具处）。
   In order to prevent the fixture damage to cable sheath, use rubber or plastic pads to protect the cable. (Fixture Department)
4. 采用钢丝加强芯电缆安装时需特别注意:
   Use of the steel wire strengthening cable installation should pay particular attention to:

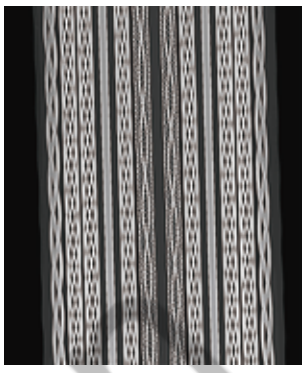
   (1) 将复合在电缆内的两根钢丝绳取出，切断后连接成U字状，用U型螺栓将两根钢丝绳连接;
   Take out the two wire rope inside the cable. After cutting into a U-shaped , then connected U-shaped, U-bolts used to connect two wire rope;

   (2) 将U字状连接的钢丝绳自由悬挂在电缆夹具的挂钩上，在确保整根电缆的重量都受力于钢丝绳后，再用夹具对电缆进行固定。
   U-shaped wire rope freedom to link the fixture. To ensure that the whole cable at the root of the weight on the wire rope, then fixed cable fixture.

300万次寿命试验 *(3million times Life Test)*

300万次垂直运行状态下
的光缆传输视频图像
3million times running condition of vertical video image transmission of Elevator cable with composite fiber-optical cable

300万次垂直运行
耐压在线测试系统
3 million times vertical movement voltage pressure test system



12D 300万次试验后
电缆X光照片1/3
X-ray photo 1/3 for the 12D cable that had been tested 3million times

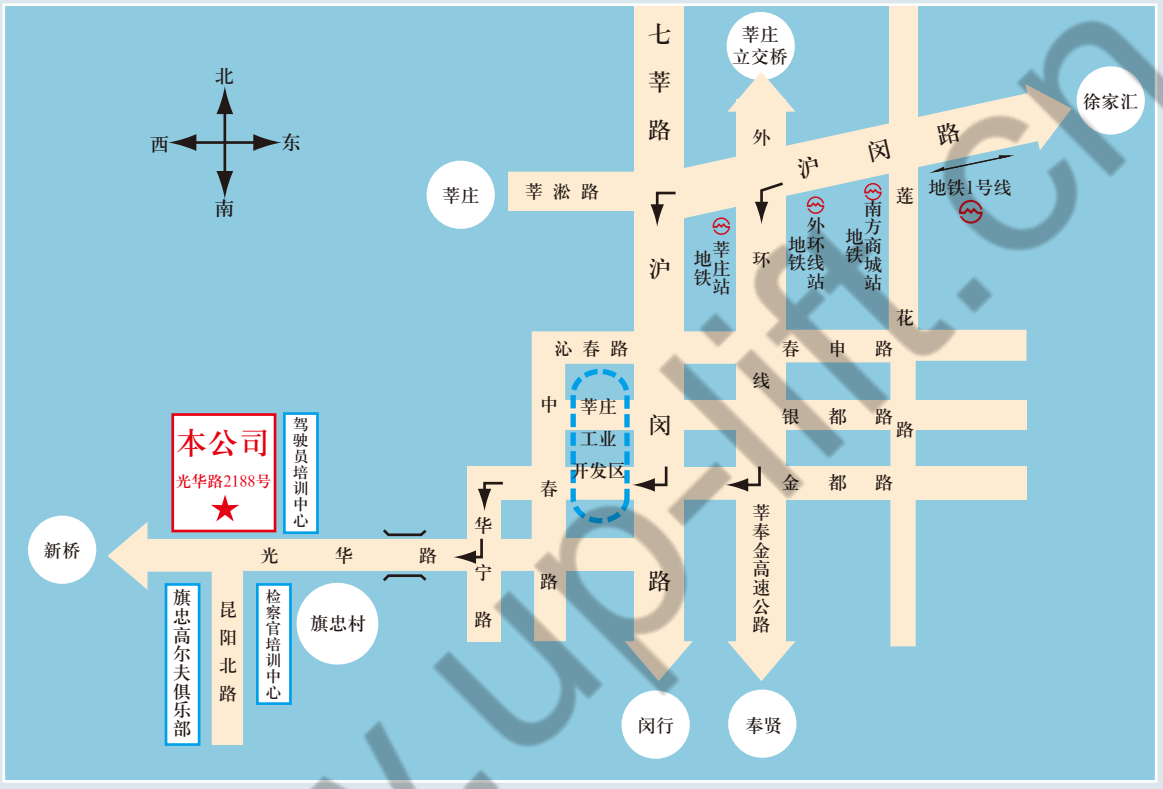
300万次垂直运行在线通断检测系统
3 million times vertical movement test to run-off detection system

300万次垂直运行装置
3 million times vertical movement of devices

300万次垂直运行状态下
的光缆传输摄像监控图像
3million times running condition of vertical video monitoring image transmission of Elevator cable with composite fiber-optical cable

扁型电梯电缆主要客户(排名不分先后)
Main Customers of Flat Elevator Traveling Cable

• 日立电梯(中国)	HITACHI Elevator(China)
• 日立电梯(上海)	HITACHI Elevator(Shanghai)
• 天津日立楼宇设备	HITACHI(Tianjin)
• 上海三菱电梯	Shanghai MITSUBISHI Elevator
• 三菱电机上海机电电梯	MITSUBISHI Electic Shanghai Electic Elevator
• 广东菱电电梯	Guangdong RYODEN Elevator
• 华升富士达电梯	HUASHENG FUJITEC Elevator
• 上海华升富士达扶梯	Shanghai HUASHENG FUJITEC Escalator
• 东芝电梯(中国)	TOSHIBA Elevator(China)
• 东芝电梯(沈阳)	TOSHIBA Elevator(Shenyang)
• 迅达电梯(苏州)	SCHINDLER Elevator(Suzhou)
• 广东蒂森·克虏伯电梯	Guangdong ThyssenKrupp Elevator
• 上海永大电梯	Shanghai YUNGTAY Elevator
• 上海崇友电梯	Shanghai GFC Elevator
• 上海现代电梯	Shanghai HYUNDAI Elevator
• 浙江巨人通力电梯	GIANT KONE Elevator
……	……



公司交通示意图 Company Access

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