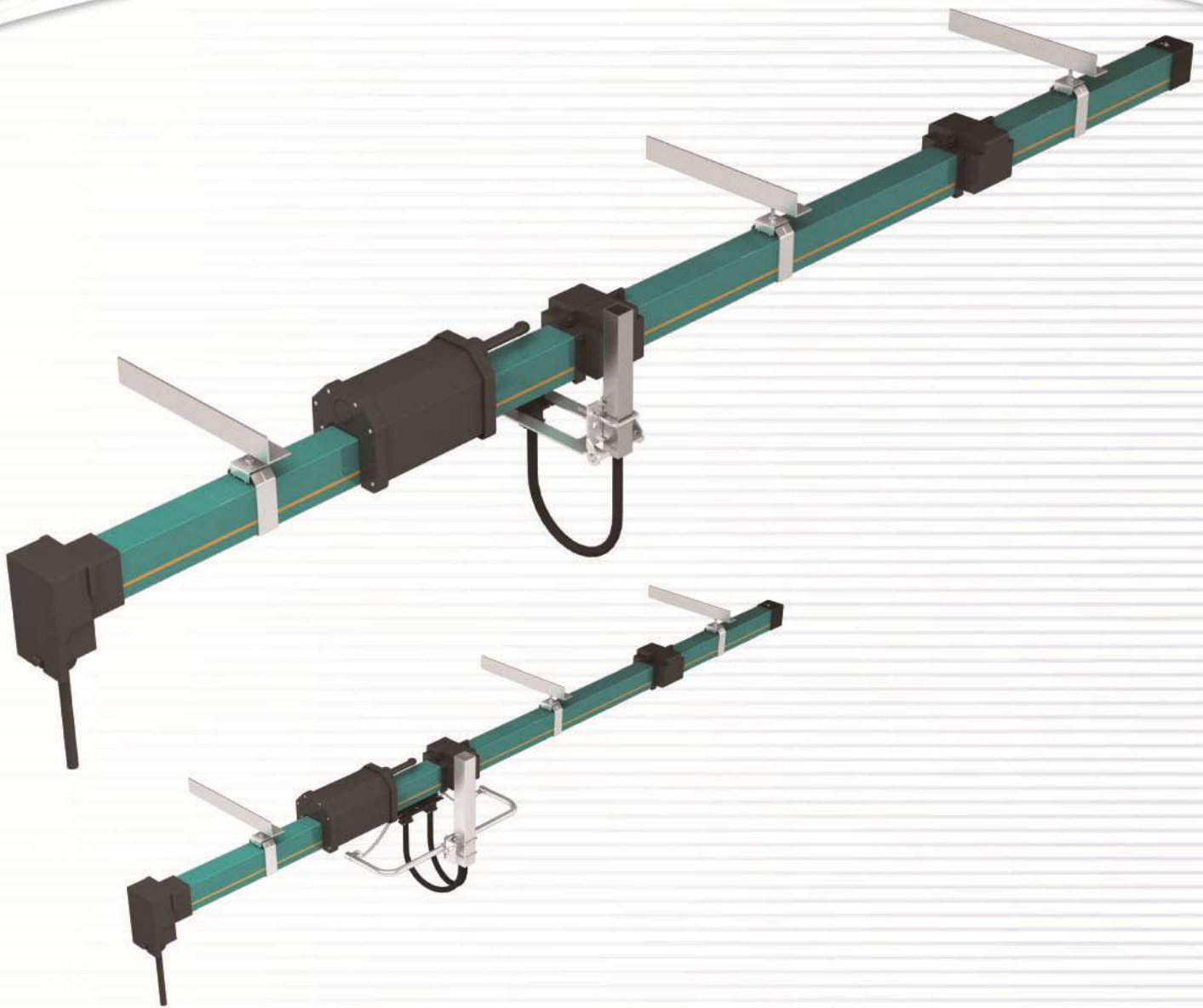




Mobile Electrification System
KOMAY

POWERRAIL ENCLOSED CONDUCTOR SYSTEMS



Mobile Electrification System
KOMAY

导管式滑触线是一款具有防意外冲击危害功能的滑线，室内外均可使用。结构为工程塑料绝缘外壳可装入不同截面积的铜导线，其额定电流值为 35A 至 240A。集电器的运行是由牵引器引导的，主要是通过带弹簧的碳刷来传送。

配套的橡胶防尘条能有效提高滑线的 IP 防护等级，防护等级最高可达 IP43 。

该系列滑触线为 3 极-16 极装置。56 系列为 3 极或 4 极装置。

HFP-R 型为弧线滑线，可制成 $R \geq 800\text{mm}$ 的弧形滑线。通过以下认证：CCC、ISO9001 和 CE 认证。

General

Powerail Enclosed conductor rail system is a powerail, protected from contact (IP23), for indoor and outdoor plants.

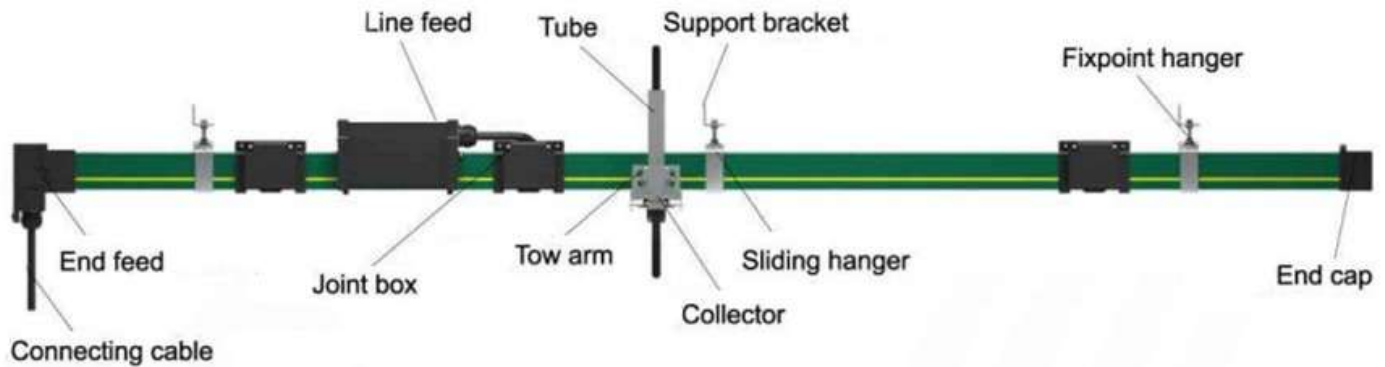
They are conductor lines in a rigid green PVC housing with different copper cross sections for rated currents of 35A-240A.

The current collectors, running in ball bearing, are guided by the housing.

The main is transferred by spring-stored carbon brushes. Type HFP-P: not include sealing strip, with factory-mounted flat copper band and boited operated plug connectors.

Type HFP-R: Curves for $R \geq 800\text{mm}$, with factory-mounted flat copper band and screw connectors. Approved and listed by: CCC, ISO90001 and CE.

系统图/System photo



技术参数/Technical data

电气参数 Electrical properties:		机械参数 Mechanical properties	
最大电流 Max. current	See page 3	弯曲强度 Flexible strength	$75\text{N/mm}^2 \pm 10\%$
最大电压 Max .voltage	600V	抗张强度 Tensile strength	$40\text{N/mm}^2 \pm 10\%$
绝缘强度 Dielectric strength	30-40KV/mm	温度范围 Temperature range:	
特殊电阻 Spec. resistance	$5 \times 10^{15} \text{Ohm} \times \text{cm}$	标准导管 Standard Housing	-30℃ up to + 70℃
表面电阻 Surface resistivity	$10^{15} \text{Ohm} \times \text{cm}$	高温导管 High Temp. Housing	-20℃ up to + 115℃
漏电阻 Leakage resistance	CTI600-2.7	低温导管 Low Temp.Housing	-40℃ up to + 80℃
燃烧性/Combustibility:			
阻燃性 Flame retardant	B1 级-无火焰微粒，自熄		
自动熄灭 Self extinguishing	Class B1-no flaming particles, self-extinguishing		
抗化学性能/Resistance to chemicals:	+ 45℃		
	汽油 Gasoline	50% 硫酸/Sulphuric acid 50%	
	矿物油 Mineral Oil	腐蚀性苏打溶液 25% 和 50% Caustic soda 25% & 50%	
	润滑油 Grease	浓缩氯化氢/Hydro-chloric, concentrated	

导管

工程塑料外壳，3-4 极滑线。

标准长度 4 米，也可以选择其他不超过 6 米的长度。

零线位置采用国际颜色代码黄色来标识。

集电器和外壳的设计可以防止相线和零线倒置。

连接架

塑料连接架，啮齿紧密。

供电点

中间供电或端部供电点。

端帽

1 路滑线末端使用 1 个端帽，起保护作用。

吊夹

可提供将滑线固定在起重机行车大梁上的标准支架。可使用滑动吊夹和固定吊夹。标准间距为 1200mm。

膨胀节

膨胀节用于补偿滑线导体由于温度变化而引起的长度变化。膨胀节不会中断电流传输。

防冷凝段

防冷凝段用于防止从室内到室外的外线遇冷收缩。保障滑线系统供电不中断。

供电工作段，道岔

滑线接触段及道岔应用请查看第 页。

分段

滑线间隔气隙为 5mm，保证集电器能通过该间隙。如用于电源线，也可用于绝缘片 35mm。在此情况下，绝缘片长于碳刷且每个滑线段可独立供电，例如：用于控制线。

集电器

集电器是由防撞击的塑料件和放生锈的金属部分制造而成，质地较轻。集电器弹簧能够确保碳刷保持良好可靠的接触。集电器还包括连接电缆或端部接线盒以及铰链式或可变形的牵引臂。双集电器可用于导向装置或更高电流量的设备。

Housing

Color green, plastic housing for 3-4 conductors. Standard section 4 m.

Other sections are available.

The ground conductor is identified by international color code.

Phase reversing prevented by design of the collector and housing.

Connection

Through plastic joint caps.

Feed Sets

Line feeds or end feeds.

End caps

The open ends of the powerail are closed by end caps for HFP56.

Hangers

Standard brackets for powerail attachment to crane girders are available.

Powerail with sliding and fixpoint hangers.

Standard distance between suspension points for indoor and outdoor.

Installation: 1200mm.

Expansion during temperature fluctuation

The expansion sections are required to compensate the different expansions between copper conductors and steel or concrete structures, in varying temperatures without interrupting electrical power.

Anti-condensation sections

These sections are used for transfer of the powerail to outdoor areas to avoid condensation. The powerail is not separated electrically.

Power feed sections and switches

Powerail for working areas and transfer applications see page 16 and 17.

Sectioning

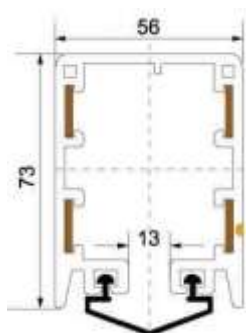
Available as air gap version (5mm), where the collector carbon bridges the gap, e.g. for ① mains. Also available as insulating piece version (35mm). In this case, the insulating piece is longer than the carbon and each powerail section can be separated electrically, e.g. for control.

Collectors

The current collectors are made of re-inforced polyester fiberglass, for high strength and light weight. Spring loaded carbon brushes maintain uniform contact. Connecting cables and hinged or flexible towing arms included. Double collectors for transfer applications and higher amperage.



型号 • 技术参数 • 产品编码 TYPES • TECHNICAL DATA • ORDER NUMBERS



滑线编码 Conductor code

HFP56-4-n/m

HFP56= 多级导管式滑线代号/powerail enclosed conductor

4=级数 poles

n=单相横截面积 conductor cross section(mm²)

m=额定载流量 continuous ampere capacity

单相铜牌宽度/Width for copper

① =14.5mm

② =17.6mm

③ =21.0mm

长度/Length

标准长度为 4 米, 也可提供其他不超过 6 米的长度。4m is standard length, other lengths are available, but not be exceeding 6m.

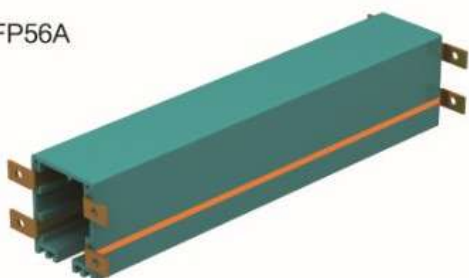
弧线段/Curves

最小半径 80mm . min R=0.8m

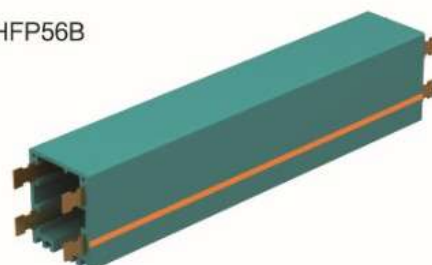
支架间距/Support spacing

直线段 1.2m For straight runs 1.2m.

HFP56A



HFP56B



型号 Type	极数 poles	单相横截面积 (mm ²) Conductor cross section	额定载流量 (A) Max. current	电气间隙 (mm) Leakage-distance	额定电压 (V) Max. Voltage	电阻 (Ω /Km) Resistance	重量 (kg) Weight	产品编码 Order-NO.
HFP56A-4-8/35①	4	8	35	35	690	1.944	2.09	56A0814
HFP56A-4-10/50①	4	10	50	35	690	1.656	2.16	56A1014
HFP56A-4-12/65①	4	12	65	35	690	1.321	2.23	56A1214
HFP56A-4-15/80①	4	15	80	35	690	1.137	2.30	56A1514
HFP56A-4-20/100②	4	20	100	33	690	1.011	2.43	56A2024
HFP56A-4-25/120②	4	25	120	33	690	0.713	2.56	56A2524
HFP56A-4-35/140②	4	35	140	33	690	0.522	2.95	56A3524
HFP56A-4-50/170②	4	50	170	33	690	0.337	3.25	56A5024
HFP56A-4-70/210②	4	70	210	33	690	0.265	3.85	56A7024
HFP56A-4-80/240③	4	80	240	30	690	0.223	4.16	56A8034

型号 Type	极数 poles	单相横截面积 (mm ²) Conductor cross section	额定载流量 (A) Max. current	电气间隙 (mm) Leakage-distance	额定电压 (V) Max. Voltage	电阻 (Ω /Km) Resistance	重量 (kg) Weight	产品编码 Order-NO.
HFP56B-4-8/35①	4	8	35	35	690	1.944	2.09	56B0814
HFP56B-4-10/50①	4	10	50	35	690	1.656	2.16	56B1014
HFP56B-4-12/65①	4	12	65	35	690	1.321	2.23	56B1214
HFP56B-4-15/80①	4	15	80	35	690	1.137	2.30	56B1514
HFP56B-4-20/100②	4	20	100	33	690	1.011	2.43	56B2024
HFP56B-4-25/120②	4	25	120	33	690	0.713	2.56	56B2524
HFP56B-4-35/140②	4	35	140	33	690	0.522	2.95	56B3524
HFP56B-4-50/170②	4	50	170	33	690	0.337	3.25	56B5024
HFP56B-4-70/210②	4	70	210	33	690	0.265	3.85	56B7024
HFP56B-4-80/240③	4	80	240	30	690	0.223	4.16	56B8034

4 极集电器/Current for 4 poles powerail

56JD-4/25

56JD-4/40



25A 集电器适合于 35A-50A 的滑线。Collector 25A is used for 35A-50A.
40A 集电器适合于 65A-120A 的滑线。Collector 40A is used for 65A-120A.
牵引器 56BC/53 和 56BC/55 均可配用。Both 56BC/53&56BC/56 could use.

连接电缆 Connecting cable

25A, $2.5\text{mm}^2/\text{core} \times 4$ 40A, $4.0\text{mm}^2/\text{core} \times 4 + 2.5\text{mm}^2/\text{core} \times 1$

0.8 米长, 可提供更长的电缆。0.8m long, longer cables on request.

型号/Type	重量/Weight(kg)	级数/poles	额定功率/Power rating	产品编码 Cat.-No.
56JD-4/25	0.65	4	25A	563125
56JD-4/40	0.70	4	40A	563140

56JD-4/60



60A 集电器适合于 120A-170A 的滑线。Collector 60A is used for 120A-170A.
牵引器 56BC/53 和 56BC/55 均可配用。Both 56BC/53 & 56BC/55 could use.

连接电缆 Connecting cable

60A, $4.0\text{mm}^2/\text{core} \times 6 + 2.5\text{mm}^2/\text{core} \times 2$

0.8 米长, 可提供更长的电缆。0.8m long, longer cables on request.

* 可 3 只或 3 只以上并联使用, 但仅限于直线段使用

3 pcs or more collectors could parallel connect, but only for straight powerail.

型号/Type	重量/Weight(kg)	级数/poles	额定功率/Power rating	产品编码 Cat.-No.
56JD-4/60	1.35	4	60A	563160

56JD-4/80



80A 集电器适合于 140A-210A 的集电器。Collector 80A is used for 140A-240A.
只适合于 56BC/53 牵引器。Only use with 56BC/53.

连接电缆 Connecting cable

80A, $(6.0\text{mm}^2 \times 2/\text{core}) \times 3$

1m 长, 可提供更长的电缆。1m long, longer cables on request.

型号/Type	重量/Weight(kg)	级数/poles	额定功率/Power rating	产品编码 Cat.-No.
56JD-4/80	1.30	4	80A	563180



4 极弯弧集电器/Current for 4 poles Curves

56JDR-4/25

56JDR-4/40



集电器适用于 R>800 的弧形滑线。

Collector is used for curves(R>800).

牵引器 56BC/53 和 56BC/55 均可配用。 Both 56BC/53 & 56BC/55 could use.

连接电缆 Connecting cable

25A, 2.5mm²/core×4

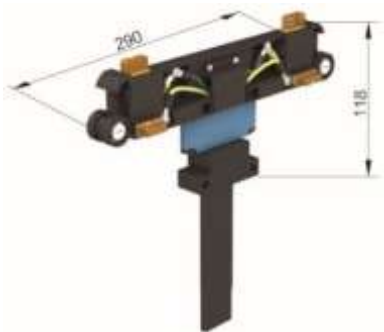
4.0mm²/core×4 + 2.5mm²/core×1

0.8 米长, 可提供更长的电缆。 0.8m long, longer cables on request.

型号/Type	重量/Weight(kg)	级数/poles	额定功率/Power rating	产品编码 Cat.-No.
56JD-4/25	0.65	4	25A	563325
56JD-4/40	0.70	4	40A	563340

56JD-3/60

56JD-3/80



只适合于 56BC/53 牵引器。 Only use with 56BC/53.

连接电缆 Connecting cable

60A, 4. 0mm²/core×2/core)×3

80A, (6.0mm²/core×2/core)×3

1m 长, 可提供更长的电缆 1m long, longer cables on request.

型号/Type	重量/Weight(kg)	级数/poles	额定功率/Power rating	产品编码 Cat.-No.
56JD-3/60	0.90	3	60A	563360
56JD-3/80	1.05	3	80A	563380

碳刷组件/Carbon Brush assembly

56TS-1



56TS-2

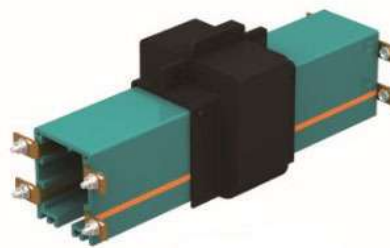
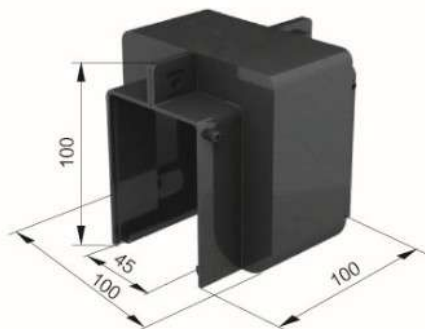


型号/Type	重量/Weight(kg)	产品编码 Cat.-No.	备注/Remark
56TS-1	0.04	563101	适用于/Be used for: 56JD-4/25, 56JD-4/40 56JD-4/60, 56JD-4/80 56JD-3/60, 56JD-3/80

型号/Type	重量/Weight(kg)	产品编码 Cat.-No.	备注/Remark
56TS-2	0.04	563102	适用于/Be used for: 56JDR-4/25, 56JDR-4/40

连接夹/Joint cap

适合于铜排弯连接系统/be used with bended joints



安装示例

Ready installed

带有自锁功能，安装简便，啮合紧密。
Self locking and installed is very easy.

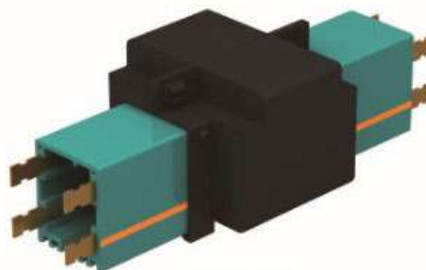
型号/Type	重量/Weight kg	材质/Material	产品编码/Cat.-No.
56LJ-5	0.10	工程塑料/Plastic	563405

连接夹/Joint Cap

适合于带螺钉铜接头的滑线系统/be used with bolted joints.

56LJ-6

可选配



安装示例

Ready installed

带有自锁功能，安装简便，啮合紧密。
Self locking and installed is very easy.

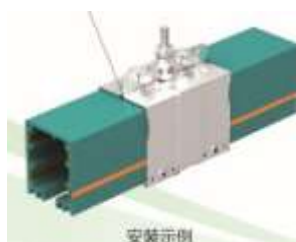
型号/Type	重量/Weight kg	材质/Material	产品编码/Cat.-No.
56LJ-6	0.16	工程塑料/Plastic	563406

定位夹/Anchor hanger*

适合于铜排整穿的滑线系统/be used without any joints system

导管接缝处用绝缘胶布包裹

To seal the connection parts with rubberized fabric



安装示例

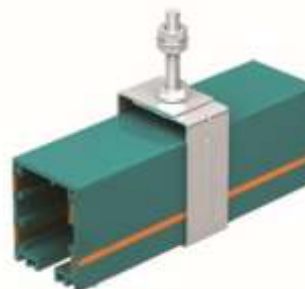


*可做连接夹使用 Could Be used for jointing box

型号/Type	重量/Weight kg	材质/Material	产品编码/Cat.-No.
56LJ/8	0.28	镀锌钢/galvanized	563408

浮动吊夹/Sliding hanger

适合于铜排弯连接系统/be used with bended joints



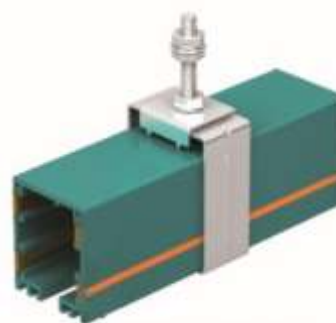
浮动吊夹安装示例

Sliding hanger at powerail section



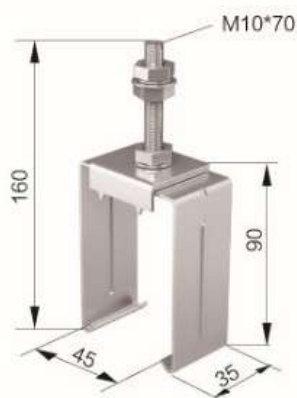
型号/Type	重量/Weight kg	材质/Material	产品编码/Cat.-No.
56DJ/1	0.17	镀锌钢/steel	563901

固定吊夹/Fixpoint hanger



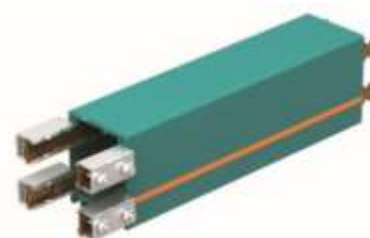
固定吊夹安装示例

Fixpoint hanger at powerail section



型号/Type	重量/Weight kg	材质/Material	产品编码/Cat.-No.
56DJ/2	0.21	镀锌钢/steel	563911

螺钉式直接头/With bolted joints



螺钉式接头安装示例

Bolted joints at powerail section

型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56JT-80A	0.042	外壳镀锌钢, 接触片紫铜 Steel cover & copper plate	560001
56JT-120A	0.049		560002
56JT-140A	0.053		560003
56JT-170A	0.058		560005
56JT-210A	0.065		560006
56JT-240A	0.085		560008

注意!

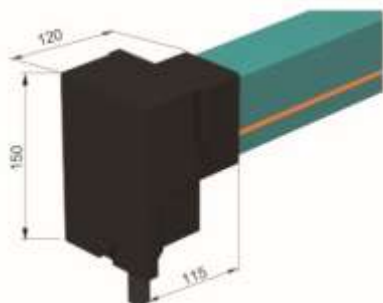
拧紧接头上的固定螺丝时, 最多不能超过 2Nm 的力矩, 以避免损坏接头帽口。

Caution!

Tighten the set screws with max.2 Nm to avoid deforming the clip of the bolted joint.

端部供电/End feed

适合于 35A-240A 的滑线。 Be used for 35A-240A.



安装在整条滑线系统的左端或右端。

Left and right version

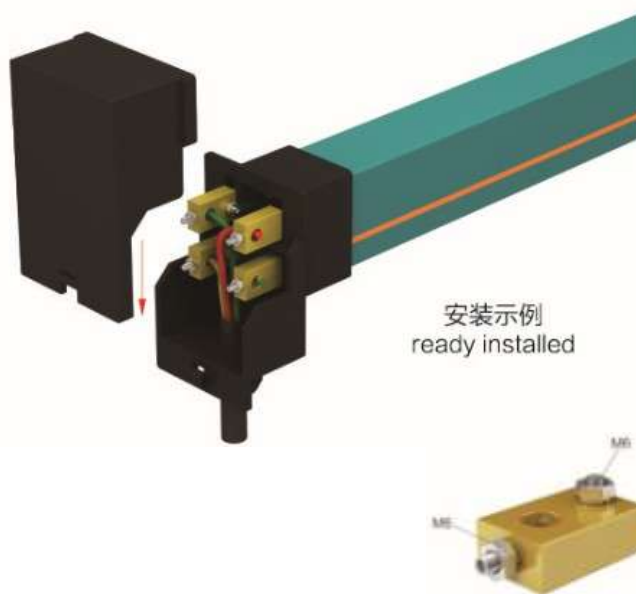
型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56DG	0.25	工程塑料/Plastic	564685

符号说明/Symbols

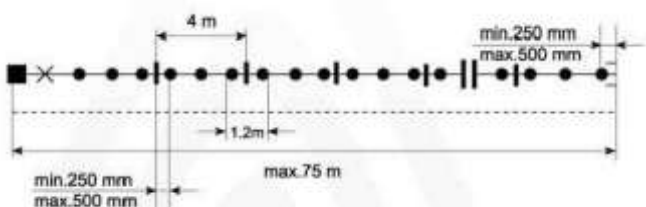
- 滑线 Powerail
- 轨道 Runway
- +— 连接夹 Jointing material
- X— 固定吊夹 Fixpoint hanger
- 移动吊夹 Sliding hanger
- [——] 端帽 End Cap
- 端供 End feed
- 中间供电 Line feed
- |— 分段 Isolating assembly

*滑动吊夹在实际运用中可以为固定吊夹所取代。

Each sliding hanger can be converted to a fixpoint hanger.



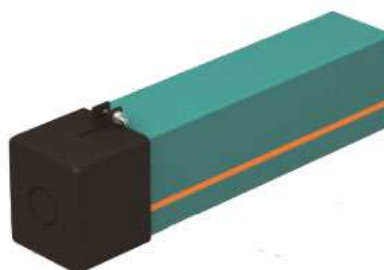
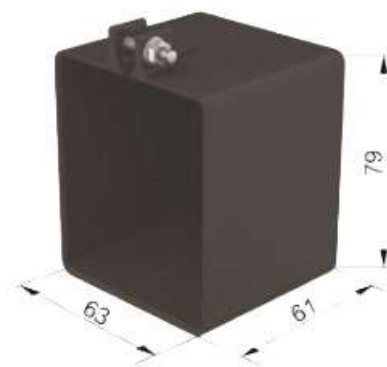
安装示例
ready installed



端供接头/End feeding joints

型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56EJ-1	0.06	黄铜/brass	560009

端帽/End Cap

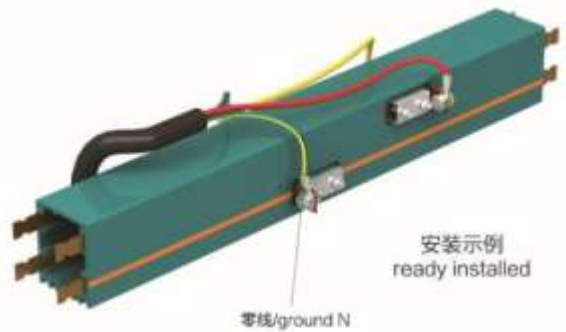
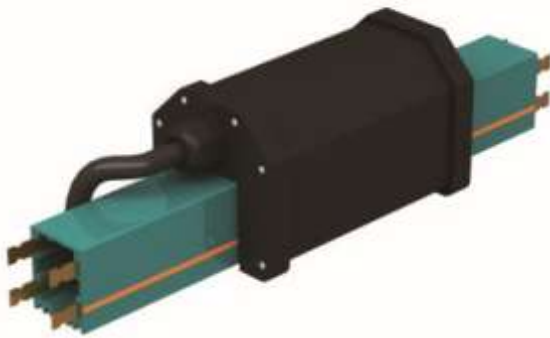


端帽安装示例

End Cap ready installed

型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56DM	0.065	工程塑料/Plastic	563701

中间供电器（带 0.5 米滑线段） / Line feeding(with 0.5 meter powerail)*



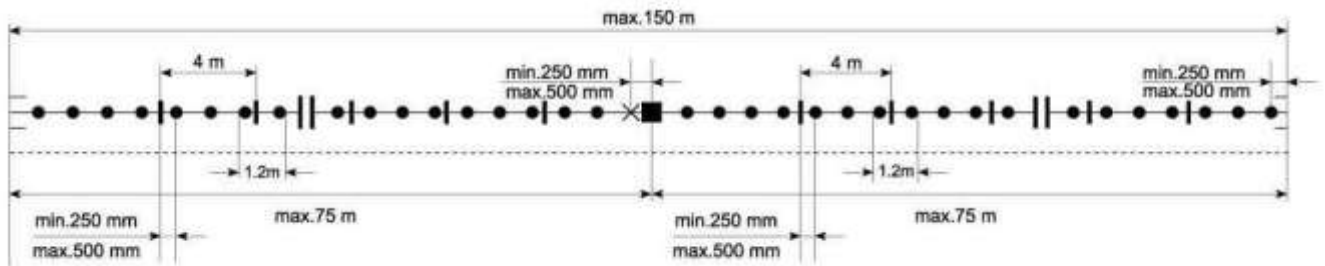
*标准设置为带 0.5 米滑线，也可以组装在不超过 4 米的滑线上。

With 0.5 meter powerail is standard length, other lengths are available, but not exceeding 4 meters.

**X/m: 表示具体的滑线型号，如 56ZG/ 500-4 / 50A，则表示用于 4 极 50A 的滑线

**X/m means type of powerail, for example, 56ZG/500-4/50A, it means 4 poles, 50 Amp powerail.

型号/Type	产品编/Cat.-No.
56ZG/500-X/m	564699



供电接头/Feeding joints



型号/Type	重量/Weight kg	产品编/Cat.-No.
56GJT-80A	0.051	560081
56GJT-120A	0.058	560082
56GJT-140A	0.065	560083
56GJT-170A	0.076	560085
56GJT-210A	0.086	560086
56GJT-240A	0.095	560088

LED 指示灯/Led Light

适用于所有滑线

Be used for all powerails.



型号/Type	重量/Weight kg	产品编/Cat.-No.
56LED	0.275	564685

牵引器/Tow Arm

可配置方管或方形沟槽/Could with tube or square hollow profile



型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56BC/53	0.53	镀锌钢/steel	565053



牵引杆/Tow arm

用于方管牵引
With square hollow profile

用于角钢或槽钢牵引
With angel steel or channel beam



型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56BC/53	0.55	镀锌钢/steel	565055

密封条/Sealing strip

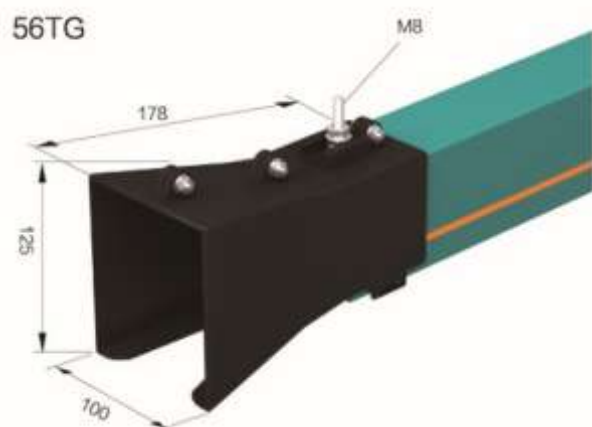


型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56FCT	0.065	工程塑料/plastic	569905

防尘条用于多尘、防火的环境，一般 50 米一个包装。

Sealing strip can be used for dusty for fireproof ambient, usually 50 meters is one package.

喇叭口/Transfer guides



引导集电器由外部进入导管的装置，主要用于自动流水线道岔装置的滑线之间的连接或作为热补偿段使用（见热膨胀的解决方案部分）。

安装喇叭口需要注意以下几点：

- ① 两端导管需分别进行供电
- ② 集电器必须使用双集电器，且各集电器应有“弹簧同步器”牵引
- ③ 两集电器之间距离大于 500mm

The powerail is electrically separated into 2 parts by the telescope section. Provide each of these sections with a separate feeding. In order not to interrept the electrical contact when passing the telescope section, two current collectors of

an adequate capacity must be provided with a center distance of at least 500 mm. If in case of higher power consumption double collectors must be consider tow sets accordingly.

型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56 TG	0.22	工程塑料/plastic	563756

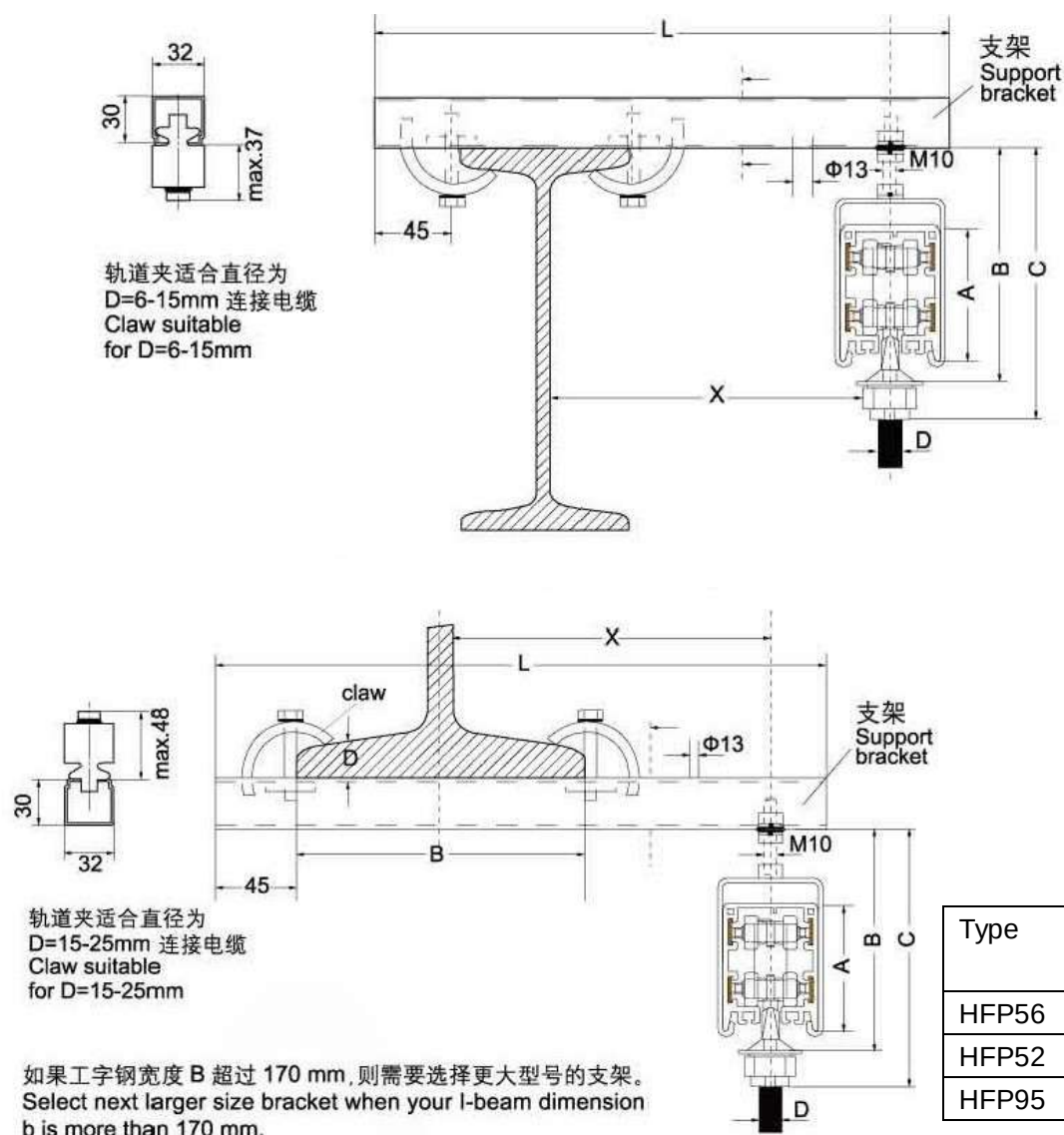
弹簧同步器/Flexible tow arm



型号/Type	重量/Weight kg	材质/Material	产品编/Cat.-No.
56 FTW	1.35	镀锌钢，紫铜，不锈钢 Steel, copper, stainless steel	565080

工字钢梁安装示意图/View with I-Beam

C 型钢支架组装机安装/Ready installed on C-track bracket (for split)



角钢支架焊接式安装

Ready installed on Angle steel bracket(for welding)

C 型钢支架焊接式安装

Ready installed on C-track bracket(for welding)

