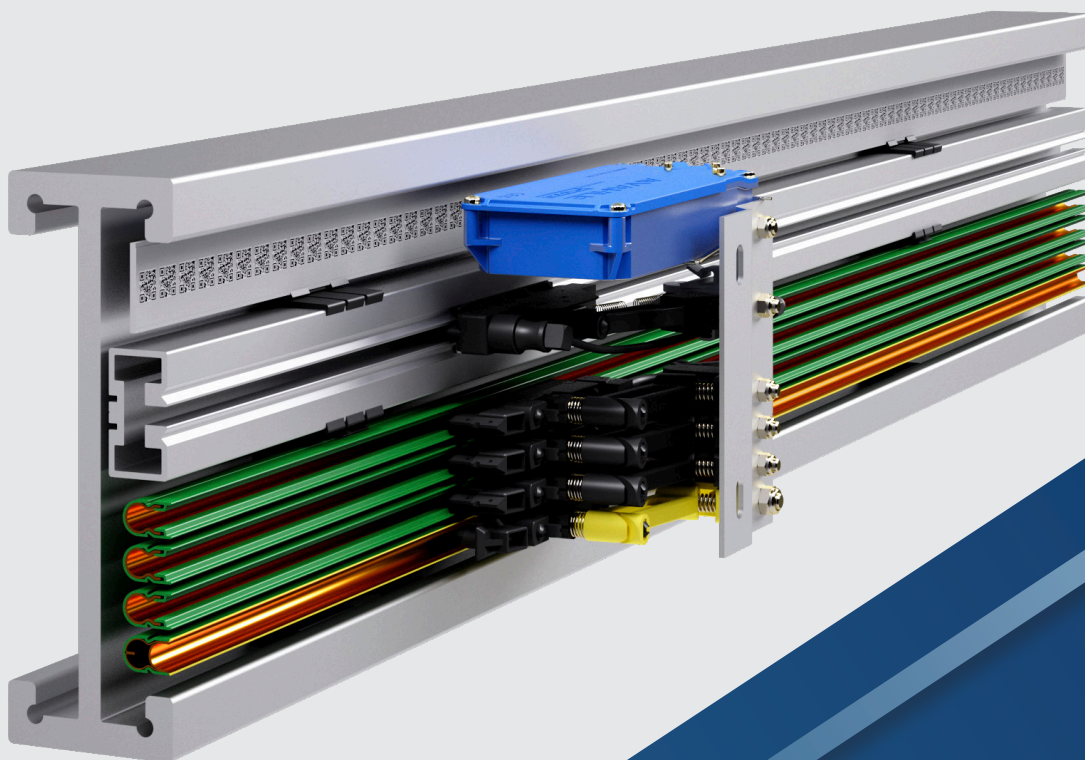




INSULATED CONDUCTOR SYSTEM U10
U10单极组合式滑触线



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U10 单极组合式滑触线

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Fig.1 VDE test finger
图1: VDE手指模型

GENERAL INFORMATION

The U10 Insulated Conductor System has been designed in accordance with VDE 0100. It complies with current conductor system safety requirements and protects against accidental human contact as stipulated by VDE 0470, Part 1 (DIN EN 60526), (Protection classification IP 21).

Fig. 1 illustrates that the VDE test “finger” cannot make contact with current carrying components.

Compact collectors provide accidental contact protection only when the contact brushes are correctly and fully inside the conductors and covered by the insulating profile. Conductor systems located within reach of personnel, and with collectors exiting the conductors during operation, must have barriers or shut-off switches installed to prevent accidental contact. This is required only for conductor systems with operating voltage above 25 VAC or 60V DC.

U 10 Conductor System is approved for indoor installations only.

概述

U10 单极组合式滑触线满足 VDE 0100的要求。U10同时也满足根据 VDE 0370提出关于滑触线安全的相关标准。详见VDE 0370, 第一部分(EN60529) (防护等级: IP 21)。

如图1所示, VDE手指模型无法触碰到导体。

只有当集电器完全进入滑触线内, 才会起到防止意外接触的作用。当滑触线系统位于人员可以触碰到的位置且集电器运行时滑出滑触线时, 需要做好安全防护或者断电。仅在电压超过 25V AC 或者60V DC时有效。

U10单极组合式滑触线只适用于室内。

Conductor systems may consist of any number of conductors. Space requirements are minimal. Contact opening at either downward or side-ways orientation is possible.

Standard length for conductor sections is 6m, shorter sections are available.

The standard PE conductor is marked with a continuous yellow stripe at the insulating profile. The PE-VP ground conductor has a specifically shaped profile which reliably prevents the PE-VP collector from entering a phase conductor; thus, the support structure cannot be inadvertently electrified.

APPROVALS

UL Certification. Please consult us when ordering

COMPACT HANGERS

Compact hangers are used for conductor installation and will also provide and maintain the defined 14mm phase distance. Hanger center distance is max. 0.6m at straight sections, 0.3m at curved sections.

JOINT SPLICE/FEED

Joint Splice/Feeds are used to mechanically and electrically connect U10 conductor sections. The included Joint Splice cap protects personnel from accidentally making contact when the system is under current. Each Joint Splice/Feed can compensate for section expansion/contraction up to 4mm.

FEED TERMINALS

A feed connection is possible at every Joint Splice. Also, each Isolating assembly and transfer guide can serve as a feed location when a feed clip is installed. When additional feed points within a conductor section are required, feed Terminals (inline only) may be installed.

TRANSFER GUIDES

Transfer guides serve as protection of the conductor end as well as a mechanical system separation. They also facilitate reliable passage of collector brushes at movable track sections such as track switches and lift stations. Installed with an aluminum Anchor Bracket (BFU), transfer guides lock the conductor ends in place at the support track thus creating a system fix point.

ISOLATING ASSEMBLIES (AIR GAP)

Isolating assemblies interrupt the electrical current flow in a conductor. To utilize current collectors with the operational task to switch current on/off is only permitted when using low energy control current. For control function, feed sections, maintenance sections etc. we are supplying isolating assemblies with or without SE feed clip.

CURVES

U10 Insulated Conductors can be bend horizontally or vertically. A curve bending tool is available to produce curves at an installation site.

CURRENT COLLECTORS

Current collectors are manufactured using impact resistant synthetic material and stainless steel components. Copper graphite or carbon

滑触线极数由客户决定,对空间的需求小。也可以配置滑触线接触面向下的方案。

标准供货长度为6m。

标准的地线外壳上有一条连续的黄线标示。U10 PE-VP 地线和地线集电器外形都是特殊的, 因此不会进入滑触线相线内,只会继续行驶在特殊截面的地线槽内。

授权书

UL-授权书,如有需要请联系。

支架间距

支架需要安装在轨道上, 他们的相间距保证在14 mm, 支架的最大间距在直线段上为 0.6 m, 在弯弧段为 0.3m。

接头供电

供电接头是用来将U10产品进行机械以及电气连接。但系统带电时, 接头附带的绝缘外壳可以防止人员的意外接触发生危险。每一个供电接头, 可以实现4mm的机械膨胀。

中间供电

供电夹子可以安装在任意一个接头上, 以及道岔端帽和分段端帽上。额外的上电点请使用供电夹子。

道岔端帽

在滑触线的端部、道岔、升降等处我们提供道岔端帽。结合相应的铝杆(BFU)将道岔端帽安装在铝轨道上。因此创建了一个固定点。

分段端帽组件

分段端帽用来中断滑触线导电系统。当集电器滑过分段时, 通过电气上的分合来达到控制的目的,控制电流所允许的电流电压较低。分段端帽可以用于控制信号或者维修段的检测等等。我们可以提供带供电夹子或者不带供电夹子的分段端帽。

弯弧

U10滑触线可以在现场通过折弯机制作水平方向或者垂直方向的弯弧, 我们可以提供特殊的折弯工具。

集电器

集电器由高强度塑料以及经过不锈钢处理的金属制成, 通过碳刷在滑触线上滑动取电。

contact brushes are used.

The length of the current collector cable cannot exceed 3m if the installed overload protection is not rated for the current capacity of the cable. See also DIN VDE 0100, Part 430 and DIN EN 60204-32. Connecting cables as supplied are sufficiently dimensioned for the listed nominal current. For installation variation reduction factors, as with DIN VDE 0298-4, must be observed.

DIN EN 60204-1 and DIN-EN 60204-2 stipulate that the reliability of PE systems using conductor brushes must be ensured. Doubling the PE Collector is a practical and simple solution to achieve compliance.

INDUSTRIAL DESIGNATIONS

DIN – German Institute for Standards

EN – European Standard

ISO – International Organization for Standardization

IEC – International Electrotechnical Commission

VDE – German Electrotechnical Association

IP – International Protection type and classification

UL – Underwriters Laboratories

如果没有过电保护, 集电器的接线电缆长度不能超过3m, 详见DIN VDE 0100, 部分430 和 DIN EN 60204-32. 参考 DIN VDE 0298-4标准可以查询出如果用其他安装方式的衰减系数。

使用双地线集电器 (PE), 可保证系统满足DIN EN 60204-1以及 DIN EN 60204-2 规范中要求的接地标准。

工业名称

DIN – 德国标准化学会

EN – 欧洲标准

ISO – 国际标准化组织

IEC – 国际电工委员会

VDE – 德国电气协会

IP – 国际防护等级认证

UL – 美国电气系统安全认证

SAFETY NOTE

A safety distance of min. (0.5 m) between Conductor / Current Collector arrangement and other moving or fixed equipment must be kept to prevent accidental injury of personnel!

安全提示

在现场必须保障在安装时保持移动端和固定端物体最小 (0.5 m) 的距离, 在该距离下可以有效防止挤压导致的伤害。

INSULATION PROFILE VALUES (ELECTRICAL)

滑触线电气参数

Type 型号	Dielectric insulation 介电强度 DIN 53481	Specific resistance 体积电阻率 IEC 60093	Surface resistivity 表面电阻率 IEC 60093	Leakage path resistance 爬电距离 IEC 60112
Standard profile, green 标准滑触线 绿色外壳	> 25 kV/mm	> 1 x 10 ¹⁶ Ohm x cm	2,1 x 10 ¹⁵ Ohm	CTI 400 – 1,1
High temp. profile, gray 高温滑触线 灰色外壳	> 25 kV/mm	> 1 x 10 ¹⁴ Ohm x cm	2,1 x 10 ¹⁵ Ohm	CTI 400 – 1,1

INSULATING SHROUD VALUES (MECHANICAL)

滑触线机械参数

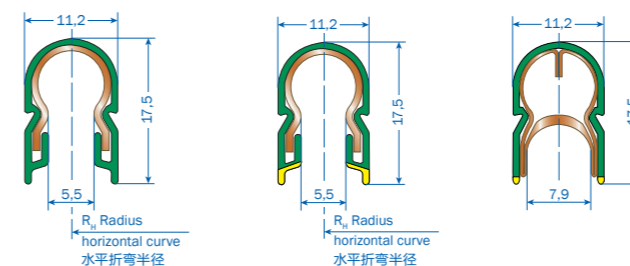
Type 型号	Bending rigidity 弯曲强度 ISO 178	Tensile strength 抗拉强度 ISO 527	UV resistance UV强度	max. relative humidity 最大相对湿度	Ambient temperature range ⁽¹⁾ 环境温度 ⁽¹⁾	Flame test 阻燃性
Standard profile, green 标准滑触线, 绿色外壳	74 - 85 N/mm ²	44 - 55 N/mm ²	Xenon test > 1500	< 100 %	- 30 °C to + 55 °C	Flame resitant, self extinguishing, 不易燃烧, 自熄, UL 94 V0
High temp. profile, gray 高温滑触线, 灰色外壳	90 - 100 N/mm ²	47 - 65 N/mm ²	Xenon test > 1500	< 100 %	- 30 °C to + 85 °C	Flame resitant, self extinguishing, 不易燃烧, 自熄, UL 94 V0

TECHNICAL DATA

技术参数

CONDUCTOR SECTION

滑触线截面图



PH-Standard

相线

PE-Standard

地线

PE-VP Standard

地线保护

CONDUCTOR CODE

U = Unipole insulated conductor

10 = Profile dimensions

25 = Conductor cross section (mm²)

C = Copper conductor

E = Stainless steel conductor

编号释义

U = 单极组合式滑触线

10 = 外壳尺寸

25 = 横截面积 (mm²)

C = 滑触线材料为铜

E = 滑触线材料为不锈钢

SUPPLIED LENGTH

6 m (19.6") standard section,
shorter sections available

供货长度

6 m标准长度, 可以根据需要
制作6m以下长度的滑触线

MAX.SUPPORT DISTANCE

Straight sections 0,6 m (2')

Curves 0,3 m (1')

支架间距

直线段的支架间距为 0,6 m

弯弧段的支架间距为 0,3 m

PHASE DISTANCE

Standard = 14 mm

滑触线相间距

标准距离为 14mm

BENDING CONDUCTORS

Without pre-bending

At site:

Horizontal curves

Inward/outward facing curves

Curves

滑触线折弯:

不预先折弯

$\infty \geq R \geq 5000$ mm

现场折弯:

水平折弯

$5000 \text{ mm} \geq R \geq 750$ mm

内/外折弯

$5000 \text{ mm} \geq R \geq 750$ mm

工厂折弯

$750 \text{ mm} \geq R \geq 300$ mm

APPLICATION

Indoor installations only

应用范围

只适用于室内设备

CONDUCTOR DATA

滑触线参数

DATA 参数	Type 型号	Color 颜色	Weight kg/m 重量 kg/m	Order No. 零件号
Phase (Standard profile) 相线 (标准)	U10/25C-....PH-B	green 绿色	0,267	167 00 •
	U10/25E-....PH-B	green 绿色	0,246	167 02 •
PE (Standard profile) 地线 (标准)	U10/25C-....PE-A	green 绿色	0,267	167 06 •
	U10/25E-....PE-A	green 绿色	0,246	167 08 •
PE-VP (Standard profile) 地线保护 (标准)	U10/25C-....VP-A	green 绿色	0,267	143 19 •
	U10/25C-....VPG-A ⁽⁴⁾	green 绿色	0,267	143 31 •
Phase (high temp. profile) 相线 (高温)	U10/25C-....PH-D85	grey 灰色	0,267	167 03 •
	U10/25E-....PH-D85	grey 灰色	0,246	167 05 •
PE (high temp. profile) 地线 (高温)	U10/25C-....PH-C85	grey 灰色	0,267	167 09 •
	U10/25E-....PH-C85	grey 灰色	0,246	167 11 •
PE-VP (high temp. profile) 地线保护 (高温)	U10/25C-....VP-C85	grey 灰色	0,267	143 20 •
	U10/25C-....VPG-C85 ⁽⁴⁾	grey 灰色	0,246	143 32 •

CONDUCTOR ENGINEERING DATA

滑触线相关参数

Type 型号	Leakage distance profile 外壳爬电距离 mm	Max nominal Voltage ⁽³⁾ 最大额定电压	Max continuous current A 最大持续工作电流	Resistance Ohm/1000m 电阻	Impedance ⁽²⁾ Ohm/1000m 阻抗 ⁽²⁾
U10/25 C	30	690	100	0,744	0,748
U10/25 E	30	690	10	31,328	31,328

SELECTION OF CONDUCTORS

Conductor selection must consider required current capacity and existing environmental conditions.

- U10/25 C conductor system with copper conductor for main current, control signal and data
- U10/25 E conductor system with stainless steel conductor for control signal and data transmission at corrosive environments

滑触线的选型

通过需要传导的电流以及工作环境进行滑触线的选型

- U10/25 C 型滑触线使用铜作为材料,可以传输主电流以及信号和数据。
- U10/25 E 不锈钢型滑触线在腐蚀性强的环境下传输主电流以及信号和数据。

(1) Type designation to be completed, e.g. U10/25E-6000PH-B for 6m phase, order number 167 026

The four-digit number (printed bold) at the type designation indicates the length of the conductor section.

(2) Based on 14mm phase distance at 50Hz

(3) Not with UL certification $U_{is} = 600V$

(4) Only for curves facing inward

• The last numeral of the order number indicates the length of the conductor section in meters. Accordingly complete the order number with 1, 2, 3, 4, 5 or 6.

(1) 型号补全: 比如, U10/25E-6000PH-B 为 6m 相线, 零件号 167 026

这4位加粗的数字代表滑触线的长度 (mm)。

(2) 在相间距 14mm, 频率为50Hz时。

(3) 不同于 U_{is} 标准 = 600V

(4) 只适用于内弯应用

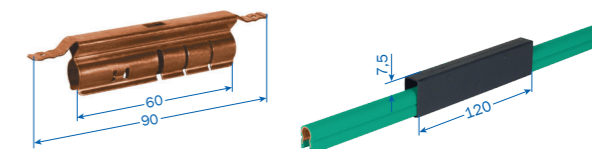
• 根据系统需要的长度, 填写最后一位数字 (后缀是1, 2, 3, 4, 5 或6 m)。

JOINT FEED

Max. 2 x 40 A continuous current

Compensates for up to 4 mm section expansion/contraction caused by temperature fluctuations

Connecting cables not included, please order from page 19



接头供电

最大2x 40 A持续工作电流

可补偿4mm由于温差导致的机械伸缩量。

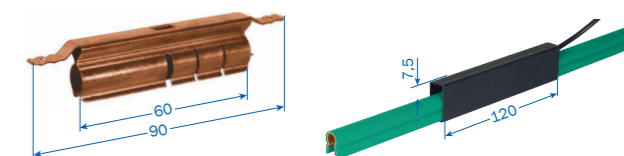
请额外订购接线电缆(见第19页)

Type 型号	Weight kg 重量 kg	Order No. 零件号
VM-UEV10/C	0,026	165 006
VM-UEV10VP/C	0,026	143 213

LINE FEED

Max. 2 x 50 A continuous current

Connecting cable not included, please order from page 19



中间供电

最大2 x 50 A持续工作电流

请额外订购接线电缆(见第19页)

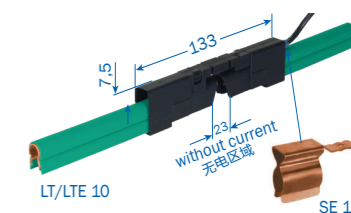
Type 型号	Weight kg 重量 kg	Order No. 零件号
ES-UES10	0,026	165 212
ES-UES10VP	0,026	143 214

ISOLATING ASSEMBLY

Max. 40 A continuous current

Two halves are joined during installation

Feed clip SE 10 with tab connector 6,3 x 0,8mm (max. continuous current 40 A), at least one additional compact hanger required for each isolating assembly.



分段

最大40A持续工作电流

两个分段端帽可以通过按压两边的连接条相互紧固。

SE 10 和扁平接线 6,3 x 0,8mm (最大40A持续工作电流)

每一个独立的分段组件, 都最少需要额外增加一个紧凑型支架。

Type 类型	Description 标示	Weight kg 重量 kg	comprising 组成	Order No. 零件号
ST-LT/LT10		0,017	2 x LT/U 10	165 025
ST-LT/LTE10		0,021	2 x LT/U 10 1 x Feed clip SE 10 1x 供电夹子	165 114
ST-LTE/LTE10		0,025	2 x LT/U 10 2 x Feed clip SE 10 2x 供电夹子	165 026

SPACER CLIP

to provide support for isolating assembly by filling gap between isolating assembly and web of aluminum monorail track at 16,5 mm system height⁽¹⁾.



间隔夹

当支架高度为16,5mm时, 插入间隔夹后可以, 填补分段端帽与铝轨之间的间隔距离。

Type 型号	Weight kg 重量 kg	Order No. 零件号
EU-DK10/16,5	0,002	165 682

EXPANSION SECTION

single conductor, to be completed at installation site

Expansion capability of expansion section must equal the max. expansion capability of the EMS track.

Two fix Points are required with each expansion section. Please order as required by the EMS track layout.

An additional compact hanger is required for each 15 mm expansion capability. Please add to your order as required.

Prefinished, complete expansion sections are also available as a 800mm long section.

膨胀节

现场安装每一极滑触线系统的伸缩量, 应该与现场轨道最大膨胀量一致。

每一个膨胀段都需要两个固定点, 每15mm膨胀量都需要额外增加一个支架, 请严格按照EMS系统布局图计算膨胀段数量,

以确认订货数量无误。也可以在800mm滑线段上完成预装配。

STANDARD 标准

Type 型号	Weight kg 重量 kg	Expansion 膨胀量	Order No. 零件号
VM-UDV10/C-30	0,052	up to 30 mm 最大 30mm	166 542
VM-UDV10/C-45	0,075	up to 45 mm 最大 45mm	166 543
VM-UDV10/C-60	0,104	up to 45 mm 最大 45mm	166 544

PE-VP 地线保护

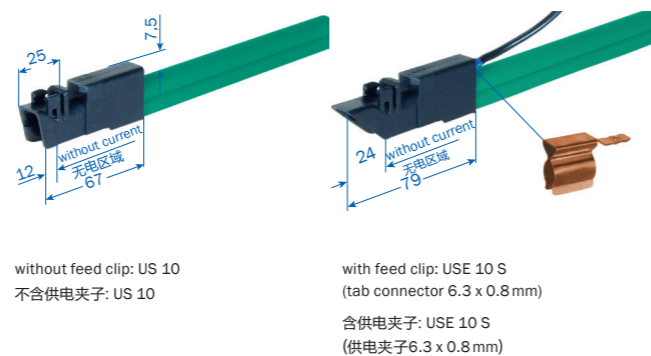
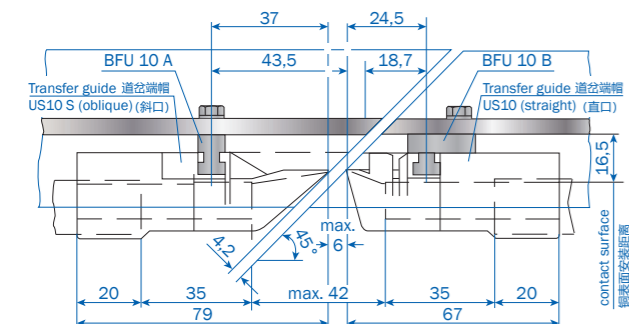
Type 型号	Weight kg 重量 kg	Expansion 膨胀量	Order No. 零件号
VM-UDV10VP/C-30	0,052	up to 30 mm 最大 30mm	143 356
VM-UDV10VP/C-45	0,078	up to 45 mm 最大 45mm	143 357
VM-UDV10VP/C-60	0,104	up to 60 mm 最大 60mm	143 358

TRANSFER GUIDES

Max. vertical and horizontal offset ± 3 mm respective

道岔端帽

最大水平和垂直允许偏差 ± 3 mm



(1) System height = distance contact surface to back of compact hanger (at web of monorail track)

(1) 铝杆安装高度 = 滑触线接触面至安装支架安装面高度

TRANSFER GUIDE

Max. 40 A continuous current

道岔端帽

最大40A持续工作电流

Type 型号	Weight kg 重量 kg	Version 种类	Feed Clip 供电夹子	Order No. 零件号
MU-US10	0,008	straight 直口	w/o 不含	165 008
MU-US10S	0,008	oblique 斜口	w/o 不含	165 009
MU-USE10	0,012	straight 直口	with 含有	165 010
MU-USE10S	0,012	oblique 斜口	with 含有	165 011

TRANSFER GUIDE FOR PE-VP

Max. 40 A continuous current

PE-VP的道岔端帽

最大 40A 持续工作电流



Type 型号	Weight kg 重量 kg	Version 种类	Feed Clip 供电夹子	Order No. 零件号 Phase + PE
MU-US10-VP	0,007	straight 直口	w/o 不含	143 208
MU-US10S-VP	0,007	oblique 正斜口	w/o 不含	143 210
MU-US10SP-VP	0,008	oblique positive 反斜口	w/o 不含	143 212
MU-USE10-VP	0,011	straight 直口	with 含有	143 207
MU-USE10S-VP	0,011	oblique 正斜口	with 含有	143 209
MU-USE10SP-VP	0,012	oblique positive 反斜口	with 含有	143 211

ANCHOR BRACKET (ALUMINUM) FOR TRANSFER GUIDES

to be bolted to the track

Two holes to be drilled through the EMS track to screw on the anchor bracket from the back.

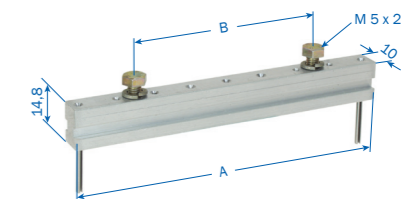
Kit comprises: 1 x anchor bracket, 2 x hex screws M5 with lock washer, 2 x roll pins 2 x 20.

铝杆(用于固定道岔端帽)

安装在轨道上用于固定道岔端帽,由如下部分组成:

铝杆的安装,需要在EMS轨道上按照尺寸打两个通孔,然后使用螺栓从轨道背面固定。

1 x 铝杆, 2 x M 5 螺栓带垫片, 2 x 固定梢 2 x 20 (散装)。



BFU 10A

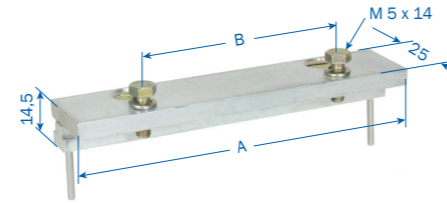
for system height⁽¹⁾ = 16.5 mm

铝杆安装高度 = 16.5 mm

Type 型号	No. of conductors 适应极数	A mm	B mm	Weight kg 重量 kg	Order No. 零件号
MU-BFU10H4/16,5/14-59/42	1 - 4	59	42	0,032	144 422
MU-BFU10H6/16,5/14-90/42	1 - 6	90	42	0,040	144 499
MU-BFU10H8/16,5/14-118/70	1 - 8	118	70	0,048	165 168
MU-BFU10H10/16,5/14-143/70	1 - 10	143	70	0,056	165 176

BFU 10B

to be used when EMS track has been cut obliquely (see drawing page 8).
for system height⁽¹⁾ = 16.5 mm

**BFU 10B**

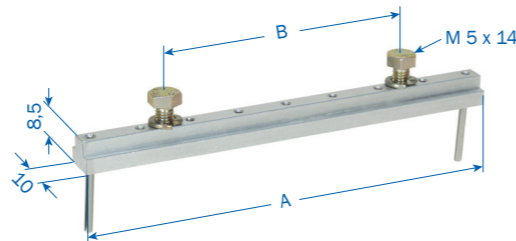
如何应用在道岔端帽上 (见第8页)。

在固定斜口道岔端帽时使用, 铝杆安装高度=16.5 mm

Type 型号	No. of conductors 适应极数	A mm	B mm	Weight kg 重量 kg	Order No. 零件号
MU-BFU10H4/16,5/14-59/42-25	1 - 4	59	42	0,053	144 419
MU-BFU10H6/16,5/14-90/42-25	1 - 6	90	42	0,065	143 982
MU-BFU10H8/16,5/14-118/70-25	1 - 8	118	70	0,077	165 272
MU-BFU10H10/16,5/14-143/70-25	1 - 10	143	70	0,089	165 274

BFU 10

for system height⁽¹⁾ = 10,5 mm

**BFU 10**

铝杆安装高度= 10,5mm

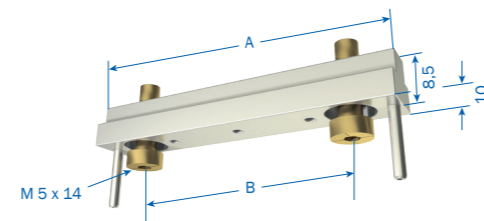
Type 型号	No. of conductors 适应极数	A mm	B mm	Weight kg 重量 kg	Order No. 零件号
MU-BFU10H4/10/14-62/42	1 - 4	62	42	0,022	144 022
MU-BFU10H6/10/14-90/42	1 - 6	90	42	0,026	143 983
MU-BFU10H8/10/14-118/70	1 - 8	118	70	0,030	165 115

BFU 10V

for system height⁽¹⁾ = 10.5 mm

Socked head screws inserted at front of EMS track. Anchor bracket kit consists of:

1 x anchor bracket, 2 x socket head screws M5, 2 x roll pins.

**BFU 10V**

铝杆安装高度= 10,5mm

铝杆安装套件包括: 1 x 固定铝杆、2 x 内六角螺栓、2 x 固定销。

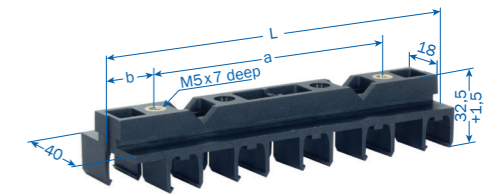
Type 型号	No. of conductors 适应极数	A mm	B mm	Weight kg 重量 kg	Order No. 零件号
MU-BFU10V4/10/14-59/42	1 - 4	59	42	0,015	144 355
MU-BFU10V6/10/14-90/42	1 - 6	90	42	0,021	144 513
MU-BFU10V8/10/14-118/70	1 - 8	118	70	0,026	144 514

(1) System height = distance contact surface to back of compact hanger (at web of monorail)
(1) 安装高度 = 滑触线接触面至安装支架安装面高度

STANDARD COMPACT HANGERS

up to 10 conductors

These compact hangers may be combined to support any number of conductors.

**紧凑型支架**

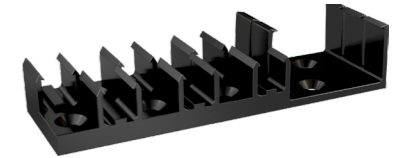
最大10极

使用紧凑型支架可以适用于各种极数的滑触线系统

Type 型号	Max. number of poles 适应极数	L	a	b	Weight kg 重量 kg	Order No. 零件号
AH-KA10L-2/16,5-N-PA-14	2	29	0	20,5	0,012	142 072
AH-KA10L-4/16,5-10N-PA-14	4	57	42	7,5	0,024	142 073
AH-KA10L-6/16,5-10N-PA-14	6	85	42	21,5	0,033	142 757
AH-KA10L-8/16,5-10N-PA-14	8	113	42	35,5	0,045	142 075
AH-KA10L-10/16,5-N-PA-14	10	141	100	20,5	0,056	142 076

COMPACT HANGER KA10 (USED WITH SCREWS)

6 conductor + SMGM

**KA10 (螺栓式支架)**

6 极滑触线+ SMGM微波通讯型材

Type 型号	Max. number of poles 适应极数	L	Weight kg 重量 kg	Order No. 零件号
AH-KA10-4/10,5-UNI-PA-SMG-14	4	100	0,027	144 354
AH-KA10-6/10,5-UNI-PA-SMG-14	6	128	0,036	100 102 11

LOCATING CLAMPS

2 ea. USK Location Clamps are required for each fix point

固定夹

每处固定点使用1个支架和2个固定夹

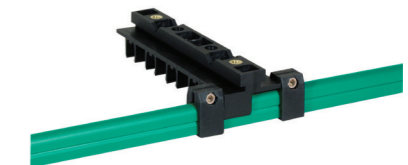


Illustration shows positioning of the two locating clamps at a compact hanger
如图: 显示了一个紧凑型支架和2个固定夹

LOCATING CLAMP STANDARD**标准固定夹**

Type 型号	Weight kg 重量 kg	Order No. 零件号
USK10	0,006	165 645

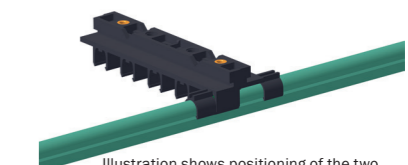
LOCATING CLAMP PE-VP**PE-VP固定夹**

Illustration shows positioning of the two locating clamps at a compact hanger
如图: 显示了一个紧凑型支架和2个固定夹

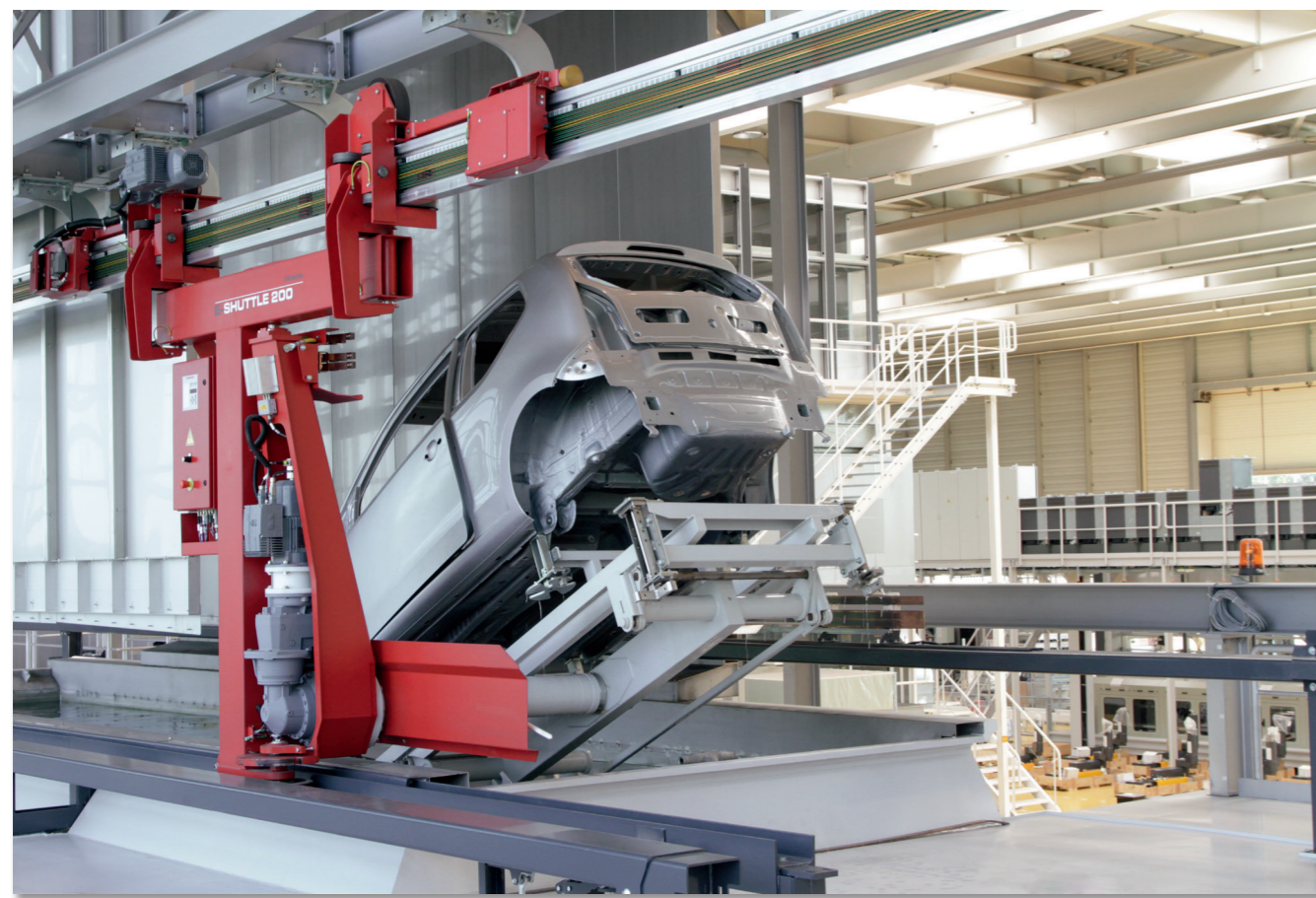
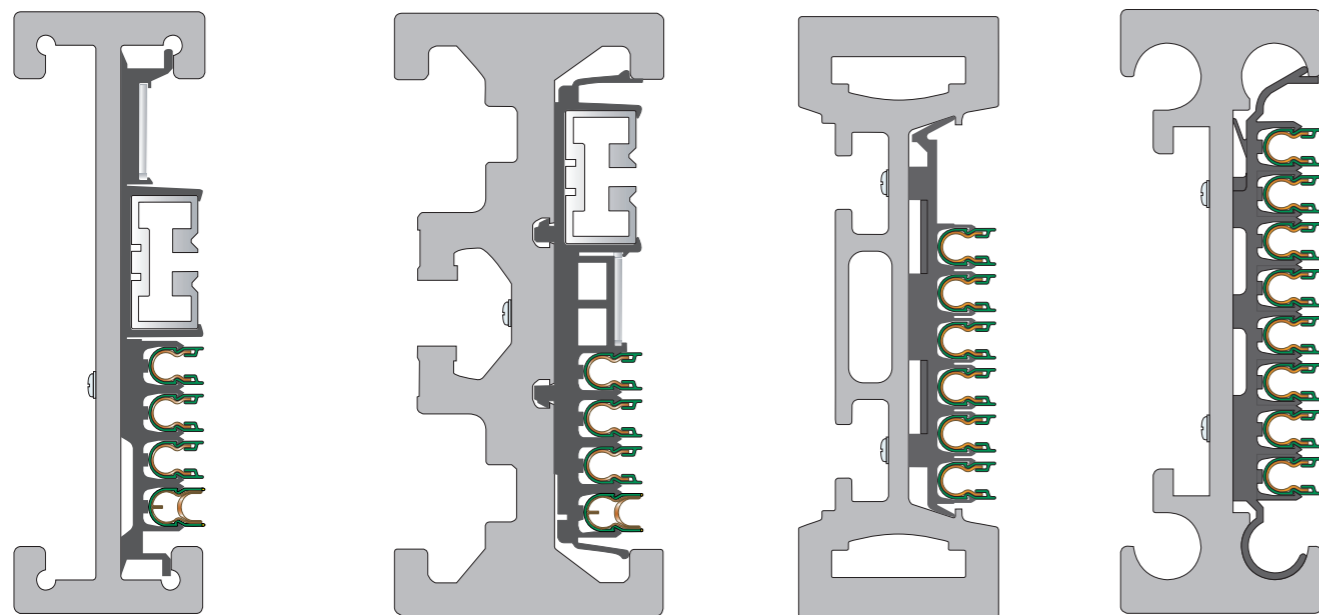
Type 型号	Weight kg 重量 kg	Order No. 零件号
USK10A-VP	0,001	2823268

COMPACT HANGERS (CUSTOMER SPECIFIC)

Engineered and manufactured to fit customer specific EMS track

卡式支架

可根据客户需求定制



COMPACT CURRENT COLLECTOR SETS

紧凑型集电器

KDS2/40

PE-VP for EMS installations

with 1 x 0.5 m connecting cable type WFLA 2,5

Max. current: 1 connecting cable 2.5 mm², 25A
2 connecting cables 2.5 mm², 40A

Lift: ± 15 mm

Swivel: ± 15 mm

Contact pressure: approx. 3.5 N per contact brush

Connecting cable: 2.5 mm² type WFLA 2,5 high flex included

PE standard at No. 4 position, variations are possible.

PE makes contact first when entering conductors.

KDS2/40

PE-VP 用于EMS系统

含1 x 0,5 m 连接电缆, 型号 WFLA 2,5

最大允许电流: 1 个供电夹子 2,5 mm², 25A
2 个供电夹子 2,5 mm², 40A

垂直偏差: ± 15 mm

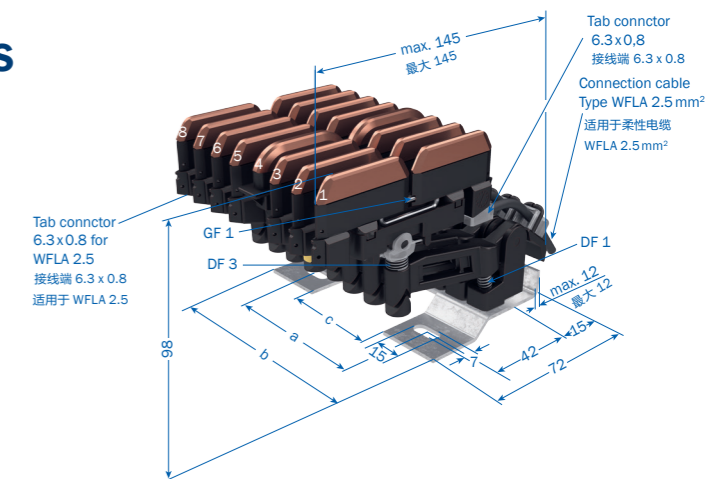
水平偏差: ± 15 mm

接触压力: 每片集电器碳刷大约3.5 N

连接电缆: 2,5 mm² 型号为 WFLA 2,5

地线在第4极, 同时可以提供其他的布局方式。

当集电器组进入滑触线系统时, 地线集电器总是最先接触。



Type 型号	No. of poles 适应极数	Dim. a 尺寸a mm	Dim. b 尺寸b mm	Dim. c 尺寸c mm	Weight 重量 kg	Base plate 底板	Order No. 零件号	
							with PE-VP 带PE-VP	with PE Standard 带PE-ST
SA-KDS2/40/4/14VP0,5/4/4	4	28	62	-	0,428	4-pole 4极	143 277	-
SA-KDS2/40/4/14HS0,5/4/4	4	28	62	-	0,428	4-pole 4极	-	168 082
SA-KDS2/40/5/14VP0,5/4/6/6	5	56	90	-	0,549	6-pole (No. 6 = open) 6极 (No.6 = 空白)	143 332	-
SA-KDS2/40/5/14HS0,5/4/6/6	5	56	90	-	0,549	6-pole (No. 6 = open) 6极 (No.6 = 空白)	-	168 083
SA-KDS2/40/6/14VP0,5/4/6	6	56	90	-	0,637	6-pole 6极	143 219	-
SA-KDS2/40/6/14HS0,5/4/6	6	56	90	-	0,637	6-pole 6极	-	168 084
SA-KDS2/40/7/14VP0,5/4/8/8	7	80	118	53	0,744	8-pole (No. 8 = open) 8极 (No.8 = 空白)	143 377	-
SA-KDS2/40/7/14HS0,5/4/8/8	7	80	118	53	0,744	8-pole (No. 8 = open) 8极 (No.8 = 空白)	-	168 085
SA-KDS2/40/8/14VP0,5/4/8	8	80	118	53	0,832	8-pole 8极	143 220	-
SA-KDS2/40/8/14HS0,5/4/8	8	80	118	53	0,832	8-pole 8极	-	168 086
SA-KDS2/40/9/14VP0,5/4/10/10	9	80	156	53	0,959	10-pole (No. 10 = open) 10极 (No.10 = 空白)	143 378	-
SA-KDS2/40/9/14HS0,5/4/10/10	9	80	156	53	0,959	10-pole (No. 10 = open) 10极 (No.10 = 空白)	-	168087
SA-KDS2/40/10/14VP0,5/4/10	10	80	156	53	1,047	10-pole 10极	143 379	-
SA-KDS2/40/10/14HS0,5/4/10	10	80	156	53	1,047	10-pole 10极	-	168 088

Single conductor available with 0.5m connecting cable 集电器带有0.5m连接电缆	Weight 重量 kg	Base plate 底板	Order No. 零件号	
			Phase, black PH为黑色	PE, yellow PE为黄色
SA-KDS2/40/04PH-88/15-0,5	0,091	without 不带	168 073	-
SA-KDS2/40/30VP-79/15-0,5	0,105	without 不带	-	143 218
SA-KDS2/40/04PE-88/15-0,5	0,090	without 不带	-	168 074

CURRENT COLLECTOR SETS (TRAILING UNIT)

Single conductor on base plate. PE standard at No. 4 position, variations possible!

额外地线集电器 (单独地线)

单片地线集电器组装在安装背板上, 地线标准安装在第4极, 可根据需求进行调整。

Type 型号	Dim. a 尺寸a mm	Dim. b 尺寸b mm	Dim. c 尺寸c mm	Weight kg 重量 kg	Base plate 底板	Order No. 零件号 PE-VP	Order No. 零件号 PE
SA-KDS2/40/1/14VP0,5/4/4/1-3	28	62	-	0,164	4-pole 4极	143 361	-
SA-KDS2/40/1/14HS0,5/4/4/1-3	28	62	-	0,164	4-pole 4极	-	168 079-D
SA-KDS2/40/1/14VP0,5/4/6/1-3U5-6	56	90	-	0,197	6-pole 6极	143 369	-
SA-KDS2/40/1/14HS0,5/4/6/1-3U5-6	56	90	-	0,197	6-pole 6极	-	167 454
SA-KDS2/40/1/14VP0,5/4/8/1-3U5-8	80	118	53	0,216	8-pole 8极	143 635	-
SA-KDS2/40/1/14HS0,5/4/8/1-3U5-8	80	118	53	0,216	8-pole 8极	-	167 830

KUFR2/40

for installations requiring bi-directional travel

with 1 x 0.5m connecting cable type WFLA 2,5

Max. current: 1 connecting cable 2.5 mm², 25 A
2 connecting cables 2.5 mm², 40 A

Stroke: ± 15 mm

Swivel: ± 15 mm

Contact pressure: approx. 3.5 N per contact brush

Connecting cable: 2.5 mm² type WFLA 2,5

Length: 0.5 m, high flex included

PE standard at No. 4 position, variations are possible.

Dimensions of base plate see KDS2/40.

PE makes contact first when entering conductors.

KUFR2/40

双向运输

含 1 x 0.5 m 连接电缆, 型号 WFLA 2,5

最大允许电流: 1 个供电夹子 2,5 mm², 25 A
2 个供电夹子 2,5 mm², 40 A

垂直偏差: ± 15 mm

水平偏差: ± 15 mm

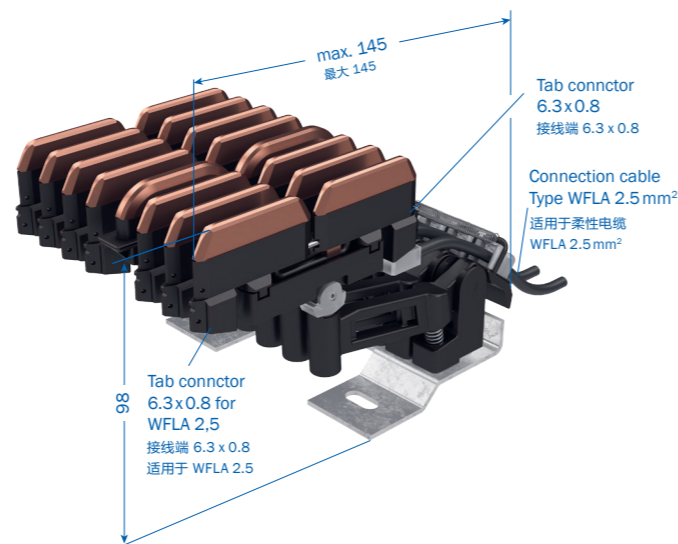
接触压力: 每片集电器碳刷接触压力大约3,5 N

连接电缆 2,5 mm² 型号 WFLA 2,5

同时提供长度: 0,5 m

地线在第4极, 同时可以提供其他的布局方式。

底板尺寸与 KDS2/40 相同。



Type 型号	No. of cond. 适应极数	Weight 重量 kg	Base plate 底板	Order No. 零件号	
				with PE-VP 带PE-VP	with PE-Standard 带PE-ST
SA-KUFR2/40/4/14VP0,5/4/4	4	0,448	4-pole 4极	144 474	-
SA-KUFR2/40/4/14HS0,5/4/4	4	0,448	4-pole 4极	-	165 927
SA-KUFR2/40/5/14VP0,5/4/6/6	5	0,573	6-pole (No. 6 = open) 6极 (No.6 = 空白)	144 475	-
SA-KUFR2/40/5/14HS0,5/6/6	5	0,573	6-pole (No. 6 = open) 6极 (No.6 = 空白)	-	165 928
SA-KUFR2/40/6/14VP0,5/4/6	6	0,666	6-pole 6极	144 476	-
SA-KUFR2/40/6/14HS0,5/6	6	0,666	6-pole 6极	-	165 929
SA-KUFR2/40/7/14VP0,5/4/8/8	7	0,779	8-pole (No. 8 = open) 8极 (No.8 = 空白)	144 478	-
SA-KUFR2/40/7/14HS0,5/8/8	7	0,779	8-pole (No. 8 = open) 8极 (No.8 = 空白)	-	165 930
SA-KUFR2/40/8/14VP0,5/4/8	8	0,872	8-pole 8极	144 479	-
SA-KUFR2/40/8/14HS0,5/8	8	0,872	8-pole 8极	-	165 931
SA-KUFR2/40/9/14VP0,5/4/10/10	9	1,004	10-pole (No. 10 = open) 10极 (No.10 = 空白)	144 480	-
SA-KUFR2/40/9/14HS0,5/10/10	9	1,004	10-pole (No. 10 = open) 10极 (No.10 = 空白)	-	165 932
SA-KUFR2/40/10/14VP0,5/4/10	10	1,097	10-pole 10极	144 481	-
SA-KUFR2/40/10/14HS0,5/10	10	1,097	10-pole 10极	-	165 933
Single conductor available with 0.5 m connecting cable 集电器带有0.5m连接电缆				Phase, black PH为黑色	PE, yellow PE为黄色
SA-KUFR2/40/20PH-88/15-0,5				0,093	165 955
SA-KUFR2/40/20PE-88/15-0,5				0,091	165 956
SA-KUFR2/40/04VP-79/15-0,5				-	143 776

CURRENT COLLECTOR SETS (TRAILING UNIT)

Single conductor on base plate. PE standard at No. 4 position, variations possible!

额外地线集电器 (单独地线)

单片地线集电器组装在安装背板上, 地线标准安装在第四极, 可根据需求进行调整。

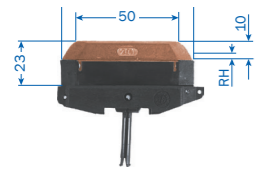
Type 型号	Dim. a 尺寸a mm	Dim. b 尺寸b mm	Dim. c 尺寸c mm	Weight 重量 kg	Base plate 底板	Order No. 零件号 PE-VP	Order No. 零件号 PE
SA-KUFR2/40/1/14VP0,5/4/4/1-3	28	62	-	0,164	4-pole 4极	143 774	-
SA-KUFR2/40/1/14HS0,5/4/4/1-3	28	62	-	0,164	4-pole 4极	-	166 491
SA-KUFR2/40/1/14VP0,5/4/6/1-3U5-6	56	90	-	0,197	6-pole 6极	143 836	-
SA-KUFR2/40/1/14HS0,5/4/6/1-3U5-6	56	90	-	0,197	6-pole 6极	-	167 573
SA-KUFR2/40/1/14VP0,5/4/8/1-3U5-8	80	118	53	0,216	8-pole 8极	144 482	-
SA-KUFR2/40/1/14HS0,5/4/8/1-3U5-8	80	118	53	0,216	8-pole 8极	-	167 661

CARBON BRUSHES

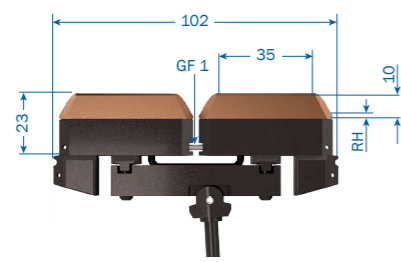
width of contact brushes = 3.8 mm

集电器碳刷

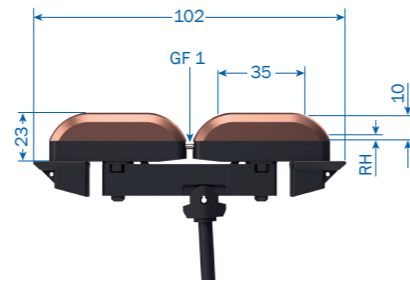
所有的碳刷厚度都为3.8mm



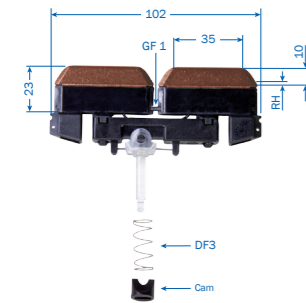
SK-KMKU25-20-14



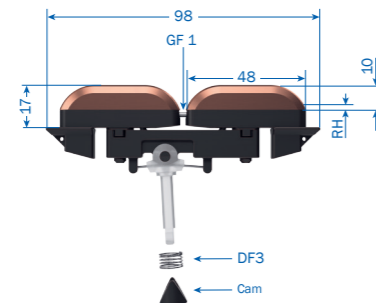
SK-KMKF2/40-04-14



KMKF2/40VP-04-14



SK-DSW2/40-04-14-FN



SK-DSW2/40VP-04-14-FN

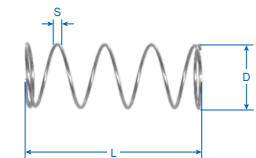
Min. remaining brush height (RH) = 3 mm

最小允许磨损剩余高度 (RH) = 3 mm

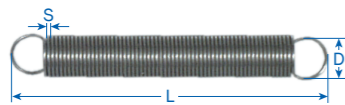
Type 型号	for current collector 用于集电器	Weight kg 重量 kg	Order No. 零件号
SK-KMKU25-20-14	KUFU25	0,030	168 284
SK-DSW2/40-04-14-FN	KDS2/40	0,049	168 151
SK-DSW2/40VP-04-14-FN	KDS2/40 PE-VP	0,060	144 059
SK-KMKF2/40-04-14	KUFR2/40	0,050	144 277
SK-KMKF2/40VP-04-14	KUFR2/40VP	0,060	143 777

SPRINGS

弹簧



Compression spring DF3
承压弹簧 DF3



Tension spring RF3
张力弹簧 RF3



Alignment spring GF1
导向连杆 GF1



Cam
附件

Type 型号	for Current Collector 用于集电器	S mm	D mm	L mm	Order No. 零件号
DF3	KDS2/40	0,55	9,55	24,00	152 011
RF3	KUFU25, KUFR2/40	0,40	4,40	31,00	153 849
GF1	KDS2/40, KUFR2/40	-	2,00	21,50	153 850
Cam	KDS2/40	-	-	-	1011917

CONNECTING CABLES

连接电缆

CONNECTING CABLE, HIGHLY FLEXIBLE

for current collector, feed terminal, transfer guide and isolating assembly
(for current collector KDS and KUFR use connecting cable WFLA 2.5)

柔性连接电缆

用于连接集电器,供电夹子,道岔端帽以及分段端帽(集电器 KDS使用的连接电缆为WFLA 2.5)



WFLA



FLA/FKA

FH

Length: 0.5m with tab plug 6.3 x 0.8
Longer connecting cable available

长度: 0.5m 含供电夹子 6.3x0.8,
也可以订购更长的电缆

Length: 1m with tab plug 6.3x0.8
Longer connecting cable available

长度: 1m 含供电夹子 6.3x0.8,
也可以订购更长的电缆

CONNECTING CABLE, DOUBLE INSULATION

for current collector or feed terminal

双层绝缘连接电缆

用于集电器

Type 型号	Cross section 截面积 mm ²	Ø mm		Weight kg 重量 kg		Order No. 零件号 Phase black PH为黑色	Order No. 零件号 PE green/yellow PE为黄绿相间
		PH	PE	PH	PE		
AL-FLA2,5PH1-6,3	2,50	3,9	-	0,037	-	165 049	-
AL-FLA2,5PE1-6,3	2,50	-	3,6	-	0,035	-	165 050
AL-FLA4PH1-6,3	4,00	5,4	-	0,064	-	165 051	-
AL-FLA4PE1-6,3	4,00	-	5,2	-	0,059	-	165 052
AL-FLA6PH1-6,3	6,00	5,7	-	0,086	-	166 368	-
AL-FLA6PE1-6,3	6,00	-	5,7	-	0,083	-	166 369
AL-WFLA2,5PH0,5-6,3	2,50	3,9	-	0,020	-	168 107	-
AL-WFLA2,5PE0,5-6,3	2,50	-	3,6	-	0,018	-	168 108

CONNECTING CABLE, SINGLE INSULATION

for isolating assembly only

单层绝缘连接电缆

用于滑触线上电

Type 型号	Cross section 截面积 mm ²	Ø mm		Weight kg 重量 kg		Order No. 零件号 Phase black PH为黑色	Order No. 零件号 PE green/yellow PE为黄绿相间
		PH	PE	PH	PE		
AL-IFKA1,5PH1-6,3	1,50	3,0	-	0,020	-	166 557	-
AL-IFKA1,5PE1-6,3	1,50	-	3,0	-	0,020	-	166 558
AL-IFKA2,5PH1-6,3	2,50	3,7	-	0,032	-	166 238	-
AL-IFKA2,5PE1-6,3	2,50	-	3,7	-	0,032	-	166 239
AL-IFKA4PH1-6,3	4,00	4,3	-	0,050	-	166 240	-
AL-IFKA4PE1-6,3	4,00	-	4,3	-	0,050	-	166 241
AL-IFKA6-PH1-6,3	6,00	4,9	-	0,064	-	166 242	-
AL-IFKA6-PE1-6,3	6,00	-	4,9	-	0,064	-	166 243

TAB PLUG ONLY (WITHOUT CABLE)

扁平接线头

Type 型号	Cross section 截面积 mm ²	Weight kg 重量 kg	Order No. 零件号
FH2,5	2,5	0,002	165 120
FH4-6	4-6	0,002	165 121
WFH2,5	2,5	0,002	168 109

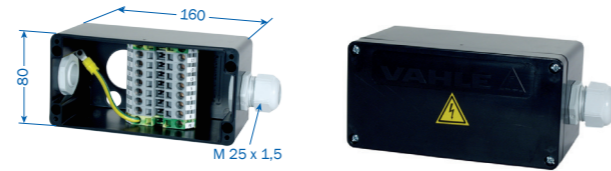
TERMINAL BOX

接线盒

TERMINAL BOX AKE

for conductor current supply with max. 7 x 6 mm² terminal clamps and 2 x 6 mm² PE terminal clamps.

Please inquire when terminal clamp variations are desired.



AKE接线盒

用于滑触线供电, 最多带 7 x 6 mm² 的相线接线排, 和 2 x 6 mm² 地线接线排。

如有其它端子需求, 可与技术人员联系。

Type 型号	Weight kg 重量 kg	Order No. 零件号
ES-AKE1-PH7x2L6-PE2x2L6-M25	0,445	169 462

BRUSH WEAR INDICATOR

Brush wear indicator can be supplied installed on 0.5m conductor section. Please specify the corresponding conductor arrangement when ordering.

The brush wear indicator checks the remaining brush height each time a collector set passes. Max. travel speed 70m/min. When the remaining brush height reaches the preset value of 3mm the brush wear indicator will send an impulse. It is practical to install the brush wear indicator ahead of a track switch, then the impulse can actuate the track switch to send the unit directly into a maintenance spur.

An opening, min. width 70mm height 50mm, must be cut at the EMS track web. PE position is variable, similarly to the conductor arrangement; please inquire. Differing remaining brush height settings above 3 mm are also available.

碳刷磨损检测单元

碳刷磨损检测单元供货是安装在一段0.5m的滑触线系统上, 订货时请说明安装位置。

碳刷磨损检测单元建议安装在维修段附近, 每当集电器经过磨损检测单元时, 传感器都会检测碳刷的高度, 经过检测区域时, 小车最大允许速度为70m/min, 当集电器碳刷高度达到预设值3mm时, 碳刷磨损检测单元会发送信号到控制系统, 这时控制系统可以让小车进入维修段进行维护更换。

磨损检测单元需要在轨道上开70mmx 50mm的方孔, 地线位置可以根据实际情况调整, 3mm的报警值也可根据不同的碳刷进行调整。



BRUSH WEAR INDICATOR WITH INDUCTIVE PROXIMITY SWITCH

The last slot of a brush wear indicator with an uneven number of conductors remains unoccupied.

U10带感应开关的碳刷磨损检测

若滑触线系统的极数为奇数时,碳刷检测器的最下侧一极为空

Type 型号	No. of poles 适应极数	Weight kg 重量 kg	Order No. 零件号 PE-VP at No. 4 PE-VP在第4极	Order No. 零件号 PE at No. 4 PE在第4极
VT-KVT10-4-14VP4B	4	2,011	143 637	-
VT-KVT10-4-14HS4B	4	2,011	-	166 957
VT-KVT10-5-14VP4B/6	5	2,252	144 093	-
VT-KVT10-5-14HS4B/6	5	2,252	-	167 440
VT-KVT10-6-14VP4B	6	2,453	143 304	-
VT-KVT10-6-14HS4B	6	2,453	-	166 895
VT-KVT10-7-14VP4B/8	7	2,692	143 466	-
VT-KVT10-7-14HS4B/8	7	2,692	-	167 441
VT-KVT10-8-14VP4B	8	2,893	143 646	-
VT-KVT10-8-14HS4B	8	2,893	-	166 896
VT-KVT10-9-14VP4B/10	9	3,131	144 094	-
VT-KVT10-9-14HS4B/10	9	3,131	-	167 442
VT-KVT10-10-14VP4B	10	3,335	144 095	-
VT-KVT10-10-14HS4B	10	3,335	-	166 897

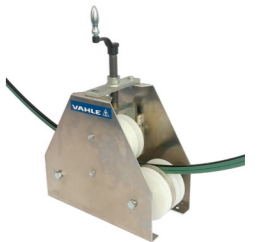
INSTALLATION TOOLS

安装工具

CURVE TOOL

for forming U10 vertical and horizontal curves.

Filler Rods must be ordered separately.



折弯工具

用于单根U10水平和垂直

弯弧制作, 填充条需要额外订购。

Type 型号	Description 描述	Weight kg 重量 kg	Order No. 零件号
MZ-BVU10-VP	Curve tool	6,918	143 318
MZ-FU10-V ⁽¹⁾	Filler rod for PH/PE (4 m)	0,371	165 234
MU-FU10-H ⁽²⁾	Filler rod for PH/PE (4 m)	0,354	144 416
MZ-FU10-S-VP	Filler rod for PE-VP hollow body (4 m)	0,156	143 279
MZ-FU10-VP-E	Filler rod for PE-VP contact surface (4 m)	0,208	143 280

⁽¹⁾ For making vertical EMS curve sections.

⁽²⁾ For making horizontal and outward facing AEM curve sections.

⁽³⁾ 制作EMS垂直方向折弯。

⁽⁴⁾ 制作水平方向折弯。

TABLE SAW

for cutting U10 insulator profiles and conductor profiles, with length stop

Voltage required: 230V, 50 Hz

**切割台**

用于切割制作U10滑触线

工作电压: 230V, 50 Hz。

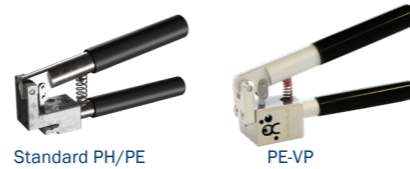
Type 型号	Description 描述	Weight kg 重量 kg	Order No. 零件号
MZ-KS10	Table Saw, compl.	6,500	165 276
MZ-SB	spare saw blade	0,070	165 263

CONDUCTOR PUNCH TOOL

for punching joint splice window into conductor profile

after cutting standard length section.

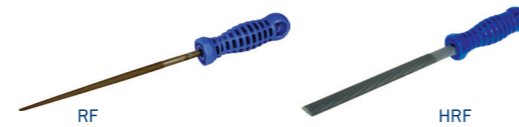
For phase and PE and PE-VP conductors.

**打孔钳**

用于在切割完成后的滑触线上打上接头孔。

适用于PH、PE、PE-VP

Type 型号	Description 描述	Weight kg 重量 kg	Order No. 零件号
MZ-LZ10PE-VP	Conductor Punch Tool for PE-VP 适用于PE-VP	0,595	143 223
MZ-LZ10PH/PE	Conductor Punch Tool for Phase und standard PE 适用于PH和PE	0,480	144 363

DEBURRING FILE**去毛刺工具**

Type 型号	Application 应用	Weight kg 重量 kg	Order No. 零件号
ROUND FILE RF-150 LANG/HIEB 3/D=6MM	deburr inside profile after cutting section 去除切割完后的滑触线的内侧毛刺	0,085	143 330
HALF ROUND FILE HRF-150 LANG/HIEB 3	deburr outside profile after cutting section 去除切割完后的滑触线的外侧毛刺	0,085	165 264

ADJUSTMENT JIG

facilitates cutting precise length of insulation shroud without using measuring tape.

**滑触线端部调节杆**

调节标准长度和较短长度的滑线外壳。

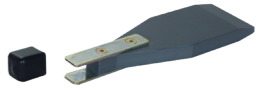
Type 型号	Weight kg 重量 kg	Order No. 零件号
MZ-ST10	0,150	165 091

JOINT SPLICE/FEED ASSEMBLING TOOL

To push conductor into joint splice clip

If necessary, to widen conductor slot opening

To move joint splice cap in place

**滑触线接头组装工具**

将滑触线装入接头。

如果有需要,扩大滑触线开口。

移动接头上的外护套。

Type 类型	Weight kg 重量 kg	Order No. 零件号
MZ-MG-SW10	0,125	165 093

LOCKING PIN DRIVER

to insert BFU anchor bar transfer guide locking pins

定位销安装工具

将定位销敲入固定铝杆的辅助工具。



Type 型号	Weight kg 重量 kg	Order No. 零件号
MZ-ED10	0,010	165 277

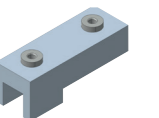
CONDUCTOR REMOVAL TOOL

to release and remove conductors from compact hangers

**拆卸工具**

用于拆除滑触线和紧凑型支架

Type 型号	Weight kg 重量 kg	Order No. 零件号
MZ-DMW10	0,039	165 119

DRILLING JIG FOR FIX POINT (PE-VP)**PE-VP钻孔靠模**

Type 型号	Weight kg 重量 kg	Order No. 零件号
MZ-BS10A	0,036	143 425

SPIRAL DRILL

to drill holes for locating clamps USK 10A-VP at fix points

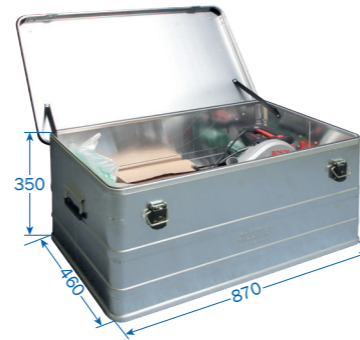
**钻头**

用于钻固定夹USK 10A 的安装孔

Type 型号	Weight kg 重量 kg	Order No. 零件号
SPIRAL DRILL Ø 3,2 MM, TYPE N	0,003	143 426

INSTALLATION TOOL BOX

includes 1x BVU10-VP curve tool, with filler rods 1x FU10,
1x FU10S-VP and 1 xFU10VP-E, 1x KS10 table saw, 1x SB spare blade,
1x LZ10PE-VP and 1x LZ10PH/PE conductor punch tool, 1x RF round file
and 1x HRF half round file, 1x ST10 adjustment jig, 1x MG-SW 10 joint splice/feed assembly tool,
1x ED10 locking pin driver, 1x DMW10 conductor removal tool,
1x BS10A drilling jig, 1x spiral drill Ø 3,2 mm
Installation tool box can be locked.

**安装工具箱**

包括: BVU10-VP折弯工具, 包含嵌条;
FU10S-VP, FU10VP-E, KS10台锯; 备用锯片;
LZ10PE-VP, LZ10PH/PE滑触线打孔钳; RF圆锉;
HRF半圆锉; ST10调节模具; MG-SW10接头供电安装工具;
ED10定位销安装工具; DMW10拆卸滑线工具;
BS10A钻孔模具; 3.2mm钻头。
工具箱可上锁。

Type 型号	Weight kg 重量 kg	Order No. 零件号
MZ-MWK-K	26,500	166 548

**APPLICATION QUESTIONNAIRE FOR U10
U10询价**

Customer 公司名称 _____ Date 日期 _____
Final customer 最终客户 _____ Project No. 项目编号 _____
Installation 安装 _____

CUSTOMER CONTACT**客户联系表**

	Name 名字	Fon 电话	E-mail 邮箱
Technical planning 技术规划			
Purchasing 采购			

SCOPE OF SUPPLY**供货范围**

- vCONDUCTOR 滑触线系统 vPOS 定位系统 vCOM 数据通讯 vDRIVE 控制器系统
 Installation VAHLE components Installation Non-VAHLE components _____
 安装法勒组件 安装非法勒组件 _____
 Disassembly Disassembly Non-VAHLE components _____
 拆卸 拆卸非法勒组件 _____

SCHEDULE**时间表**

Proposal submittal _____ week/date Delivery _____ week/date
 建议提交 _____ 周/日期 交货 _____ 周/日期
 Installation start _____ finish _____ week/date weekdays weekends
 安装开始 _____ 结束 _____ 周/日期 工作日 周末

MECHANICAL DATA**机械数据**

1. Installation concept
安装的概念

New installation

新安装

Alteration / Expansion

Original Conductor System Delivery No.: _____

变更/扩张

原滑触线系统供应号: _____

Replacement 1:1

Original Conductor System Delivery No.: _____

更换1:1

原滑触线系统供应号: _____

2. Type of application

设施

- EMS Floor track systems (2 tracks) 地面轨道系统 (2条轨道)
- Skillet system 滑板线系统 Other 其它 _____

3. Carrier track / Carrier track supplier / Track designation

载运轨道/载运轨道供应商/轨道名称

- 180x60 / _____ / _____ Other 其它 _____ / _____ / _____
- 240x80 / _____ / _____

4. Conductor orientation

滑触线方向

- Facing sideways 面对横向 In direction of travel: right left
- Facing downward 面对下向 行进方向: 右侧 左侧

5. Installation height

安装高度

- Off facility floor or support floor _____ mm freely traversible
- 离开设备层或支撑层 _____ mm 自由

6. Track expansion gaps

跟踪膨胀缺口

- Expansion distance / gap dimension _____ mm
- 展开距离/间隙尺寸 _____ mm

7. Building expansion gaps

构建扩大差距

- Expansion distance / gap dimension _____ mm
- 展开距离/间隙尺寸 _____ mm

8. Specific building features

具体特性

ELECTRICAL DATA

电子数据

9. Operating voltage

工作电压

- Three-phase voltage AC voltage DC voltage _____ V _____ Hz
- 三相电 交流电 直流电 _____ V _____ Hz

10. Type of conductor

滑触线类型

- U10/25C copper conductor U10/25C铜导体
- U10/25E stainless steel conductor U10/25E不锈钢导体

11. NUMBER OF CONDUCTORS (POLES)

滑触线极数

Main current _____ Control current _____ Ground (PE) standard _____

主要电流 _____ 控制电流 _____ 地面 (PE) 标准 _____

PE-VP Ground conductor with phase collector avoidance protection available only in copper _____

PE-VP接地导体, 具有相位集电极避让保护, 仅适用于铜 _____

12. Conductor sequence

滑触线序列

Compact hanger number of conductors Location top to bottom:

紧凑型滑触线 位置:

Pole 滑触线	Position 位置	Example 例子 12-pole hanger 6-pole used 12极支架用其中6极
1.		open
2.		open
3.		L1
4.		L2
5.		L3
6.		PE-VP
7.		S1
8.		S2
9.		open
10.		open
11.		open
12.		open

13. TRAVEL MODE

运行方式

- One direction only _____ Bi-directional _____ / _____ %
- 仅一个方向 _____ 双向 _____ / _____ %

14. TRAVEL SPEEDS

运行速度

Travel speed V max. straight: _____ m/min

最大直线运行速度: _____ m/min

Travel speed V max. curve: _____ m/min

最大曲线运行速度: _____ m/min

Acceleration _____ m/s² Acceleration time _____ s

加速度 _____ m/s² 加速时间 _____ s

15. CONNECTING CABLES FOR CONDUCTORS

滑触线连接电缆

Line feed Main current conductors _____ cross section _____ mm²

中间供电 主要集电器 _____ 横截面 _____ mm²

Track switch transfer guides Main current conductors _____ cross section _____ mm²

道岔端帽 主要集电器 _____ 横截面 _____ mm²

Feeds and transfer guides Control current _____ cross section _____ mm²

供电端帽 主要集电器 _____ 横截面 _____ mm²

ENVIRONMENTAL REQUIREMENTS

环境要求

16. Installation location

租赁设施

Indoor system 室内 Cool storage 寒冷 Freezer (to -30°C) 冰冷 (-30°C)

17. Ambient temperature

环境温度

_____ °C min. 分钟 _____ °C max. 最大

Installation temperature

安装温度

approx. 大约 _____ °C

18. Relative humidity

相对湿度

at ambient temperature _____ °C

环境温度 _____ °C

_____ %

_____ %

_____ °C

_____ °C

Oxygen reduced atmosphere

缺氧环境

Oxygen content _____ %

氧气含量 _____ %

19. Extraordinary environmental conditions

特殊环境条件

vPOS - POSITIONING

vPOS - 定位系统

20. Type

类型

APOS Optic 光学定位系统

APOS Magnetic 磁条定位系统

Support system for Leuze Barcode (35 mm)

鲁磁条码支持系统 (35mm)

vCOM - DATA TRANSMISSION

vCOM - 数据传输

21. Type

类型

SMGM

Powercom (utilizing conductor system) (采用滑触线系统)

Semi-Wave (utilizing conductor system, only together with vDRIVE) (采用滑触线系统, 仅与vDRIVE一起使用)

Can-Bus (utilizing conductor system, only together with vDRIVE) (采用滑触线系统, 仅与vDRIVE一起使用)

CONFIGURATION NOTES

备注

Not suited for outdoor installation.

不适合户外安装。

QUANTITY FRAMEWORK

框架

Position 序号	Quantity 数量	Piece/m 块/米	Description 描述	
1.		pieces 块	carrier 航空公司	
2.		m 米	length total 总长度	
3.		m 米	length straight 直线长度	
4.		pieces 块	H-curves to 15° 15° H曲线	R= mm
5.		pieces 块	H-curves to 30° 30° H曲线	R= mm
6.		pieces 块	H-curves to 45° 45° H曲线	R= mm
7.		pieces 块	H-curves to 60° 60° H曲线	R= mm
8.		pieces 块	H-curves to 75° 75° H曲线	R= mm
9.		pieces 块	H-curves to 90° 90° H曲线	R= mm
10.		pieces 块	H-curves to 180° 180° H曲线	R= mm
11.		pieces 块	TS-connection curves TS连接曲线	R= mm
12.		pieces 块	V-curves to 45° 45° V曲线	R= mm
13.		pieces 块	two-way track switches 双向追踪开关	
14.		pieces 块	three-way track switches 三向追踪开关	
15.		pieces 块	V-track switches V向追踪开关	
16.		pieces 块	turntables 转盘	
17.		pieces 块	quattro track switches 四轮驱动系统开关	
18.		pieces 块	lift stations vertical 垂直提升站	
19.		pieces 块	shift units horizontal 水平转移	
20.		pieces 块	track expansions 扩展跟踪	
21.		pieces 块	building expansions 扩展建设	
22.		pieces 块	brush wear indicator 碳刷磨损指示器	
23.		pieces 块	PE verification PE验证	
24.		pieces 块	connecting cables, capacity 连接电缆, 能力	
25.		pieces 块	connecting cables, PE 连接电缆, PE	
26.		pieces 块	connecting cables, control 连接电缆, 控制	
27.		pieces 块	terminal boxes 接线盒	
28.		pieces 块	conductor vacuum incl. suction head 吸尘头	



VAHLE Mobilizing Electrification
Trading(shanghai) Co.,Ltd.
法勒移动供电贸易（上海）有限公司

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