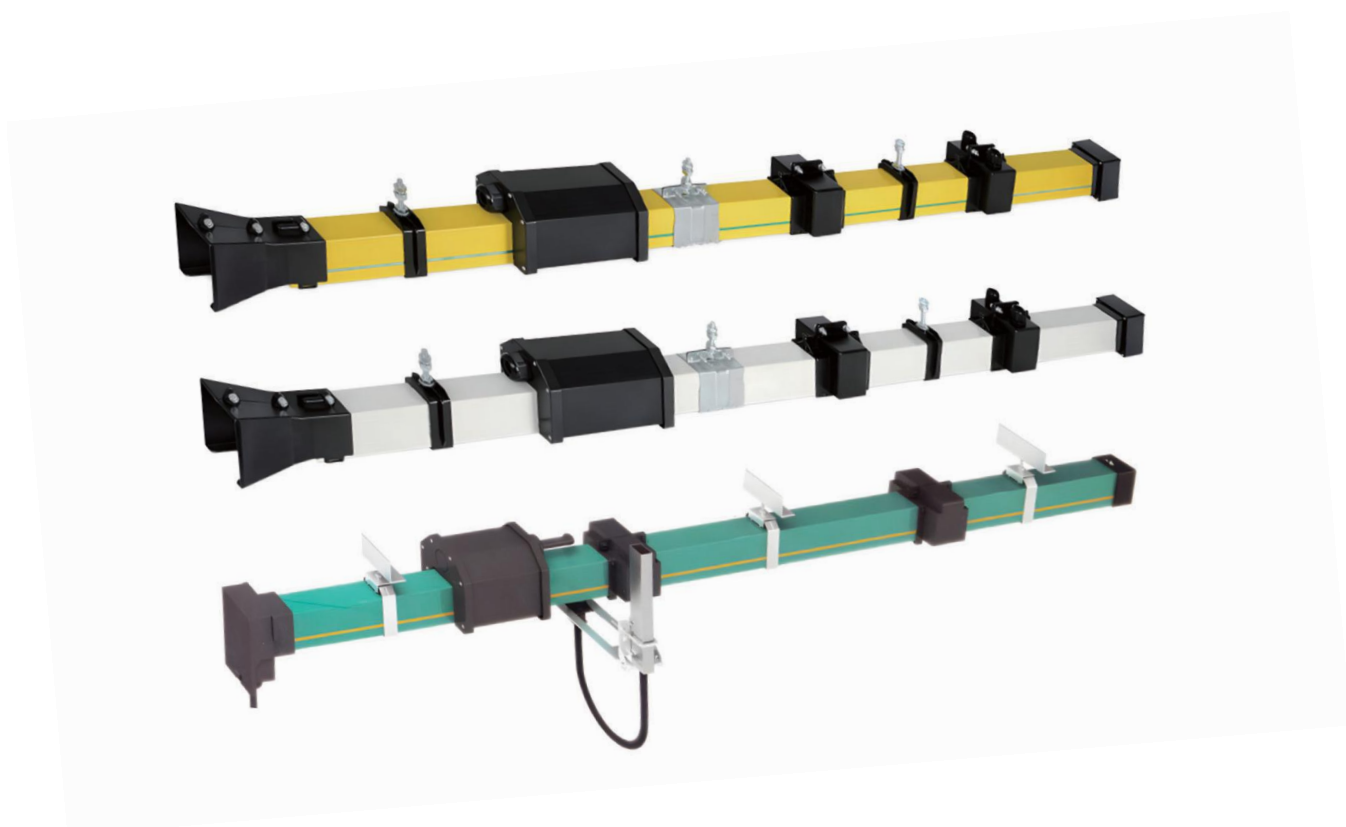


KLIFTING INDUSTRY CO., LTD.

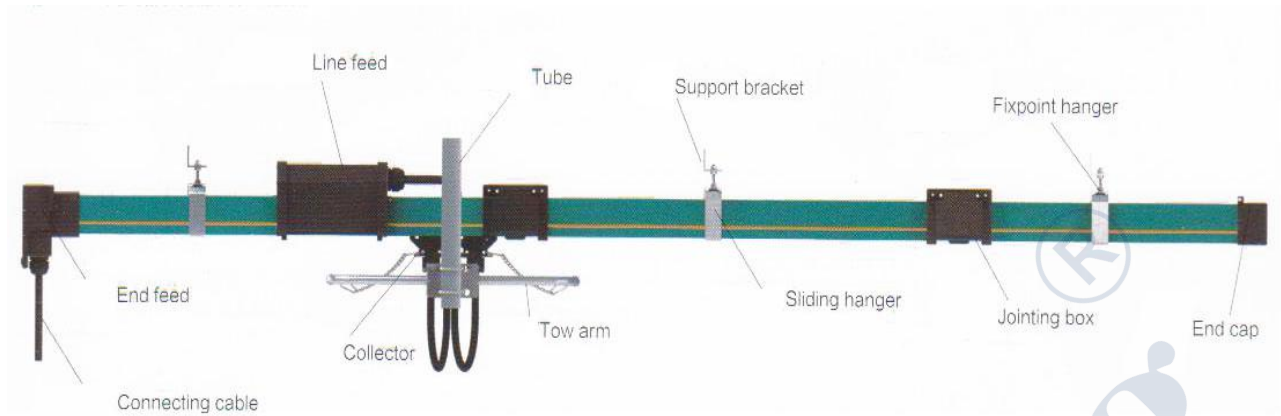
KK Enclosed Conductor Bar System



Catalogue

Catalogue

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General

1. Power rail enclosed conductor rail is a power rail, 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 35-240A.
2. The current collectors, running in ball bearings, are guided by the housing. The main is transferred by spring-stored carbon brushes.
3. Type KK73: not include Sealing strip, with factory-mounted flat copper band and bolted-operated plug connectors.
4. Type KK73: Curves for $R \geq 800\text{mm}$, with factory-mounted flat copper band and screw connectors.
5. Approved and listed by: CCC, ISO9001 and CE.

Components

1. 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.

2. Connection: Through plastic joint caps.

3. Feed Sets: Line feeds or end feeds.

4. End caps: The open ends of the power rail are closed by end caps for KK73.

5. Hangers: Standard brackets for power rail attachment to crane girders are available. Power rail with sliding and Fix point hangers. Standard distance between suspension points for indoor and outdoor installations: 1200mm.

6. 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.

7. Anti-condensation sections:

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

8. Power feed sections and switches:

Power rail for working areas and transfer can fit much applications.

9. Sectioning:

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

10. Current collectors:

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

Technical data

Electrical properties:		Mechanical properties:	
Max.current	240A	Flexible strength	75N/mm ² ±10%
Max.voltage	690V	Tensile strength	40N/mm ² ±10%
Dielectric strength	30-40KV/mm	Temperature range	
Spec.resistance	5×10 ¹⁵ Ohm×cm	Standard Housing	-20℃ up to +70℃
Surface resistivity	10 ¹³ Ohm×cm	High	-10℃ up to +115℃
Leakage resistance	CTI600-2.7	Low	-40℃ up to +80℃
Combustibility			
flame retardant	B1-Flameless,Automatically turn off		
self extinguishing	Class B1-no flaming particles,self-extinguishing		
Resistance to chemicals: （+45℃）			
Gasoline	Sulphuric acid 50%		
Mineral	Caustic soda 25%&50%		
Grease	Hydro-chloric acid ,concentrated		

Type - Technical data - Order numbers

Conductor code

KK73-4-n/m

KK73=power rail enclosed conductor

4=poles

n=conductor cross section (mm²)

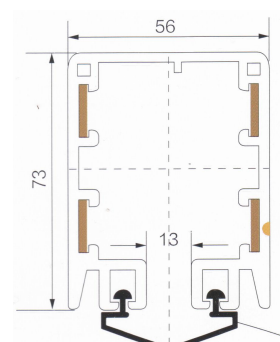
m=continuous ampere capacity

Width for copper: ①=14.5mm ②=17.6mm ③=21.0mm

Length: 4m/pc is standard length, other length is available ,but not be exceeding 6m.

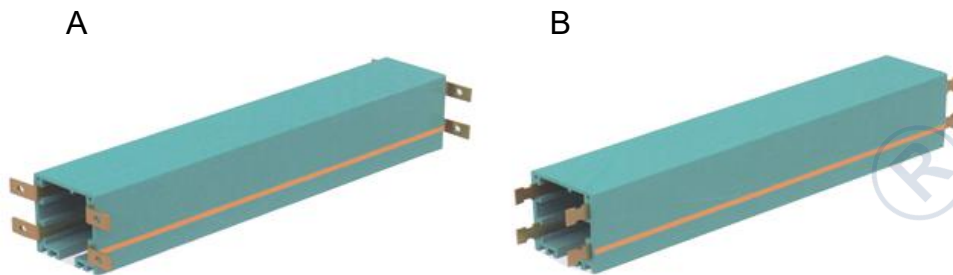
Curves Min.R=0.8m

Support spacing 1.2m for straight system.



Products

➤ Conductor Bar



Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage distance (mm)	Max. Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
KK73A-4-8/35	4	8	35	35	690	1.944	2.09	734080351
KK73A-4-10/50	4	10	50	35	690	1.656	2.16	734010501
KK73A-4-12/65	4	12	65	35	690	1.321	2.23	734012651
KK73A-4-15/80	4	15	80	35	690	1.137	2.30	734015801
KK73A-4-20/100	4	20	100	33	690	1.011	2.43	734020100
KK73A-4-25/120	4	25	120	33	690	0.713	2.56	734025120
KK73A-4-35/140	4	35	140	33	690	0.522	2.95	734035140
KK73A-4-50/170	4	50	170	33	690	0.337	3.25	734050170
KK73A-4-70/210	4	70	210	33	690	0.265	3.85	734070210
KK73A-4-80/240	4	80	240	30	690	0.223	4.16	734080240
KK73B-4-12/65	4	12	65	35	690	1.321	2.23	733112650
KK73B-4-15/80	4	15	80	35	690	1.137	2.30	733115800
KK73B-4-20/100	4	20	100	33	690	1.011	2.43	733120100
KK73B-4-25/120	4	25	120	33	690	0.713	2.56	733125120
KK73B-4-35/140	4	35	140	33	690	0.522	2.95	733125140
KK73B-4-50/170	4	50	170	33	690	0.337	3.25	733150170
KK73B-4-70/210	4	70	210	33	690	0.265	3.85	733170210
KK73B-4-80/240	4	80	240	30	690	0.223	4.16	733180240

➤ Current Collector



Collector 25A is used for 35A-50A. **Collector 40A** is used for 65A-120A. Can be used with tow arm KK73BC/53 and KK73BC/55.

Connecting cable

25A, 2.5mm²/core × 4. 40A, 4.0mm²/core × 3 + 2.5mm²/core × 1
Standard cable length: 0.8m. Longer cables are available on request.

Type	Weight (kg)	Poles	Power rating	Cat.-No
KK73-JD-4/25	0.65	4	25A	73042520
KK73-JD-4/40	0.75	4	40A	73044020



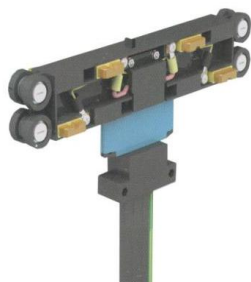
Collector 60A is used for 120A-170A.

Can be used with tow arm KK73BC/53 and KK73BC/55.

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

Standard cable length: 0.8m. Longer cables available on request.

Type	Weight (kg)	Poles	Power rating	Cat.-No
KK73-JD-4/60	1.35	4	60A	73046020



Collector 80A is used for 140A-240A.

Only use with tow arm KK73BC/53

Cable: 80A, $(6.0\text{mm}^2 \times 2/\text{core}) \times 3$ $(3.0\text{mm}^2 \times 2/\text{core}) \times 1$

Standard length: 1m. Longer cables available on request.

Type	Weight (kg)	Poles	Power rating	Cat.-No
KK73-JD-4/80	1.30	4	80A	73048020



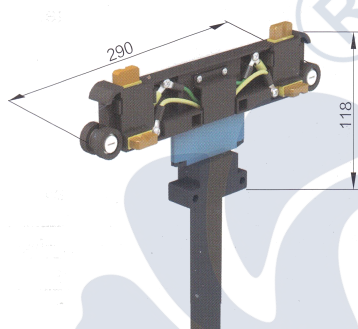
Collector is used for curves ($R > 800$)

Both tow arm KK73BC/53 & KK73BC/55 could use.

Cable: 25A, $2.5\text{mm}^2/\text{core} \times 4$ 40A, $4.0\text{mm}^2/\text{core} \times 3 + 2.5\text{mm}^2/\text{core} \times 1$

Standard length: 0.8m. Longer cables available on request.

Type	Weight (kg)	Poles	Power rating	Cat.-No
KK73-JDR-4/25	0.50	4	25A	73042521
KK73-JDR-4/40	0.60	4	40A	73044021



Only use with tow arm KK73BC/53

Cable: 60A, $(4.0\text{mm}^2 \times 2/\text{core}) \times 3$ 80A, $(6.0\text{mm}^2 \times 2/\text{core}) \times 3$

Standard length: 1m. Longer cables available on request.

Type	Weight (kg)	Poles	Power rating	Cat.-No
KK73-JD-3/60	0.90	3	60A	73036020
KK73-JD-3/80	1.05	3	80A	73038020

➤ Carbon brush



Used for KK73-JD-4/25, 4/40, 4/60, 4/80, 3/60, 3/80

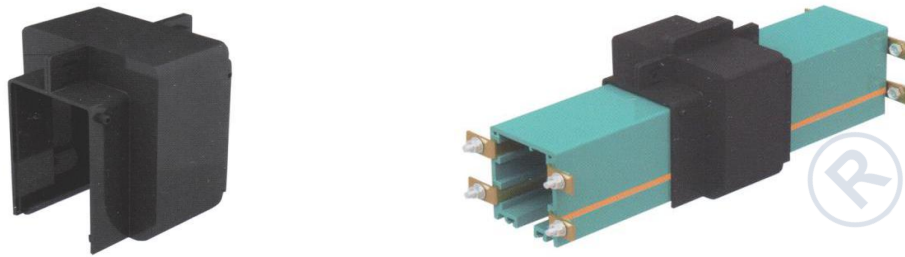
Type	Weight (kg)	Cat.-No
KK73-TS-1	0.04	73036120



Used for KK73-JDR-4/25, 4/40

Type	Weight (kg)	Cat.-No
KK73-TS-2	0.04	73036220

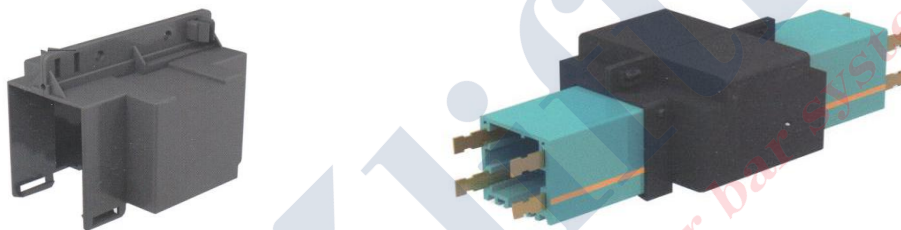
➤ Joint Cap



Be used with bent joints. Self locking, and installed is very easy.

Type	Weight (kg)	Material	Cat.-No.
KK73-LJ-5	0.10	Plastic	7380021

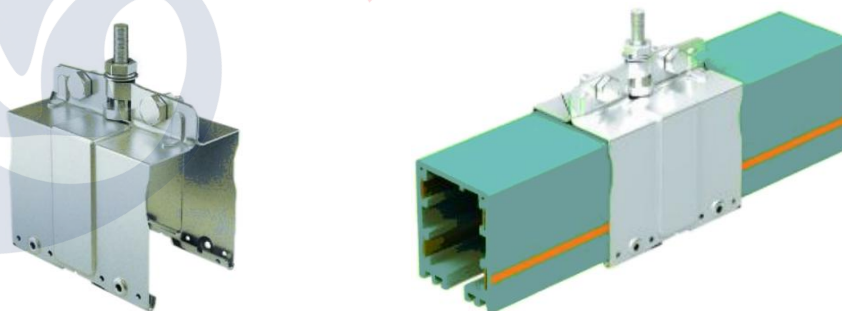
➤ Joint Protection Box



Be used with bolted joints. Self locking, and installed is very easy.

Type	Weight (kg)	Material	Cat.-No.
KK73-LJ-6	0.16	Plastic	7380022

➤ Anchor Hanger

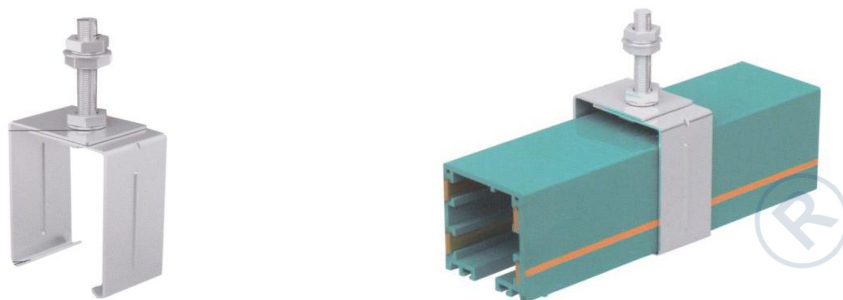


Be used for conductor rail system without any joints.

It can also be used as jointing box. The connection part should be sealed with rubberized fabric.

Type	Weight (kg)	Material	Cat.-No.
KK73-LJ-8	0.28	Steel	7380122

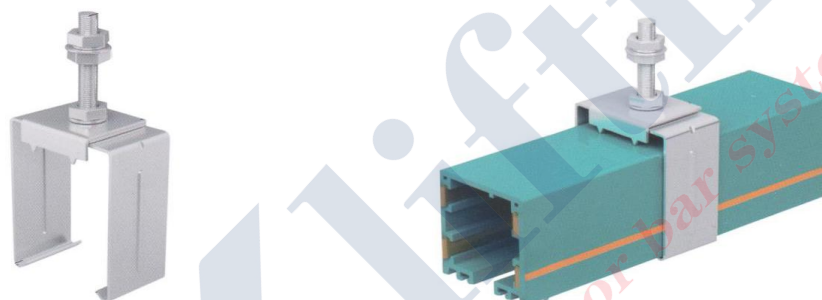
➤ Sliding Hanger



Sliding hanger at power rail section, used with bent joints.

Type	Weight (kg)	Material	Cat.-No.
KK73-DJ-01	0.17	Steel	7380031

➤ Fixpoint Hanger



Fixpoint hanger at power rail section.

Type	Weight (kg)	Material	Cat.-No.
KK73-DJ-02	0.21	Steel	7380032

➤ With Bolted Joints



Caution! Tighten the setscrews with max.2Nm to avoid deforming the clip of the bolted joint.

Type	Weight (kg)	Material	Cat.-No.
KK73-JT-80A	0.042	steel cover & copper pate	7380041
KK73-JT-120A	0.049		7380042
KK73-JT-140A	0.053		7380043
KK73-JT-170A	0.058		7380044
KK73-JT-210A	0.065		7380045
KK73-JT-240A	0.085		7380046

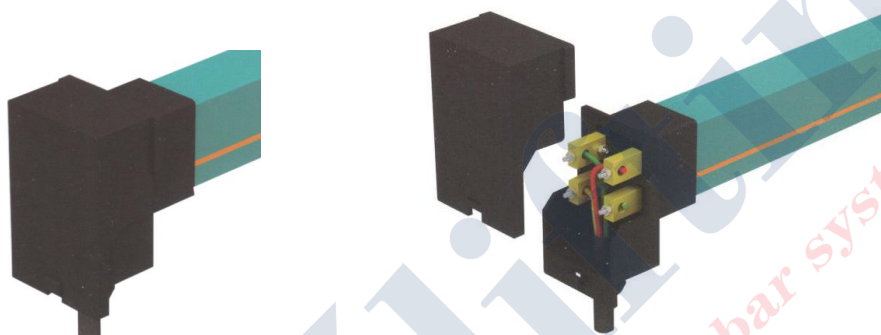
➤ End Cap



Installed at the ends of whole system.

Type	Weight (kg)	Material	Cat.-No.
KK73-DM	0.065	Plastic	7380053

➤ End Feed



Be used for 35A-240A, to replace one of the end cap.

Type	Weight (kg)	Material	Cat.-No.
KK73-DG-1	0.25	Plastic	7380052

End fee joints

Type	Weight (kg)	Material	Cat.-No.
KK73-EJ-1	0.06	Brass	7380152



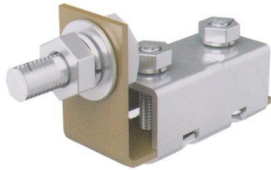
➤ Line Feeding (with 0.5m Conductor Rail)



The line feeding is provided with 0.5m conductor rail. Other lengths are available, but should not exceed 4 meters. 56ZG/500-4/50A, means 4 poles and 50 Amp conductor rail.

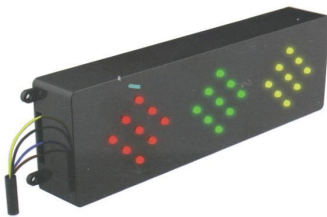
Type	Cat.-No.
KK73-ZG/500-4/M	7380054

➤ Feeding Joints



Type	Weight (kg)	Cat.-No.
KK73-GJT-80A	0.051	7380061
KK73-GJT-120A	0.058	7380062
KK73-GJT-140A	0.065	7380063
KK73-GJT-170A	0.076	7380064
KK73-GJT-210A	0.086	7380065
KK73-GJT-240A	0.095	7380066

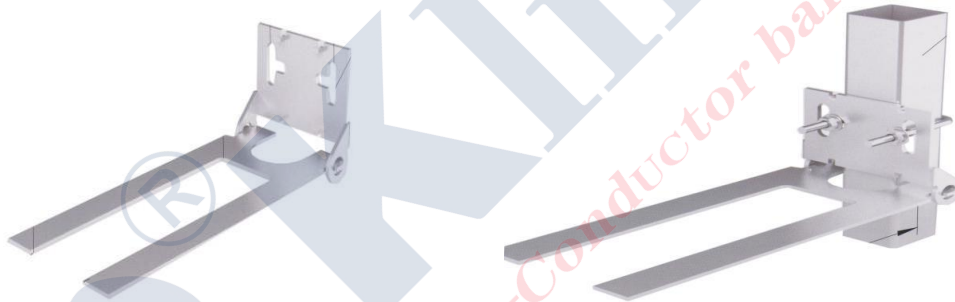
➤ LED



Suitable for all conductor rails

Type	Weight (kg)	Cat.-No.
KK73-LED	0.28	7380071

➤ Fork



Used with tube or square hollow profile.

Type	Weight (kg)	Material	Cat.-No.
KK73-BC/53	0.53	Steel	7380072

➤ Tow Arm



Used with square tube or angle steel or channel beam.

Type	Weight (kg)	Material	Cat.-No.
KK73-BC/55	0.55	Steel	7380073

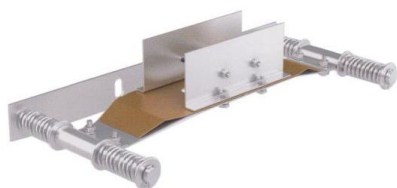
➤ Sealing Strip



Used for dusty or fireproof ambient, usually 50meters in one package.

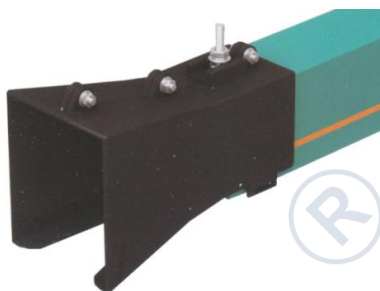
Type	Weight (kg)	Material	Cat.-No.
KK73-FCT	0.07	Plastic	7380074

➤ Flexible Tow Arm



Type	Weight (kg)	Material	Cat.-No.
KK73-FTW	1.35	Steel, Copper, Stainless steel	7380076

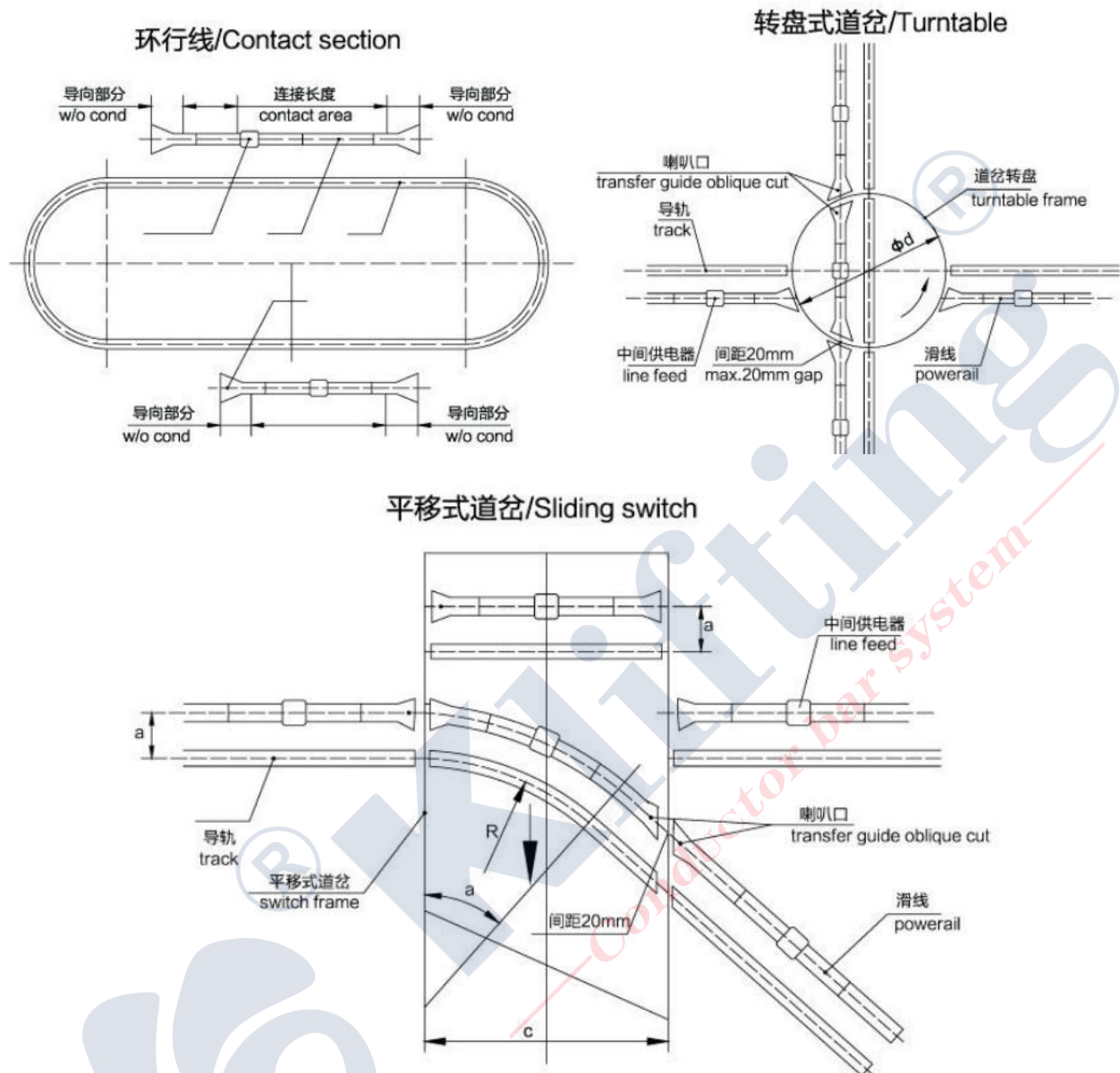
➤ Transfer Guides



The Power rail is electrically separated into 2 parts by the telescope section. Provide each of these sections with a separate feeding. In order not to interrupt 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 500mm, If in case of higher power consumption double collectors must be consider two sets accordingly.

Type	Weight (kg)	Material	Cat.-No.
KK73-TG	0.22	Plastic	7380075

Application of transfer guides

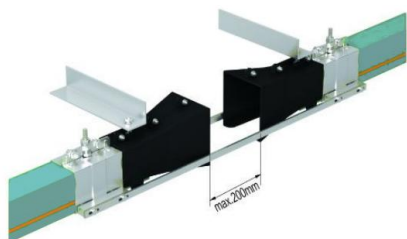


➤ Expansion Section

Expansion sections are used to supplement the expansion difference between the insulating shell and the copper conductor rail due to temperature changes, without interrupting the power delivery. Expansion joints are used when the length of the conductor rail exceeds 20 m between power feeds, bends, guide end caps and other fixed joints.

Type	Cat.-No.
KK73-PZJ	7380175

➤ Compensation Section with Transfer Guides



Type	Cat.-No.
KK73-TS	7380275

The transfer guides can absorb the expansion and contraction of the conductor rail length caused by temperature changes more effectively, therefore, they can be used as a compensation section. The compensation section includes two transfer guides and two 50cm conductor rails.

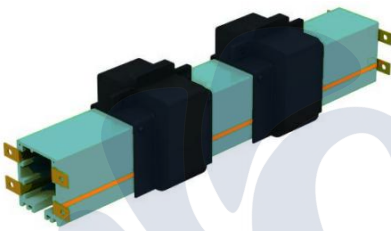
Conditions for using transfer guides

- The conductor rail system length exceeds 150m.
- There is large temperature difference or conductor rail will cross indoor and outdoor areas.
- When the hot compensation section cannot meet the requirements.
- When the distance between two arcs exceeds 30m.

Precautions for using transfer guides

- The running of the current collector requires a spring synchronizer to drive.
- Two separate collectors are required, and the distance between the two collectors should be at least 500mm
- The transfer guides should be installed between two fixpoint hangers or anchor Hangers. Other parts can use sliding hangers.

➤ Conductor Dead Section



Type	Cat.-No.
KK73-JXD	7380375

The conductor dead section is 3-5 mm isolating piece, used with bend joints.

If you need this part, please tell us which conductor should be disconnected. Then it will be directly assembled by us in the factory.

transfer guides can absorb the expansion and contraction of the conductor rail length caused

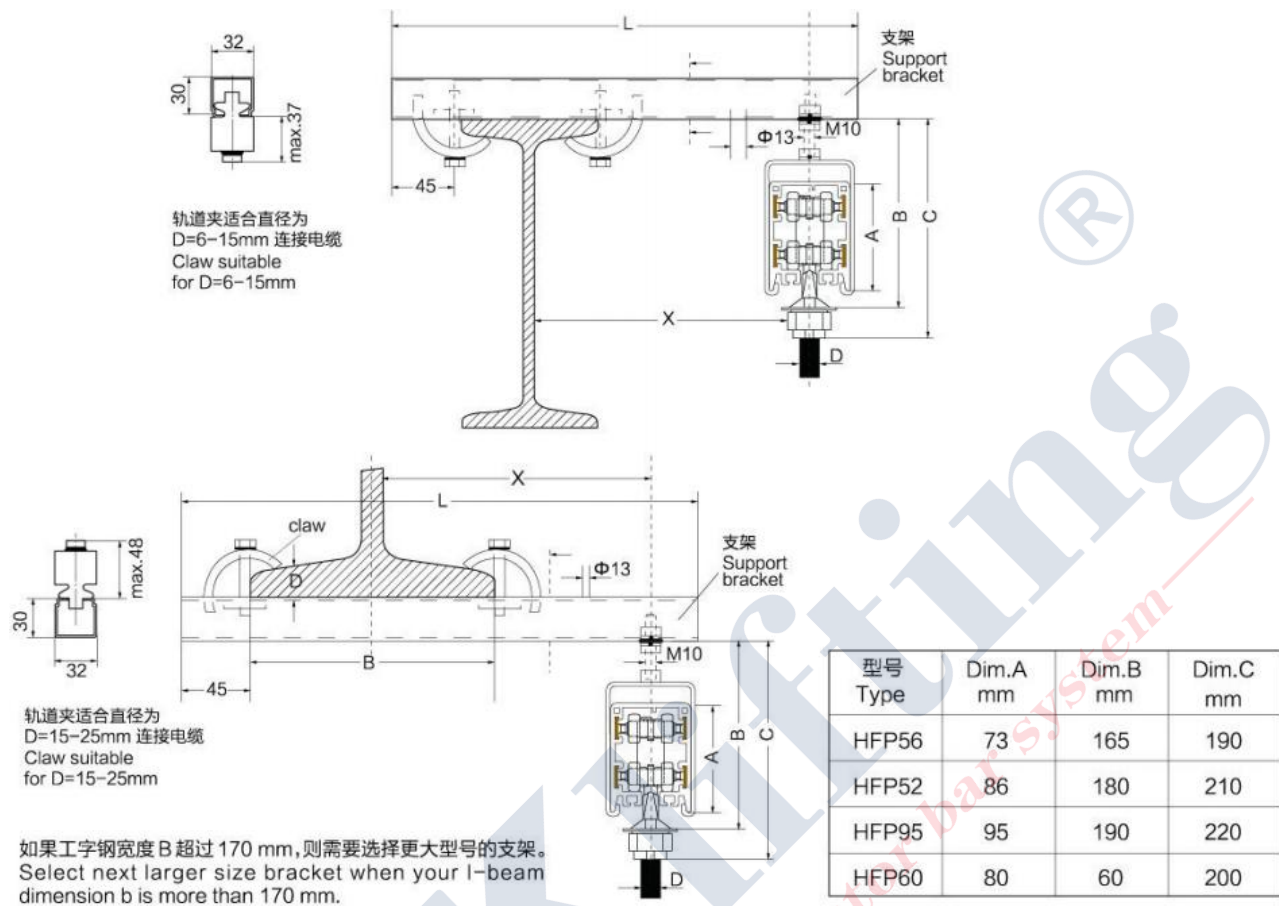
➤ Anti-Condensation Section

The anti-condensation section will be used where conductor rails are passing from indoor to outdoor, to prevent condensation of the outside mounted conductor rail. The warm air from indoors can escape through the anti condensation section.

The anti-condensation section will not interrupt the power supply on the conductor rail.

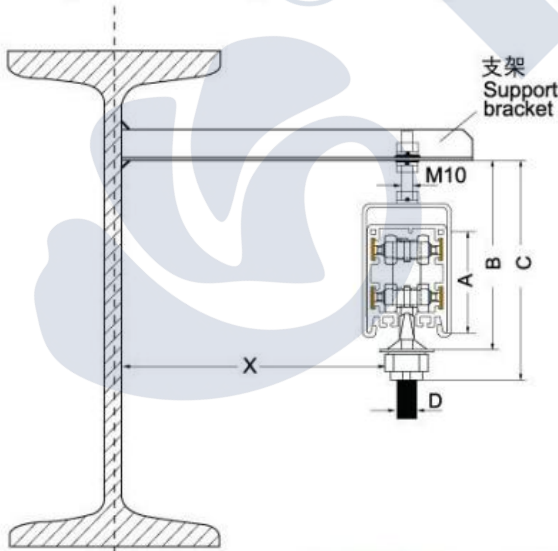
There is special bolted joints at both ends on this section.

Installation Diagram



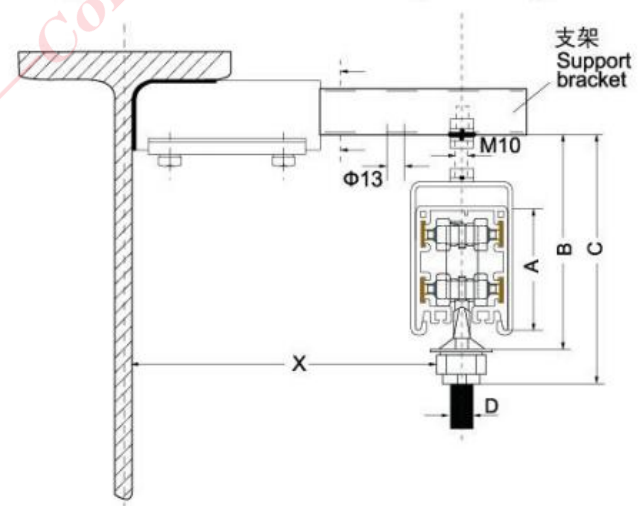
角钢支架焊接式安装

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)



Calculation

Please offer these information if you need our products.

Company Name: _____ Contact _____
Project: _____ Address: _____
E-mail: _____ Project: _____
Telephone: _____ Fax: _____
Date: _____

1. Type of crane/machine to be electrified: _____
2. Voltage: _____ Volts $\sim/\equiv$: _____ Phases: c/s: _____
3. Length of conductor system: _____
4. Number of conductors required:
_____ power lines: _____ control lines: _____ neutral (ground): _____
5. Indoor: _____ Outdoor: _____
6. Special site conditions (humidity, dust, chemical influence etc.): _____
7. Temperature conditions: _____ °C min., _____ °C max.
8. Type of conductors preferably wanted: _____
9. Number and position of feeder points: _____
10. Mounting position envisaged: _____
(prints and sketches should be submitted whenever obtainable)
11. Number of cranes / machines fed from the one system: _____
12. Ampere load of each crane / machine: _____
13. Other pertinent data: _____

For curved tracks, breaks in system etc. please submit prints and sketches.

Motor (please mark run simultaneously and at the same time start the motor)	Crane 1						
	P/(KW)	Rated current			Starting current		
		A	COS ϕ^N	%ED	A	COS ϕ^A	Start Method
Main Hoisting							
Aux. Hoisting							
Main Traverse							
Aux. Traverse							
Main Travel							
Aux. Travel							
Slewing							
Luffing and any other Service							
The type of motor: K:Squirrel-cage motors; S:Slip-ring motors; F:Inverter motor							

Motor (please mark run simultaneously and at the same time start the motor)	Crane 2						
	P/(KW)	Rated current			Starting current		
		A	COS ϕ^N	%ED	A	COS ϕ^A	Start Method
Main Hoisting							
Aux. Hoisting							
Main Traverse							
Aux. Traverse							
Main Travel							
Aux. Travel							
Slewing							
Luffing and any other Service							
The type of motor: K:Squirrel-cage motors; S:Slip-ring motors; F:Inverter motor							

Contact

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Phone: 0086-312-3152365

Email: Sales@klifting.com

Website: www.klifting.com

For further information of KK Enclosed Conductor Bar system, please contact us in the above ways.

We commit ourselves to constant improvement of our design and processing of the products.

We keep the right of perfecting the instruction book and the product design to achieve the goal.

It's important to select the suit Safe Conductor Bar for each application. Otherwise it will cause serious consequences , such as property damage or personal injury.