HIGH-TRO-REEL SYSTEMS CAB

CERESTECH

Introduction of products

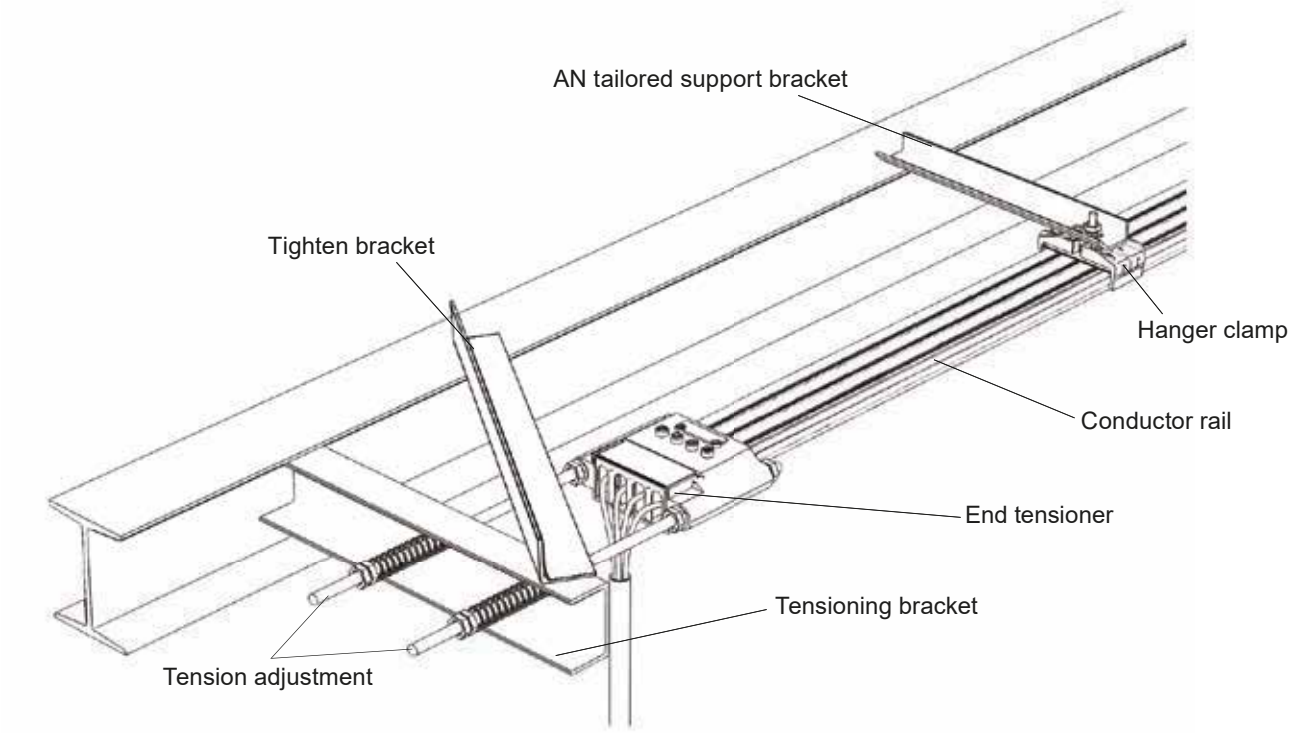
With FMS, unmanned factory, increasing the degree o f automation of the device, the miniaturization of the conductor rail system, ease of installation, high-speed stability is extremely important. To meet the needs of market development, we has successfully developed the CAB series seamless conductor rai system, the system has the followi ng advantages, run smoothly, high speed, low noise, powered way arbitrariness.

CAB

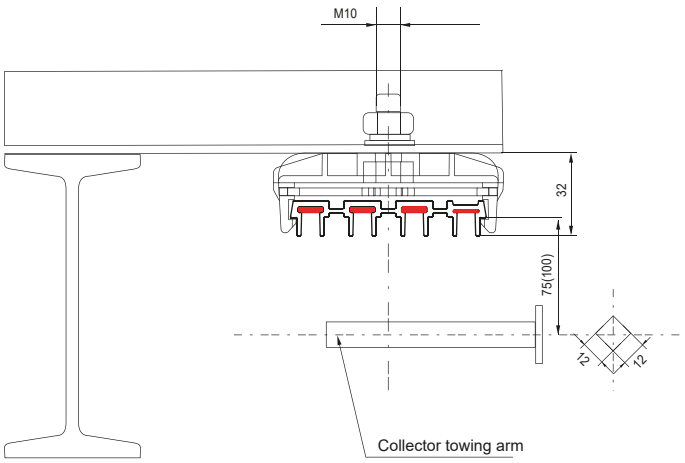
Contents

Installation View

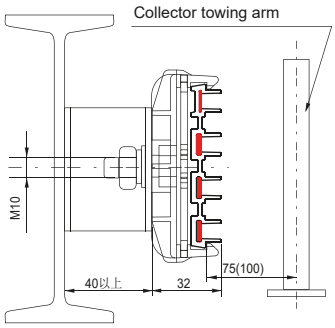
- Supply 1000m conductor without any joint.
- Installation easily and quickly.Offer 3P, 4P (50A ，80A, 100A, 120A, 140A) Five types, with the load matching, selection and utilization economically. Meanwhile 3P, 4P can be combined into the 6P and above types.



Standard Installation



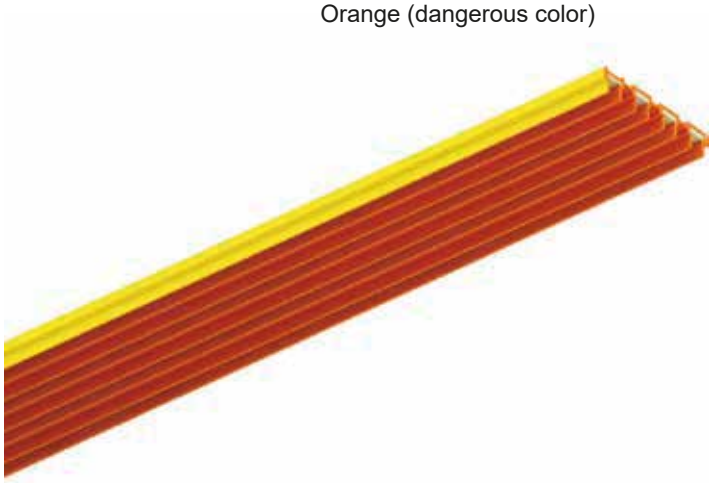
Horizontal installation



Vertical insatllation

CAB4P Body (indoor only)

- Rating：4P；660V　50A~120A
- Conductor material: copper
- Insulation jacket Material: Rigid PVC (heat resistance: 75℃)
  Orange (dangerous color)



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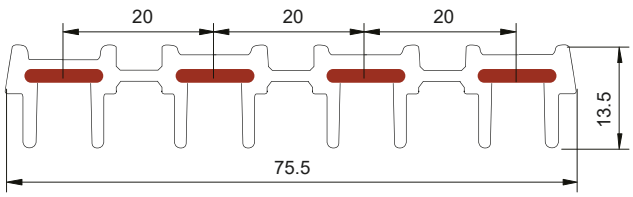
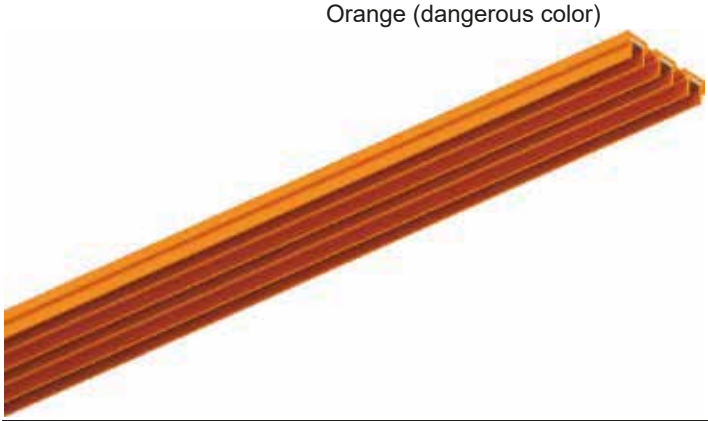


Type	Poles	Conductor cross section(mm^2)	Max.current(A)	Cat.-No.
CAB4-50	4	4×1 0mm^2	50A	761004
CAB4-80	4	3×1 5mm^2+1×10 mm^2	80A	761504
CAB4-100	4	3×2 0mm^2+1×1 0mm^2	100A	762004
CAB4-120	4	3×2 5mm^2+1×12. 5mm^2	120A	762504
CAB4-140	4	3×3 5mm^2+1×1 5mm^2	140A	763504

CAB3P Body (indoor only)

- Rating：3P；660V　50A~120A
- Conductor material: copper
- Insulation jacket Material: Rigid PVC (heat resistance: 75℃)
  Orange (dangerous color)



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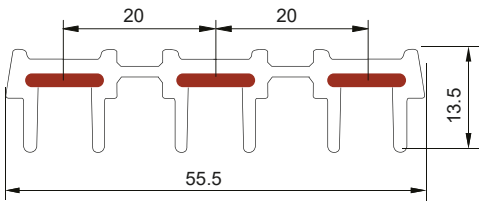
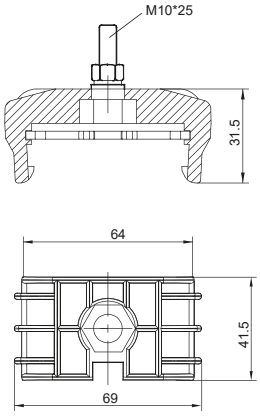


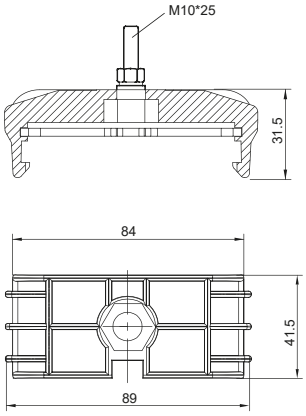
Type	Poles	Conductor cross section(mm^2)	Max.current(A)	Cat.-No.
CAB3-50	3	3×1 0mm^2	50A	761003
CAB3-80	3	3×1 5mm^2	80A	761503
CAB3-100	3	3×2 0mm^2	100A	762003
CAB3-120	3	3×2 5mm^2	120A	762503
CAB3-140	3	3×3 5mm^2	140A	763503

Hanger Clamp

For 3P



For 4P

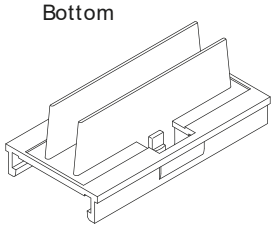


Type	Model	Weight (kg)	Mater al	Cat.-No .
CFAP3	for 3P 50A-120A	0.070	Plastic	768503
CFAP31	for 3P 140A	0.068	Plastic	768513
CFAP4	for 4P 50A-120A	0.080	Plastic	768504
CFAP41	for 4P 140A	0.078	Plastic	768514

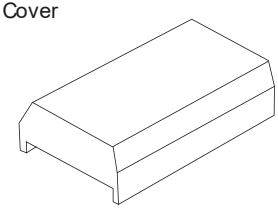
Jointing Box(Line Feeding)

Bended jo nts

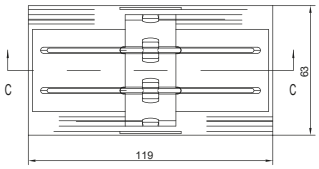
Bottom

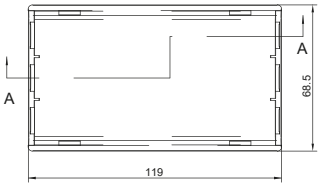


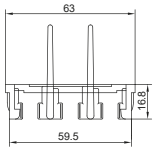
Cover

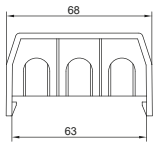


For 3P

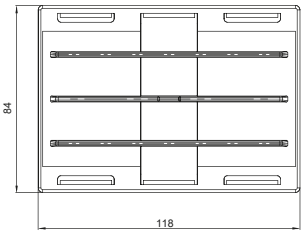


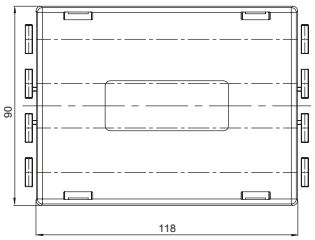


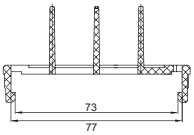


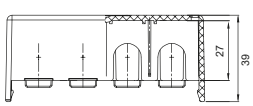


For 4P



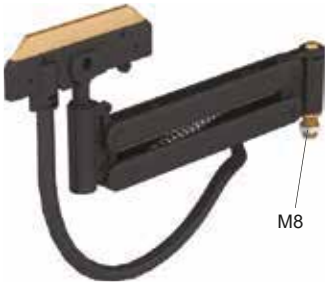




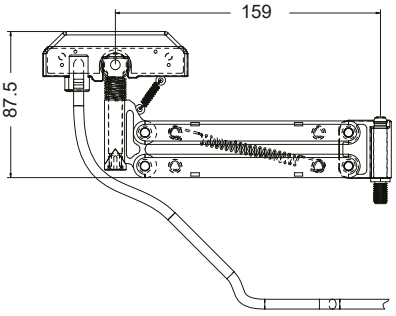


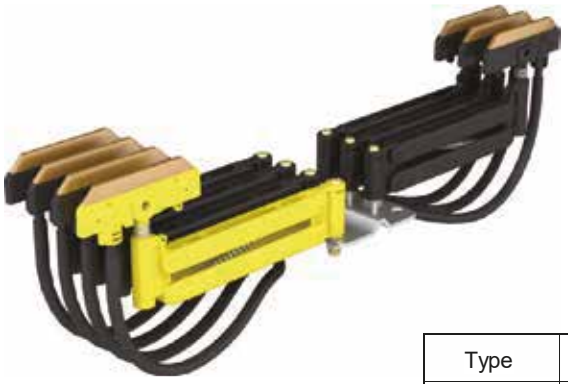
Type	Model	Rating	Weight (kg)	Cat.-No.
CFBK3	3P, bended joints	3P660V100A	0.20	768303
CFBK4	4P, bended joints	4P660V100A	0.25	768304

Collector

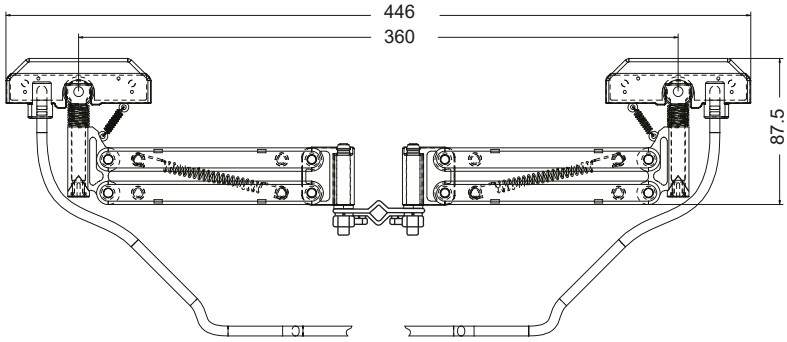


Single collector CRAK



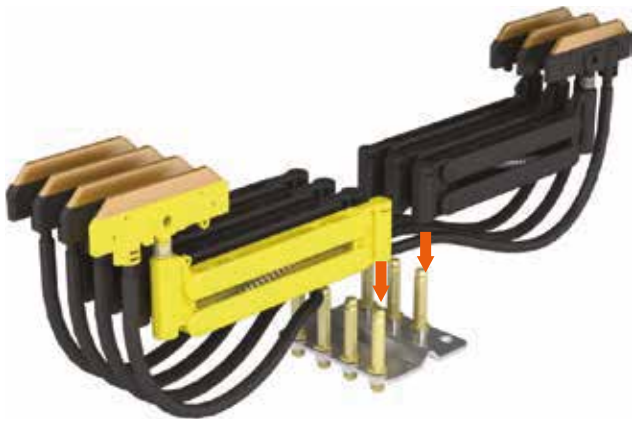


Double collector CRAF



Type	Rating	Weight (kg)	Material	Cat.-No.	Remark
CRAK	660V60A	0.17	Plastic & Carbon	769060	Phase
CRAKN	660V60A	0.17	Plastic & Carbon	769065	Neutral
CRAF	660V120A	0.34	Plastic & Carbon	769080	Phase
CRAFN	660V120A	0.34	Plastic & Carbon	769085	Neutral

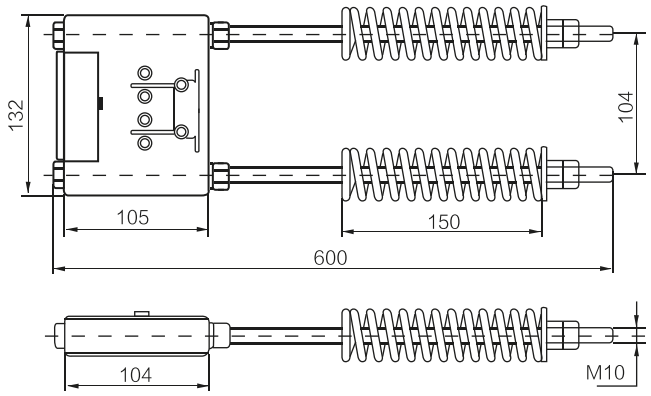
Towing Bracket



collector ready Installed

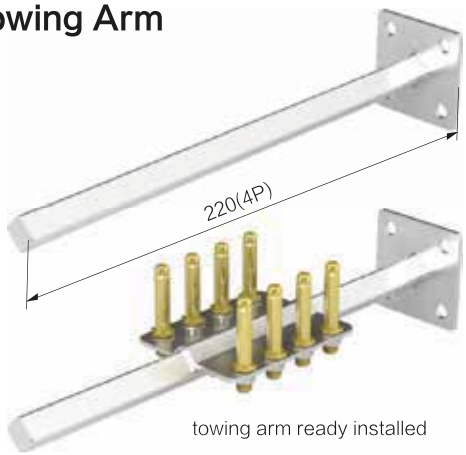
Type	Model	Weight (kg)	Material	Cat.-No.
CFTB103	For 3F	0.122	Steel	769103
CFTB104	For 4F	0.168	Steel	769104

End Tensioner (End Feeding)

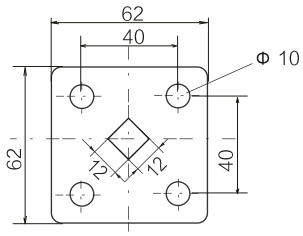


Type	Model		Rating	Weight(kg)	Cat.-No.	Remark
CFT3P	3P	w/o feeding clip	3P660V120A	1.05	768003	each one packed in one package
CFT13P	3P	c/w feeding clip	3P660V120A	1.15	768013	
CFT4P	4P	w/o feeding clip	4P660V120A	1.15	768004	each one packed in one package
CFT14P	4P	c/w feeding clip	4P660V120A	1.30	768014	
CFT31P	3P	w/o feeding clip	3P660V140A	1.15	768023	each one packed in one package
CFT131P	3P	c/w feeding clip	3P660V140A	1.35	768033	
CFT41P	4P	w/o feeding clip	4P660V140A	1.25	768024	each one packed in one package
CFT141P	4P	c/w feeding clip	4P660V140A	1.45	768034	

Towing Arm

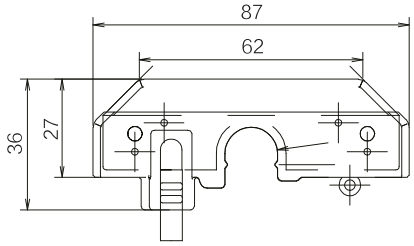


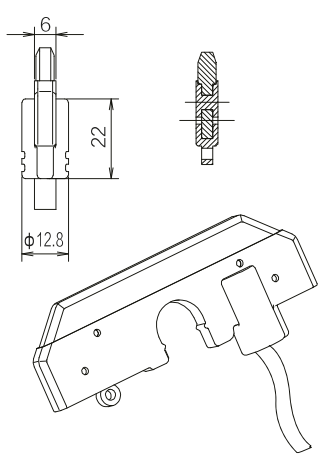
towing arm ready installed



Type	Model	Weight(kg)	Material	Cat.-No.
CFTA133	for 3P	0.58	Steel	769133
CFTA144	for 4P	0.65	Steel	769144

Carbon Brush



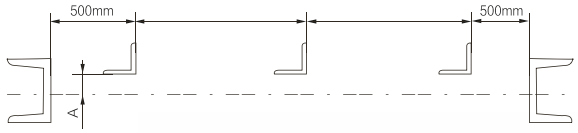


Type	Model	Weight(kg)	Material	Cat.-No.	Remark
CRAKP	For collector	0.075	Plastic & Carbon	769010	Phase
CRAKN	For collector	0.075	Plastic & Carbon	769015	Neutral

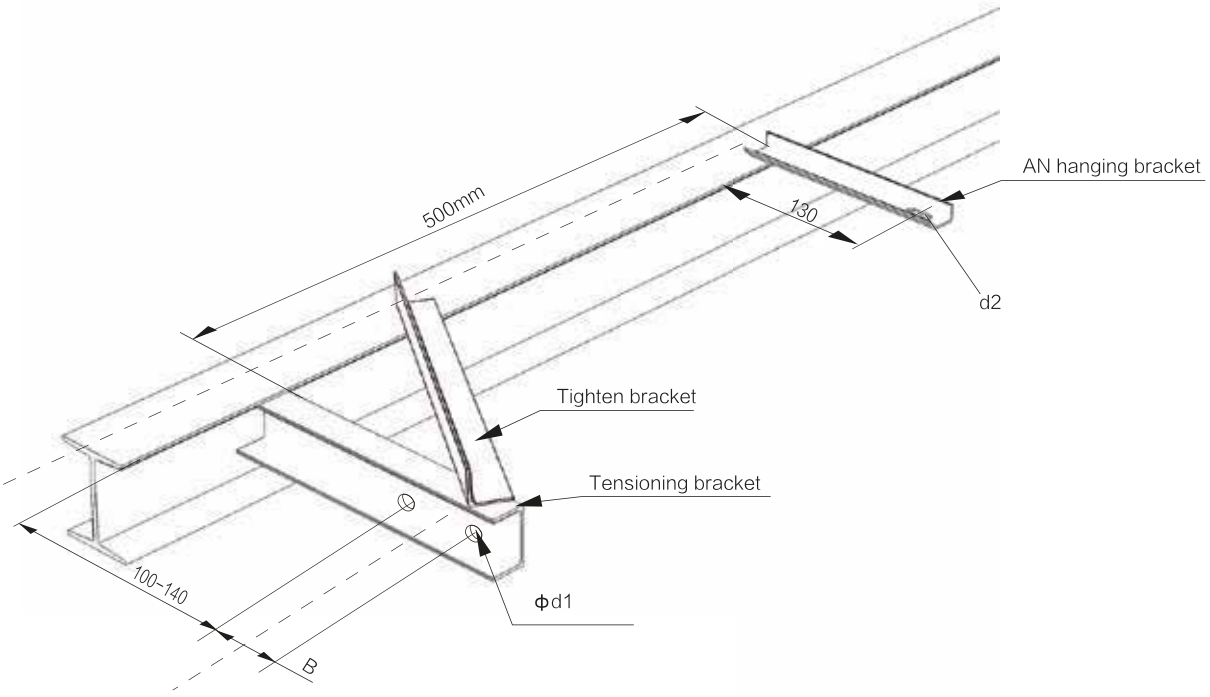
Installation Technical Parameters

1 Basic parameters

a The structure and layout of the hanging bracket and tighten bracket



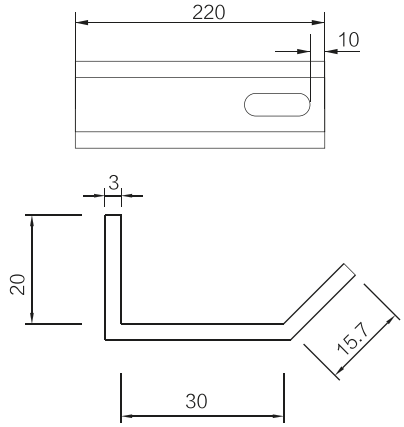
Appilcation Range	A=20



Model	B	C	d1	d2
3P	84	130	11	10.5×30
4P	104	130	11	10.5×30
6P(3P+3P)	182	130	11	10.5×30

installation distance	standard distance 1.2m , max.distance 2m	
type of support bracket	tensioning bracket	[-80 or [-100
	hanging bracket	AN tailored support bracket L-220

AN Tailored Support Bracket



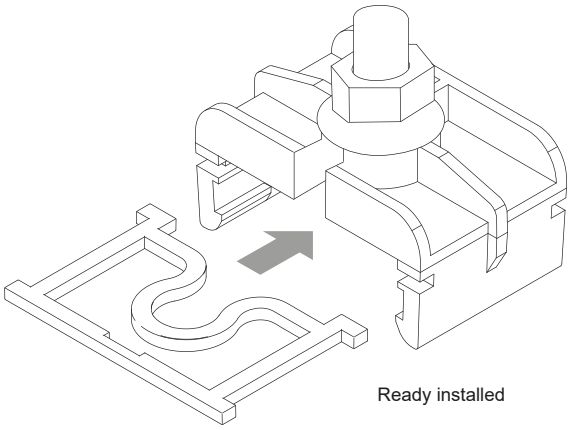
Type	Model	Weight(kg)	Material	Cat.-No.
CRK20	3P,L=200 mm	0.28	Steel	769303
CRK22	4P,L=220 mm	0.30	Steel	769304

Hanger installation

Hanger can be front or side installation.

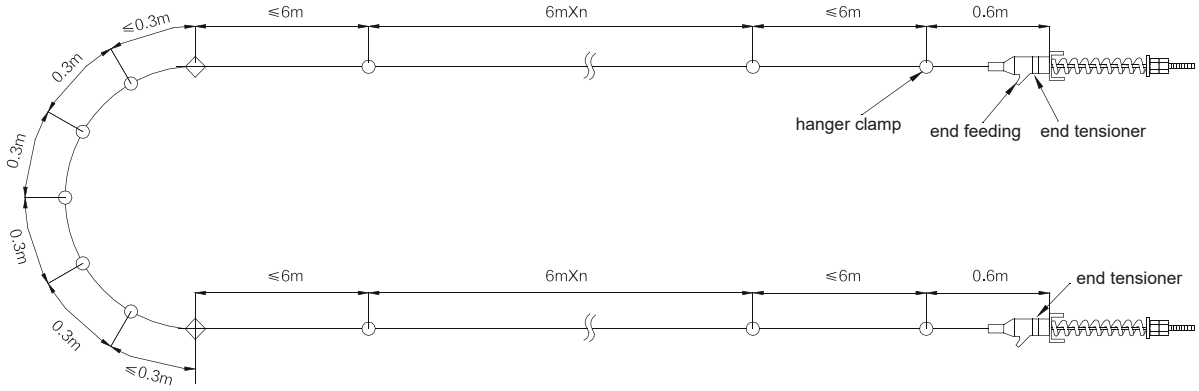
a: Side installation:Insert the tabs into the hanger b ody, position the hanger from the first end of the conductor rail moving to the correct position.

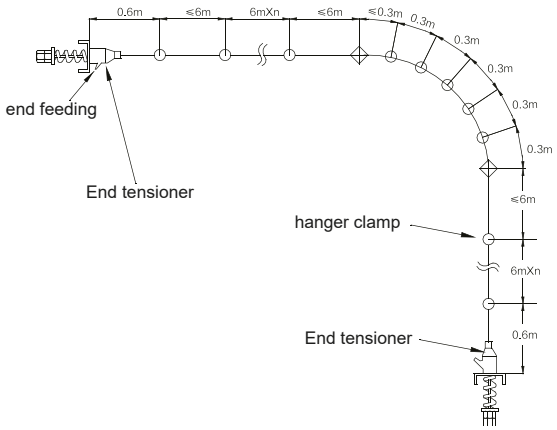
b: Front installation: Iset into the hanger body fr om the top of the conductor rail via 45 ° angle, In sert the tabs into the hanger body slot, when removal,take out the tabs by needle-nose plier s or a screwdriver first, then the hanger body can be removed from the conductor rail.



Ready installed

Special installation



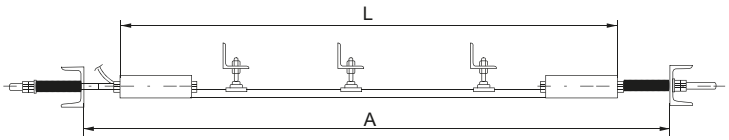


Installation of End Tensioner（End Feeding)

Important notes of the installation

a/ Ready to Install

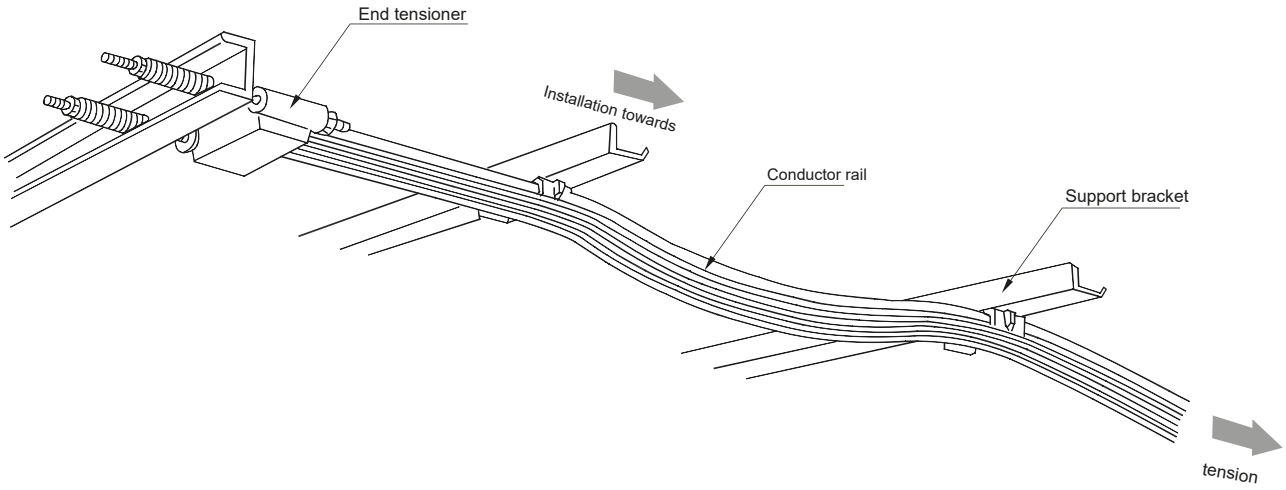
Determine the running distance between two tight brackets as shown in Figure.



Tensioning bracket distance L	A-500 mm

b/ Put the conductor rail right through the tensioner, screws and tighten it.

c/ After tensioner installed on the one end, hang the conductor rail on with a rope, and then pressed int o the hanger and tighten.



Tensioner settings

The size of the tension is related to temperature, and its size should be guaranteed to absorb the cha nge of the conductor rail length which leaded to when the temperature change. For conveniencen of the adjustment,should calculat e to determine the length of the spring after compressing.

$a=140+16.6\times10^{3}\times(T+10)\times L\pm15$ mm

T:environmental temperature when install , ℃

L:effective length of the conductor rail m

effective length of the conductor rail: 1/2 of the total length,when install spring on the ends.

Installation of Jointing Box（Line Feeding)

The installation of the bend connectors

Shell stripped 30mm, bend the Copperbelt 90 ° via pliers, insert it into the jointing box and tighten the screws. The jointing box can be used for power supply.

After stipping the conductor rail shell which need to connect,to insert the copper strips into dedicated joint, and then 90 degrees bending, bending of the standard 3cm in height and be limit ed to 3.5cm, and then tighten the screws. If power needed, screw the connect cable joint directly on the screw as shown in Figure,then drill on the top of the jointing box cover, and install waterproof cable connector,drag the lead out cable out of the waterproof joints.

Tip: The screws must be fully tightened.

Fig. 1

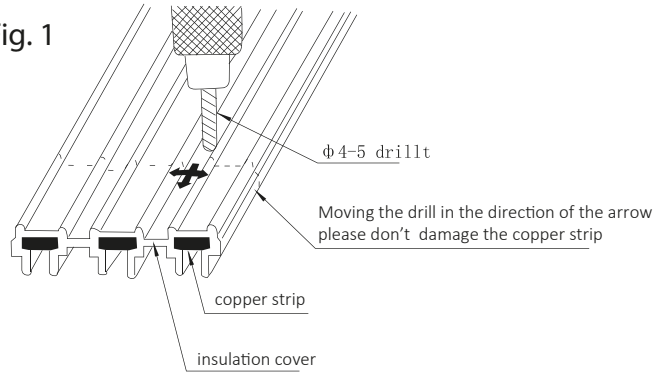


Fig. 2

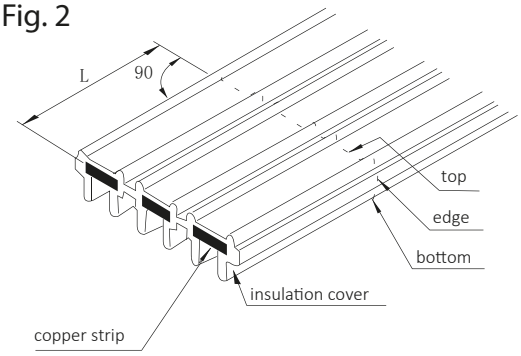


Fig. 3

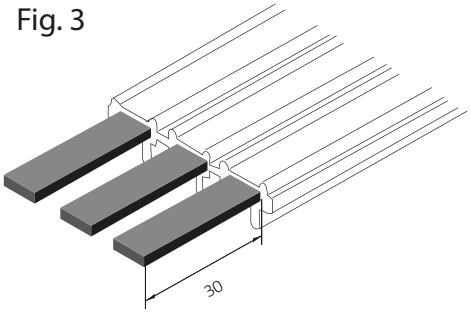


Fig. 4

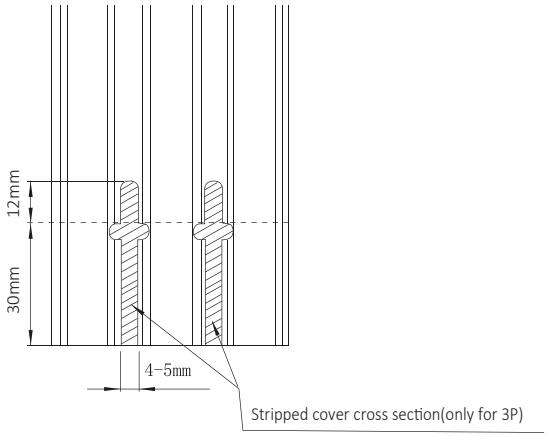
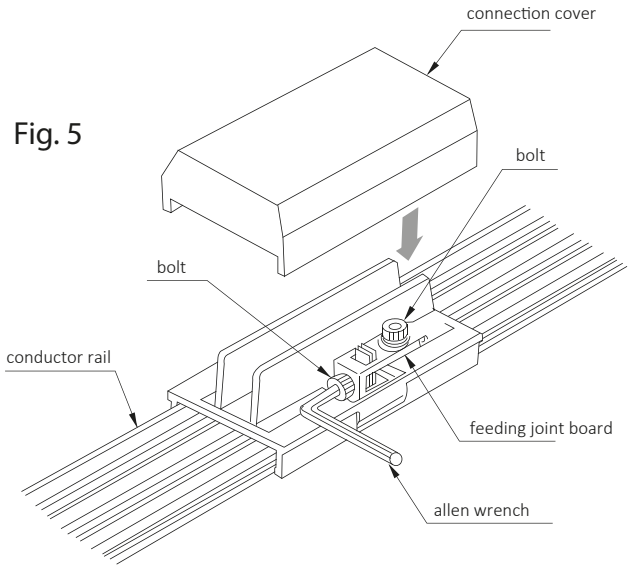


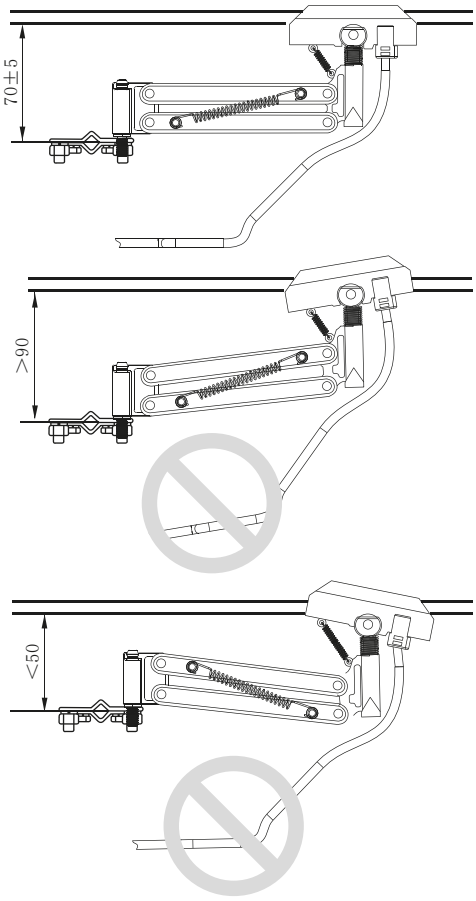
Fig. 5



Installation of Collector

a. The installation of the current collector: Dedin e the length of the tractor unit according to the amount of electrode and installati on space. 70±5mm distance should be ensured in distance between the upper end and down end of the conductor rail,it is only natural that support arm parallel to the slip line when the collector installed.(refer to the installation drawing of the conductor rail for more detail).

b. Inspection: Inspect the depth of parallelism bet ween the conductor rail and operation guide of the hoisting unit and control th e depth within 20mm, make a test run and check the running state of the flake p assing through each nodal point,tighten all the fastening piece if some probl ems occurs,dry run one month without interval and tighten all fastening pieces again.



Installation and maintenance

To find the installation path according to the collector size for installation.
If necessary,dust removal for the copperbelt by brush.

Other Considerations

▲To test run not less than 10min after installation done, and check throughout the operation.

▲Run for a month, to check the operation of each piece, if necessary, tighten each fasteners.

Especially to check the operating position of the collector, to ensure it's within the effective adjustment range.

▲If it's hard to determine the installed size of the collector when installation,the collector rail should be paralleled to the conductor rail in order to meet the requirement of the installation.

▲Tensioner spring shall not be overextended and need to leave room for expands with heat and contract swith cold of the conductor systems, It should follow the principle of" loose in Summer and tight in Winter",

Generally it will be subject to that the tensioner spring adjust until a slight deformation appeared on the conductor rail when determine via unaided eye (and then loosen the spring slightly).