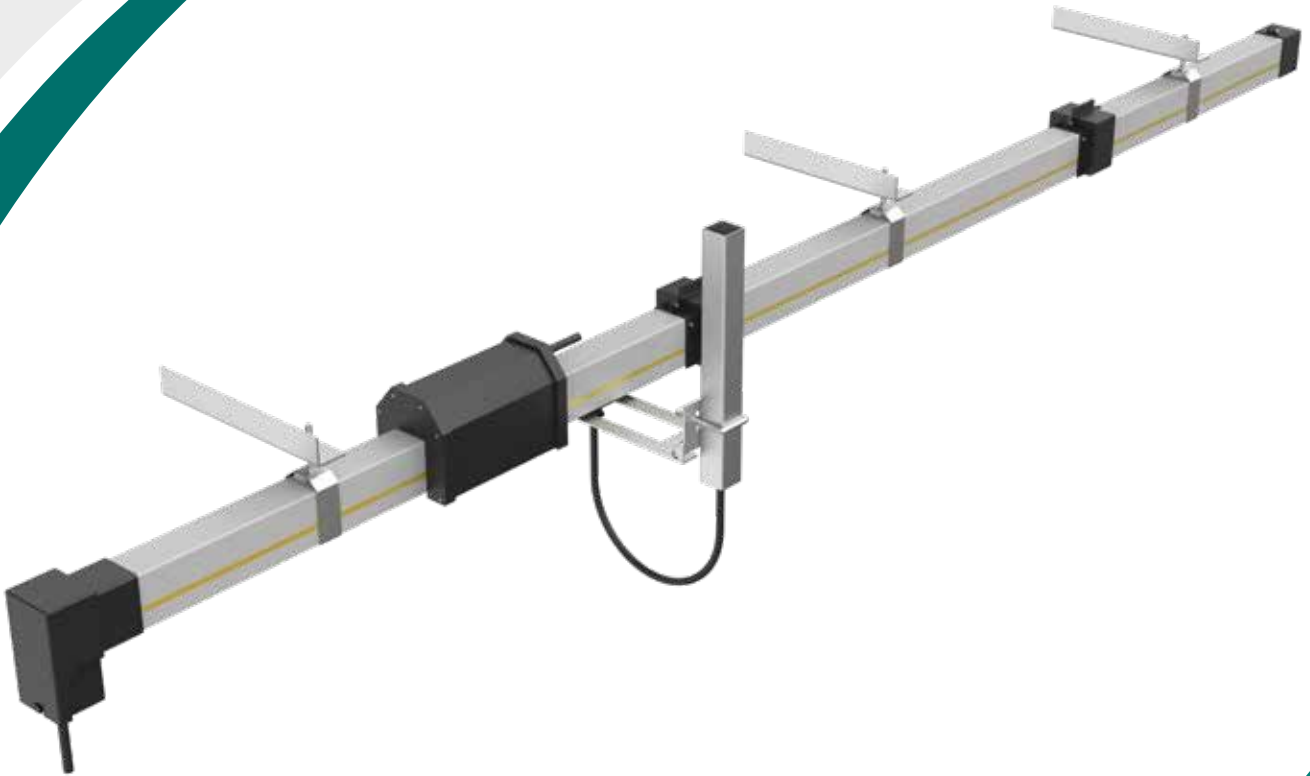


POWERRAIL ENCLOSED CONDUCTOR SYSTEMS



General

Powerail Enclosed conductor rail system is a powerail, protected from contact (IP 23), 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.

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

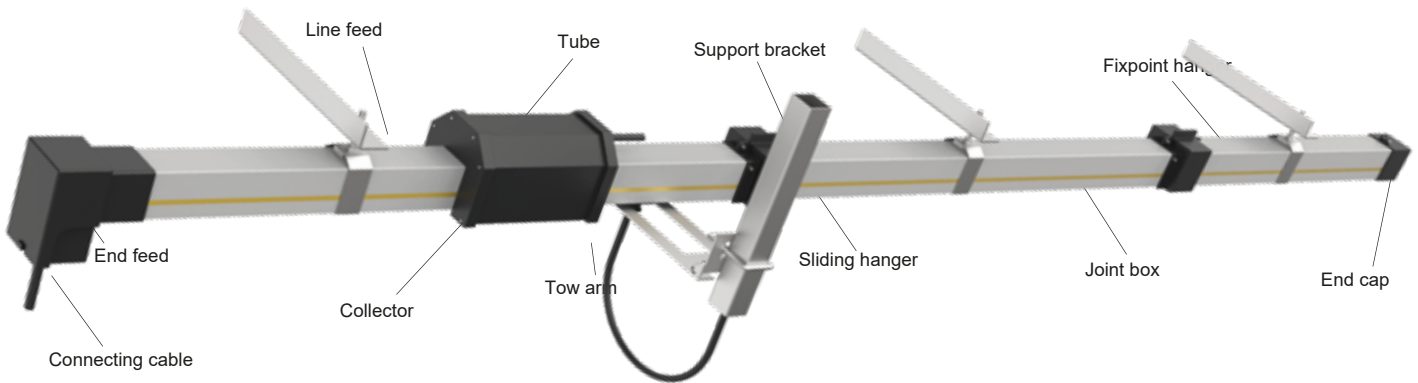
The main is transferred by spring-stored carbon brushes.

Type CKB-P: not include Sealing strip, with factory-mounted flat copper band and bolted-operated plug connectors .

Type CKB-R: Curves for $R \geq 800\text{mm}$, with factory-mounted flat copper band and screw connectors.

Approved and listed by:CCC, ISO9001 and CE.

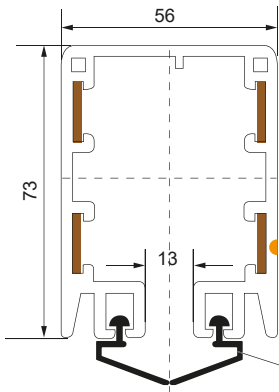
System photo



Technical data

Electrical properties:		Mechanical properties:	
Max.current	240A	Flexible strength	75N/mm ² ±10%
Max.voltage	660V	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 Temp. Housing	-10℃ up to +115℃
Leakage resistance	CTI600-2.7	Low Temp. Housing	-40℃ up to +80℃
Combustibility:			
flame retardant	B1		
self extinguishing	Class B1-no flaming particles,self-extinguishing		
Resistance to chemicals:	+45℃		
	Gasoline	Sulphuric acid 50 %	
	Mineral Oil	Caustic soda 25%&50%	
	Grease	Hydro-chloric acid, concentrated	

TYPES TECHNICAL DATA ORDER NUMBERS



Conductor code

CKB56
CKB56-4-n/m

CKB56 = powerail enclosed conductor

4= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper

① = 14.5 mm

② = 17.6 mm

③ = 21.0 mm

sealing strip(Be ordered separately)

Length

4m is standard length,other lengths are available,but not be exceeding 6 m.

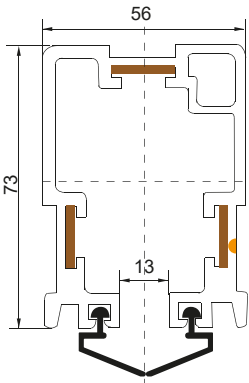
Curves

min. R=0.8m

Support spacing

for straight runs 1.2m.

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
CKB56-4-8/35①	4	8	35	35	660	1.944	2.09	560814
CKB56-4-10/50①	4	10	50	35	660	1.656	2.16	561014
CKB56-4-12/65①	4	12	65	35	660	1.321	2.23	561214
CKB56-4-15/80①	4	15	80	35	660	1.137	2.30	561514
CKB56-4-20/100②	4	20	100	33	660	1.011	2.43	562024
CKB56-4-25/120②	4	25	120	33	660	0.713	2.56	562524
CKB56-4-35/140②	4	35	140	33	660	0.522	2.95	563524
CKB56-4-50/170②	4	50	170	33	660	0.337	3.25	565024
CKB56-4-70/210②	4	70	210	33	660	0.265	3.85	567024
CKB56-4-80/240③	4	80	240	30	660	0.223	4.16	568034



Conductor code

CKB56-3-n/m

CKB56 = powerail enclosed conductor

3= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper

① = 14.5 mm

② = 17.6 mm

Length

4m is standard length,other lengths are available,but not be exceeding 6 m.

Support spacing

for straight runs 1.2m.

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
CKB56-3-10/50①	3	10	50	45	660	1.656	1.95	561013
CKB56-3-15/80①	3	15	80	45	660	1.137	2.13	561513
CKB56-3-20/100②	3	20	100	45	660	1.011	2.24	562023
CKB56-3-25/120②	3	25	120	45	660	0.713	2.37	562523
CKB56-3-35/140②	3	35	140	45	660	0.522	2.63	563523
CKB56-3-50/170②	3	50	170	45	660	0.337	3.02	565023

Collector for 4 poles Powerail

AA4-4/25

AA4-4/40



Collector 25A is used for 35A-50A.

Collector 40A is used for 65A-120A.

Connecting cable

25 A, 2.5mm²/core×4

40 A, 4.0 mm²/core×3 + 2.5 mm²/core×1

2.0 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
AA4-4/25	0.65	4	25 A	563125
AA4-4/40	0.70	4	40 A	563140

AA4-4/60



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

Connecting cable

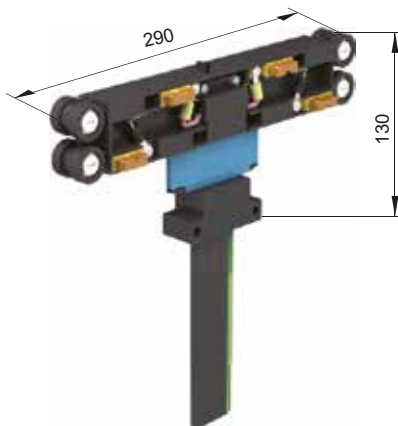
60 A, 4.0 mm²/core×6 + 2.5 mm²/core×2

0.8 m long, longer cables on request.

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

Type	Weight kg	Poles	Power rating	Cat.-No.
AA4-4/60	1.35	4	60 A	563160

AA4-4/80



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

Connecting cable

80 A, (6.0 mm²×2/core)×3 + (3.0 mm²×2/core)×1

1m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
AA4-4/80	1.30	4	80 A	563180

Collector for 4 poles Curves

AA4R-4/25
AA4R-4/40



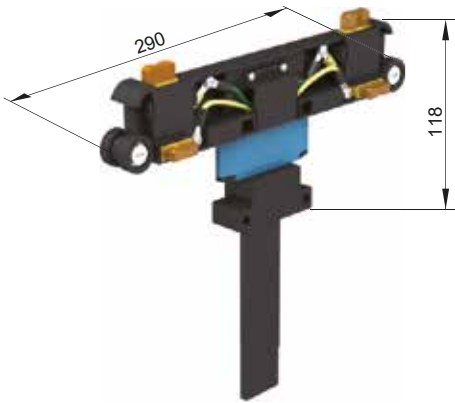
Collector is used for curves ($R > 800$).

Connecting cable

25 A, 2.5 mm²/core×4
40 A, 4.0 mm²/core×3 + 2.5 mm²/core×1
0.8 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
AA4R-4/25	0.50	4	25 A	563325
AA4R-4/40	0.60	4	40 A	563340

AA4-3/60
AA4-3/80



Connecting cable

60 A, (4.0 mm²×2/core)×3
80 A, (6.0 mm²×2/core)×3
1 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
AA4-3/60	0.90	3	60 A	563360
AA4-3/80	1.05	3	80 A	563380

Carbon bursh assembly

CK-25/80



Type	Weight kg	Cat.-No.	Remark
CK-25/80	0.04	563101	Be used for: AA4-4/25, AA4-4/40 AA4-4/60, AA4-4/80 AA4-3/60, AA4-3/80

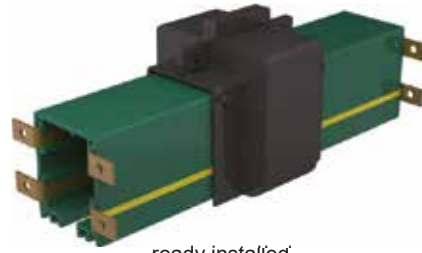
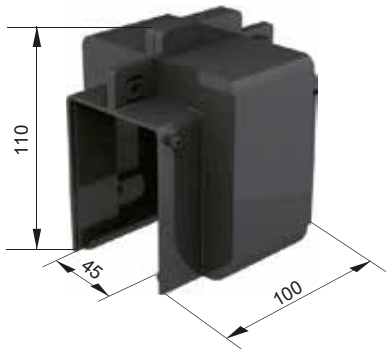
CK-25/80-1



Type	Weight kg	Cat.-No.	Remark
CK-25/80-1	0.04	563102	Be used for: AA4R-4/25, AA4R-4/40

Joining box

Be used with bended joints



ready installed

Type	Weight kg	Material	Cat.-No.
BK556	0.09	Plastic	563401

Self locking, and installed is very easy.

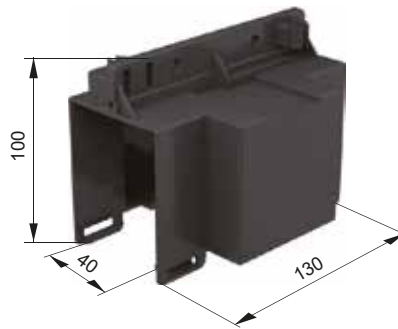
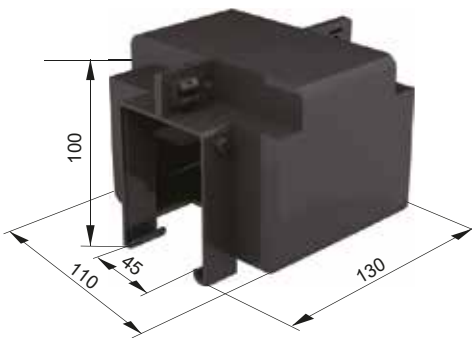
Joining box

Be used with bolted joints

BK566

BK656

Could use with $\phi 3$ mm rubber strip.



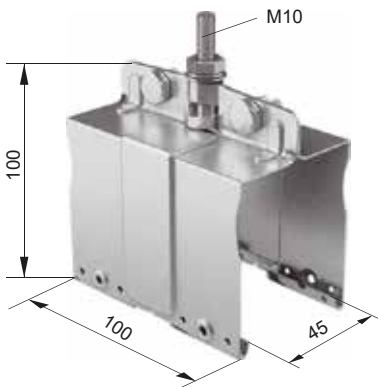
ready installed

Self locking, and installed is very easy.

Type	Weight kg	Material	Cat.-No.
BK566	0.16	Plastic	563405
BK656	0.16	Plastic	563403

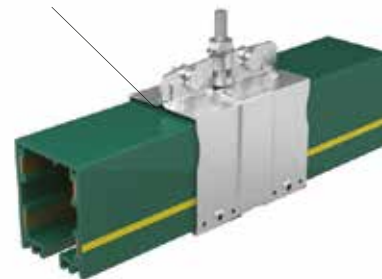
Anchor hanger*

Be used without any joints system



Could be used for joining box

To seal the connection parts with rubberized fabric.



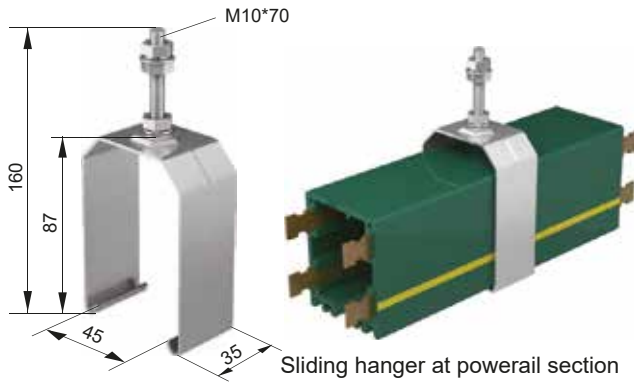
ready installed

Type	Weight kg	Material	Cat.-No.
BK656-S	0.28	Steel	563408

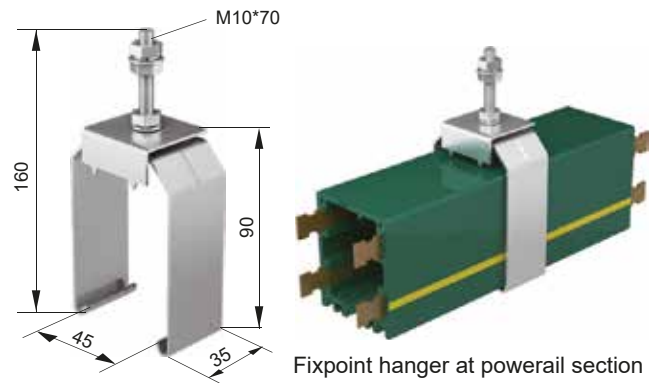
Hangers

Be used with bolted joints

Sliding hanger



Fixpoint hanger



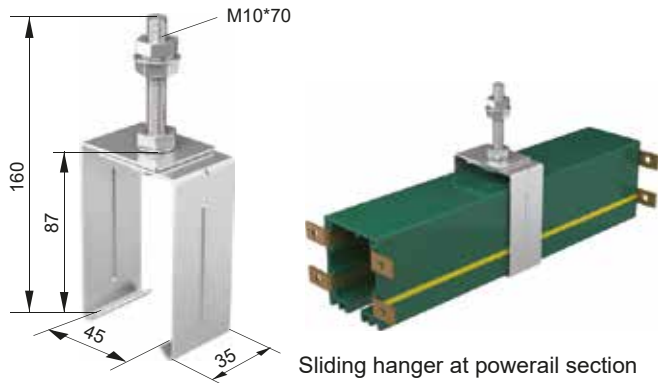
Type	Weight kg	Material	Cat.-No.
CBA56-1	0.19	Steel	563911

Type	Weight kg	Material	Cat.-No.
CBA56	0.22	Steel	563901

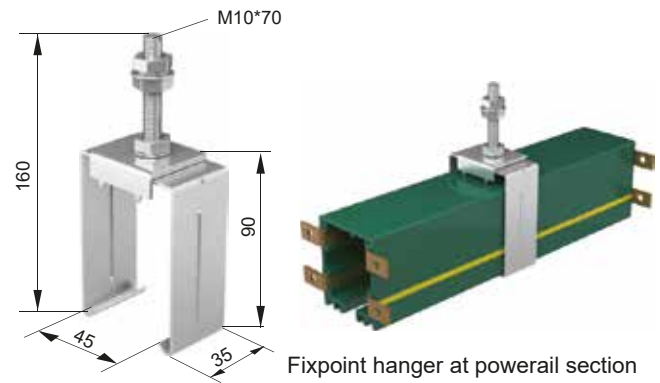
Hangers

Be used with bended joints

Sliding hanger



Fixpoint hanger



Type	Weight kg	Material	Cat.-No.
CBA57	0.17	Steel	563912

Type	Weight kg	Material	Cat.-No.
CBA57-1	0.21	Steel	563902

With bolted joints

With plug in joint(35A to 100A)



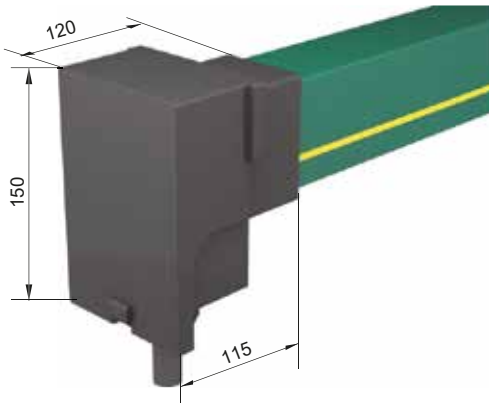
Type	Weight kg	Material	Cat.-No.
CBC-80A	0.042	Steel cover & copper plate	560001
CBC-120A	0.049		560002
CBC-140A	0.053		560003
CBC-170A	0.058		560005
CBC-210A	0.065		560006
CBC-240A	0.085		560008

Bolted joints at powerail section

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

End feed

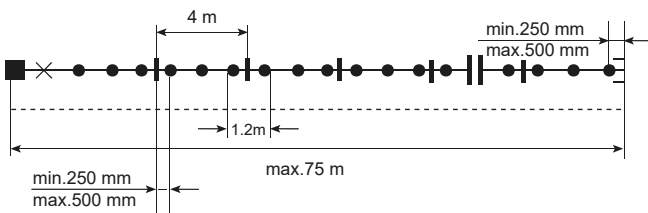
Be used for 35A-240A.



Symbols

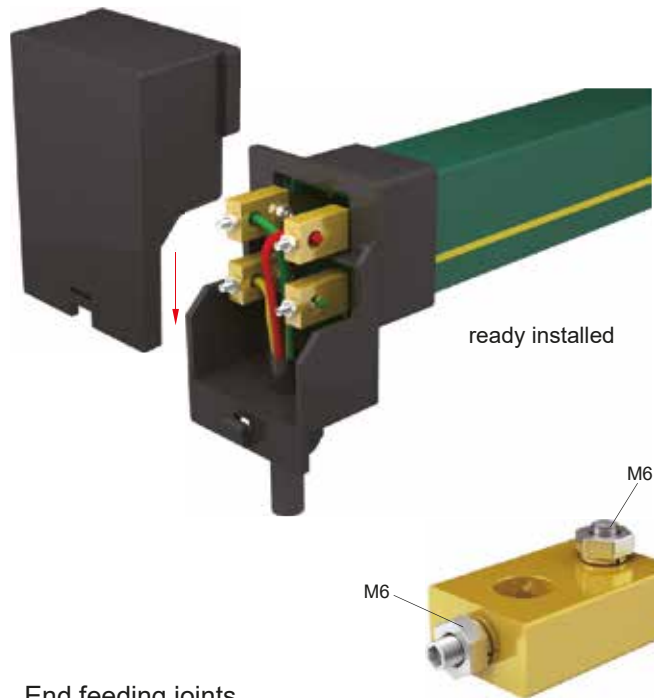
- Powerail
- - - Runway
- +— Jointing materia
- X— Fixpoint hanger
- Sliding hanger
- [] End cap
- End feed
- Line feed
- || Isolating assembly

*Each sliding hanger can be converted to a fixpoint hanger.



Left and right version

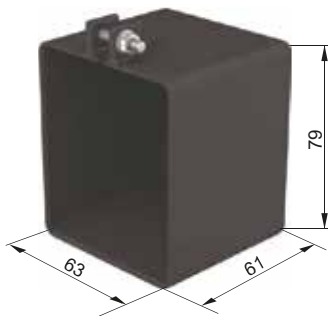
Type	Weight kg	Material	Cat.-No.
CBB56	0.25	Plastic	564685



End feeding joints

Type	Weight kg	Material	Cat.-No.
CBK56	0.06	Brass	560009

End cap

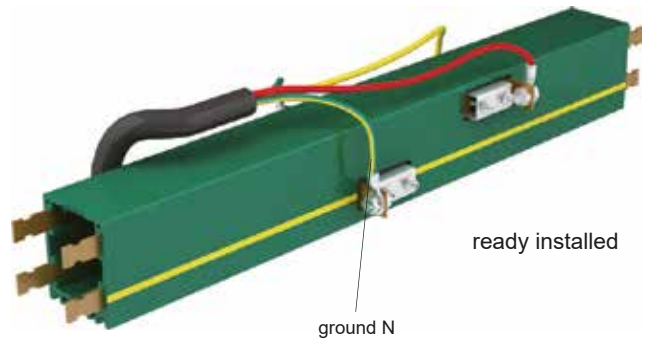


Left and right version

End cap ready installed

Type	Weight kg	Material	Cat.-No.
CSK56	0.065	Plastic	563701

Line feeding (with 0.5 meter powerail)*

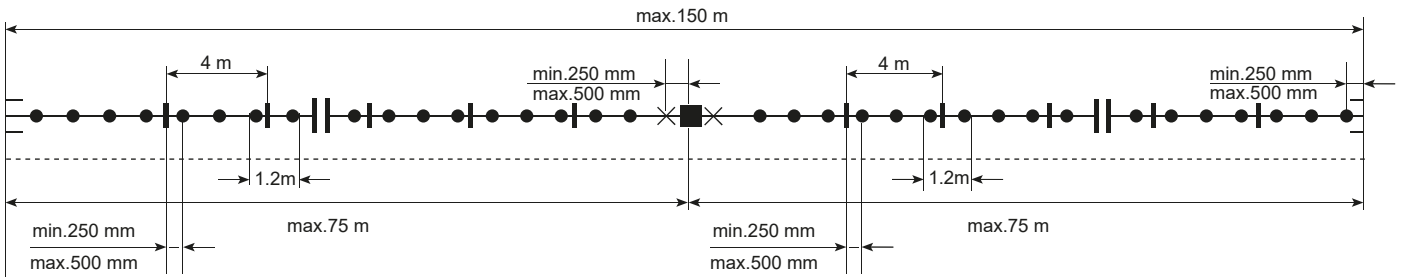


CKB56

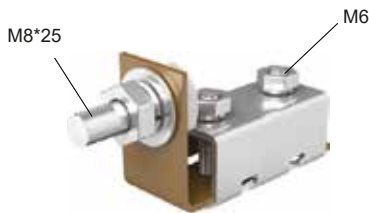
*with 0.5 meter powerail is standard length, other lengths are available, but not be exceeding 4 meter.

**X/m means type of powerail, for example, COB456/50, it means 4 poles, 50 Amp powerail.

Type**	Cat.-No.
COB456/XX	564699



Feeding joints



Led light

Be used for all of MARINA powerail.

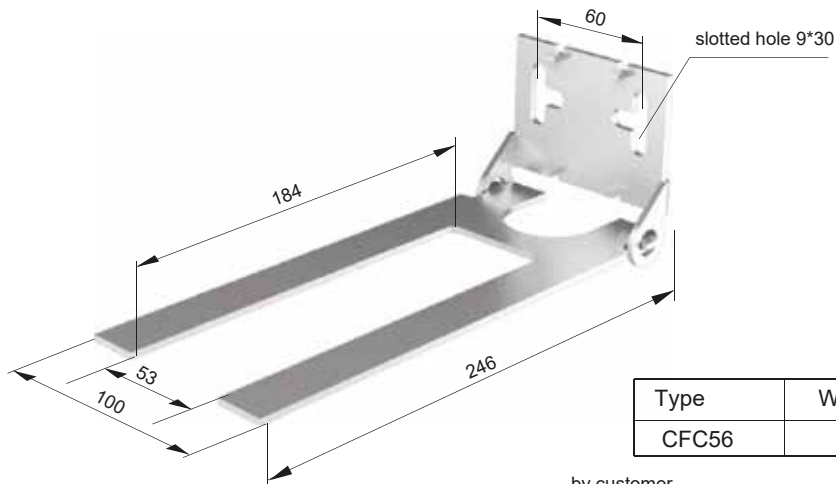


Type	Weight kg	Cat.-No.
56FJ-80A	0.051	560081
56FJ-120A	0.058	560082
56FJ-140A	0.065	560083
56FJ-170A	0.076	560085
56FJ-210A	0.086	560086
56FJ-240A	0.095	560088

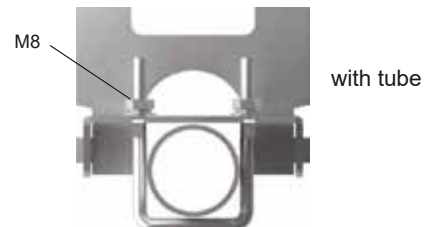
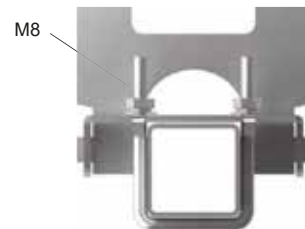
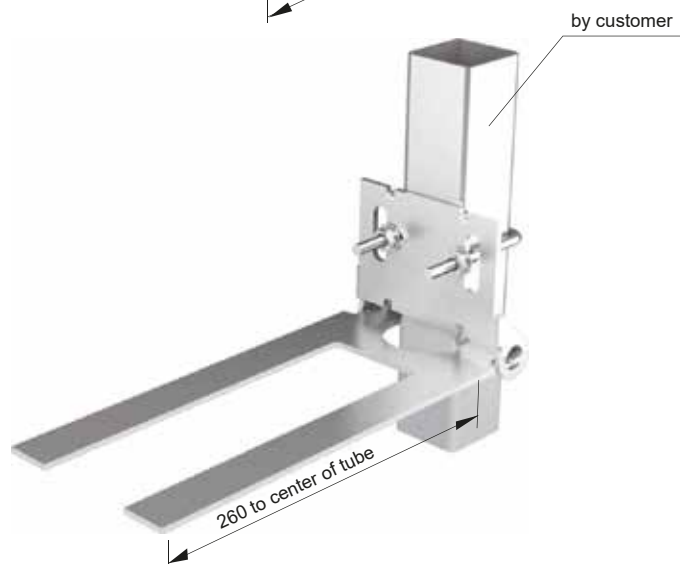
Type	Weight kg	Cat.-No.
56LED	0.28	560098

Tow arm

Could with tube or square hollow profile



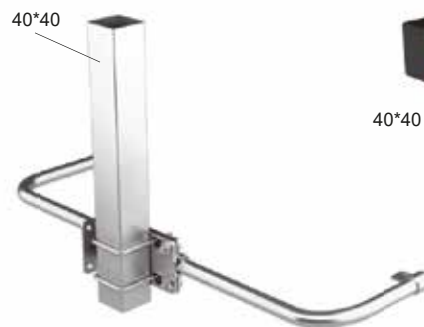
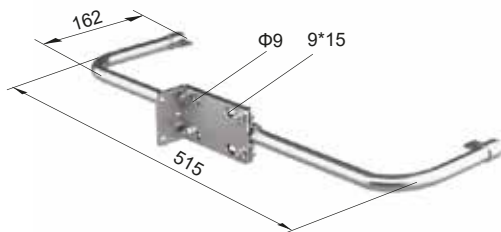
Type	Weight kg	Material	Cat.-No.
CFC56	0.53	Steel	565053



Tow arm

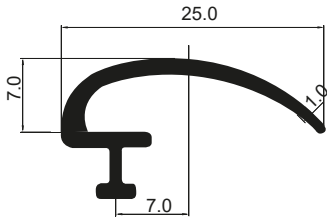
with square hollow profile

with angel steel or channel beam



Type	Weight kg	Material	Cat.-No.
CFC56-1	0.55	Steel	565055

Sealing strip

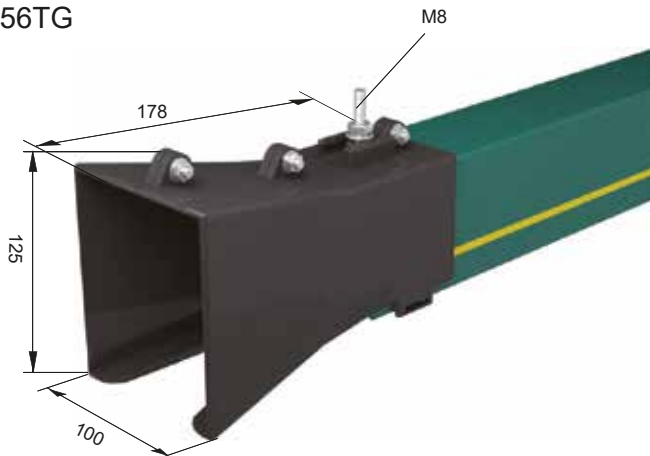


Type	Weight kg	Material	Cat.-No.
CSC	0.065	Plastic	569905

Sealing strip be used for dusty or fireproof ambient, usually 50 meter is one package.

Transfer guides

56TG

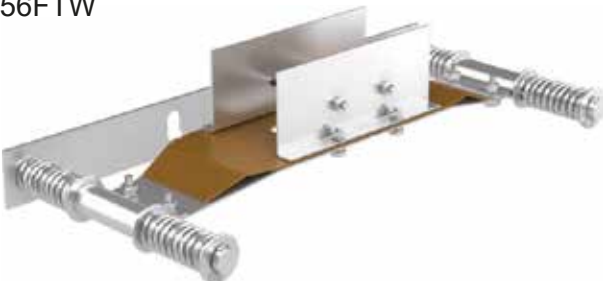


The Powerail is electrically separated into 2 parts by the telescope section. Provide each of these sections with a separate feeding. In order not to interrupt the electrical contact when passing the telescope section, two current collectors of an adequate capacity must be provided with a center distance of at least 500 mm. If in case of higher power consumption double collectors must be considered two sets accordingly.

Type	Weight kg	Material	Cat.-No.
56TG	0.22	Plastic	563756

Flexible tow arm

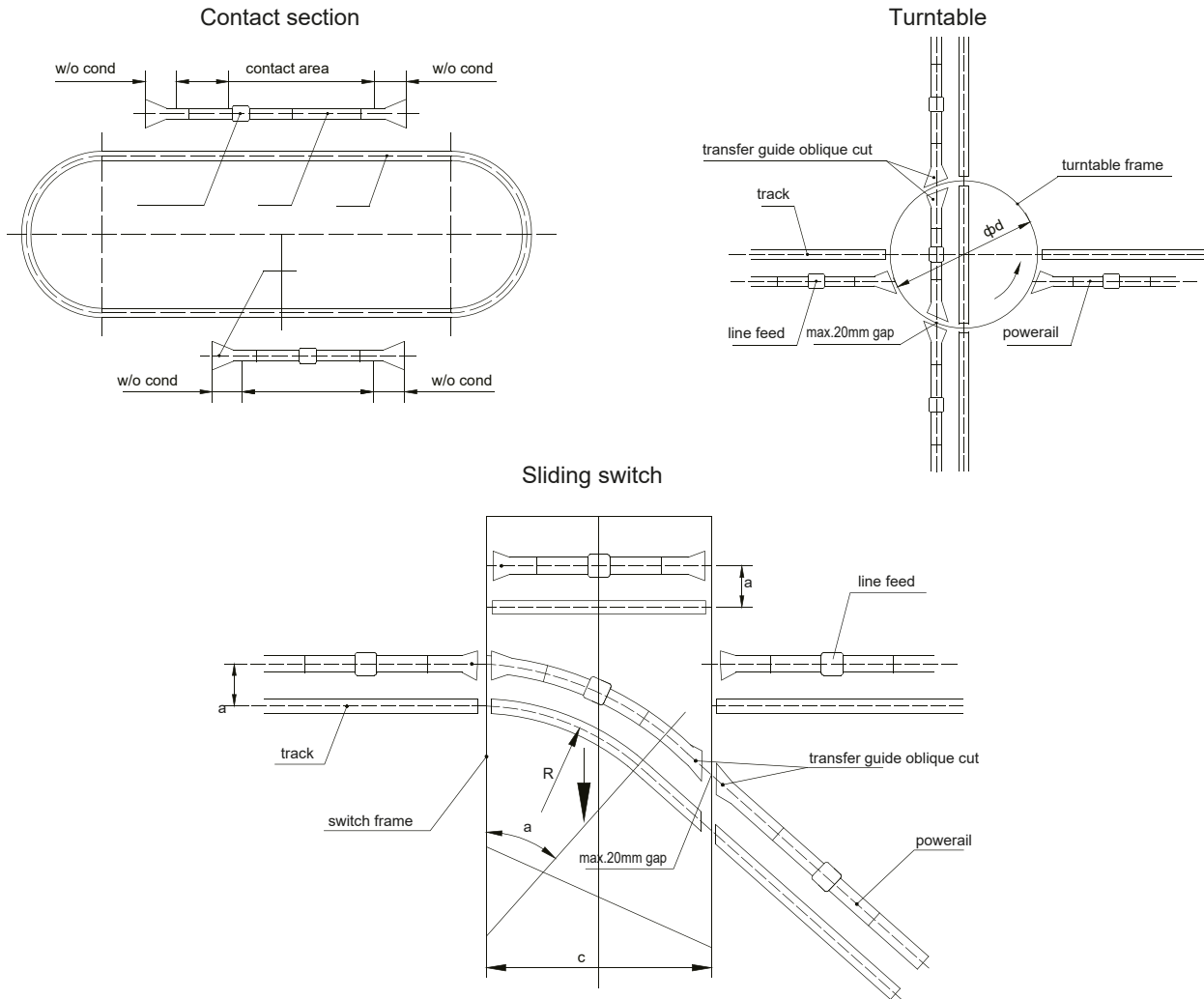
56FTW



Type	Weight kg	Material	Cat.-No.
56FTW	1.35	Steel, Copper, Stainless steel	565080

Application of transfer guides

CKB56



Expansion section

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.

Expansion joints are used when the Powerail length between feeds, curves, switches or other fix points is exceeding 20 m.

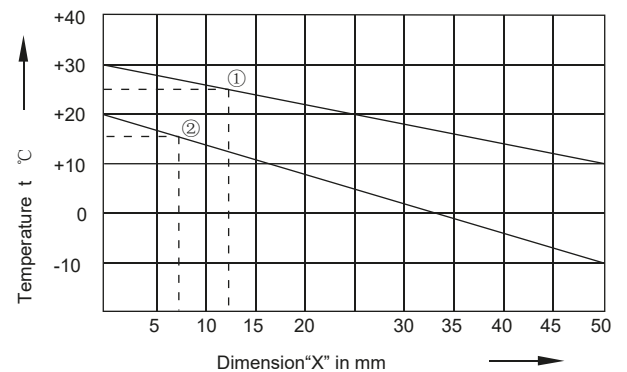
Type	Cat.-No.
56ES	563575

The gap dimensions 'a' depends on the ambient temperature during installation. See adjacent diagram and example.

Example:

① $\Delta t = 20^\circ\text{C} (+10^\circ\text{C}/+30^\circ\text{C})$, $t = 25^\circ\text{C}$ $X = 12.5\text{mm}$

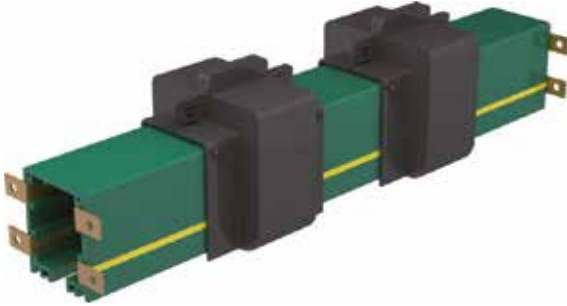
② $\Delta t = 30^\circ\text{C} (-10^\circ\text{C}/+20^\circ\text{C})$, $t = 15^\circ\text{C}$ $X = 7.5\text{mm}$



Special components

Conductor dead section

Be used with bended joints



3-5 mm isolating piece

Picture shows a conductor dead section.

Please advise us which conductors should be disconnected.

The dead section comes factory assembled.

Type	Cat.-No.
56CDS	566030

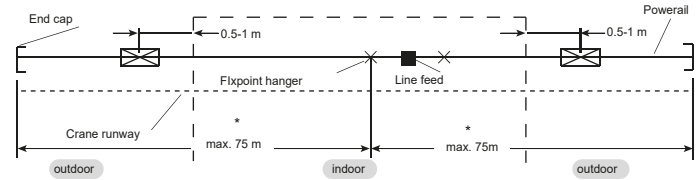
Anti-Condensation Sections

with special bolted joints at both ends.

Application

The anti-condensation section will be used where Powerails are passing from indoor to outdoor, preventing condensation of the outside mounted Powerail.

The warm air from indoors can escape through the anti condensation section.



The anti-condensation section does not interrupt the Powerail electrically.

Installation

The anti-condensation section is to be placed directly (0.5 m - 1 m max.) at the transfer point from indoor to outdoor. See sketch.

* For longer runs use Expansion section.

Maintenance

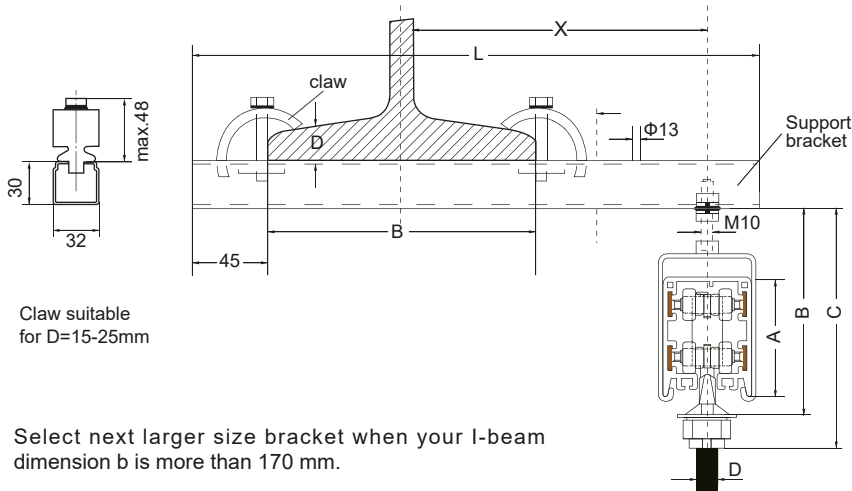
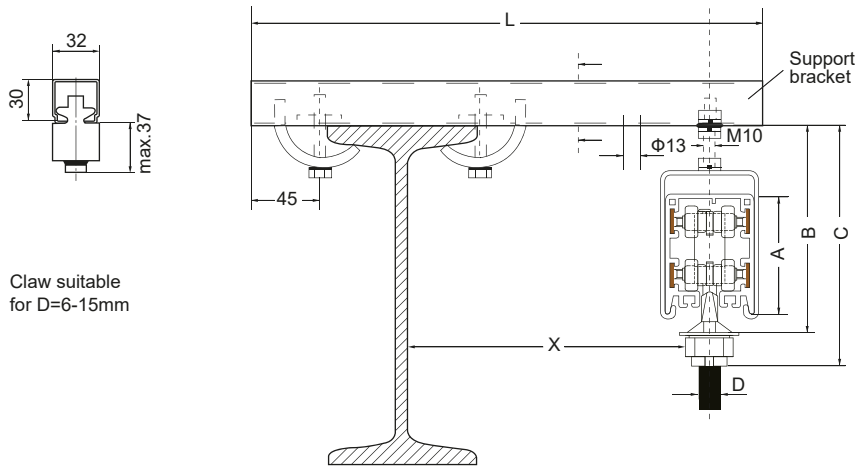
—After installation, Make sure that the sliding hangers are straight(in a perpendicular position)after nuts have been tightened to guarantee free sliding of the powerail. The powerail must be installed exactly straight and parallel to the machinery track.

—Before running the powerail. Check the system for easy running of the current collector trolleys. i. e. there may be no resistance by an excessively narrow slot or pull by the connecting cable.

—Every 3 up to max.12 months. depending on the frequency of operation and travel distance-, check the carbon brushes and mechanical components for wear and replace them if necessary.

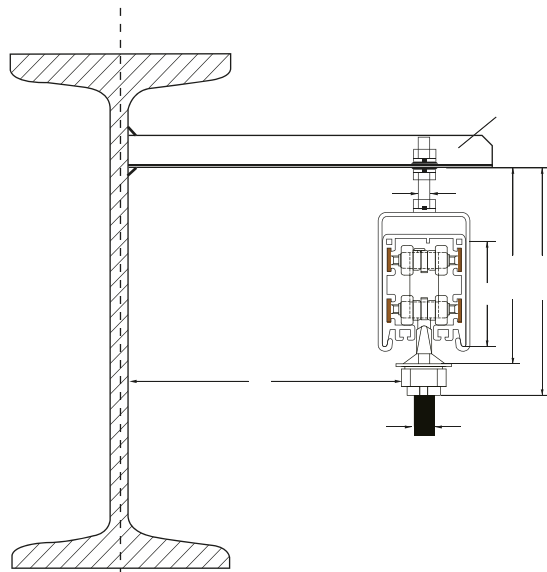
View with I-beam

Ready installed on C-Track bracket (for split)

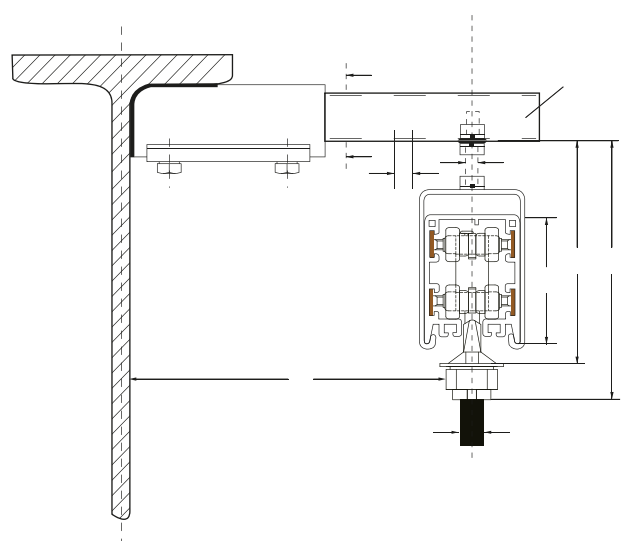


Type	Dim.A mm	Dim.B mm	Dim.C mm
CKB56	73	165	190
CKB52	86	180	210
CKB95	95	190	220
CKB60	80	60	200

Ready installed on Angle steel bracket (for welding)

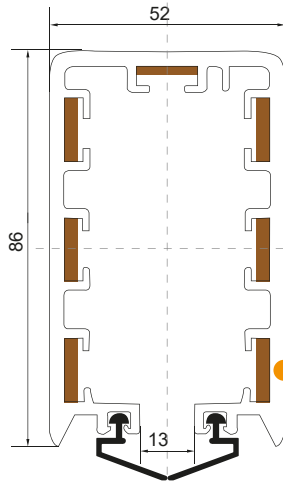


Ready installed on C-Track bracket (for welding)



Types Technical Data Order Numbers

CKB52



7P Type

Conductor code

HFP52-4(5,6,7)-n/m

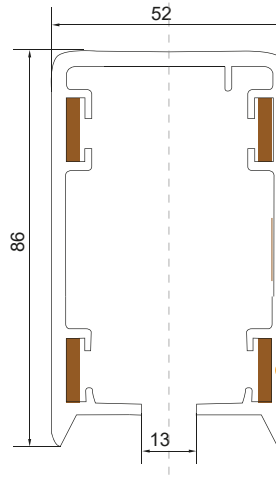
HFP52 = powerail enclosed conductor

4(5,6,7)= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper:12.5 mm



4P Type

Length

4m is standard length, other lengths are available, but not exceeding 6 m.

Support spacing for straight runs 1.2m.

Curves

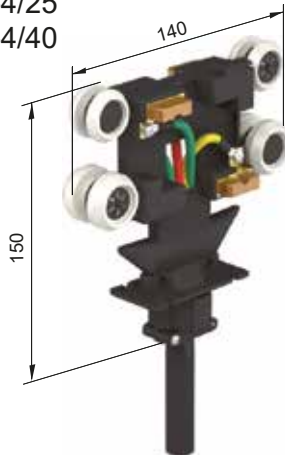
min.R=1.5m
only 4 poles powerail

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFP52-4-10/50	4	10	50	55	600	1.656	2.05	521014
HFP52-5-10/50	5	10	50	15	600	1.656	2.14	521015
HFP52-6-10/50	6	10	50	15	600	1.656	2.23	521016
HFP52-7-10/50	7	10	50	15	600	1.656	2.32	521017
HFP52-4-15/80	4	15	80	55	600	1.137	2.32	521514
HFP52-5-15/80	5	15	80	15	600	1.137	2.44	521515
HFP52-6-15/80	6	15	80	15	600	1.137	2.58	521516
HFP52-7-15/80	7	15	80	15	600	1.137	2.71	521517
HFP52-4-20/100	4	20	100	55	600	1.011	2.47	522014
HFP52-5-20/100	5	20	100	15	600	1.011	2.65	522015
HFP52-6-20/100	6	20	100	15	600	1.011	2.83	522016
HFP52-7-20/100	7	20	100	15	600	1.011	2.99	522017
HFP52-4-25/120	4	25	120	55	600	0.713	2.63	522514
HFP52-5-25/120	5	25	120	15	600	0.713	2.83	522515
HFP52-6-25/120	6	25	120	15	600	0.713	3.02	522516
HFP52-7-25/120	7	25	120	15	600	0.713	3.27	522517
HFP52-4-35/140	4	35	140	55	600	0.522	2.97	523514
HFP52-5-35/140	5	35	140	15	600	0.522	3.25	523515
HFP52-6-35/140	6	35	140	15	600	0.522	3.58	523516
HFP52-7-35/140	7	35	140	15	600	0.522	3.87	523517

Current collector

52JD-4/25

52JD-4/40



Collector 25A & 40A are used for curves ($R > 800$).

Collector 25A is used for 35A-50A.

Collector 40A is used for 65A-120A.

Tow arm please see page 31.

Connecting cable

25 A, 2.5mm^2 /core $\times$ 4

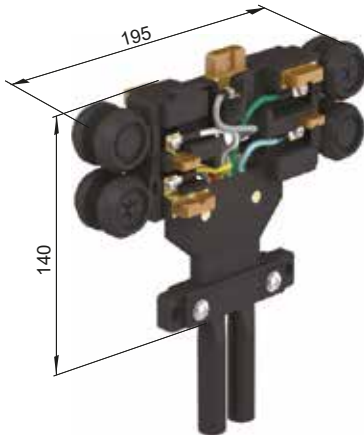
40 A, 4.0mm^2 /core $\times$ 4 + 2.5mm^2 /core $\times$ 1

0.8 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
52JD-4/25	0.52	4	25 A	523125
52JD-4/40	0.61	4	40 A	523140

52JD-7/25

52JD-7/40



Tow arm please see page 17.

Connecting cable

25 A, 2.5mm^2 /core $\times$ 9

40 A, 4.0mm^2 /core $\times$ 4 + 2.5mm^2 /core $\times$ 5

1m long, longer cables on request.

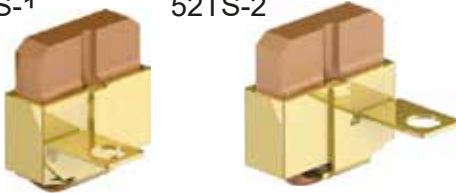
Type	Weight kg	Poles	Power rating	Cat.-No.
52JD-7/25	0.98	7	25 A	523225
52JD-7/40	1.07	7	40 A	523240

*3 pcs or more collectors could parallel connect, but only for straight powerail, only be used with tow arm 56BC/55.

Carbon bursh assembly

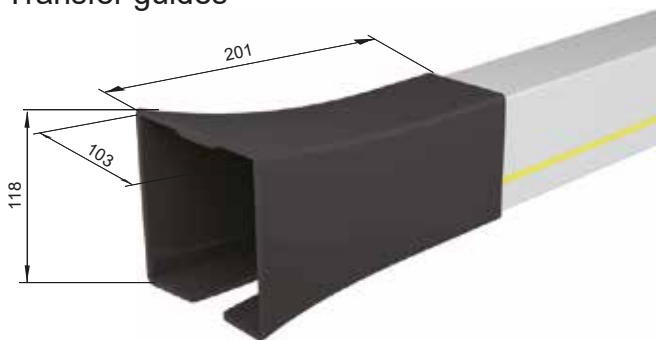
52TS-1

52TS-2



Type	Weight kg	Cat.-No.	Remark
52TS-1	0.03	523101	Be used for: 52JD-4/25, 52JD-4/40 52JD-7/25, 52JD-7/40
52TS-2	0.03	523102	Be used for: 52JD-7/25, 52JD-7/40

Transfer guides



Flexible tow arm

Type	Weight kg	Material	Cat.-No.
52TG	0.50	Plastic	523752

Type	Cat.-No.
52FTW	525080

Joining box



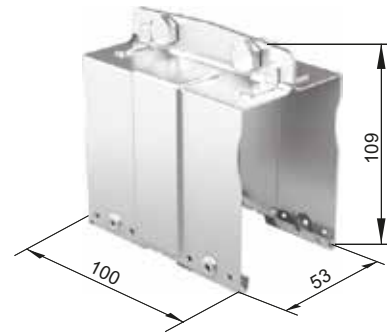
Self locking, and installed is very easy.

Could use with $\phi 3$ mm rubber strip.

Type	Weight kg	Material	Cat.-No.
52LJ-5	0.22	Plastic	523405

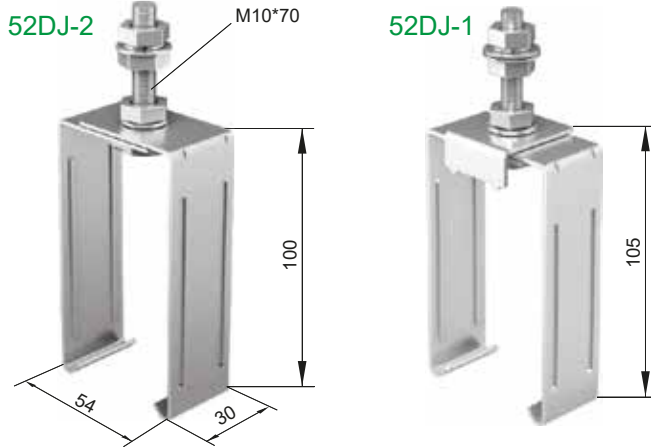
Anchor hanger

Be used without any joints



Type	Weight kg	Material	Cat.-No.
52LJ-8	0.26	Steel	523408

Hangers



Type	Weight kg	Material	Cat.-No.
52DJ-2	0.17	Steel	523911
52DJ-1	0.21	Steel	523901

Bolted joint



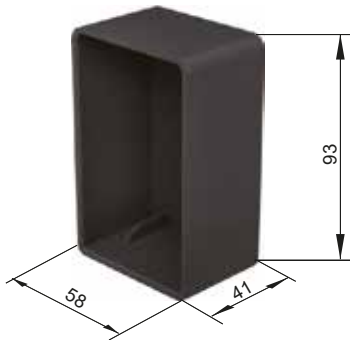
Type	Weight kg	Material	Cat.-No.
52JT-80A	0.041	galvanized steel & copper	520001
52JT-120A	0.048		520002
52JT-140A	0.052		520003

Plug-in joint



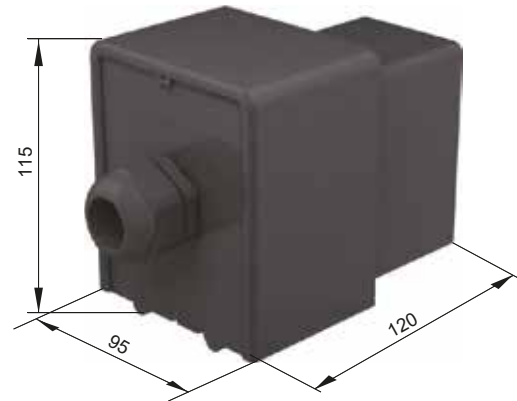
Type	Weight kg	Material	Cat.-No.
52PJT-50A	0.031	galvanized steel & copper	520011
52PJT-80A	0.038		520012
52PJT-100A	0.042		520013

End cap



Type	Weight kg	Material	Cat.-No.
52DM	0.05	Plastic	523701

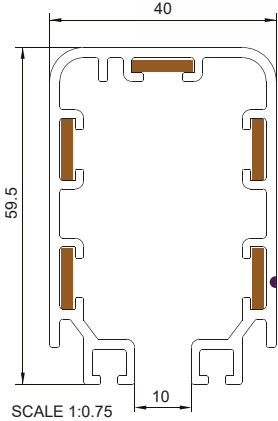
End feed



Type	Weight kg	Material	Cat.-No.
52DG	0.22	Plastic	524695

CKB40 system

CKB40



Types Technical Data Order Numbers

Conductor code

HFP40-x-n/m

HFP40 = powerail enclosed conductor

x= 4,5 poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper:10.0 mm

Length

4m is standard length,other lengths are available,but not be exceeding 6 m.

Support spacing

for straight runs 1.2m.

Curves

min.R=1.2m

only 4 poles powerail

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weigh (kg)	Cat.-No.
HFP40-4-10/50	4	10	50	20	660	1.656	1.35	401014
HFP40-4-15/80	4	15	80	20	660	1.137	1.55	401514
HFP40-5-10/50	5	10	50	20	660	1.656	1.45	401015
HFP40-5-15/80	5	15	80	20	660	1.137	1.68	401515

Current collector



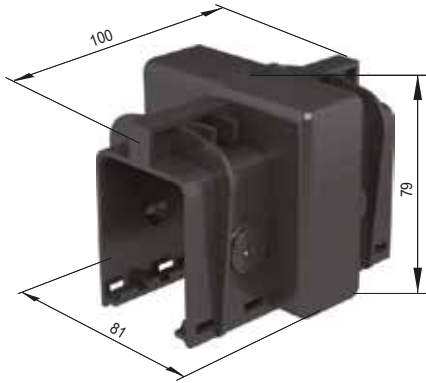
Connecting cable

4P: 2.5 mm²/core×4 5P: 2.5 mm²/core×5

2.0m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
40JD-4/25	1.20	4	25 A	403125
40JD-5/25	1.35	5	25 A	403325

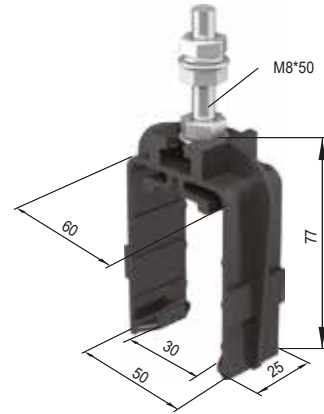
Joining box



Self locking, and installed is very easy.

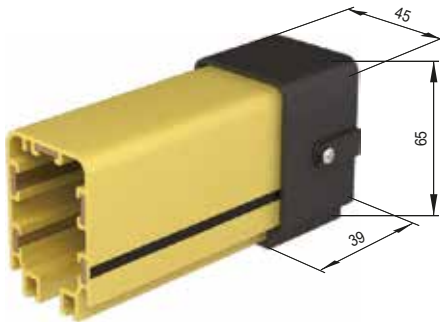
Type	Weight kg	Material	Cat.-No.
40LJ-1	0.09	nylon	403401

Hanger clamp



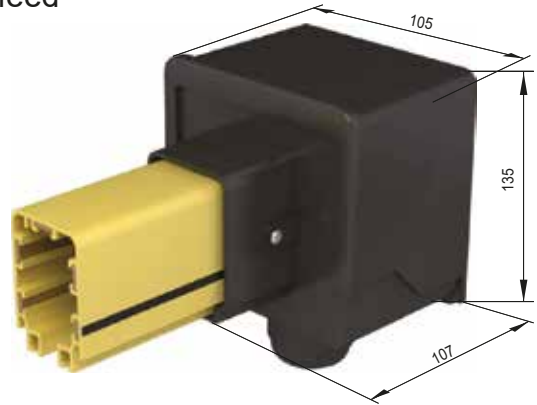
Type	Weight kg	Material	Cat.-No.
40DJ-1	0.05	nylon	403901

End cap



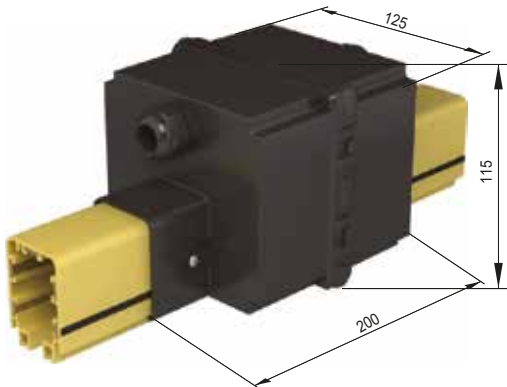
Type	Weight kg	Material	Cat.-No.
40DM-1	0.035	nylon	403701

End feed



Type	Weight kg	Material	Cat.-No.
40DG-1	0.215	nylon	404601

Line feeding



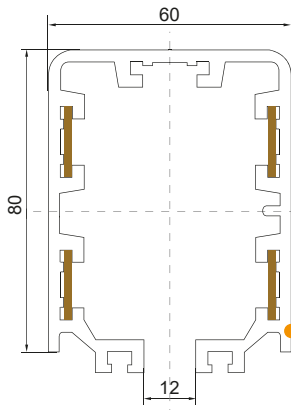
Type	Weight kg	Material	Cat.-No.
40ZG-1	0.27	nylon	404699

Copper strip installation trolley



Type	Weight kg	Material	Cat.-No.
40AZ	0.60	nylon	409001

Types Technical Data Order Numbers



Conductor code

HFP60-4-n/m

HFP60 = powerail enclosed conductor

4= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper:15.0 mm

Length

4m is standard length, other lengths are available, but not exceeding 6 m.

Support spacing

for straight runs 1.2m.

Curves

min.R=1.8m

only 4 poles powerail

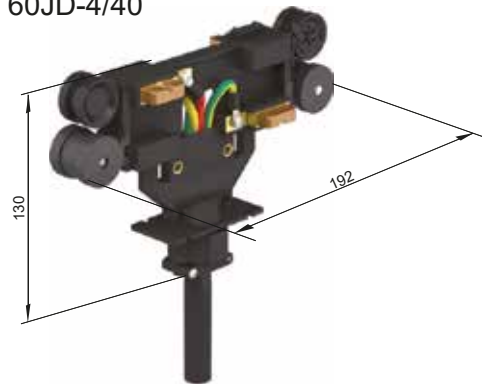
HFP60

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFP60-4-10/50	4	10	50	34	600	1.656	2.37	591014
HFP60-4-15/80	4	15	80	34	600	1.193	2.49	591514
HFP60-4-20/100	4	20	100	34	600	1.011	2.63	592014
HFP60-4-25/120	4	25	120	34	600	0.761	2.75	592514
HFP60-4-35/140	4	35	140	34	600	0.542	3.12	593514

Current collector

60JD-4/25

60JD-4/40



Tow arm please see page 17.

Connecting cable

25 A, 2.5 mm²/core×4

40 A, 4.0 mm²/core×3 + 2.5 mm²/core×1

0.8m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
60JD-4/25	0.65	4	25 A	593125
60JD-4/40	0.75	4	40 A	593140

60JDS-4/40

60JDS-4/60



Tow arm please see page 17.

Connecting cable

40 A, 2.5 mm²/core×8

60 A, 4.0 mm²/core×6 + 2.5 mm²/core×2

0.8m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
60JDS-4/40	1.30	4	40 A	593240
60JDS-4/60	1.50	4	60 A	593260

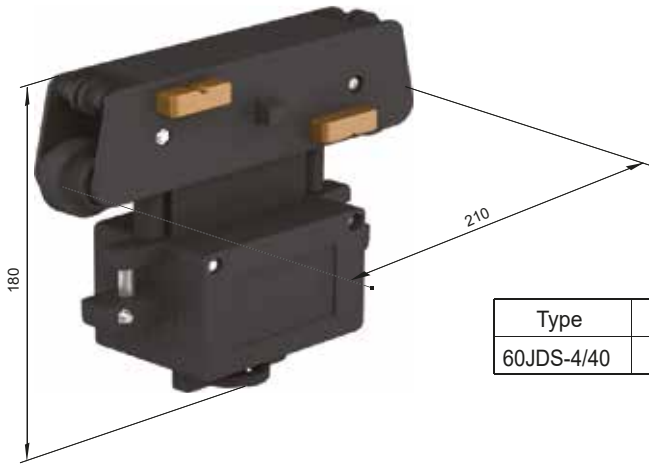
Carbon bursh assembly

60TS-1



Type	Weight kg	Cat.-No.	Remark
60TS-1	0.04	593101	Be used for: 60JD-4/25,60JD-4/40 60JD-4/60

Current collector



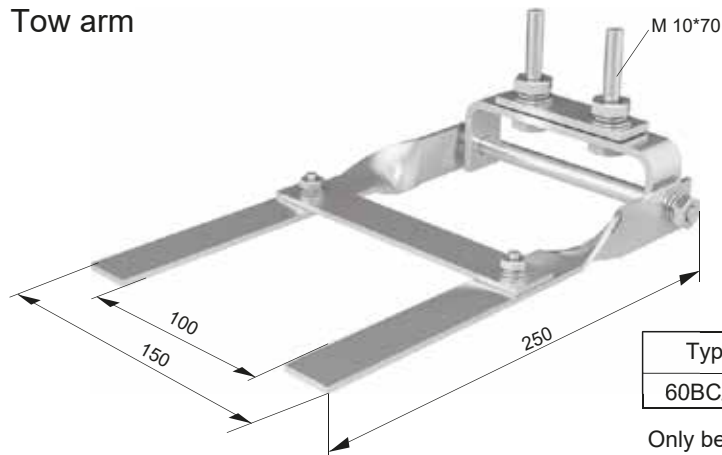
Connecting cable

40 A, 4.0 mm²/core×3 + 2.5 mm²/core×1

Cable connect by customer

Type	Weight kg	Poles	Power rating	Cat.-No.
60JDS-4/40	0.68	4	40 A	593340

Tow arm



Type	Weight kg	Material	Cat.-No.
60BC/100	0.85	Steel	595010

Only be used for 60JDS/4-40

Connector



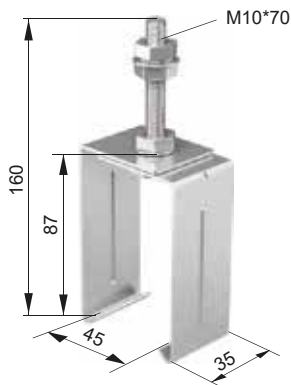
The connectors come factory assembled.

Type	Weight kg	Material	Cat.-No.
60JT-8	0.015	Steel	590008
60JT-10	0.018	Steel	590010

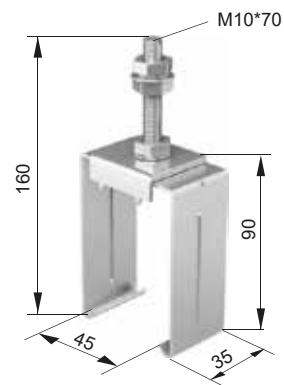
Hangers

Be used with bended joints

Sliding hanger



Fixpoint hanger



Type	Weight kg	Material	Cat.-No.
60DJ-2	0.18	Steel	593911

Type	Weight kg	Material	Cat.-No.
60DJ-1	0.21	Steel	593901

Jointing box

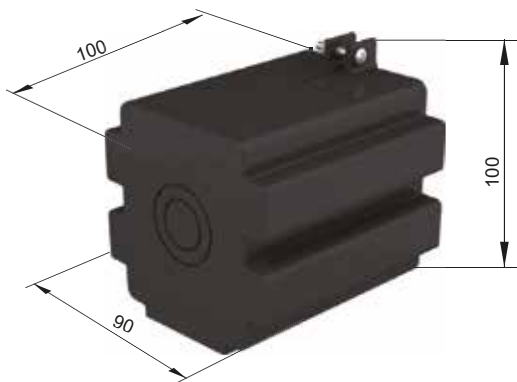


Self locking, and installed is very easy.

Could use with $\phi 3$ mm rubber strip.

Type	Weight kg	Material	Cat.-No.
60LJ-5	0.175	Plastic	593405

End cap



End feed

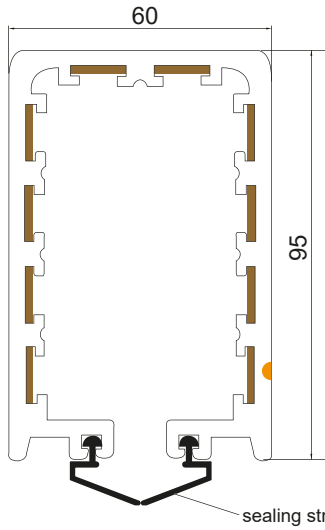


Type	Weight kg	Material	Cat.-No.
60DM	0.11	Plastic	593701

Type	Weight kg	Material	Cat.-No.
60DG	0.14	Plastic	594601

Powerail systems HFP95

HFP95



Conductor code

HFP95-4-n/m

HFP95 = powerail enclosed conductor

n= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Width for copper: 12.0 mm

Length

4m is standard length, other lengths are available, but not exceeding 6 m.

Curves

min.R=1.8m

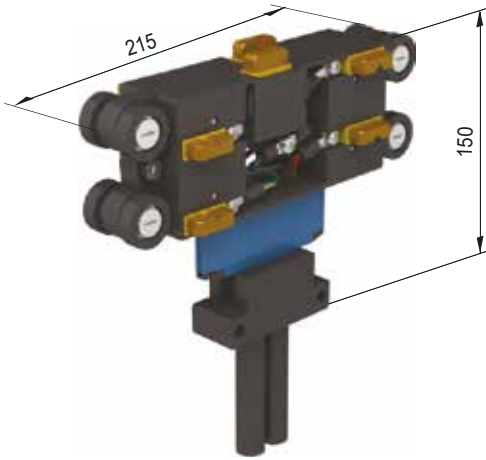
Support spacing

for straight runs 1.2m.

Technical data

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weigh (kg)	Cat-No.
HFP95-5-10/50	10	10	50	20	660	1.656	3.20	951005
HFP95-5-15/80	10	15	80	20	660	1.193	3.28	951505
HFP95-5-20/100	10	20	100	20	660	1.011	3.51	952005
HFP95-6-10/50	10	10	50	20	660	1.656	3.16	951006
HFP95-6-15/80	10	15	80	20	660	1.193	3.41	951506
HFP95-6-20/100	10	20	100	20	660	1.011	3.68	952006
HFP95-7-10/50	10	10	50	20	660	1.656	3.25	951007
HFP95-7-15/80	10	15	80	20	660	1.193	3.56	951507
HFP95-7-20/100	10	20	100	20	660	1.011	3.88	952007
HFP95-8-10/50	10	10	50	20	660	1.656	3.34	951008
HFP95-8-15/80	10	15	80	20	660	1.193	3.70	951508
HFP95-8-20/100	10	20	100	20	660	1.011	4.04	952008
HFP95-9-10/50	10	10	50	20	660	1.656	3.42	951009
HFP95-9-15/80	10	15	80	20	660	1.193	3.77	951509
HFP95-9-20/100	10	20	100	20	660	1.011	4.24	952009
HFP95-10-10/50	10	10	50	20	660	1.656	3.54	951010
HFP95-10-15/80	10	15	80	20	660	1.193	3.98	951510
HFP95-10-20/100	10	20	100	20	660	1.011	5.21	952010

Current collector



Only use with 56BC/53.

Connecting cable

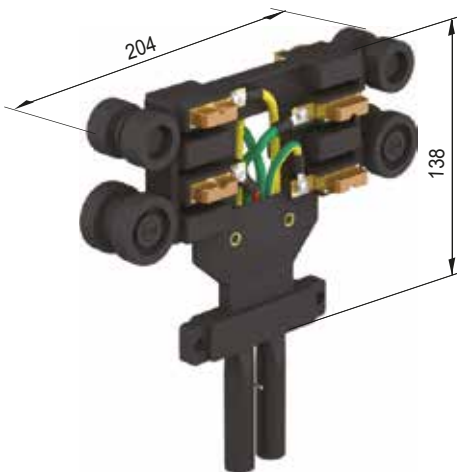
25 A, 2.5mm² /core

40 A, 4.0 mm²/core

1.0 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
95JD-5/25	1.05	5	25 A	953125
95JD-5/40	1.13	5	40A	953140
95JD-8/25	1.25	8	25A	953225
95JD-8/40	1.35	8	40A	953240
95JD-10/25	1.45	10	25A	953325
95JD-10/40	1.60	10	40A	953340

Current collector



Collector 95JDR is used for curves (R>1800mm).

Both 56BC/53&56BC/55 could use.

Connecting cable

25 A, 2.5mm² /core

40 A, 4.0 mm²/core

1.0 m long, longer cables on request.

Type	Weight kg	Poles	Power rating	Cat.-No.
95JDR-5/25	0.85	5	25 A	958125
95JDR-5/40	0.89	5	40A	958140
95JDR-6/25	0.94	6	25A	958225
95JDR-6/40	0.99	6	40A	958240
95JDR-8/25	1.22	8	25A	958325
95JDR-8/40	1.32	8	40A	958340

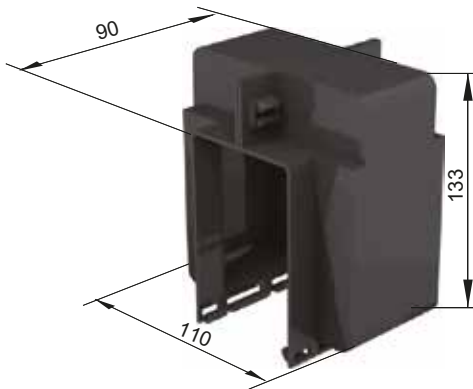
Carbon bursh assembly

95TS-1



Type	Weight kg	Cat.-No.	Remark
95TS-1	0.04	953101	95JD & 95JDR

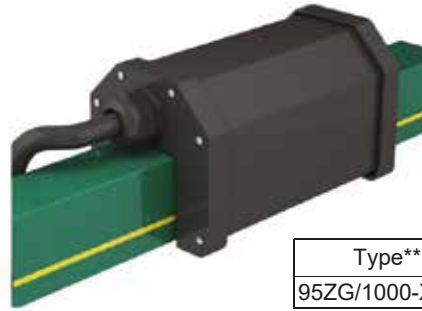
Joining box



Self locking, and installed is very easy.

Type	Weight kg	Material	Cat.-No.
95LJ-1	0.11	Plastic	953401

Line feeding (with 1 meter powerail)*

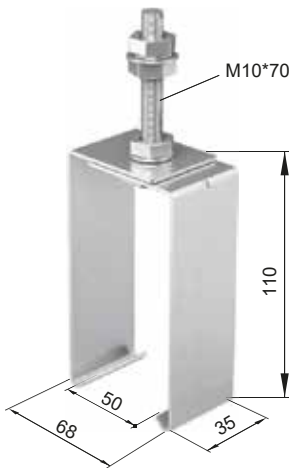


Type**	Cat.-No.
95ZG/1000-X/m	954699

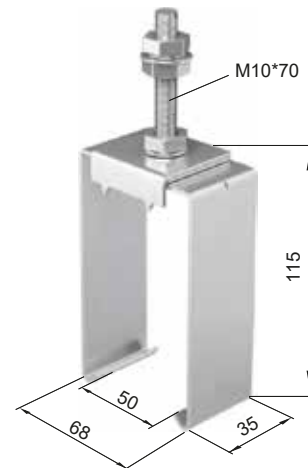
*with 1 meter powerail is standard length, other lengths are available, but not exceeding 4 meters.

**X/m means type of powerail, for example, 95ZG/1000-8/ 50A, it means 8 poles, 50 Amp powerail.

Hangers

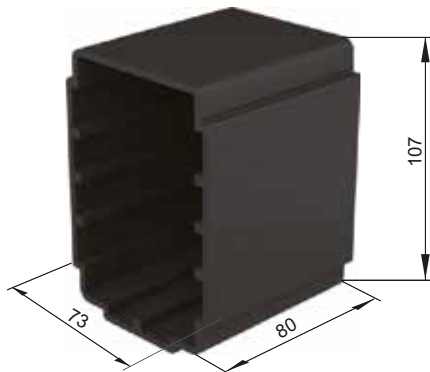


Type	Weight kg	Material	Cat.-No.
95DJ-2	0.23	Steel	953911



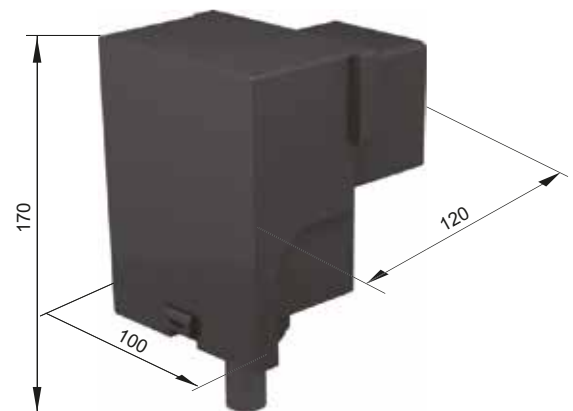
Type	Weight kg	Material	Cat.-No.
95DJ-1	0.26	Steel	953901

End cap



Type	Weight kg	Material	Cat.-No.
95DM	0.10	Plastic	953701

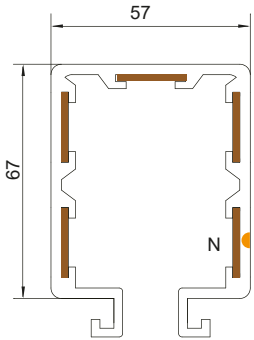
End feed



Type	Weight kg	Material	Cat.-No.
95DG	0.28	Plastic	954695

PVC & ALUMINIUM ENCLOSED POWERAIL

PVC Enclosed Powerail



Conductor code

HFP-4(5)-n/m

HFP = powerail enclosed conductor

4(5)= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Length

4m is standard length, other lengths are available, but not exceeding 6 m.

Support spacing
for straight runs 1.2m.

Curves

min.R=1.2m

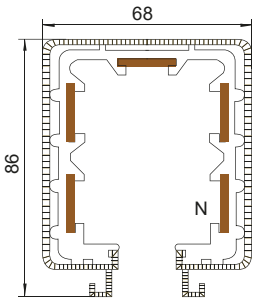
Width for copper 17.6 mm

Line N is for ground.

HFP57/HFJ

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFP-4-10/50	4	10	50	30	660	1.656	2.61	571014
HFP-4-15/80	4	15	80	30	660	1.193	2.77	571514
HFP-4-20/100	4	20	100	30	660	1.011	2.89	572014
HFP-4-25/120	4	25	120	30	660	0.761	3.02	572514
HFP-4-35/140	4	35	140	30	660	0.542	3.29	573514
HFP-4-50/170	4	50	170	30	660	0.379	3.73	575014

Aluminium Enclosed Powerail



Conductor code

HFJ-4(5)-n/m

HFJ = Aluminium powerail enclosed conductor

4(5)= poles

n= conductor cross section(mm²)

m= continuous ampere capacity

Length

4m is standard length, other lengths are available, but not exceeding 6 m.

Support spacing
for straight runs 1.2m.

Curves

min.R=1.5m

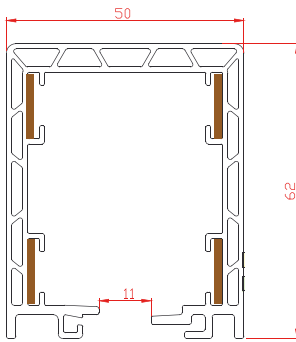
Width for copper 17.6 mm

Line N is for ground.

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFJ-4-10/50	4	10	50	25	660	1.656	3.03	581014
HFJ-4-15/80	4	15	80	25	660	1.193	3.19	581514
HFJ-4-20/100	4	20	100	25	660	1.011	3.31	582014
HFJ-4-25/120	4	25	120	25	660	0.761	3.44	582514
HFJ-4-35/140	4	35	140	25	660	0.542	3.71	583514
HFJ-4-50/170	4	50	170	25	660	0.379	4.15	585014

HFP50 system,16poles Types of powerail

System HFP50



Conductor code

HFP50-4-n/m

HFP50 = powerail enclosed conductor

4 = poles

n = conductor cross section(mm²)

m = continuous ampere capacity

Width for copper: 12.5 mm

Length

4m is standard length, other lengths are available, but not be exceeding 6 m.

Support spacing

for straight runs 1.2m.

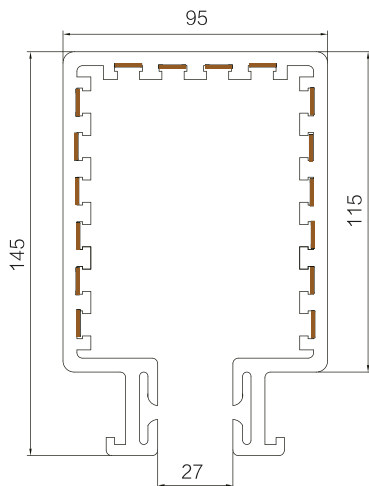
Curves

min.R=0.8m

Technical data of system HFP50

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFP50-4-8/35	4	8	35	35	660	1.944	0.99	500814
HFP55-4-10/50	4	10	50	35	660	1.656	1.07	501014
HFP55-4-12/65	4	12	65	35	660	1.321	1.13	501214
HFP55-4-15/80	4	15	80	35	660	1.137	1.21	501514
HFP55-4-20/100	4	20	100	35	660	1.011	1.34	502014
HFP55-4-25/120	4	25	120	35	660	0.713	1.79	502514

16 poles Powerail



Conductor code

HFP-X-n/m

HFP = powerail enclosed conductor

X = poles (10-16)

n = conductor cross section(mm²)

m = continuous ampere capacity

Width for copper: 10.0 mm

Length

4m is standard length.

Support spacing

for straight runs 1.2m.

Technical data of 16 poles

Type	Poles	Conductor cross section (mm ²)	Max. current (A)	Leakage-distance (mm)	Max.Voltage (V)	Resistance (Ω/km)	Weight (kg)	Cat.-No.
HFP-16-10/50	16	10	50	16	660	1.656	5.46	961016
HFP-16-15/80	16	15	80	16	660	1.193	6.14	961516