



General

Komay insulated conductors U12 are designed in accordance with today's international safety requirements.

The shroud which envelopes the various conductors is an excellent insulator.

Therefore our unipole insulated conductors guarantee utmost safety in operation.

Any number of conductors can be installed side by side at minimum space requirement.

Standard rail sections are 6m long, shorter sections are available.

The ground conductor is identified by international colour coding.

For obvious safety reasons phase and ground collectors are not interchangeable.

Approved and listed by: CCC, CE and ISO9001.

Hangers

Bolted, snap-in and quarter turn type hangers are available. Standard support distance for U12 is 600mm, in curves 300mm.

Joints

Snap-in joint splices provide mechanical end electrical continuity. They include insulated protection covers. Expansion joint sections are only required in case of expansion joints in the monorail track.

Feed terminals

Joint assembly and mid-rail assembly feeds are available. Furthermore transfer guides and isolating assemblies allow for spade connectors.

Transfer guides

Transfer guides serve as an end protection of system runs and accomplish smooth smooth collector transfer in case of switches, drop sections etc. They can be supplied with or without feed clip.

Isolating assemblies

Conductor isolating assemblies are available for sectionalizing control circuits, maintenance bays etc. They can be supplied with or without feed clip.

Curves

U12 can be used for horizontal or vertical curves. A special curve tool for individual field preparation is available.

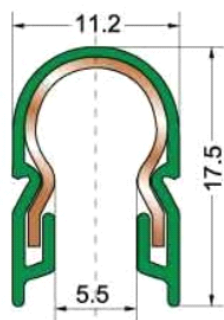
Collectors

The current collections are made of reinforced polyamide and stainless steel parts. These spring loaded units provide positive contact with the conductor bars and have double pick-up brushes.

U12 conductor

Engineering date of shroud

Electrical properties Specific resistance Surface resistance Leakage resistance	standard shroud color green 30-40kv/mm $5 \times 10^{15} \text{ Ohm} \times \text{cm}$ 10^{13} Ohm CTI600-1.1	high temp.shroud 45kv/mm $5 \times 10^{17} \text{ Ohm} \times \text{cm}$ 10^{15} Ohm CTI600-1.1
Mechanical properties: Flexible strength: Tensile strength:	75N/mm ² ±10% 50N/mm ² ±10%	95N/mm ² ±10% 50N/mm ² ±10%
Working temperature Flame test proof Resistance to chemicals:	-30℃~+55℃ no flaming particles, self-extinguishing gasoline, mineral oil, grease Hydrochloric acid.concentr. caustic soda solution 25% and 50% sulphuric acid to 50%	

**Conductor Code**

U=unipole insulated conductor
12=shroud size
25=conductor cross sectional area(mm²)

Conductor spacing

on compact hangers 14mm or variable.

Curves

min.R=0.4mm

length

6m is standard length, lengths are available.

Support spacing

for straight runs 0.6m, for curves 0.3m

Application

indoor use only. See "Engineering date of shroud"

Type	U12/25
Weight(kg/m)	0.267
Standard shroud, color green	
Cat.-No.phase	668116*
Cat-No.ground	668216*

High temperature shroud	
Cat.-No.phase	668316*
Cat-No.ground	668416*

Fill-in last number (1, 2, 3, 4, 5,6m suffix)
in accordance to bars required.

Engineering date

Conductor rail type	Cross sectional area	Leakage distance of covers	Max.voltage	Continuous ampere capacity	resistance
U12/25C**	25	30	600	100	0.745
U12/25F**	25	30	600	40	5.415
U12/25E**	25	30	600	10	31.56

**C=cooper conductor F=galvanize E=stainless steel conductor

Selection of Conductors

in accordance to ampere load environmental conditions

for power, control and data-transmission

for non-corrosivent

for control and data-transmission in corrosive atmospheres

Compact double collector

two-way converging

for conductor spacing of 14mm

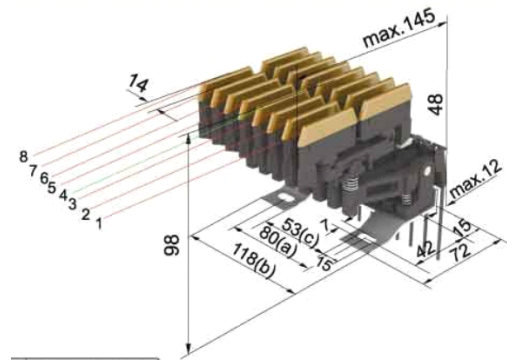
1 Plug terminal 20A

2 Plug terminal 2×20A

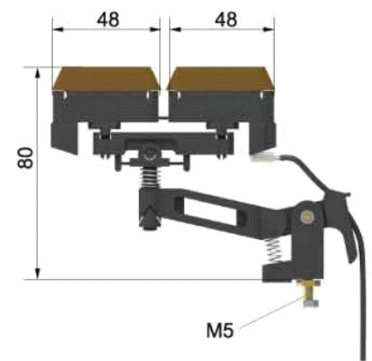
swivel: ±15mm lift: ±15mm

contact pressure 3.5N per brush

ground at NO.4, other position on request.



Type	poles	a	b	c	weight(kg)	base plate	Cat.-NO.
JDS2/40-1	1	80	118	-	0.165		663201
JDS2/40-2	2	80	118	-	0.245		663202
JDS2/40-3	3	80	118	-	0.325		663203
JDS2/40-4	4	80	118	-	0.405		663204
JDS2/40-5	5	80	118	-	0.495		663205
JDS2/40-6	6	80	118	-	0.575		663206
JDS2/40-7	7	80	118	53	0.735		663207
JDS2/40-8	8	80	118	53	0.825		663208
JDS2/40-9	9	80	146	53	0.925		663209
JDS2/40-10	10	80	146	53	1.005		663210
JDS2/40-11	11	120	174	80	1.125		663211
JDS2/40-12	12	120	174	80	1.205		663212



Compact double collector

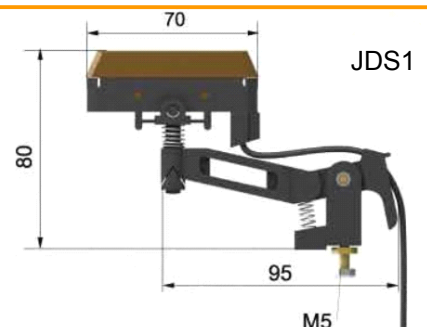
for conductor spacing of 14mm

1 Plug terminal 40A

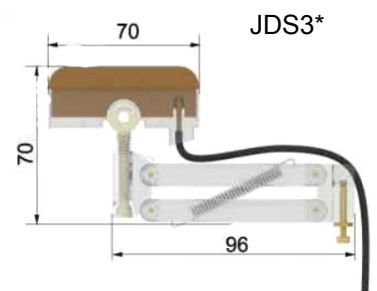
swivel: ±15mm lift: ±15mm

contact pressure 3.5N per brush

ground at NO.4, other position on request.



Type	poles	a	b	c	weight(kg)	base plate	Cat.-NO.
JDS1-1	1	80	118	-	0.140		663101
JDS1-2	2	80	118	-	0.205		663102
JDS1-3	3	80	118	-	0.270		663103
JDS1-4	4	80	118	-	0.335		663104
JDS1-5	5	80	118	-	0.425		663105
JDS1-6	6	80	118	-	0.490		663106
JDS1-7	7	80	118	53	0.625		663107
JDS1-8	8	80	118	53	0.690		663108
JDS1-9	9	80	146	53	0.786		663109
JDS1-10	10	80	146	53	0.850		663110
JDS1-11	11	120	174	80	0.995		663111
JDS1-12	12	120	174	80	1.020		663112



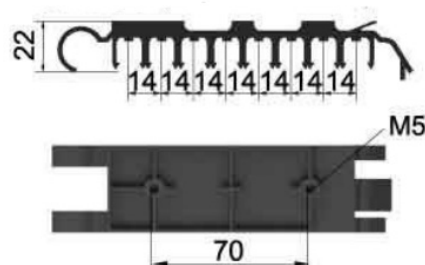
JDS3 Order-NO.:6631nn, nn are means poles of collector

JDSL-are used for I-beams, fill-in last number (1-12) in accordance to bars required.

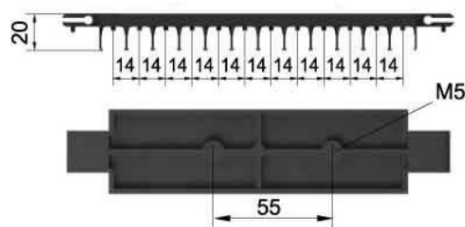
Hangers

Any number of conductor can be assembled
by combining the compact hanger

U12ZJA8 Al-Track=180mm



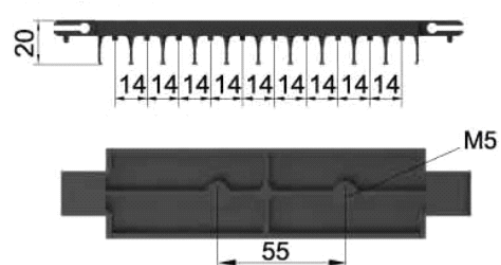
U12ZJA10 Al-Track=220mm



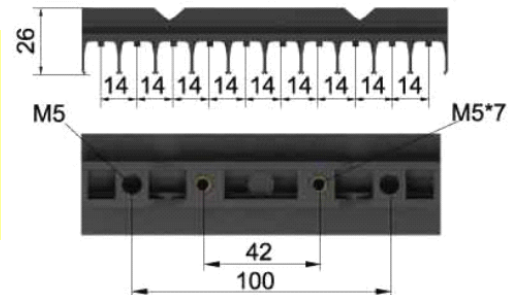
Compact hanger
with hardware
for up to 12
conductors

14mm/for conductor of 14mm

U12ZJA12 Al-Track=180mm



U12ZJB10 for I-beam

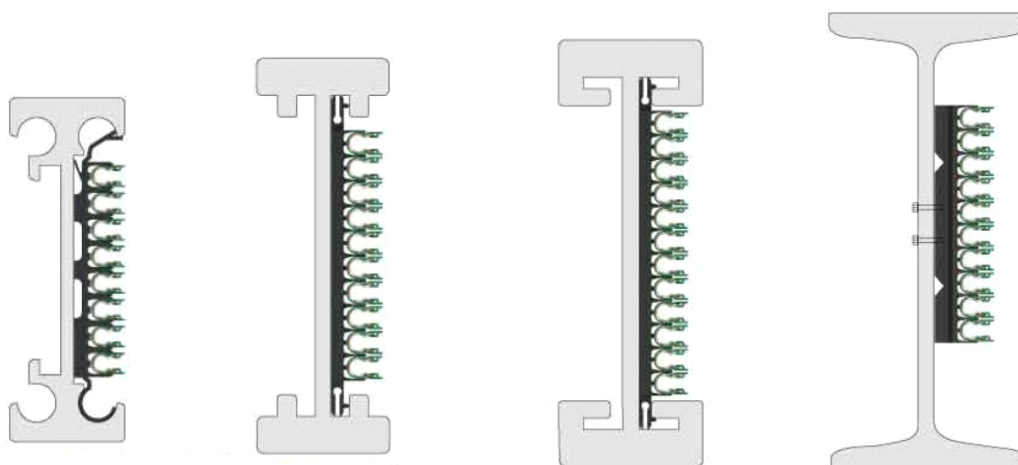


Type	weight(kg)	poles	Cat.-NO.
U12ZJA8	0.041	8	664008
U12ZJA9	0.042	9	664009
U12ZJA10	0.055	10	664010
U12ZJA11	0.059	11	664011
U12ZJA12	0.075	12	664012

Type	weight(kg)	poles	Cat.-NO.
U12ZJB2	0.029	2	664101
U12ZJB8	0.063	8	664108
U12ZJB10	0.075	9	664110
U12ZJB11	0.081	10	664111
U12ZJB12	0.086	11	664112

Aluminium Track

Compact hanger, self-locking, for up to 12 conductors on special order to fit your monorail track.
Snap-in & quarter turn type hangers for typical monorail track electrification



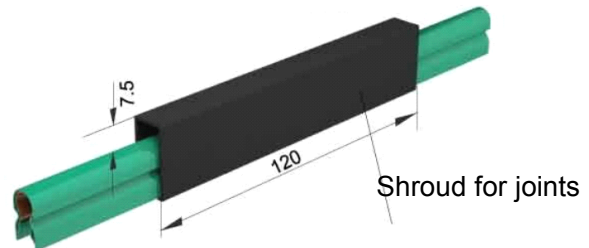
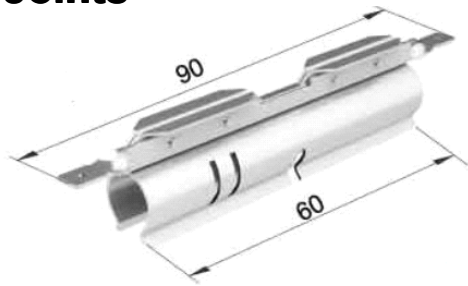
Al-Track=180mm Al-Track=220mm
for conductor spacing of 14mm

Al-Track=240mm

I-beam

Joints

system control expansion and contraction

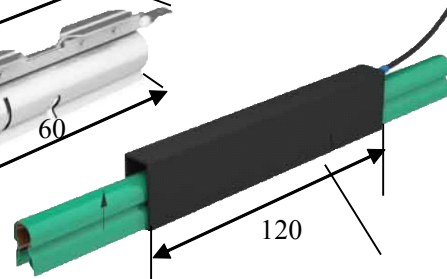
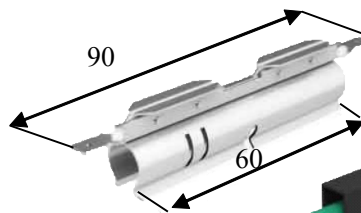


Type	weight(kg)	Cat.-NO.
UV12	0.021	663460

Type	weight(kg)	Cat.-NO.
U12HT	0.01	666812

Feed terminal

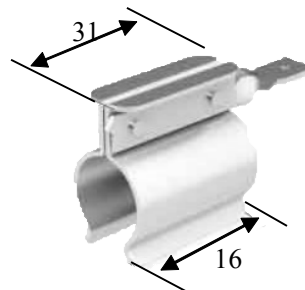
(continuous ampere capacity 2×25A)



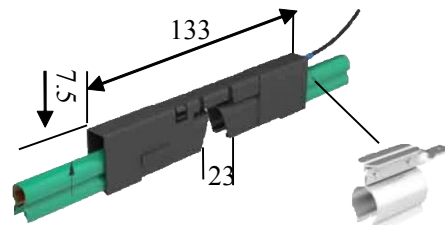
Type	weight(kg)	Cat.-NO.
UE12	0.023	663660

Feed clip

Type	weight(kg)	Cat.-NO.
U12DJ	0.005	666912



Isolating assembly

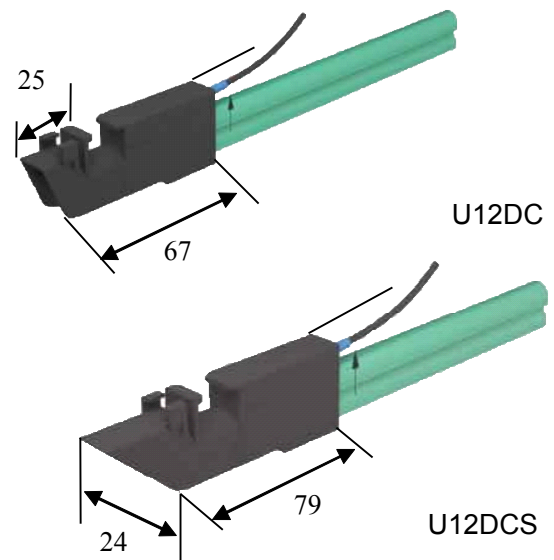


Type	Symbol	weight(kg)	Cat.-NO.
UE12		0.011	663660
U12FD1		0.016	663724
U12FD2		0.021	663725

The two transfer button elements are pressed together to form a rigid, well aligned unit.

Transfer guide & end piece

Type	weight(kg)	Comprising	Cat.-NO.
U12DC	0.004		663867
U12DC1	0.009		663868
U12DCS	0.005		663869
U12DCS1	0.010		663870
U12DJ	0.005		666912



Anchor bar for transfer guide (Aluminium)

for bolting to the track, consisting of 1 aluminium profile bar, 2 hex. screws M 5w/washer, 2 locking pins 2X20.

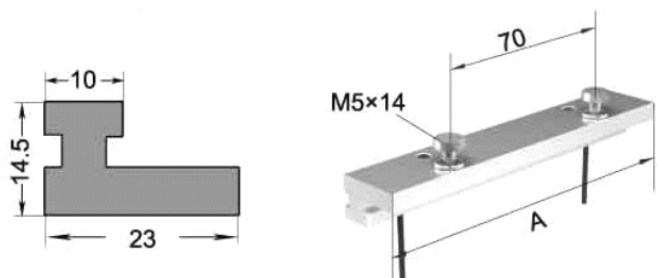
U12GDG1

used in conjunction bolted hangers



U12GDG2

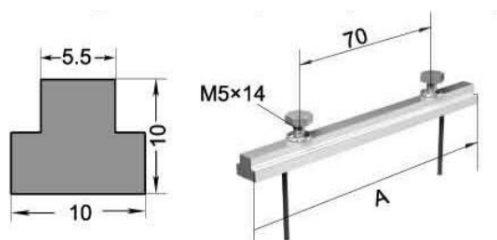
used in conjunction with bolted hangers for oblique cut track



distance between conductor bolted hangers

U12GDG3

used in conjunction with snap-in and quarter turn hanger



distance between conductor-surface and track

type	Poles	A/mm	weight(kg)	Cat.-NO.
U12GD1-8	1-8	118	0.042	663908
U12GD1-10	1-10	143	0.052	663910
U12GD2-8	1-8	118	0.087	663918
U12GD2-10	1-10	143	0.102	663920
U12GD3-8	1-8	118	0.024	663928
U12GD3-10	1-10	143	0.029	663930

Locating

clamp

for each anchor point use one bolted hanger
with 2 locating clamps per conductor bat

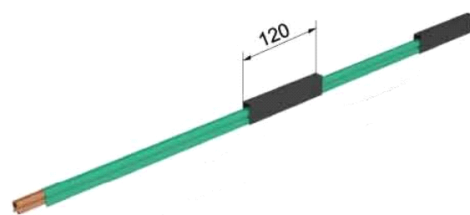


Type	weight(kg)	Cat.-NO.
U12GDJ	0.029	664112

Expansion section

The 0.8m expansion assembly is part of the system length.

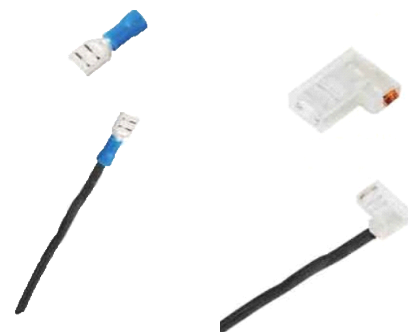
type	weight(kg)	Cat.-NO.			
		Standard, green		High temp.,gray	
U12PDJ	0.256	phase 663530	ground 663531	phase 663532	ground 663533



Joints for connecting cable

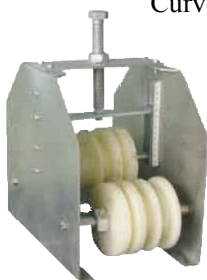
for collectors, feed terminals, transfer guides and isolating assemblies. 0.5m long with quick plug 6.3 × 0.8 (female spade connector Q × 2.5 or Q × 4.0) for collector long cable available

Type	For cable	Cat.-NO.
ZH2.5	2.5	667012
ZH4.0	4.0	667013
QX2.5	2.5	667014
QX4.0	4.0	667015
RDL-2.5	2.5	667025
REL-4.0	4.0	667140



Installation tools

Curve tool



Conductor punch tool



Type	weight(kg)	Cat.-NO.
U12WH	7.8	669001

Type	weight(kg)	Cat.-NO.
U12DKQ	1.76	669005



Company: _____ Date: _____

Tel: _____ Fax: _____

E-mail: _____ Internet :(URL) _____

1. Number of powerail installations: _____

2. Type of equipment to be powered: _____

3. Operating voltage: _____ Volts, Phases: _____, Frequency: _____ Hz

Three phase voltage: ☐ AC voltage: ☐ DC voltage: ☐

4. Track length: _____

5. Number of conductors: _____ (Neutral: _____ control: _____ ground: _____)

6. Mounted position of powerail:

☐ Powerail pendant, collector cable facing to the buttom

☐ Powerail pendant, collector cable lateral payout

☐ Support distance _____ m(2m)

☐ Other: _____

7. Number of consumers per system: _____

8. Indoor: ☐ Outdoor: ☐

9. Other operation conditions (humidity, dust, chemical influence etc.)

10. Ambient temperature: _____ °C min. _____ °C max.

11. Position and number of feeding points⁽¹⁾: _____

12. How will the conductor system be arranged?⁽¹⁾ _____

13. Brackets required: yes ☐ no: ☐

c/c distance beam/powerail _____

Flange width of beam _____

14. Position and number of isolating sections (e.g. for maintenance): _____

15. Travel speed: _____ in curves: _____ at transfer: _____

16. Power consumption of the individual consumer loads: _____

(Please consult table on reverse side)

17. Max. Voltage drop from the powerail feed point to the consumer considering
starting current:

3% ☐ or _____% ☐ referring to nominal voltage

Remarks: _____

⁽¹⁾For curved tracks, powerail with isolating sections etc., we require sketches to enable us to prepare a
quotation. Puo!