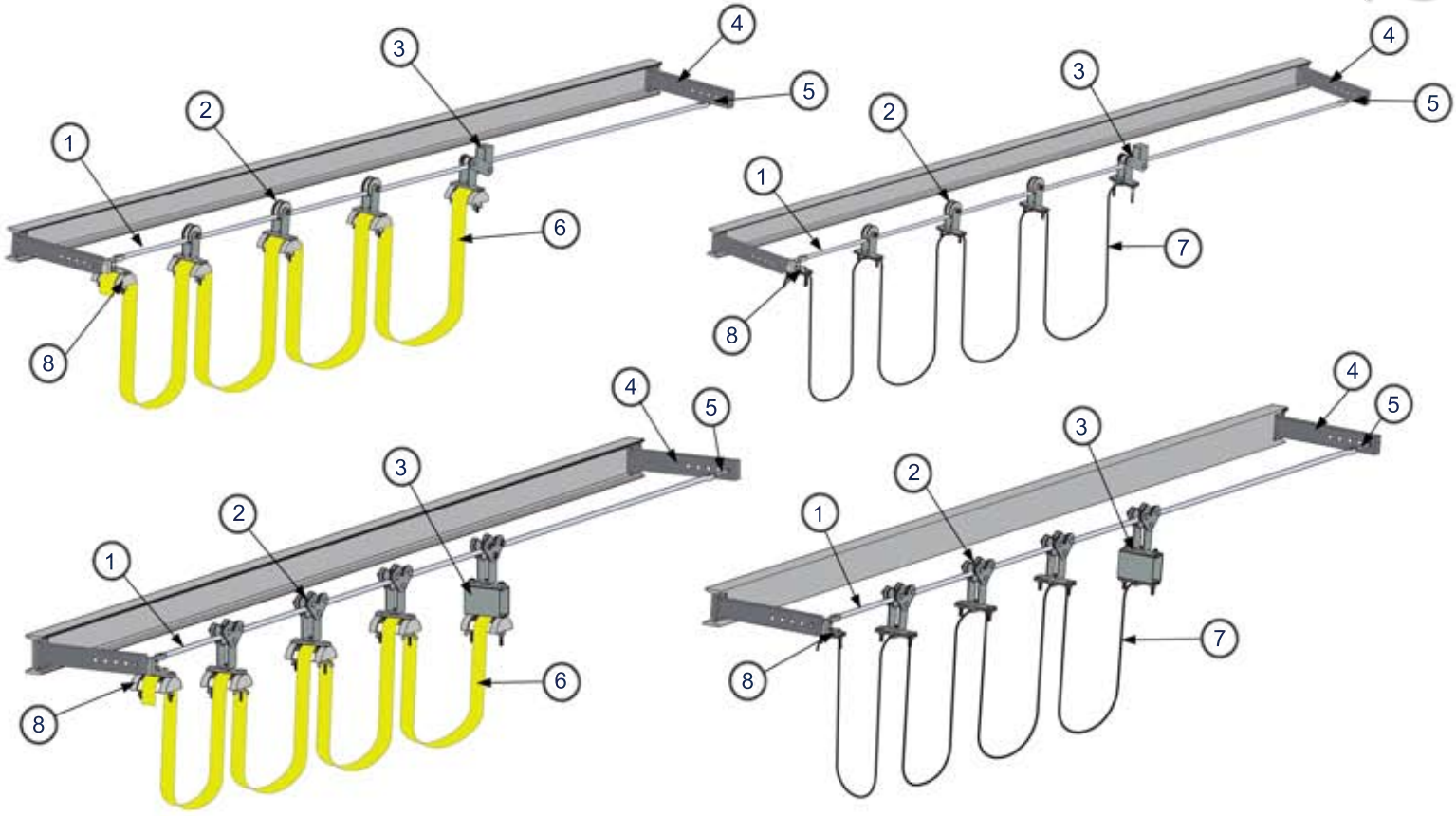
Wire Rope Festoon



1) 1/4” Nylon Coated Wire Rope
2) Intermediate Trolley
3) Tow Trolley
4) Support Bracket
5) Eye Bolt
6) Flat Cable
7) Round Cable
8) End Clamp

Wire rope festoon systems are ideal for light duty applications with limited distance and speed requirements where C-track cannot be installed. Choose from a complete range of trolleys based on your project demands. Systems can be purchased as complete packages or as individual components. Complete systems include the wire rope, trolleys, end clamp, rope clamps, thimbles and eye bolts.

Whether indoor, outdoor, light-duty or heavy-duty, Power Engineering can provide the appropriate solution for your mobile electrification project. We specialize in custom engineered systems. If you can’t find what you’re looking for, contact us with your requirements.

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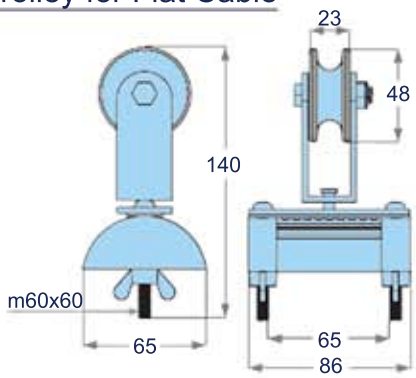
Wire Rope Festoon

Flat Cable Trolleys

230R035: Wire Rope Trolley for Flat Cable

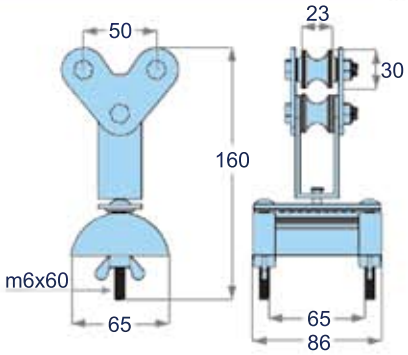


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	7 kg
Oper. Temp:	-30°C to +70°C

230R040: Steel Trolley with 3 Wheels for Flat Cable

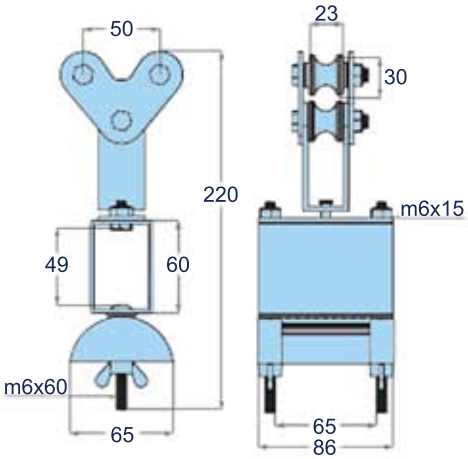


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	21 kg
Oper. Temp:	-30°C to +70°C

230R042: Steel Tow Trolley with 3 Wheels for Flat Cable

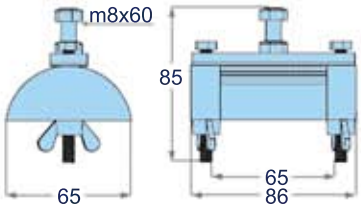


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	21 kg
Oper. Temp:	-30°C to +70°C

230R038: End Clamp for Flat Cable



End Clamp Materials

Body:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

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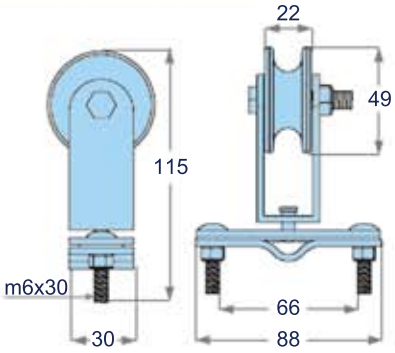
Wire Rope Festoon

Round Cable Trolleys

230R031: Wire Rope Trolley for Round Cable

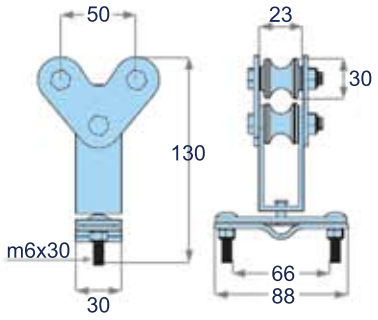


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	7 kg
Oper. Temp:	-30°C to +70°C

230R039: Steel Trolley with 3 Wheels for Round Cable

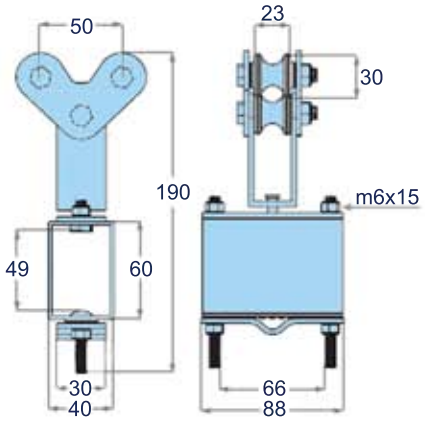


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Plastic
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	21 kg
Oper. Temp:	-30°C to +70°C

230R041: Steel Tow Trolley with 3 Wheels for Round Cable

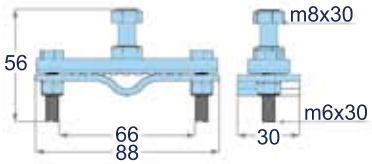


Trolley Materials

Carrier:	Galvanized Steel
Rollers:	Galvanized Steel
Saddle:	Galvanized Steel
Clamp:	Rubber
Fasteners:	Galvanized Steel

Wire Rope Size:	6-8mm
Max. Travel Speed:	50m/min
Load Capacity:	21 kg
Oper. Temp:	-30°C to +70°C

230R034: End Clamp for Round Cable



End Clamp Materials

Body:	Galvanized Steel
Saddle:	Galvanized Steel
Clamp:	Rubber
Fasteners:	Galvanized Steel

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Wire Rope Festoon

Parts

Each Wire Rope Festoon Kit is supplied with the following:

Nylon Coated Wire Rope

Galvanized Steel, Nylon Coated Wire Rope
7x19 Strand Core, 3/16" Bare OD, 1/4" Coated OD

Length required = length of runway + 5’

*Other wire rope sizes available on request

Thimbles

Galvanized Steel Thimble
Made from bent steel construction and plated with a zinc finish. Thimbles are used to strengthen the eye of the wire rope and help protect the wire rope from abrasion.

Two (2) required per system

*Thimble size dependant on wire rope size

Eye Bolts

Galvanized Steel Shoulder Eye Bolt & Nut
Made from forged steel construction and plated with a zinc finish. Eye bolts are used to anchor each end of the wire rope onto the supporting structure.

Two (2) required per system - Longer one used for tightening wire rope

Wire Rope Clamps

Galvanized Steel Wire Rope Clamp
Made from forged steel construction and plated with a zinc finish. Wire rope clamps are used to clamp the loose end of a wire rope once it has been looped back to form an eye.

Four (4) required per system

*Rope clamp size dependant on wire rope size

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Wire Rope Festoon

Flat Cable

Part #	AWG Wire Size	# of Conds.	Ampacity @ 30°C Ambient	# of Strands	Insulation Thickness	Dimensions	Lbs/ft
FC1616	16	16	15	65	.030	.200” x 2.250”	.36
FC1612	16	12	15	65	.030	.200” x 1.605”	.27
FC1608	16	8	15	65	.030	.200” x 1.110”	.18
FC1412	14	12	17	41	.030	.210” x 1.700”	.34
FC1408	14	8	17	41	.030	.210” x 1.175”	.22
FC1404	14	4	25	41	.030	.210” x .625”	.12
FC1208	12	8	21	65	.030	.230” x 1.340”	.32
FC1204	12	4	30	65	.030	.230” x .710”	.16
FC1004	10	4	40	105	.030	.270” x .880”	.24
FC0804	8	4	50	168	.045	.365” x 1.190”	.42
FC0604	6	4	70	266	.060	.430” x 1.450”	.60
FC0404	4	4	90	420	.060	.490” x 1.690”	.75
FC0204	2	4	120	665	.060	.560” x 1.955”	1.27

*Other sizes available upon request

DESCRIPTION:
- -Conductor of soft drawn bare copper
- -Insulation of 105°C colour coded PVC
- -Jacket compound PVC, -40°C to +105°C
- -UV resistant
- -CSA, UL & CE Listed
- -FT1 and VW-1 Rated

APPLICATION:
For use with festoon systems for the conveyance of electrical power and control to cranes, hoists or any equipment which travels with a lateral traversing motion. Not recommended for severe flexing or impact at temperatures below -40°C.

Pendant Cable

Part #	AWG Wire Size	# of Conds.	# of Strands	Diameter	Lbs/ft
RPC1624	16	24	65/34	.745”	.37
RPC1620	16	20	65/34	.745”	.31
RPC1616	16	16	65/34	.605”	.25
RPC1612	16	12	65/34	.550”	.20
RPC1608	16	8	65/34	.465”	.14
RPC1604	16	4	65/34	.435”	.09
RPC1608PPS-4	16	8	65/34	.495”	.18
RPC1612PPS-4	16	12	65/34	.570”	.26
RPC1616PPS-4	16	16	65/34	.630”	.32
RPC1624PPS-4	16	24	65/34	.765”	.44

DESCRIPTION:
- -Soft annealed bare copper per ASTM B3
- -Insulation of 105°C colour coded PVC
- -Resistance to UV, weather, oil and water
- -CSA, UL & CE Listed

APPLICATION:
For use in festoon systems as vertical drop cable from a crane or hoist down to a pendant push button station.

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Wire Rope Festoon

Cable Glands

Cable Connectors for Flat Cable

Part #	AWG Wire Size	# of Conds.	NPS
FC-1216C	16	12	2”
FC-816C	16	8	1.25”
FC-414C	14/12	4	1”
FC-410C	10	4	1”
FC-48C	8	4	1.25”
FC-46C	6	4	1.50”
FC-44C	4	4	2”
FC-42C	2	4	2”

Used to terminate the cable at the power source or junction box. Connector has an aluminum body and rubber bushing.

Part #	Knockout	*Cable Range* Height	Width
WGL100	1”	.500”	.750”
WGL125	1.25”	.625”	1.062”
WGL150	1.50”	.750”	1.250”
WGL200	2”	1.062”	1.625”

Used for connecting flat cable to power source or junction box.

Heat Shrinkable Cable Connectors

Part #	Length	Cable Opening	Drill Size
WGLS100	1.25”	.75”	1”
WGLS110	3.75”	1.10”	1.38”
WGLS160	4.25”	1.60”	2”
WGLS206	6.25”	2.06”	2.36”
WGLS290	7”	2.90”	3.50”

Used for single cable and multiple cable groupings. Water Tight • Corrosion Resistant • Flame Retardant • Exceed Navy requirements for tightness and integrity when used with one flat cable or multiple flat cables of the same size.

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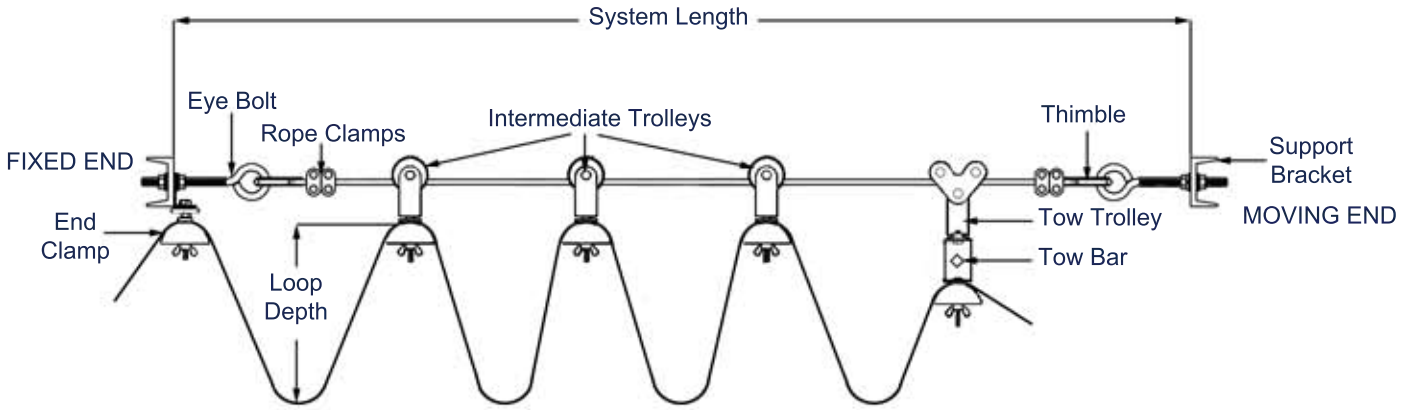
INSTALLATION INSTRUCTIONS

TYPICAL SYSTEM LAYOUT



Consult Power Engineering when:

- Atmosphere is corrosive or dusty
- Hazardous materials are present
- Speeds exceed 50m/min
- Components not shown or listed are required (including special flat cable sizes)

STEP 1
Support brackets (not supplied) must be welded to the supporting structure at each end of the system.

STEP 2
Install eye bolts on support brackets - one on each bracket with eye facing inward. The shorter eye bolt should be on the same side as your end clamp. Mount the end clamp to the same support bracket, as shown above.

STEP 3
Anchor the wire rope to the short eyebolt using the thimble and rope clamps.

STEP 4
Pass the wire rope through the rollers of all cable trolleys with the tow trolley being the last one.

STEP 5
Tie the trolleys to the fixed end eye bolt so that the weight of the trolleys does not contribute to the sag of the wire rope while you anchor it to the moving end.

STEP 6
Anchor the other end of the wire rope to the long eyebolt at the moving end then tighten the locking nut so the wire rope does not sag.

STEP 7
Untie the trolleys and make sure that they run smoothly across the length of the wire rope.

STEP 8
Attach the tow bar to the hoist and engage the tow trolley by inserting the tow bar through the box in the tow trolley.

STEP 9
Run the entire system back & forth several times to ensure proper operation. Flat cables should extend in a straight line if cables are fastened properly on trolleys.

STEP 10
Apply power and cycle the system at the slowest possible speed to make sure the system functions properly.

NOTE: Purchaser is responsible for supplying and ensuring that the supporting brackets are secured properly to the structure. The support brackets should be mounted at an appropriate elevation as required by the system layout. These brackets must be adequate to support the cable tension applied when the adjustment is made to eliminate the cable sag caused by the weight of the trolleys and festoon cable.

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