



## CRANE, CONVEYOR, LIFT & REELING CABLES

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## F-PVC SERIES

High Performance Flexible  
Flat Cable Indoor/Outdoor  
450/750V 70°C



### APPLICATIONS:

**Materials and Handling Systems** Suitable for use in indoor and outdoor crane and festooning systems, conveyor systems and energy chains.

**Confined Spaces** With its flat configuration, this cable can be laid in areas subject to space confinements.

Humid and wet rooms and for outdoor use.

**Pumping** Suitable for permanent submersion up to 200 metres.

### PRODUCT FEATURES:

- ▶ Special SPVC used for indoor and outdoor applications
- ▶ Tensile load up to 15 N/mm<sup>2</sup>
- ▶ Travel speed 180 metres per minute
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Very good behaviour to variations of outdoor temperatures
- ▶ Heat, oil and chemical resistant (See *Technical Section*)

See over for full product table ▶

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded extreme flexibility (Class 5 & 6).

**Insulation** Special SPVC.

**Sheath** Special SPVC.

### CHARACTERISTICS:

**Temperature Range** Fixed -40°C to 60°C / Flexing -25°C to 60°C.

**Maximum Conductor Temperature** 70°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors).

**Rated Voltage** U<sub>o</sub>/U 450/750V.

**Minimum Bending Radius** Fixed 5 x cable height / Flexing 10 x cable height.

**Sheath Colour** Black.

#### Standard Core Colours

4 Core – Brown, Black, Grey, Green/Yellow.

5 Core – Blue, Brown, Black, Grey, Green/Yellow.


Multi Core – Black Numbered, Green/Yellow.

**Relevant Standards** DIN VDE 0295, DIN VDE 0293, IEC 60332-1, **RoHS** Compliant.

## INSTALLATION NOTES FOR FESTOONING SYSTEMS USING PLATFORM CABLES

- ▶ Put the cable trolley on the guiding rail and push them together at the starting point. The distance between the bedding surface of two trolleys must be wider than double the thickness of all cables when stacked (packeted).
- ▶ Packeting should be started with the smaller cross-section laying on the bedding and built up successively so that the largest cross-section is on top.
- ▶ Also be careful to have a symmetrical load distribution on the bedding of each cable trolley.
- ▶ For fast moving or multi-packeted systems the larger cross-section cables should have a shorter loop depth than the smaller cross-section cables and be fitted with tow ropes to limit conductor stress and whiplash on acceleration and braking.
- ▶ Flat cables should never reach full extension especially in the case of multi core flat cables smaller than 2.5mm<sup>2</sup> where it is critical due to its low tensile strength. Allow +10% cable for calculations of trolley travel length.

## F-PVC SERIES continued

Code	No. of Cores x Size	Approx. Stranding	Approx. Overall Diameter + / - 10%	Approx. Weight	Nominal Amps un-enclosed protected from sun @ 30°C fixed application	3 Phase Volt Drop @50Hz / MAX. Conductor Temp:
	(mm <sup>2</sup> )	No. of wires x mm	(mm)	(Kg/Km)	Spaced From Surface 	90°C (Mv/Am)
F4/1.5PVC	4 x 1.5	84/0.15	4.9 x 15	160	18	30.000
F4/2.5PVC	4 x 2.5	140/0.15	5.6 x 17.8	224	26	16.400
F4/4.0PVC	4 x 4.0	224/0.15	6.6 x 19.8	328	34	10.200
F4/6.0PVC	4 x 6.0	192/0.20	7 x 22.3	439	44	6.800
F4/10PVC	4 x 10.0	320/0.20	9.6 x 28.1	690	61	4.050
F4/16PVC	4 x 16.0	512/0.20	10.4 x 34.3	996	82	2.550
F4/25PVC	4 x 25.0	800/0.20	12.5 x 42.1	1490	108	1.610
F4/35PVC	4 x 35.0	280/0.40	14 x 47.2	1980	135	1.170
F4/50PVC	4 x 50.0	400/0.40	16.5 x 56	2790	168	0.868
F4/70PVC	4 x 70.0	356/0.50	18 x 63	3630	207	0.609
F4/95PVC	4 x 95.0	485/0.50	20.5 x 73	4918	250	0.450
F5/1.5PVC	5 x 1.5	84/0.15	4.9 x 17.8	200	14	30.000
F5/2.5PVC	5 x 2.5	140/0.15	5.6 x 22	285	20	16.400
F5/4.0PVC	5 x 4.0	224/0.15	6.6 x 24.9	412	26	10.200
F5/6.0PVC	5 x 6.0	192/0.20	7 x 26.1	550	33	6.800
F5/10PVC	5 x 10.0	320/0.20	9.6 x 35.7	866	46	4.050
F5/25PVC	5 x 25.0	800/0.20	14.3 x 54.6	1868	81	1.610
F7/1.5PVC	7 x 1.5	84/0.15	5.1 x 24.9	270	12	30.000
F7/2.5PVC	7 x 2.5	140/0.15	5.6 x 30.9	380	17	16.400
F7/4.0PVC	7 x 4.0	224/0.15	6.6 x 35.5	550	22	10.200
F7/6.0PVC	7 x 6.0	192/0.20	9.1 x 44.1	740	29	6.800
F8/1.5PVC	8 x 1.5	84/0.15	4.9 x 27.5	290	12	30.000
F8/2.5PVC	8 x 2.5	140/0.15	5.6 x 33.2	425	17	16.400
F10/1.5PVC	10 x 1.5	84/0.15	5.1 x 33.5	365	10	30.000
F10/2.5PVC	10 x 2.5	140/0.15	7.6 x 47.2	523	14	16.400
F12/1.5PVC	12 x 1.5	84/0.15	5.2 x 40.1	430	10	30.000
F12/2.5PVC	12 x 2.5	140/0.15	5.6 x 49.3	628	14	16.400

## F-TPECY SERIES

High Performance Flexible CBS  
Platform Cable Indoor 0.6/1kV 75°C



### APPLICATIONS:

**Materials and Handling Systems** Suitable for use in indoor crane and festooning systems, conveyor systems and energy chains.

**Confined Spaces** With its flat configuration, this cable can be laid in areas subject to space confinements.

**Variable Speed Drives** Designed for the connection of AC Variable Speed Drives (0.6/1kV cables) or where a flexible EMC screened power cable is required.

### PRODUCT FEATURES:

- ▶ Tensile load up to 15 N/mm<sup>2</sup>
- ▶ Travel speed 180 metres per minute
- ▶ High flexibility
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Very good behaviour to variations of outdoor temperatures
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded extreme flexibility (Class 5 & 6).

**Insulation** Special TPE.

**Screening** Copper screened braiding, 85% minimum coverage (Individually screened cores).

**Sheath** Special TPE.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -40°C to 75°C / Flexing -5°C to 70°C.

**Maximum Conductor Temperature** 75°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors).

**Rated Voltage** U<sub>o</sub>/U 0.6/1kV.

**Max AC Operating Voltage** U<sub>o</sub> 0.7kV.

**Minimum Bending Radius** Flexing 10 x cable height.

**Sheath Colour** Black.


**Standard Core Colours.**

4 Core – Brown, Black, Grey, Green/Yellow.

5 Core – Blue, Brown, Black, Grey, Green/Yellow.

Multi Core – Black Numbered, Green/Yellow.

**Relevant Standards** VDE 0295, IEC 60332-1, IEC 60228, VDE 0250, VDE 0293-308, **CE** Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size  (mm <sup>2</sup> )	Approx. Stranding  No. of wires x mm	Approx. Overall Diameter + / - 10%  (mm)	Approx. Weight  (Kg/Km)	Nominal Amps un-enclosed protected from sun @ 30°C fixed application	3 Phase Volt Drop @50Hz / MAX. Conductor Temp:  75°C (Mv/Am)
					Spaced From Surface 	
F4/1.5TPECY	4 x 1.5	84/0.15	7.3 x 21.1	99	18	30.000
F4/2.5TPECY	4 x 2.5	140/0.15	8.0 x 23.8	163	26	16.400
F4/4.0TPECY	4 x 4.0	224/0.15	8.9 x 26.8	241	34	10.200
F4/6.0TPECY	4 x 6.0	192/0.20	9.3 x 29.5	353	44	6.800
F4/10TPECY	4 x 10.0	320/0.20	11.6 x 36.4	497	61	4.050
F4/16TPECY	4 x 16.0	512/0.20	12.9 x 40.8	805	82	2.550
F4/25TPECY	4 x 25.0	800/0.20	13.1 x 45.1	1200	108	1.610
F4/35TPECY	4 x 35.0	280/0.40	15.3 x 52.3	1657	135	1.170
F4/50TPECY	4 x 50.0	400/0.40	17.9 x 60.9	2261	168	0.868
F4/70TPECY	4 x 70.0	356/0.50	23.1 x 76.6	3259	207	0.609
F8/1.5TPECY	8 x 1.5	84/0.15	7.3 x 38.2	228	12	30.000
F12/1.5TPECY	12 x 1.5	84/0.15	7.3 x 55.3	342	10	30.000
F12/2.5TPECY	12 x 2.5	140/0.15	8.0 x 63.2	493	14	16.400

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## P SERIES

**High Performance Flexible Rubber Pendant / Lift Cable with Central or External Support 300/500V 75°C**



### APPLICATIONS:

**Materials and Handling Systems** For use as a pendant control or feeder cable for cranes, hoists and lifts.

**P Type** The central support system aids in the prevention of inner core breakage when twisting the pendant control by spacing the cores around the circumference of the cable. Free suspension to 80 metres.

**P2S Type** This has external steel wire supports to act as strain relief when the cable is under tension and to help with anti-twist and long cable life.

### PRODUCT FEATURES:

- ▶ Extremely fine stranded copper conductor
- ▶ Extremely flexible
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Good tensile strength, tearing strength and abrasion resistance
- ▶ Heat, oil and chemical resistant (See Technical Section)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded extreme flexibility (Class 5 & 6).

#### Insulation:

*P Type* – EPR rubber c/w central support core of hemp.

*P-2S Type* – SPVC c/w 2 x external steel wire supports.

#### Sheath:

*P Type* – CPE Elastomer Rubber.

*P-2S Type* – TPE Thermoplastic Polyester Elastomer.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -40°C to 75°C / Flexing -30°C to 70°C.

**Maximum Conductor Temperature** 75°C.

**Rated Voltage** U<sub>o</sub>/U 300/500v.

**Max AC Operating Voltage** U<sub>o</sub> 318v.

#### Minimum Bending Radius


*P Type* - without stress 10 x cable diam / with stress 20 x cable diam.

*P-2S Type* - 10 x cable diam.

**Sheath Colour** Black.

**Standard Core Colours** Black (numbered) plus 1 Green/Yellow Earth.

**Relevant Standards** DIN VDE 0293, IEC 60332-1, DIN VDE 0295, IEC 60228, **CE** Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size	Approx. Stranding	Approx. Overall Diameter	Approx. Weight	Nominal Amps un-enclosed protected from sun @ 30°C fixed application	3 Phase Volt Drop @50Hz / MAX. Conductor Temp:
	(mm <sup>2</sup> )	No. of wires x mm	(mm)	(Kg/Km)	Touching 	75°C (Mv/Am)
<b>P Type with Central Support System</b>						
<b>P 7/1.5NEO</b>	7 x 1.5	84/0.15	13.5	295	15	28.600
<b>P12/1.5NEO</b>	12 x 1.5	84/0.15	21.0	574	15	28.600
<b>P18/1.5NEO</b>	18 x 1.5	84/0.15	22.0	700	15	28.600
<b>P-2S Type with 2 x External Steel Wire Support System</b>						
<b>P8/1.5-2S</b>	8 x 1.5	84/0.15	14.9 x 27.3	425	15	28.600
<b>P12/1.5-2S</b>	12 x 1.5	84/0.15	16.5 x 31.5	505	15	28.600
<b>P20/1.5-2S</b>	20 x 1.5	84/0.15	21.0 x 36.0	715	15	28.600

# CRANE, CONVEYOR, LIFT & REELING CABLES

## PR SERIES

High Performance Flexible Rubber Power Reeling / Trailing Cable 0.6/1kV 90°C NSHTOU



### APPLICATIONS:

**Materials and Handling Systems** Suitable for use in cable reelers, crane pendants and festooning systems, conveyor systems and energy chains. Trailing cables are used for high mechanical stress applications, especially for frequent winding and unwinding with simultaneous tensile and torsional loads on cranes, building machinery and conveyors travelling up to 120m/min.

**Mine Sites** Suitable for use in surface mining, stone pits and other heavy industrial applications.

### PRODUCT FEATURES:

- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Very good behaviour to variations of outdoor temperatures
- ▶ Good tensile strength, tearing strength and abrasion resistance
- ▶ Heat, oil and chemical resistant (See *Technical Section*)
- ▶ Tensile strength max. 20N/mm<sup>2</sup>

See over for full product table ▶

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded extreme flexibility (Class 5 & 6).

**Insulation** EPR rubber R90.

**Sheath** PCP Elastomer rubber with synthetic yarn for anti-twisting protection.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -40°C to 90°C / Flexing -25°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** U<sub>0</sub>/U 0.6/1kV.

**Max AC Operating Voltage** U<sub>0</sub> 0.7kV.

**Minimum Bending Radius** Fixed 7.5 x cable diameter / Flexing 10 x cable diameter.

**Sheath Colour** Black.

**Standard Core Colours**

4 Core – Blue, Brown, Black, Green/Yellow.

Multi Core – Black (numbered) + Green/Yellow.

**Relevant Standards** VDE 0250-814, VDE 0298-4, VDE 0298-3, IEC 60332-1, **CE** Directive 2014/35/EU, **RoHS** Compliant.

### CABLES ON A DRUM OR REEL DURING OPERATION (IN LAYERS):

Where layers of flexible cable are accommodated on a cylindrical-type drum or reel, multiply the values by the appropriate factor as follows:

Number of layers de-rating factor	1	2	3	4
	0.85	0.65	0.45	0.35

Where a spiral layer of flexible cable is accommodated on a radial-type drum, multiply the values by a factor of 0.85 for a ventilated drum and 0.75 for unventilated drums. Handling and installing cables on drums and reels requires special care (especially power reeling). Please contact our technical team for details on the correct handling and installation of drum / reeling cables.




Festoons	Cable Winding Reels		Cable Tender Systems	Guide Pulley Systems	Pendant Push Buttons	Cable Carrier Chains	Basket
	Cable laid in ground or in conduit	Vert. Cable					
		X	X	X	X		X

Main Application
Suitable
X Not Suitable - Ask regarding other cable types available

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## PR SERIES continued

Code	No. of Cores x Size	Approx. Stranding	Approx. Overall Diameter	Approx. Weight	Nominal Amps un-enclosed protected from sun @ 30°C fixed application	3 Phase Volt Drop @50Hz / MAX. Conductor Temp:
	(mm <sup>2</sup> )	No. of wires x mm	(mm)	(Kg/Km)	Touching 	90°C (Mv/Am)
PR07/1.5	7 x 1.5	30/0.25	17.5	490	15	30.000
PR12/1.5	12 x 1.5	30/0.25	21.0	680	15	30.000
PR18/1.5	18 x 1.5	30/0.25	23.8	890	15	30.000
PR24/1.5	24 x 1.5	30/0.25	27.2	1140	15	30.000
PR30/1.5	30 x 1.5	30/0.25	28.6	1360	15	30.000
PR07/2.5	7 x 2.5	50/0.25	20.3	660	20	16.400
PR12/2.5	12 x 2.5	50/0.25	24.8	910	20	16.400
PR18/2.5	18 x 2.5	50/0.25	27.2	1270	20	16.400
PR24/2.5	24 x 2.5	50/0.25	31.8	1680	20	16.400
PR30/2.5	30 x 2.5	50/0.25	33.0	1890	20	16.400
PR04/4.0	4 x 4.0	56/0.30	18.1	550	37	10.200
PR04/6.0	4 x 6.0	84/0.30	19.4	680	47	6.800
PR04/10	4 x 10.0	80/0.40	23.8	1030	67	4.050
PR04/16	4 x 16.0	128/0.40	27.2	1470	89	2.550
PR04/25	4 x 25.0	200/0.40	33.7	2130	119	1.160
PR04/35	4 x 35.0	280/0.40	36.4	2750	149	1.170

## PRRT SERIES

**Extreme Performance Flexible  
PUR-HF Reeling/Trailing/Vertical  
Cable 0.6/1kV 90°C**



### APPLICATIONS:

**Trailing** With its super tough PUR sheath with interwoven synthetic yarn, this cable is suitable for trailing applications.

**Mine Sites** Suitable for use in surface mining, stone pits and other heavy industrial applications.

**Vertical Suspension** With the interwoven synthetic yarn, this cable is suitable for vertically suspended applications such as vertical cable reelers travelling up to 120m/min.

**Materials and Handling Systems** Suitable for use in cable reelers, ship loaders, gantry cranes, stackers and reclaimers, hoists and magnetic cranes travelling up to 180m/min.

**Harsh Environments** Suitable for magnet cranes in steelworks, smelters and sub-zero environments.

### PRODUCT FEATURES:

- ▶ Significantly smaller external diameters
- ▶ Smaller bending radii
- ▶ Reduced weight
- ▶ Robust and all-weather resistant
- ▶ Resistant against ozone and radiation
- ▶ Self-extinguishing and flame retardant
- ▶ Frequent winding and unwinding with simultaneous tensile and torsional stress
- ▶ Interwoven synthetic yarn bonded between inner and outer sheath for extra protection during constant flexing
- ▶ Oil, grease and petrol resistant (*See Technical Section*)
- ▶ Tensile strength max. 25N/mm<sup>2</sup>

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded extreme flexibility (Class 5 & 6).

**Insulation** Special compound based on high-quality TPE.

**Inner Sheath** Special PUR compound.

**Anti-torsion Braid** Reinforced braid made of polyester threads, in a vulcanized bond between the sheaths.

**Outer Sheath** Abrasion and tear-resistant special PUR compound.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -40°C to 90°C / Flexing -25°C to 90°C.

**Maximum Conductor Temperature** 90°C.

**Rated Voltage** 0.6/1kV.

**Sheath Colour** Black.

#### Standard Core Colours

4 Core – Blue, Brown, Black, Green/Yellow.

Multi Core – Black (numbered) + Green/Yellow.

**Relevant Standards** DIN VDE0250, DIN VDE0298-4, DIN VDE0298-3, IEC 60332-1, CE Directive 2014/35/EU,

**RoHS** Compliant.


See over for full product table ▶

Festoons	Cable Winding Reels		Vert. Cable	Cable Tender Systems	Guide Pulley Systems	Pendant Push Buttons	Cable Carrier Chains	Basket
	Cable laid in ground or in conduit							
						X		X
Main Application	Suitable		X Not Suitable - Ask regarding other cable types available					

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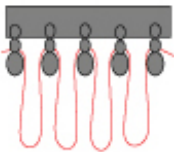
## PRRT SERIES continued

Code	No. of Cores x Size	Approx. Stranding	Approx. Overall Diameter	Approx. Weight	Nominal Amps un-enclosed protected from sun @ 30°C fixed application	3 Phase Volt Drop @50Hz / MAX. Conductor Temp:
	(mm <sup>2</sup> )	No. of wires x mm	(mm)	(Kg/Km)	Touching 	90°C (Mv/Am)
PRRT4/1.5	4 x 1.5	30/0.25	10.2	157	21	30.000
PRRT5/1.5	5 x 1.5	30/0.25	10.8	176	21	30.000
PRRT7/1.5	7 x 1.5	30/0.25	12.9	245	15	30.000
PRRT12/1.5	12 x 1.5	30/0.25	16.1	337	15	30.000
PRRT18/1.5	18 x 1.5	30/0.25	17.2	526	15	30.000
PRRT24/1.5	24 x 1.5	30/0.25	19.5	662	15	30.000
PRRT30/1.5	30 x 1.5	30/0.25	21.8	901	15	30.000
PRRT4/2.5	4 x 2.5	50/0.25	11.7	208	29	16.400
PRRT5/2.5	5 x 2.5	50/0.25	12.7	263	29	16.400
PRRT7/2.5	7 x 2.5	50/0.25	13.8	327	20	16.400
PRRT12/2.5	12 x 2.5	50/0.25	19.4	533	20	16.400
PRRT18/2.5	18 x 2.5	50/0.25	19.8	725	20	16.400
PRRT24/2.5	24 x 2.5	50/0.25	22.0	988	20	16.400
PRRT30/2.5	30 x 2.5	50/0.25	25.2	1242	20	16.400
PRRT36/2.5	36 x 2.5	50/0.25	28.2	1500	20	16.400
PRRT4/4.0	4 x 4.0	56/0.30	12.5	270	37	10.200
PRRT5/4.0	5 x 4.0	56/0.31	14.3	362	37	10.200
PRRT4/6.0	4 x 6.0	84/0.30	15.0	409	47	6.800
PRRT5/6.0	5 x 6.0	84/0.31	16.8	511	47	6.800
PRRT4/10	4 x 10	80/0.40	18.0	633	67	4.050
PRRT5/10	5 x 10	80/0.41	19.1	766	67	4.050
PRRT4/16	4 x 16	128/0.40	20.8	936	89	2.550
PRRT5/16	5 x 16	128/0.41	22.1	1170	89	2.550
PRRT4/25	4 x 25	200/0.40	24.0	1485	119	1.160
PRRT4/35	3 x 35 + 3 x 16	280/0.40 E 128/0.40	29.1	2115	149	1.170

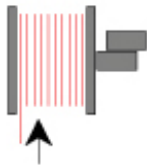
## Reeling / Trailing Cable Enquiry Form

Attn:	<input type="text"/>	Date:	<input type="text"/>
Company:	<input type="text"/>	Contact:	<input type="text"/>
Ph/Fax:	<input type="text"/>	Email:	<input type="text"/>

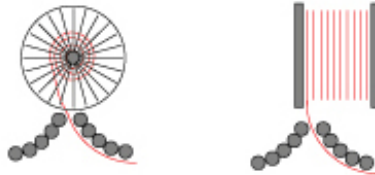
**Festoon**



**Lift/Vert**



**Cable Reeling/Trailing**



**Basket**



**If existing / replacing**

Marking on cable:

Cable Size (mm?):  Conductors (incl. Earth):

Cable Overall Diameter:

Why replacing?

How long did existing last?

Environment:

**New Application**

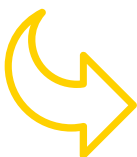
Cable Size (mm?):  Conductors (incl. Earth):

Cable Overall Diameter:

Size of Reeler/Basket: Width:  mm Height:  mm Radius:  mm

Ask for specs on Reeler/Basket:

Environment:



Fax or Email this form to:  
[sales@firstflex.co.nz](mailto:sales@firstflex.co.nz)  
 Fax: 09 264 1001