

CF6



# PVC Control Cable

## Chainflex® CF6

### PVC Energy Chain® cable, shielded, oil-resistant, flame-resistant

**CLASS**  
5.3.2

Price Index


**Conductor**  
Especially bend-resistant fine wire stranded conductor

**Strain relief**  
Center core for high tensile strength

**Core**  
Braiding in bundles around high tensile strength core

**Inner jacket**  
gusset filled pressure extruded

**Overall shield**  
Highly flexible braided copper shield

**Outer jacket**  
Pressure extruded, oil-proof PVC blend

### Construction

**Conductors:** Finely stranded bundled bare copper wires. According to EN60228.

**Conductor insulation:** Mechanically high-quality, PVC-insulating compound.

**Conductor twisting:** Number of conductors < 12 Conductors concentrically layered with short pitch. Number of conductors ≥ 12 Conductors layered in braids around a, high-tensile-strength core; short pitches matched in the direction of the pitch for extremely low torsion.

**Conductor colors:** 20-16 AWG Black with white numbers, one conductor green-yellow; 24 AWG DIN 47100

**Intermediate jacket:** PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®.

**Shield:** Tinned copper braid. Coverage: approx. 90% optical

**Outer jacket:** PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** green (RAL 6005).

### Technical Data

**Minimum bending radius, moving:** <10m travel = 6.8 x outer diameter; ≥10m travel = 7.5 x outer diameter

**Minimum bending radius, fixed:** 4 x outer cable diameter

**Permissible temperature, moving:** +23°F to +158°F (-5°C to +70°C)

**Permissible temperature, fixed:** -4°F to 158°F (-20°C to +70°C)

**Oil-resistance:** Medium

**UV Resistance:** Medium

**Voltage:** 600V

**Testing voltage:** 2000 V

**Flame resistance:** FT1

**Regulations:** cRUus AWM: UL AWM: For USA & Canada styles; 2570 80°C 600V, CE: CEI 20-20, VDE: 0245,

**RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

**Cleanroom:** According to ISO Class 2, material/cable tested by IPA according to ISO standard 14644-1

### Typical Applications

- for high mechanical load requirements
- preferably indoor applications, can be used in outdoor applications with temperatures > 23°F
- especially for unsupported travel distances and for gliding applications up to 328 ft (100m).
- storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes


**Clean-Room**

10.74


**No Minimum Order • No Cut Charges on up to 10 cuts of the same part number**

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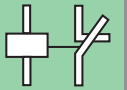
CLASS  
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Part No.	AWG	No. of Conductors and Rated Cross- Section in mm <sup>2</sup>	Outer Diameter (approx)		Copper Index		Weight	
			in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CF6-02-04	24	4 x 0.25	.30	(7.5)	19.0	(28)	37.4	(55)
CF6-02-24**	24	24 x 0.25	.57	(14.5)	68.0	(100)	170.0	(250)
CF6-03-05	22	5 x 0.34	.32	(8)	23.0	(34)	64.6	(95)
CF6-05-05	20	5 x 0.5	.34	(8.5)	32.6	(48)	77.5	(114)
CF6-05-07	20	7 x 0.5	.39	(10)	42.8	(63)	96.6	(142)
CF6-05-09	20	9 x 0.5	.45	(11.5)	52.4	(77)	123.8	(182)
CF6-05-12	20	12 x 0.5	.51	(13)	63.2	(93)	160.5	(206)
CF6-05-18	20	18 x 0.5	.59	(15)	81.6	(120)	163.2	(276)
CF6-05-24**	20	24 x 0.5	.69	(17.5)	129.2	(190)	275.4	(405)
CF6-07-03	18	3 x 0.75	.32	(8)	35.4	(52)	74.8	(110)
CF6-07-04	18	4 x 0.75	.34	(8.5)	36.7	(54)	81.6	(120)
CF6-07-05	18	5 x 0.75	.35	(9)	49.6	(73)	102.0	(150)
CF6-07-07	18	7 x 0.75	.41	(10.5)	63.2	(93)	129.2	(190)
CF6-07-12	18	12 x 0.75	.55	(14)	93.8	(138)	179.5	(264)
CF6-07-18	18	18 x 0.75	.69	(17.5)	138.7	(204)	278.8	(410)
CF6-07-24**	18	24 x 0.75	.77	(19.5)	170.0	(250)	316.9	(466)
CF6-10-03	17	3 x 1	.33	(8.5)	41.5	(61)	70.0	(103)
CF6-10-04	17	4 x 1	.35	(9)	51.0	(75)	78.2	(115)
CF6-10-05	17	5 x 1	.37	(9.5)	59.2	(87)	115.6	(170)
CF6-10-07	17	7 x 1	.47	(12)	76.8	(113)	147.6	(217)
CF6-10-12	17	12 x 1	.59	(15)	116.3	(171)	212.8	(313)
CF6-10-18	17	18 x 1	.75	(19)	177.5	(261)	319.6	(470)
CF6-10-24**	17	24 x 1	.83	(21)	208.8	(307)	399.8	(588)
CF6-15-03	16	3 x 1.5	.35	(9)	55.1	(81)	105.4	(155)
CF6-15-04	16	4 x 1.5	.39	(10)	57.8	(85)	115.6	(170)
CF6-15-05	16	5 x 1.5	.39	(10)	72.1	(106)	129.2	(190)
CF6-15-07	16	7 x 1.5	.47	(12)	104.0	(153)	183.6	(270)
CF6-15-12	16	12 x 1.5	.67	(17)	157.8	(232)	279.5	(411)
CF6-15-18	16	18 x 1.5	.85	(21.5)	249.6	(367)	433.2	(637)
CF6-15-25	16	25 x 1.5	.93	(23.5)	334.6	(492)	556.9	(819)
CF6-25-04	14	4 x 2.5	.51	(13)	91.8	(135)	187.0	(275)

The Chainflex® types marked with \*\* are cables based on 4-conductor bundles. Due to their excellent electrical properties (star-quad with particularly low crosstalk), these cables can be used in virtually all applications normally requiring twisted-pair cables.

NOTE: The mentioned external diameters are maximum values.

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10.75