Control/Power Cables

Chainflex® CF6

PVC Standard Energy Chain® cable, shielded, oil-proof, flame-retardant

Conductor
Especially bend-resistant fine wire stranded conductor

Strain relief
Center core fo 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. Designed in accordance with VDE 0295, Class 5.
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 polymer, high-tensile-strength core; short pitches matched in the direction of the pitch for extremely low torsion.
Conductor colors: Black with white numbers, one conductor green-yellow 20-16 AWG; DIN 47100 24 AWG
Shield: 1) High flexural strength copper shield. Coverage: approx. 90% optical
Outer jacket: PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®. Oil-resistant in accordance with CSA and VDE. **Color:** green (RAL 6005).
Intermediate jacket: PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®.

Technical Data

Minimum bending radius for flexible use: 7.5 x outer cable diameter
Permissible temperature range for continuous flexing: +23°F to +158°F (-5°C to +70°C)
UL/CSA voltage: 300V 24-16 AWG, 600V 14 AWG, **VDE voltage:** 300/500V
Regulations: UL AWM: 2464 80°C 20-16 AWG; 2570 80°C 14 AWG, **CSA AWM:** 80°C I/II A/B FT1 Oil Resistant, **CE:** CEI 20-20, **VDE:** 0245, **RoHS: 2002/95/EC;** See page 10.23 of the Design section for more information.

Part No.	AWG	No. of Conductors and Rated Cross-Section in mm²	Outer Diameter (approx)		Copper Index		Weight	
			in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CF6-02-04	24	4 x 0.25	.28	(7)	19.0	(28)	37.4	(55)
CF6-02-24**	24	24 x 0.25	.53	(13.5)	68.0	(100)	170.0	(250)
CF6-05-05	20	5 x 0.5	.35	(9)	32.6	(48)	77.5	(114)
CF6-05-07	20	7 x 0.5	.43	(11)	42.8	(63)	96.6	(142)
CF6-05-09	20	9 x 0.5	.49	(12.5)	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	.67	(17)	129.2	(190)	275.4	(405)
CF6-07-03	18	3 x 0.75	.33	(8.5)	35.4	(52)	74.8	(110)
CF6-07-04	18	4 x 0.75	.35	(9)	36.7	(54)	81.6	(120)
CF6-07-05	18	5 x 0.75	.39	(10)	49.6	(73)	102.0	(150)
CF6-07-07	18	7 x 0.75	.47	(12)	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	.71	(18)	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	.33	(8.5)	51.0	(75)	78.2	(115)
CF6-10-05	17	5 x 1	.43	(11)	59.2	(87)	115.6	(170)
CF6-10-07	17	7 x 1	.51	(13)	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	.73	(18.5)	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	.39	(10)	55.1	(81)	105.4	(155)
CF6-15-04	16	4 x 1.5	.41	(10.5)	57.8	(85)	115.6	(170)
CF6-15-05	16	5 x 1.5	.43	(11)	72.1	(106)	129.2	(190)
CF6-15-07	16	7 x 1.5	.55	(14)	104.0	(153)	183.6	(270)
CF6-15-12	16	12 x 1.5	.71	(18)	157.8	(232)	279.5	(411)
CF6-15-18	16	18 x 1.5	.87	(22)	249.6	(367)	433.2	(637)
CF6-15-25	16	25 x 1.5	.96	(24.5)	334.6	(492)	556.9	(819)
CF6-25-04	14	4 x 2.5	.49	(12.5)	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.