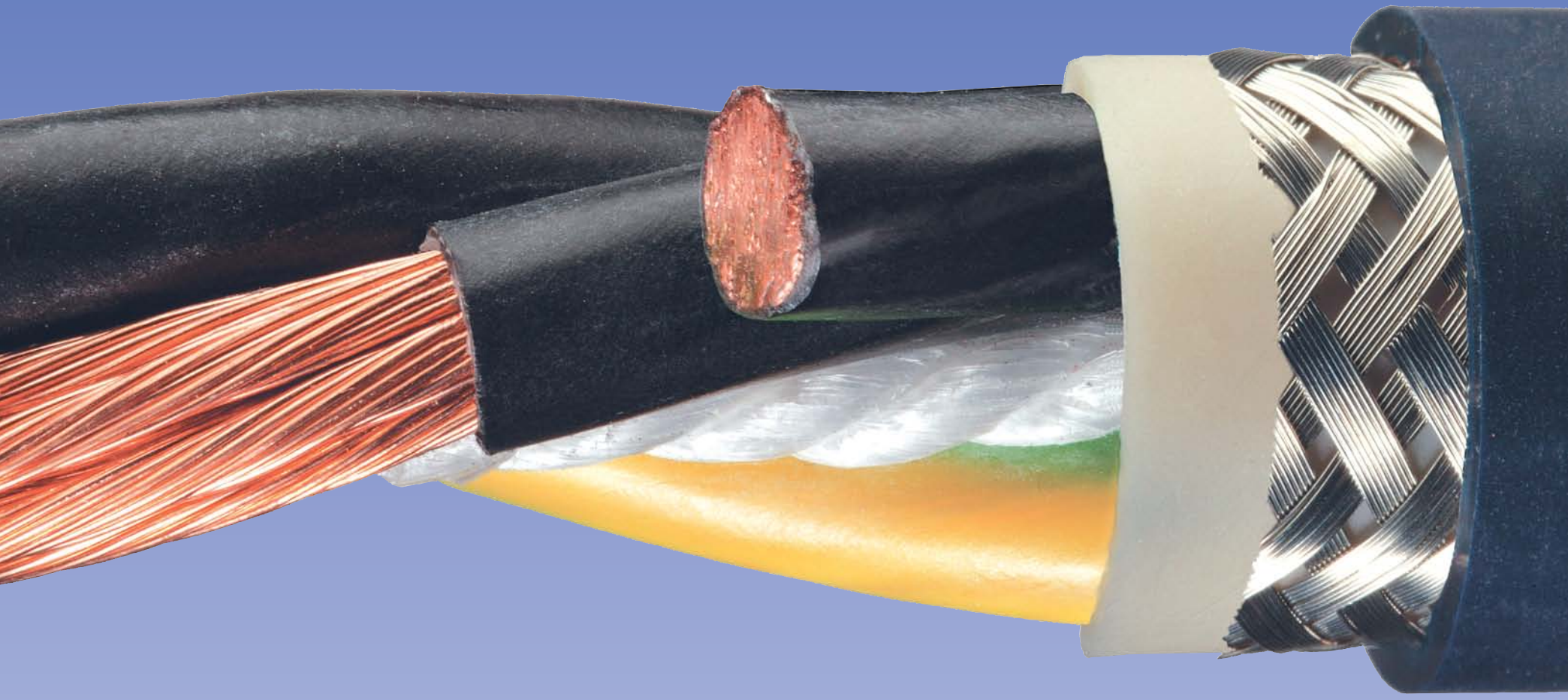
Power Cables



PVC Power Cables

Chainflex® CF30

PVC Standard Energy Chain® cable, oil-resistant, flame-retardant

Price Index

Conductor
Highly flexible special conductor

Core
Conductors stranded around high-tensile center core

Outer jacket
gusset filled, pressure extruded, oil-proof PVC blend

Construction

Conductor: Finely stranded bare copper wires, according to EN 60228
Conductor insulation: Mechanically high quality TPE blend
Conductor twisting: Conductors cabled with short pitch over a high-tensile-strength center core.

Conductor colors: Black with white numbers, one conductor green-yellow.
1. U / L1 / C / L+
2. V / L2
3. W / L3 / D / L-
4. 4 / N
5. green / yellow

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:** black (RAL 9005).

Technical Data

Minimum bending radius, moving: 7.5 x outer cable 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)
Voltage: 1000V
Testing voltage: 4000V
Oil resistance: Medium
UV resistance: Medium
Regulations: cRUus: UL AWM style for USA & Canada: 2570 80°C 1000V **Flame Resistance:** FT1**, CE**: CEI 20-20, **DESINA, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for high mechanical load requirements
- preferably indoor applications, outdoor is acceptable for temperatures greater than +41°F (+5°C)
- for freely suspended and gliding travel up to 328 ft (100m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, indoor cranes

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)
CF30-15-04	16	4 x 1.5	.34	(8.5)	37	(55)	69	(102)
CF30-25-04	14	4 x 2.5	.41	(10.5)	65	(95)	112	(164)
CF30-40-04	12	4 x 4	.47	(12.0)	103	(152)	160	(235)
CF30-40-05	12	5 x 4	.53	(13.5)	128	(188)	194	(285)
CF30-60-04	10	4 x 6	.57	(14.5)	154	(227)	231	(339)
CF30-60-05	10	5 x 6	.61	(15.5)	191	(282)	276	(405)
CF30-100-04	8	4 x 10	.71	(18.0)	266	(391)	378	(556)
CF30-100-05	8	5 x 10	.79	(20.0)	333	(489)	476	(699)
CF30-160-04	6	4 x 16	.83	(21.0)	415	(610)	568	(835)
CF30-160-05	6	5 x 16	.95	(24.0)	519	(763)	695	(1021)
CF30-250-04	4	4 x 25	1.02	(26.0)	642	(944)	896	(1317)
CF30-350-04	2	4 x 35	1.14	(29.0)	904	(1329)	1171	(1721)
CF30-500-04	1	4 x 50	1.38	(35.0)	1291	(1898)	1657	(2436)

NOTE: The mentioned external diameters are maximum values.

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

PVC Power Cables

Chainflex® CF31

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

Price Index

CF31

STANDARD

Construction

Conductor: Finely stranded bare copper wires, according to EN 60228
Conductor insulation: Mechanically high quality TPE blend
Conductor twisting: Conductors cabled with short pitch over a high-tensile-strength center core.

Conductor colors: Black with white numbers, one conductor green-yellow.
1. U / L1 / C / L+
2. V / L2
3. W / L3 / D / L-
4. 4 / N
5. green / yellow

Intermediate jacket: PVC-based blend, adapted to the requirements of the Energy Chain®.
Total shielding: Tinned copper braid, coverage approx. 90% optical.
Outer jacket: PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®. Oil-resistant in accordance with VDE. Color: black (RAL 9005).

Technical Data

Minimum bending radius, moving: 7.5 x outer cable 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)
Voltage: 1000V
Testing voltage: 4000V
Oil resistance: Medium
UV resistance: Medium
Regulations: cRUus: UL AWM style for USA & Canada: 2570 80°C 1000V **Flame Resistance:** FT1, **CE**: CEI 20-20, **RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for high mechanical load requirements
- preferably indoor applications, outdoor is acceptable for temperatures greater than +41°F (+5°C)
- for freely suspended and gliding travel up to 328 ft (100m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, indoor cranes
- VFD

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)
CF31-15-04	16	4 x 1.5	.43	(11.0)	56	(82)	115	(169)
CF31-25-04	14	4 x 2.5	.49	(12.5)	87	(128)	161	(237)
CF31-25-05	14	5 x 2.5	.53	(13.5)	106	(156)	189	(278)
CF31-40-04	12	4 x 4	.55	(14.0)	131	(192)	217	(319)
CF31-40-05	12	5 x 4	.61	(15.5)	167	(246)	264	(388)
CF31-60-04	10	4 x 6	.67	(17.0)	197	(290)	316	(464)
CF31-60-05	10	5 x 6	.73	(18.5)	237	(349)	380	(558)
CF31-100-04	8	4 x 10	.83	(21.0)	325	(477)	508	(747)
CF31-100-05	8	5 x 10	.91	(23.0)	407	(598)	615	(904)
CF31-160-04	6	4 x 16	.95	(24.0)	501	(737)	712	(1047)
CF31-250-04	4	4 x 25	1.16	(29.5)	735	(1081)	1072	(1577)
CF31-350-04	2	4 x 35	1.32	(33.5)	1009	(1483)	1415	(2080)
CF31-500-04	1	4 x 50	1.52	(38.5)	1416	(2081)	1940	(2851)
CF31-700-04	2/0	4 x 70	1.85	(47.0)	2014	(2961)	3163	(4650)

NOTE: The mentioned external diameters are maximum values.

PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RFQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp

CF34

PREMIUM

TPE Power Cables

Chainflex® CF34

TPE Energy Chain® cable, oil-resistant, bio-oil-resistant, UV-resistant, flame-retardant

Oil 7.5x

igus®

Price Index

Conductor
Highly flexible special conductor

Core
Conductors stranded around high tensile center core

Outer jacket
gusset filled, pressure extruded, TPE blend

Construction

Conductors: Finely stranded bare copper conductor, according to EN 60228.
Conductor insulation: Mechanically high quality TPE blend
Conductor twisting: Conductors cabled with short pitch over a high-tensile-strength center cord.
Conductor colors: Black with white numbers, one green-yellow.
1. U / L1 / C / L+
2. V / L2
3. W / L3 / D / L-
4. 4 / N
5. green / yellow

Outer jacket: TPE particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** black

Technical Data

Minimum bending radius, moving: 7.5 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -31°F to +194°F (-35°C to +90°C)
Permissible temperature, fixed: -40°F to +194°F (-40°C to +90°C)
Voltage: 1000V
Testing voltage: 4000V
Oil resistance: High
UV resistance: High
Regulations: **cRUus:** UL AWM style for USA & Canada: 21184 80°C 1000V **Flame Resistance:** FT1, **CE, DESINA, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- for freely suspended and gliding travel up to 1312 ft (400m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

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)
CF34-15-04	16	4 x 1.5	.34	(8.5)	37	(55)	71	(105)
CF34-25-04	14	4 x 2.5	.39	(10.0)	62	(91)	106	(156)
CF34-40-04	12	4 x 4	.47	(12.0)	103	(152)	159	(234)
CF34-60-04	10	4 x 6	.55	(14.0)	160	(235)	232	(341)
CF34-60-05	10	5 x 6	.59	(15.0)	193	(283)	282	(414)
CF34-100-04	8	4 x 10	.67	(17.0)	266	(391)	361	(531)
CF34-100-05	8	5 x 10	.73	(18.5)	333	(489)	446	(655)
CF34-160-04	6	4 x 16	.77	(19.5)	415	(610)	536	(788)
CF34-160-05	6	5 x 16	.91	(23.0)	519	(763)	729	(1072)
CF34-250-04	4	4 x 25	.96	(24.5)	642	(944)	847	(1245)
CF34-100-04-O-PE[1]	6	4 x 10	.67	(17.0)	266	(391)	361	(531)
CF34-500-03-O-PE[1]	1	3 x 50	1.18	(30.0)	968	(1423)	1323	(1947)

NOTE: The mentioned external diameters are maximum values.

[1]O-PE = no ground (green/yellow wire)

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

TPE Power Cables

Chainflex® CF35

TPE Energy Chain® Cable, shielded, oil-resistant, bio-oil-resistant, UV-resistant, flame-retardant

Price Index

CF35

PREMIUM

Construction

Conductors: Finely stranded bare copper conductor, according to EN 60228
Conductor insulation: Mechanically high quality TPE blend
Conductor twisting: Conductors cabled with short pitch over a high-tensile-strength center core.
Conductor colors: Black with white numbers, one green-yellow.
1. U / L1 / C / L+
2. V / L2
3. W / L3 / D / L-
4. green / yellow

Inner Jacket: TPE
Shielding: Tinned copper braid, coverage approx. 90% optical
Outer jacket: TPE particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant, Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** black (RAL 9005)

Technical Data

Minimum bending radius, moving: 7.5 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
(smaller radii are often possible - please consult igus®).
Permissible temperature, moving: -31°F to +194°F (-35°C to +90°C)
Permissible temperature, fixed: -40°F to +194°F (-40°C to +90°C)
Voltage: 1000V
Testing voltage: 4000V
Oil resistance: High
UV resistance: High
Regulations: **cRUus:** UL AWM style for USA & Canada: 21184 80°C 1000V **Flame Resistance:** FT1, **CE, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- designed for AC motors with variable frequency drive (VFD)
- for freely suspended and gliding travel up to 1312 ft (400m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

Conductor
Highly flexible special conductor

Core
Conductors stranded around high-tensile center core

Inner jacket
gusset filled pressure extruded TPE blend

Overall shield
Highly flexible braided copper shield

Outer jacket
Pressure extruded, TPE blend

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)
CF35-15-04	16	4 x 1.5	.37	(9.5)	56	(82)	99.0	(146)
CF35-25-04	14	4 x 2.5	.43	(11.0)	84	(123)	139.5	(205)
CF35-40-04	12	4 x 4	.55	(14.0)	137	(201)	218.0	(321)
CF35-60-04	10	4 x 6	.61	(15.5)	198	(291)	291.0	(428)
CF35-100-04	8	4 x 10	.77	(19.5)	305	(449)	457.0	(672)
CF35-160-04	6	4 x 16	.87	(22.0)	473.5	(696)	657.0	(965)
CF35-250-04	4	4 x 25	1.06	(27.0)	736	(1082)	1013.0	(1489)

NOTE: The mentioned external diameters are maximum values.

PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RFQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp

CF300

PREMIUM

Single Conductor Cable

Chainflex® CF300

TPE Energy Chain® cable, oil-resistant, bio-oil-resistant, UV-resistant, flame-retardant

Price Index

Conductor
Highly flexible special conductor

Conductor insulation
Pressure extruded TPE blend

Outer jacket
Pressure extruded, halogen-free TPE blend

Construction

Conductors: High flexural strength bare copper wires, creating a single core.
Conductor insulation: Mechanically and electrically tough TPE blend.
Outer jacket: TPE - Particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant and UV-resistant. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** black.

Technical Data

Minimum bending radius, moving: 7.5 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -31°F to +194°F (-35°C to +90°C)
Permissible temperature, fixed: -40°F to +194°F (-40°C to +90°C)
Nominal voltage: 1000 V
Testing voltage: 4000V
Oil resistance: High
UV resistance: High
Regulations: cRUus: UL AWM style for USA & Canada: 21184 80°C 1000V **Flame Resistance:** FT1, **CE, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- for freely suspended and gliding travel up to 1312 ft (400m) or more
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

Part No.	AWG	No. of Conductors and Rated Cross-Section in mm²	Outer Diameter		Copper Index		Weight	
			in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CF300-60-01	10	1 x 6.0	.28	(7)	39.4	(58)	57.8	(85)
CF300-100-01	8	1 x 10.0	.31	(8)	65.3	(96)	88.4	(130)
CF300-160-01	6	1 x 16.0	.37	(9.5)	104.7	(154)	129.2	(190)
CF300-250-01	4	1 x 25.0	.45	(11.5)	163.2	(240)	190.4	(280)
CF300-350-01	2	1 x 35.0	.49	(12.5)	228.5	(336)	272.0	(400)
CF300-500-01	1	1 x 50.0	.57	(14.5)	326.4	(480)	353.6	(520)
CF300-700-01	2/0	1 x 70.0	.63	(16)	424.0	(623)	460.0	(676)
CF300-950-01	3/0	1 x 95.0	.75	(19.0)	577.0	(848)	631.0	(927)
CF300-1200-01	4/0	1 x 120.0	.85	(21.5)	720.0	(1059)	779.0	(1145)
CF300-1500-01	300 MCM	1 x 150.0	.91	(23)	897.0	(1318)	960.0	(1411)
CF300-1850-01	350 MCM	1 x 185.0	1.00	(25.5)	1156.0	(1699)	1208.0	(1775)

Chainflex® Shrink Sleeve

Technical Data

(Heat-shrink sleeving only)
Material: Polyolefin particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant **Color:** green/yellow
Permissible temperature range for continuous flexing: -40°F to +275°F (-40°C to +135°C)
Shrink temperature: +248°F (+120 °C) min.

Part No.	Maximum Diameter Before Shrinking		Minimum Diameter After Shrinking	
	in.	(mm)	in.	(mm)
CGPT 9-5/4-8	.37	(9.5)	.19	(4.8)
CGPT 12-7/6-4	.50	(12.7)	.25	(6.4)
CGPT 19-0/9-5	.75	(19.0)	.37	(9.5)
CGPT 25-4/12-7	1.00	(25.4)	.50	(12.7)
CGPT 38-0/19-0	1.50	(38.0)	.75	(19.0)

NOTE: The mentioned external diameters are maximum values.

Single Conductor Cables

Chainflex® CFPE

TPE Energy Chain® cable, oil-resistant, bio-oil-resistant, UV-resistant, flame retardant

Price Index

CFPE

PREMIUM

Construction

Conductors: High flexural strength bare copper wires used to construct a single wire
Conductor insulation: TPE **Color:** green/yellow
Overall jacket: TPE Especially abrasion resistant, highly flexible mixture, oil resistant coolant resistant and UV redistant Color: Black

Technical Data

Minimum bending radius, moving: 7.5 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -31°F to +194°F (-35°C to +90°C)
Permissible temperature, fixed: -40°F to +194°F (-40°C to +90°C)
Voltage: 1000V
Testing voltage: 4000V
Oil resistance: High
UV resistance: High
Regulations: cRUus: UL AWM style for USA & Canada: 21184 80°C 1000V **Flame Resistance:** FT1, **CE, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- for freely suspended and gliding travel up to 1312 ft (400m) or more
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

Part No.	AWG	No. of Conductors and Rated Cross-Section in mm²	Outer Diameter		Copper Index		Weight	
			in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CFPE-15-01	16	1 x 1.5	.20	(5.0)	10.2	(15)	24.0	(35)
CFPE-25-01	14	1 x 2.5	.22	(5.5)	17.0	(25)	31.0	(46)
CFPE-40-01	12	1 x 4.0	.24	(6.0)	25.5	(38)	41.0	(61)
CFPE-60-01	10	1 x 6.0	.30	(7.5)	37.6	(56)	54.4	(81)
CFPE-100-01	8	1 x 10.0	.32	(8.0)	64.5	(96)	83.0	(123)
CFPE-160-01	6	1 x 16.0	.37	(9.5)	101.5	(151)	128.3	(191)
CFPE-250-01	4	1 x 25.0	.45	(11.5)	161.0	(239)	195.5	(291)
CFPE-350-01	2	1 x 35.0	.51	(13.0)	227	(333)	263	(387)

NOTE: The mentioned external diameters are maximum values.

Conductor
Highly flexible special conductor

Conductor insulation
Pressure extruded TPE blend

Outer jacket
Pressure extruded, flame-retardant TPE blend

PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RFQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp

CF310

PREMIUM

Single Conductor Cable

Chainflex® CF310

TPE Energy Chain® cable, shielded, oil-resistant, bio-oil-resistant, UV-resistant, flame-retardant

Price Index

Conductor
Highly flexible special conductor

Conductor insulation
Pressure extruded TPE blend

Overall Shield
Highly flexible braided copper shield

Outer jacket
Pressure extruded, halogen-free TPE blend

Construction

Conductors: High flexural strength bare copper wires, creating a single core.
Conductor insulation: Mechanically and electrically tough TPE blend.
Total shielding: Tinned copper braid, coverage approx. 90% optical.
Outer jacket: TPE: particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant and UV-resistant. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** black.

Technical Data

Minimum bending radius, moving: 7.5 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -31°F to +194°F (-35°C to +90°C)
Permissible temperature, fixed: -40°F to +194°F (-40°C to +90°C)
Voltage: 1000 V
Testing voltage: 4000V
Oil resistance: High
UV resistance: High
Regulations: cRUus: UL AWM style for USA & Canada: 21184 80°C 1000V **Flame Resistance:** FT1, **CE, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- for freely suspended and gliding travel up to 1312 ft (400m) or more
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

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)
CF310-40-01	12	1 x 4.0	.26	(6.5)	37	(55)	50	(74)
CF310-60-01	10	1 x 6.0	.30	(7.5)	51	(75)	66	(97)
CF310-100-01	8	1 x 10.0	.34	(8.5)	82	(120)	98	(144)
CF310-160-01	6	1 x 16.0	.39	(10.0)	121	(178)	143	(210)
CF310-250-01	4	1 x 25.0	.45	(11.5)	185	(272)	214	(314)
CF310-350-01	2	1 x 35.0	.53	(13.5)	259	(380)	288	(423)
CF310-500-01	1	1 x 50.0	.59	(15)	357	(524)	386	(568)
CF310-700-01	2/0	1 x 70.0	.69	(17.5)	469	(689)	509	(748)
CF310-950-01	3/0	1 x 95.0	.81	(20.5)	626	(920)	678	(997)
CF310-1200-01	4/0	1 x 120.0	.87	(22)	776	(1140)	839	(1233)
CF310-1500-01	300 MCM	1 x 150.0	.94	(24)	977	(1436)	1054	(1549)
CF310-1850-01	350 MCM	1 x 185.0	1.04	(26.5)	1244	(1829)	1297	(1906)

NOTE: The mentioned external diameters are maximum values.

Single Conductor Cables

Chainflex® CFCRANE 6/10kv

For maximum voltages and output, oil-resistant, UV-resistant, flame-retardant

CFCRANE

PREMIUM

Price Index

Construction

Conductors: Highly flexible cable consisting of tinned copper wires
Conductor insulation: Inner secondary layer made of conductive rubber. Insulating sheath made of high-quality, heat-resistant and ozone-proof (free) ethylene propylene rubber (EPR). External semi-conducting layer made of conductive rubber
Outer jacket: Flame-retardant, oil-resistant rubber jacket made of iguprene for maximum mechanical stress.

Technical Data

Minimum bending radius, moving: 10 x outer cable diameter
Minimum bending radius, fixed: 7.5 x outer cable diameter
Permissible temperature, moving: -4°F to +176°F (-20°C to +80°C)
Permissible temperature, fixed: -22°F to +176°F (-30°C to +80°C)
Nominal voltage: 6/10KV (other voltage upon inquiry)
Oil resistance: High
UV resistance: High

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- for freely suspended and gliding travel up to 1640 ft (500m) or more

Part No.	Center AWG/ Serve AWG	No. of Conductors and Rated Cross Section in mm²
CFCRANE 1x25/16	4/6	1 x 25/16
CFCRANE 1x35/16	2/6	1 x 35/16
CFCRANE 1x50/16	1/6	1 x 50/16
CFCRANE 1x70/16	2/0/6	1 x 70/16
CFCRANE 1x95/16	3/0/6	1 x 95/16

Part No.	Outer Diameter (approx)		Copper Index		Weight	
	in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CFCRANE 1x25/16	1.06	(27)	318.2	(468)	639.2	(940)
CFCRANE 1x35/16	1.14	(29)	391.7	(576)	754.8	(1110)
CFCRANE 1x50/16	1.18	(30)	484.2	(712)	918.0	(1350)
CFCRANE 1x70/16	1.26	(32)	620.2	(912)	1054.0	(1550)
CFCRANE 1x95/16	1.34	(34)	778.6	(1145)	1237.6	(1820)

Conductor
Highly flexible special conductor

Core insulation
Extruded EPR insulation over conductive rubber

Overall shield
Highly flexible copper shield

Outer jacket
Extruded, highly abrasion-resistant iguprene blend

PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RFQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp

NOTE: The mentioned external diameters are maximum values.

CFROBOT

PREMIUM

Single Conductor Cable

Chainflex® CFROBOT

TPE Energy Chain® cable, torsion flexing, shielded, oil-resistant, bio-oil-resistant, PVC-free, UV-resistant, flame retardant

igus®
Price Index

Conductor
Highly flexible special conductor

Insulation
Pressure extruded TPE

High quality rayon yarn

PTFE Liner

Shield
Torsion resistant copper shield

High rigidity rayon yarn

Outer jacket
Pressure extruded, TPE blend

Construction

Conductors: Highly flexible strand
Conductor insulation: Mechanically high quality TPE blend
Total shielding: Torsion flex tinned copper serves, coverage 90% optical
Outer jacket: Low adhesion, abrasion resistant and highly bend resistant TPE base suited for the requirements of Energy Chain® systems
Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** black.

Technical Data

Minimum bending radius, moving: 10 x outer cable diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -31°F to +212°F (-35°C to +100°C)
Permissible temperature, fixed: -40°F to +212°F (-40°C to +100°C)
Voltage: 1000V
Testing voltage: 4000V
Torsion: ± 90°, with 1 meter cable length
Oil resistance: High
UV resistance: High
Regulations: cRUus: UL AWM style for USA & Canada: 21387 90°C 1000V **Flame Resistance:** FT1, **CE, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- especially for robot and 3D motion
- robots, handling, spindle drives

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)
CFROBOT-035	12	1 x 10.0	.41	(10.5)	82.3	(121)	134	(197)
CFROBOT-036	10	1 x 16.0	.45	(11.5)	125.0	(183)	186	(274)
CFROBOT-037	8	1 x 25.0	.55	(14.0)	197.0	(289)	289	(425)
CFROBOT-038	6	1 x 35.0	.61	(15.5)	266.0	(391)	363	(534)
CFROBOT-039	4	1 x 50.0	.69	(17.5)	371.0	(546)	494	(726)

Internet: http://www.igus.com
email: webmaster@igus.com
QuickSpec: http://www.igus.com/qs/chainflex.asp

PUR Pneumatic Hose

Chainflex® Air

PUR Energy Chain® air hose, oil-resistant, coolant-resistant, abrasion-resistant, outside toleranced*

Price Index

Description

igus® Chainflex® Air pneumatic hoses have been tested successfully in cable carriers through more than 10 million bending cycles, at bend radii below the recommended minimum. They are optimized for excellent flexibility and wear resistance in continuous-flex cable carrier applications. They are also very resistant to oils and coolants.

Technical Data

Material: Polyurethane: , optimized for the requirements of continuous flexing inside a cable carrier
Color: blue
Operating pressure at +68°F (+20°C): 150 psi (10 bar)
Vacuum: at +68°F (20°C) 28" Hg
Minimum bending radius for flexible use: 10 x outer hose diameter
Temperature range, moving: -13°F to +158°F (-25°C to +70°C)
Temperature range, fixed: -40°F to +158°F (-40°C to +70°C)

Chainflex® Air - Metric Sizes

Part No.	Inner Diameter (approx)		Wall Thickness		Outer Diameter (approx)		Weight	
	in.	(mm)	in.	(mm)	in.	(mm)	lbs.mft	(kg/km)
CAPU-A-06-0	.16	(4)	.04	(1.0)	.24	(6)	12.9	(19)
CAPU-A-08-0	.22	(5.7)	.04	(1.0)	.31	(8)	20.4	(30)
CAPU-A-10-0	.28	(7)	.06	(1.4)	.39	(10)	32.6	(48)
CAPU-A-12-0	.31	(8)	.08	(1.9)	.47	(12)	51.7	(76)
CAPU-A-16-0	.43	(11)	.10	(2.4)	.63	(16)	86.4	(127)

Chainflex® Air - Inch Sizes

Part No.	Inner Diameter (approx)	Wall Thickness	Outer Diameter (approx)	Weight
	in.	in.	in.	lbs/mft
CAPU-I-02	.16	.05	.25	15
CAPU-I-03	.19	.06	.31	26
CAPU-I-04	.25	.06	.38	32
CAPU-I-06	.31	.09	.50	45
CAPU-I-08	.41	.11	.63	58

Note: Overall diameter tolerances 1/8" - 1/2" OD = ± .005
9/16" - 3/4" OD = ± .006