

Power cables



















chainflex® type



| chainflex® cable | Jacket | Shield | Min. bending radius, moved [factor x d] | Temperature, moved from/to [°C] | Approvals and standards | Oil-resistant | Torsion resistant | v max. [m/s] unsupported | v max. [m/s] gliding | a max. [m/s²] | Page |
|--|----------|--------|---|---------------------------------|-------------------------|---------------|-------------------|--------------------------|----------------------|---------------|------|
| Power cables | | | | | | | | | | | |
| CF30 | PVC | | 7,5 | -5/ +70 | CE RoHS UL | ✓ | ✓ | 10 | 5 | 80 | 204 |
| CF31 | PVC | ✓ | 7,5 | -5/ +70 | CE RoHS UL | ✓ | | 10 | 5 | 80 | 206 |
| CF34.UL.D | TPE | | 7,5 | -35/ +90 | CE RoHS UL | ✓ | ✓ | 10 | 6 | 80 | 208 |
| CF35.UL | TPE | ✓ | 7,5 | -35/ +90 | CE RoHS UL | ✓ | | 10 | 6 | 80 | 210 |
| CF37.D | TPE | | 7,5 | -35/ +90 | CE RoHS UL | ✓ | ✓ | 10 | 6 | 80 | 212 |
| CF38 | TPE | ✓ | 7,5 | -35/ +90 | CE RoHS UL | ✓ | | 10 | 6 | 80 | 214 |
| CF300.UL.D | TPE | | 7,5 | -35/ +90 | CE RoHS UL | ✓ | ✓ | 10 | 6 | 100 | 216 |
| CFPE | TPE | | 7,5 | -35/ +90 | CE RoHS UL | ✓ | ✓ | 10 | 6 | 100 | 218 |
| CF310.UL | TPE | ✓ | 7,5 | -35/ +90 | CE RoHS UL | ✓ | | 10 | 6 | 100 | 220 |
| CF330.D | TPE | | 7,5 | -35/ +90 | CE RoHS UL | ✓ | ✓ | 10 | 6 | 100 | 222 |
| CF340 | TPE | ✓ | 7,5 | -35/ +90 | CE RoHS UL | ✓ | | 10 | 6 | 100 | 224 |
| CF CRANE | iguprene | ✓ | 10 | -20/ +80 | CE RoHS | ✓ | | 10 | 6 | 50 | 226 |
| Power cables (Chapter "Special cables" ▶ 254) | | | | | | | | | | | |
| CF FLAT | TPE | | 5 | -35/ +90 | CE RoHS UL | ✓ | | 10 | 6 | 100 | 260 |
| CF BRAID | TPE | | 7,5 | -35/ +70 | CE RoHS UL | ✓ | | 10 | 6 | 80 | 262 |
| CF BRAID.C | TPE | ✓ | 7,5 | -35/ +70 | CE RoHS UL | ✓ | | 10 | 6 | 80 | 262 |
| Pneumatic hoses | | | | | | | | | | | |
| CFAIR | PU | | 10 | -25/ +80 | RoHS | ✓ | | 10 | 6 | 50 | 228 |
| CF Clean AIR | PE | | 10 | -25/ +60 | RoHS | ✓ | | 10 | 6 | 50 | 230 |

PVC Power cable | CF30








- for high load requirements
- PVC outer jacket
- oil-resistant
- flame-retardant

| | | |
|---|-----------------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Outer jacket | Low-adhesion, oil-resistant mixture on the basis of PVC, adapted to suit the requirements in energy chains® (following DIN VDE 0281 Part 13). Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -5 °C to +70 °C following DIN EN 60811, part 1-4 chapter 8.2. +5 °C to +70 °C for use in energy chains® with > 50.000 cycles. Minimum bending radius 7,5 x d. |
|  | T/R fixed | -20 °C to +70 °C, minimum bending radius 4 x d |
|  | v max. unsupported/gliding | 10 m/s, 5 m/s |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 100 m, Class 3 |
|  | Torsion | ± 90 °, with 1 m cable length |
|  | UV-resistant | Medium |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 50363-4-1), Class 2. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 5.3.2 (5 high load requirements 3 travel distance up to 100 m 2 oil-resistant)


| | | |
|---|---------------------|---|
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 2570, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 2. Outer jacket material complies with CF5.10.07, tested by IPA according to standard 14644-1. |

Typical application area


- for high load requirements
- light oil influence
- preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- especially for freely suspended and gliding travel distances up to 100 m
- Storage and retrieval units for high-bay warehouses, machining units/package machines, quick handling, indoor cranes

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------|--|--------------------------------|----------------------|----------------|
| CF30.15.04 | 4 G 1,5 | 8,5 | 58 | 105 |
| CF30.25.04 | 4 G 2,5 | 10,5 | 96 | 165 |
| CF30.25.05 | 5 G 2,5 | 11,5 | 125 | 199 |
| CF30.40.04 | 4 G 4,0 | 12,0 | 158 | 242 |
| CF30.40.05 | 5 G 4,0 | 13,0 | 198 | 295 |
| CF30.60.04 | 4 G 6,0 | 14,0 | 239 | 351 |
| CF30.60.05 | 5 G 6,0 | 15,0 | 290 | 417 |
| CF30.100.04 | 4 G 10,0 | 18,0 | 411 | 581 |
| CF30.100.05 | 5 G 10,0 | 20,0 | 517 | 731 |
| CF30.160.04 | 4 G 16,0 | 21,0 | 639 | 904 |
| CF30.160.05 | 5 G 16,0 | 24,0 | 800 | 1132 |
| CF30.250.04 | 4 G 25,0 | 26,0 | 1020 | 1425 |
| CF30.350.04 | 4 G 35,0 | 29,0 | 1420 | 1810 |
| CF30.500.04 | 4 G 50,0 | 35,0 | 1990 | 2675 |

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF30.15.04 – in your desired length (0,5 m steps)**
CF30 chainflex® series .15 Code nominal cross section .04 Number of cores

 Please use www.chainflex.eu/en/CF30 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.



















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PVC Power cable | CF31








- for high load requirements
- PVC outer jacket
- shielded
- oil-resistant
- flame-retardant

| | | |
|---|----------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Inner jacket | PVC mixture adapted to suit the requirements in energy chains®. |
|  | Overall shield | Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. |
|  | Outer jacket | Low-adhesion, oil-resistant mixture on the basis of PVC, adapted to suit the requirements in energy chains® (following DIN VDE 0281 Part 13). Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -5 °C to +70 °C following DIN EN 60811, part 1-4 chapter 8.2. +5 °C to +70 °C for use in energy chains® with > 50.000 cycles. Minimum bending radius 7,5 x d. |
|  | T/R fixed | -20 °C to +70 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 5 m/s |
|  | unsupported/gliding | |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 100 m, Class 3 |
|  | UV-resistant | Medium |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 50363-4-1), Class 2. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 5.3.2 (5 high load requirements 3 travel distance up to 100 m 2 oil-resistant)


| | | |
|---|---------------------|---|
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 2570, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 2. Outer jacket material complies with CF5.10.07, tested by IPA according to standard 14644-1. |

Typical application area


- for high load requirements
- light oil influence
- preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- especially for freely suspended and gliding travel distances up to 100 m
- Storage and retrieval units for high-bay warehouses, machining units/package machines, quick handling, indoor cranes

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|------------------------------|--|--------------------------------------|----------------------------|-------------------|
| CF31.15.04 | (4 G 1,5)C | 10,5 | 85 | 171 |
| CF31.25.04 | (4 G 2,5)C | 12,0 | 129 | 237 |
| CF31.25.05 | (5 G 2,5)C | 13,0 | 158 | 280 |
| CF31.40.04 | (4 G 4,0)C | 13,5 | 197 | 326 |
| CF31.40.05 | (5 G 4,0)C | 15,0 | 253 | 397 |
| CF31.60.04 | (4 G 6,0)C | 16,0 | 299 | 475 |
| CF31.60.05 | (5 G 6,0)C | 18,0 | 362 | 577 |
| CF31.100.04 | (4 G 10,0)C | 21,0 | 501 | 772 |
| CF31.100.05 | (5 G 10,0)C | 23,0 | 624 | 934 |
| CF31.160.04 | (4 G 16,0)C | 24,0 | 748 | 1090 |
| CF31.250.04 | (4 G 25,0)C | 28,5 | 1160 | 1643 |
| CF31.350.04 | (4 G 35,0)C | 32,5 | 1570 | 2155 |
| CF31.500.04 | (4 G 50,0)C | 38,5 | 2180 | 3125 |
| CF31.700.04 ⁽⁵⁾ | (4 G 70,0)C | 46,5 | 3140 | 4367 |

(5) Cable with PVC core insulation, UL-Style 10579 and 2570, 600 V, 80°
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF31.25.04 – in your desired length (0,5 m steps)**
CF31 chainflex® series .25 Code nominal cross section .04 Number of cores

 Please use www.chainflex.eu/en/CF31 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.



















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TPE Power cable | CF34.UL.D








- for maximum load requirements
- TPE outer jacket
- oil-resistant
- biooil-resistant
- flame-retardant
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | Torsion | ± 90°, with 1 m cable length |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 6.4.4 (6 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|-------------------|--|
|  | UL/CSA | Style 10492 and 21184, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |
|  | CE | Following 2006/95/EG |
|  | DESINA | According to VDW, DESINA standardisation |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1, material/cable tested by IPA according to ISO standard 14644-1 |

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|-------------------------------------|--|--------------------------------|----------------------|----------------|
| CF34.UL.15.04.D | 4 G 1,5 | 8,5 | 58 | 109 |
| CF34.UL.25.04.D | 4 G 2,5 | 10,5 | 96 | 162 |
| CF34.UL.40.04.D | 4 G 4,0 | 12,0 | 158 | 239 |
| CF34.UL.60.04.D | 4 G 6,0 | 14,0 | 239 | 351 |
| CF34.UL.60.05.D | 5 G 6,0 | 15,5 | 285 | 420 |
| CF34.UL.100.04.D | 4 G 10,0 | 17,0 | 411 | 549 |
| CF34.UL.100.05.D | 5 G 10,0 | 19,5 | 517 | 687 |
| CF34.UL.160.04.D | 4 G 16,0 | 20,5 | 633 | 817 |
| CF34.UL.160.05.D | 5 G 16,0 | 23,0 | 800 | 1072 |
| CF34.UL.250.04.D | 4 G 25,0 | 25,0 | 994 | 1266 |
| CF34.UL.60.04.O.PE.D ⁽¹⁾ | 4 x 6,0 | 14,0 | 239 | 351 |
| CF34.UL.100.04.O.PE.D | 4 x 10,0 | 17,0 | 411 | 549 |
| CF34.UL.160.04.O.PE.D | 4 x 16,0 | 20,5 | 633 | 817 |
| CF34.UL.500.03.O.PE.D | 3 x 50,0 | 31,0 | 1490 | 2028 |

Other types available on request. (1) Delivery time upon inquiry.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF34.UL.160.04.D – in your desired length (0,5 m steps)**
CF34.UL.D chainflex® series .160 Code nominal cross section .04 Number of cores

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









 Delivery time 24h or today.
Delivery time means time until shipping of goods.

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TPE Power cable | CF35.UL









- for maximum load requirements
- TPE outer jacket
- shielded
- oil-resistant, biooil-resistant
- flame-retardant
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Inner jacket | TPE mixture adapted to suit the requirements in energy chains®. |
|  | Overall shield | Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 6.4.4 (6 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)

| | | |
|---|------------------------|--|
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 21184, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IPA according to standard 14644-1 |

Typical application area

- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|------------------------------------|--|--------------------------------|----------------------|----------------|
| CF35.UL.05.04 | (4 G 0,5)C | 8,0 | 39 | 81 |
| CF35.UL.07.04 | (4 G 0,75)C | 8,5 | 52 | 104 |
| CF35.UL.15.04 | (4 G 1,5)C | 9,5 | 85 | 149 |
| CF35.UL.25.04 | (4 G 2,5)C | 11,5 | 128 | 207 |
| CF35.UL.40.04 | (4 G 4,0)C | 13,5 | 201 | 326 |
| CF35.UL.60.04 | (4 G 6,0)C | 16,0 | 298 | 450 |
| CF35.UL.100.04 | (4 G 10,0)C | 19,5 | 454 | 682 |
| CF35.UL.160.04 | (4 G 16,0)C | 23,0 | 723 | 1003 |
| CF35.UL.250.04 | (4 G 25,0)C | 27,5 | 1160 | 1524 |
| CF35.UL.60.03.O.PE ⁽¹⁾ | (3 x 6,0)C | 14,5 | 231 | 367 |
| CF35.UL.100.03.O.PE ⁽¹⁾ | (3 x 10,0)C | 17,5 | 356 | 568 |
| CF35.UL.160.03.O.PE | (3 x 16,0)C | 21,0 | 553 | 789 |
| CF35.UL.250.03.O.PE ⁽¹⁾ | (3 x 25,0)C | 24,5 | 884 | 1208 |
| CF35.UL.350.03.O.PE | (3 x 35,0)C | 28,5 | 1200 | 1675 |
| CF35.UL.500.03.O.PE | (3 x 50,0)C | 33,5 | 1660 | 2283 |



















(1) Delivery time upon inquiry.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

... no minimum order quantity ...
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TPE Power cable | CF37.D





- for maximum load requirements
- TPE outer jacket
- oil-resistant, biooil-resistant
- PVC-free/halogen-free
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | Torsion | ± 90°, with 1 m cable length |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | Halogen-free | Following EN 50267-2-1. |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 7.4.4 (7 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|-------------------|--|
|  | CE | Following 2006/95/EG |
|  | DESINA | According to VDW, DESINA standardisation |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1 |

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|-----------------------------------|--|--------------------------------|----------------------|----------------|
| CF37.15.04.D | 4 G 1,5 | 8,5 | 58 | 109 |
| CF37.25.04.D | 4 G 2,5 | 10,5 | 96 | 162 |
| CF37.40.04.D | 4 G 4,0 | 12,0 | 158 | 239 |
| CF37.60.04.D | 4 G 6,0 | 14,0 | 239 | 351 |
| CF37.60.05.D ⁽¹⁾ | 5 G 6,0 | 15,5 | 285 | 420 |
| CF37.100.04.D | 4 G 10,0 | 17,0 | 411 | 549 |
| CF37.100.05.D ⁽¹⁾ | 5 G 10,0 | 19,5 | 517 | 687 |
| CF37.160.04.D | 4 G 16,0 | 20,5 | 633 | 817 |
| CF37.160.05.D ⁽¹⁾ | 5 G 16,0 | 23,0 | 800 | 1072 |
| CF37.250.04.D | 4 G 25,0 | 25,0 | 994 | 1266 |
| CF37.60.04.O.PE.D ⁽¹⁾ | 4 x 6,0 | 14,0 | 239 | 351 |
| CF37.100.04.O.PE.D ⁽¹⁾ | 4 x 10,0 | 17,0 | 411 | 549 |
| CF37.160.04.O.PE.D ⁽¹⁾ | 4 x 16,0 | 20,5 | 633 | 817 |
| CF37.500.03.O.PE.D | 3 x 50,0 | 31,0 | 1490 | 2028 |

⁽¹⁾ Delivery time upon inquiry.
Other types available on request.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF37.250.04.D – in your desired length (0,5 m steps)**
CF37.D chainflex® series .250 Code nominal cross section .04 Number of cores

 Please use www.chainflex.eu/en/CF37 for your online order.


















 Delivery time 24h or today.
Delivery time means time until shipping of goods.

... no minimum order quantity ...

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TPE Power cable | CF38






- for maximum load requirements
- TPE outer jacket
- shielded
- oil-resistant, biooil-resistant
- PVC-free/halogen-free
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|--|
|  | Conductor | < 10 mm ² : Fine-wire stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228). ≥ 10 mm ² : conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality, especially low-capacitance TPE mixture. |
|  | Core stranding | Cores stranded in short pitch lengths over a centre for high tensile stresses. |
|  | Core identification | Energy conductor: Cores black with white numerals, one core green-yellow. 1. core: U / L1 / C / L+ 2. core: V / L2 3. core: W / L3 / D / L- 4. core: 4 / N |
|  | Inner jacket | TPE mixture adapted to suit the requirements in energy chains®. |
|  | Overall shield | Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 80 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 7.4.4 (7 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|---------------------|--|
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | Halogen-free | Following EN 50267-2-1. |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1 |

Typical application area

- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications


| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------------|--|--------------------------------|----------------------|----------------|
| CF38.05.04 ⁽¹⁾ | (4 G 0,5)C | 8,0 | 39 | 81 |
| CF38.07.04 ⁽¹⁾ | (4 G 0,75)C | 8,5 | 52 | 104 |
| CF38.15.04 | (4 G 1,5)C | 9,5 | 85 | 149 |
| CF38.25.04 ⁽¹⁾ | (4 G 2,5)C | 11,5 | 128 | 207 |
| CF38.40.04 | (4 G 4,0)C | 13,5 | 201 | 326 |
| CF38.60.04 ⁽¹⁾ | (4 G 6,0)C | 16,0 | 298 | 450 |
| CF38.100.04 | (4 G 10,0)C | 19,5 | 454 | 682 |
| CF38.160.04 | (4 G 16,0)C | 23,0 | 723 | 1003 |
| CF38.250.04 | (4 G 25,0)C | 27,5 | 1160 | 1524 |
| CF38.60.03.O.PE ⁽¹⁾ | (3 x 6,0)C | 14,5 | 231 | 367 |
| CF38.100.03.O.PE ⁽¹⁾ | (3 x 10,0)C | 17,5 | 356 | 568 |
| CF38.160.03.O.PE ⁽¹⁾ | (3 x 16,0)C | 21,0 | 553 | 789 |
| CF38.250.03.O.PE ⁽¹⁾ | (3 x 25,0)C | 24,5 | 884 | 1208 |
| CF38.350.03.O.PE ⁽¹⁾ | (3 x 35,0)C | 28,5 | 1200 | 1675 |
| CF38.500.03.O.PE ⁽¹⁾ | (3 x 50,0)C | 33,5 | 1660 | 2283 |

(1) Delivery time upon inquiry.
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF38.25.04 – in your desired length (0,5 m steps)**

CF38 chainflex® series .25 Code nominal cross section .04 Number of cores

 Please use www.chainflex.eu/en/CF38 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.




















... no minimum order quantity ...

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TPE Power cable | CF300.UL.D





- for maximum load requirements
- TPE outer jacket
- oil-resistant, biooil-resistant
- flame-retardant
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|---|
|  | Conductor | Conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality TPE mixture. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 100 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | Torsion | ± 90 °, with 1 m cable length |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 21218, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 6.4.4 (6 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|-------------------|--|
|  | CE | Following 2006/95/EG |
|  | DESINA | According to VDW, DESINA standardisation |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IPA according to standard 14644-1 |

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------|--|--------------------------------|----------------------|----------------|
| CF300.UL.40.01.D | 1x4,0 | 6,5 | 38 | 61 |
| CF300.UL.60.01.D | 1x6,0 | 7,0 | 56 | 77 |
| CF300.UL.100.01.D | 1x10,0 | 8,0 | 96 | 119 |
| CF300.UL.160.01.D | 1x16,0 | 9,5 | 151 | 183 |
| CF300.UL.250.01.D | 1x25,0 | 11,5 | 239 | 281 |
| CF300.UL.350.01.D | 1x35,0 | 12,5 | 333 | 377 |
| CF300.UL.500.01.D | 1x50,0 | 14,5 | 479 | 525 |
| CF300.UL.700.01.D | 1x70,0 | 16,5 | 623 | 676 |
| CF300.UL.950.01.D | 1x95,0 | 19,0 | 848 | 927 |
| CF300.UL.1200.01.D | 1x120,0 | 21,5 | 1059 | 1145 |
| CF300.UL.1500.01.D | 1x150,0 | 23,0 | 1318 | 1411 |
| CF300.UL.1850.01.D | 1x185,0 | 27,0 | 1890 | 2014 |

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF300.UL.950.01.D – in your desired length (0,5 m steps)**
CF300.UL.D chainflex® series .950 Code nominal cross section .01 Number of cores

 Please use www.chainflex.eu/en/CF300 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.



















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TPE Power cable | CFPE





- for maximum load requirements
- TPE outer jacket
- oil-resistant, biooil-resistant
- flame-retardant
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|-----------------------------------|---|
|  | Conductor | Conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality TPE mixture. |
|  | Core identification | Green-yellow |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. unsupported/gliding | 10 m/s, 6 m/s |
|  | a max. | 100 m/s² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | Torsion | ± 90 °, with 1 m cable length |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 21218, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |

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950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 6.4.4 (6 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|-------------------|--|
|  | CEI | Following CEI 20-35 |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IPA according to standard 14644-1 |

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------|---|--------------------------------|----------------------|----------------|
| CFPE.15.01 | 1 G 1,5 | 5,0 | 15 | 35 |
| CFPE.25.01 | 1 G 2,5 | 6,0 | 25 | 46 |
| CFPE.40.01 | 1 G 4,0 | 6,5 | 38 | 61 |
| CFPE.60.01 | 1 G 6,0 | 7,0 | 56 | 81 |
| CFPE.100.01 | 1 G 10,0 | 8,0 | 96 | 123 |
| CFPE.160.01 | 1 G 16,0 | 9,5 | 151 | 191 |
| CFPE.250.01 | 1 G 25,0 | 11,5 | 239 | 291 |
| CFPE.350.01 | 1 G 35,0 | 13,0 | 333 | 387 |

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CFPE.15.01 – in your desired length (0,5 m steps)**
CFPE chainflex® series .15 Code nominal cross section .01 Number of cores

 Please use www.chainflex.eu/en/CFPE for your online order.

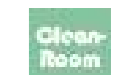
 Delivery time 24h or today.
Delivery time means time until shipping of goods.



chainflex® CFPE for machining units. e-chain®: Serie E2 medium



















... no minimum order quantity ...

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TPE Power cable | CF310.UL




- for maximum load requirements
- TPE outer jacket
- shielded
- oil-resistant, biooil-resistant
- flame-retardant
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|-----------------------------------|---|
|  | Conductor | Conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality TPE mixture. |
|  | Overall shield | Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. unsupported/gliding | 10 m/s, 6 m/s |
|  | a max. | 100 m/s² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | UL/CSA | Style 10492 and 21218, 1000 V, 80 °C |
|  | NFPA | Following NFPA 79-2012 chapter 12.9 (starting from manufacturing date 9/2011) |
|  | CEI | Following CEI 20-35 |

 eplan download, configurator ► www.igus.eu/en/CF310

950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 6.4.4 (6 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


| | | |
|---|-------------------|--|
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IPA according to standard 14644-1 |

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------|---|--------------------------------|----------------------|----------------|
| * CF310.UL.25.01 | (1x2,5)C | 6,5 | 39 | 61 |
| CF310.UL.40.01 | (1x4,0)C | 6,5 | 55 | 74 |
| CF310.UL.60.01 | (1x6,0)C | 7,5 | 75 | 97 |
| CF310.UL.100.01 | (1x10,0)C | 8,5 | 120 | 144 |
| CF310.UL.160.01 | (1x16,0)C | 10,0 | 178 | 210 |
| CF310.UL.250.01 | (1x25,0)C | 11,5 | 272 | 314 |
| CF310.UL.350.01 | (1x35,0)C | 13,5 | 380 | 423 |
| CF310.UL.500.01 | (1x50,0)C | 15,0 | 524 | 568 |
| CF310.UL.700.01 | (1x70,0)C | 17,5 | 689 | 748 |
| CF310.UL.950.01 | (1x95,0)C | 20,5 | 920 | 997 |
| CF310.UL.1200.01 | (1x120,0)C | 22,0 | 1140 | 1233 |
| CF310.UL.1500.01 | (1x150,0)C | 24,0 | 1436 | 1549 |
| CF310.UL.1850.01 | (1x185,0)C | 28,0 | 2020 | 2147 |

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF310.UL.40.01 – in your desired length (0,5 m steps)**
CF310.UL chainflex® series .40 Code nominal cross section .01 Number of cores

 Please use www.chainflex.eu/en/CF310 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.




















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TPE Power cable | CF330.D


- for maximum load requirements
- TPE outer jacket
- oil-resistant
- biooil-resistant
- PVC-free/halogen-free
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|---|
|  | Conductor | Conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality TPE mixture. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 100 m/s ² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | Torsion | ± 90 °, with 1 m cable length |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | Halogen-free | Following EN 50267-2-1. |
|  | CE | Following 2006/95/EG |
|  | DESINA | According to VDW, DESINA standardisation |
|  | Lead free | Following 2011/55/EU (RoHS-II) |

 eplan download, configurator ► www.igus.eu/en/CF330

950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 7.4.4 (7 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)


 **Clean room** According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm ²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---------------------------|--|--------------------------------|----------------------|----------------|
| CF330.60.01.D | 1x6,0 | 7,0 | 56 | 77 |
| CF330.100.01.D | 1x10,0 | 8,0 | 96 | 119 |
| CF330.160.01.D | 1x16,0 | 9,5 | 151 | 183 |
| CF330.250.01.D | 1x25,0 | 11,5 | 239 | 281 |
| CF330.350.01.D | 1x35,0 | 12,5 | 333 | 377 |
| CF330.500.01.D | 1x50,0 | 14,5 | 479 | 525 |
| CF330.700.01.D | 1x70,0 | 16,5 | 623 | 676 |
| CF330.950.01.D | 1x95,0 | 19,0 | 848 | 927 |
| CF330.1200.01.D | 1x120,0 | 21,5 | 1059 | 1145 |
| CF330.1500.01.D | 1x150,0 | 23,0 | 1318 | 1411 |
| CF330.1850.01.D | 1x185,0 | 27,0 | 1890 | 2014 |

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

 **Order example: CF330.160.01.D – in your desired length (0,5 m steps)**
CF330.D chainflex® series .160 Code nominal cross section .01 Number of cores

 Please use www.chainflex.eu/en/CF330 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.






















STS cranes in Antwerp with igus® energy chain systems® for energy and data supplies to centenary and main trolley.

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TPE Power cable | CF340

- for maximum load requirements
- TPE outer jacket
- shielded
- oil-resistant, biooil-resistant
- PVC-free/halogen-free
- UV-resistant
- hydrolysis-resistant and microbe-resistant

| | | |
|---|----------------------------|---|
|  | Conductor | Conductor cable consisting of pre-leads (following EN 60228). |
|  | Core insulation | Mechanically high-quality TPE mixture. |
|  | Overall shield | Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70% linear, approx. 90% optical. |
|  | Outer jacket | Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains®. Colour: Jet black (similar to RAL 9005) |
|  | T/R moved | -35 °C to +90 °C, minimum bending radius 7,5 x d |
|  | T/R fixed | -40 °C to +90 °C, minimum bending radius 4 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | unsupported/gliding | |
|  | a max. | 100 m/s² |
|  | Travel distance | Freely suspended and gliding travel distances up to 400 m and more, Class 4 |
|  | UV-resistant | High |
|  | Nominal voltage | 600/1000 V (following DIN VDE 0250). |
|  | Testing voltage | 4000 V (following DIN VDE 0281-2). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), biooil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4. |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | Halogen-free | Following EN 50267-2-1. |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |
|  | Clean room | According to ISO Class 1. Outer jacket material complies with CF9.15.07, tested by IPA according to standard 14644-1 |

 eplan download, configurator ► www.igus.eu/en/CF340

950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

Class 7.4.4 (7 maximum load requirements 4 travel distance up to 400 m and more 4 oil-resistant)

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 400 m and more
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, clean room, semiconductor insertion, ship to shore, outdoor cranes, low-temperature applications

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|-----------------------------|---|--------------------------------|----------------------|----------------|
| CF340.40.01 | (1x4,0)C | 6,5 | 55 | 74 |
| CF340.60.01 ⁽¹⁾ | (1x6,0)C | 7,5 | 75 | 97 |
| CF340.100.01 ⁽¹⁾ | (1x10,0)C | 8,5 | 120 | 144 |
| CF340.160.01 | (1x16,0)C | 10,0 | 178 | 210 |
| CF340.250.01 ⁽¹⁾ | (1x25,0)C | 11,5 | 272 | 314 |
| CF340.350.01 ⁽¹⁾ | (1x35,0)C | 13,5 | 380 | 423 |
| CF340.500.01 | (1x50,0)C | 15,0 | 524 | 568 |
| CF340.700.01 | (1x70,0)C | 17,5 | 689 | 748 |
| CF340.950.01 ⁽¹⁾ | (1x95,0)C | 20,5 | 920 | 1072 |
| CF340.1200.01 | (1x120,0)C | 22,0 | 1140 | 1233 |
| CF340.1500.01 | (1x150,0)C | 24,0 | 1436 | 1549 |
| CF340.1850.01 | (1x185,0)C | 28,0 | 2020 | 2147 |


(1) Delivery time upon inquiry.

Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.

G = with green-yellow earth core x = without earth core

 **Order example: CF340.100.01 – in your desired length (0,5 m steps)**
CF340 chainflex® series .100 Code nominal cross section .01 Number of cores

 Please use www.chainflex.eu/en/CF340 for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.



chainflex® CF340 for outdoor crane systems. e-chain®: Serie E4/00


















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igupren Power cable | CFCRANE

- for maximum voltages and outputs
- igupren outer jacket
- oil-resistant
- flame-retardant

| | | |
|---|-----------------------------------|---|
|  | Conductor | Highly flexible cable consisting of tinned copper wires (following VDE 0295). |
|  | Core insulation | Inner and outer semiconducting layer made of conductive rubber. Insulating sheath made of high-quality, heat-resistant and ozone-proof ethylene propylene rubber (EPR). |
|  | Overall shield | Extremely bending-resistant, tinned copper shield. Coverage approx. 80% optical. |
|  | Outer jacket | Low-adhesion mixture on the basis of iguprene, especially abrasion-resistant and highly flexible, adapted to suit the requirements in energy chains® (following VDE 0207 Part 21). Colour: Red |
|  | T/R moved | -20 °C to +80 °C, minimum bending radius 10 x d |
|  | T/R fixed | -30 °C to +80 °C, minimum bending radius 7,5 x d |
|  | v max. unsupported/gliding | 10 m/s, 6 m/s |
|  | a max. | 50 m/s² |
|  | Travel distance | Freely suspended and gliding travel distances up to 500 m and more, Class 4 |
|  | UV-resistant | High |
|  | Nominal voltage | 6/10 kV (following DIN VDE 0250), other voltages upon inquiry. |
|  | Testing voltage | 17 kV (following DIN VDE 0250, Part 813). |
|  | Oil | Oil-resistant (following DIN EN 60811-2-1), Class 3. |
|  | Flame-retardant | According to IEC 60332-1-2, CEI 20-35, FT1, VW-1 |
|  | Silicon-free | Free from silicon which can affect paint adhesion (following PV 3.10.7 – status 1992). |
|  | CE | Following 2006/95/EG |
|  | Lead free | Following 2011/55/EU (RoHS-II) |

 eplan download, configurator ► www.igus.eu/en/CFCRANE

950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)


Class 6.4.3 (6 maximum load requirements 4 travel distance up to 500 m and more 3 oil-resistant)

Typical application area


- for maximum load requirements
- almost unlimited resistance to oil
- Indoor and outdoor applications, UV-resistant
- especially for freely suspended and gliding travel distances up to 500 m and more
- outdoor ship to shore, crane applications, conveyer technology

| Delivery program Part No. | Number of cores and conductor nominal cross section [mm²] | External diameter approx. [mm] | Copper index [kg/km] | Weight [kg/km] |
|---|---|--------------------------------|----------------------|----------------|
| CFCRANE1x25/16-6/10kV ⁽¹⁾ | (1x25/16)C | 27,0 | 468 | 940 |
| CFCRANE1x35/16-6/10kV ⁽¹⁾ | (1x35/16)C | 29,0 | 576 | 1110 |
| CFCRANE1x50/16-6/10kV ⁽¹⁾ | (1x50/16)C | 30,0 | 712 | 1350 |
| CFCRANE1x70/16-6/10kV ⁽¹⁾ | (1x70/16)C | 32,0 | 912 | 1550 |
| CFCRANE1x95/16-6/10kV ⁽¹⁾ | (1x95/16)C | 34,0 | 1145 | 1820 |
| New* CFCRANE1x120/16-6/10kV ⁽¹⁾ | (1x120/16)C | 35,0 | 1306 | 2100 |

(1) Delivery time upon inquiry
Note: The mentioned external diameters are maximum values and may tend toward lower tolerance limits.
 G = with green-yellow earth core x = without earth core
 * New in this catalogue.

 **Order example: CFCRANE1x25/16-6/10kV – in your desired length (0,5 m steps)**
CFCRANE chainflex® series .1 x 25/16 Code nominal cross section -6/10 Nominal voltage

 Please use www.chainflex.eu/en/CFCRANE for your online order.

 Delivery time 24h or today.
 Delivery time means time until shipping of goods.














chainflex® CFCRANE for 500 m and more of travel. e-chain®: igus® rol e-chain®

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Pneumatic hose | CFAIR




- for maximum load requirements
- PU hose
- oil-resistant and coolant-resistant
- abrasion-resistant
- outside-toleranced
- PVC-free/halogen-free

| | | |
|---|---------------------------|--|
|  | T/R moved | -25 °C to +80 °C, minimum bending radius 10 x d |
|  | T/R fixed | -40 °C to +85 °C, minimum bending radius 8 x d |
|  | v max. | 10 m/s, 6 m/s |
|  | a max. | 50 m/s ² |
|  | Dimensions | Outside-toleranced |
|  | Operating pressure | 12 bar at 20 °C |
|  | Vacuum | -1 bar at 20 °C |
|  | Oil | Oil-resistant |
|  | Halogen-free | Following EN 50267-2-1. |
|  | Material | Abrasion-resistant on the basis of Polyurethan adapted to suit the requirements in energy chains®. Colour: Blue |
|  | Lead free | Following 2011/55/EU (RoHS-II) |

| Delivery program Part No. | Max. package length [km] | Internal diameter approx. [mm] | Wall thickness approx. [mm] | External diameter approx. [mm] | Weight [g/m] |
|------------------------------|--------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|-----------------|
| CA PU.A.04.0 | 2,0 | 2,7 | 0,65 | 4 | 8 |
| CA PU.A.06.0 | 1,5 | 4,0 | 1,00 | 6 | 19 |
| CA PU.A.08.0 | 1,0 | 5,7 | 1,15 | 8 | 30 |
| CA PU.A.10.0 | 1,0 | 7,0 | 1,50 | 10 | 48 |
| CA PU.A.12.0 | 0,5 | 8,0 | 2,00 | 12 | 76 |
| CA PU.A.16.0 | 0,1 | 11,0 | 2,50 | 16 | 127 |

 **Order example: CA PU.A.04.0 – in your desired length (0,5 m steps)**
CA PU chainflex® series .A Code material .04 Code Ø .0 Special identification

 Please use www.chainflex.eu/en/CFCAPU for your online order.

 Delivery time 24h or today.
Delivery time means time until shipping of goods.



igus® chainflex® CF Air pneumatic hoses were tested over several million bending cycles in e-chains®. Their outstanding features include flexibility, high abrasion resistance and very good resistance to oil and coolants.

 **eplan download, configurator ► www.igus.eu/en/CAPU**

950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

... no minimum order quantity ...
igus® GmbH Cologne | Tel. +49(0)2203/9649-800 Fax -222 | info@igus.de | www.chainflex.eu

Pneumatic hose | CF CleanAIR



- for maximum load requirements
- PE hose
- oil-resistant and coolant-resistant
- highly abrasion-resistant
- outside-toleranced
- PVC-free/halogen-free

| | | |
|--|--------------------|--|
| | T/R moved | -25 °C to +60 °C, minimum bending radius 10 x d |
| | T/R fixed | -30 °C to +65 °C, minimum bending radius 8 x d |
| | v max. | 10 m/s, 6 m/s |
| | a max. | 50 m/s ² |
| | Dimensions | Outside-toleranced |
| | Operating pressure | 10 bar at 20 °C |
| | Vacuum | -0,95 bar at 20 °C |
| | Oil | Oil-resistant |
| | Halogen-free | Following EN 50267-2-1. |
| | Material | Highly abrasion-resistant on the basis of Polyethylen adapted to suit the requirements in energy chains®. Colour: White |
| | Lead free | Following 2011/55/EU (RoHS-II) |
| | Clean room | According to ISO Class 1, material/cable tested by IPA according to ISO standard 14644-1 |

Typical application area

- for especially high abrasion resistance
- clean room, semi-conductor industry, handling

eplan download, configurator ► www.igus.eu/en/CAPE

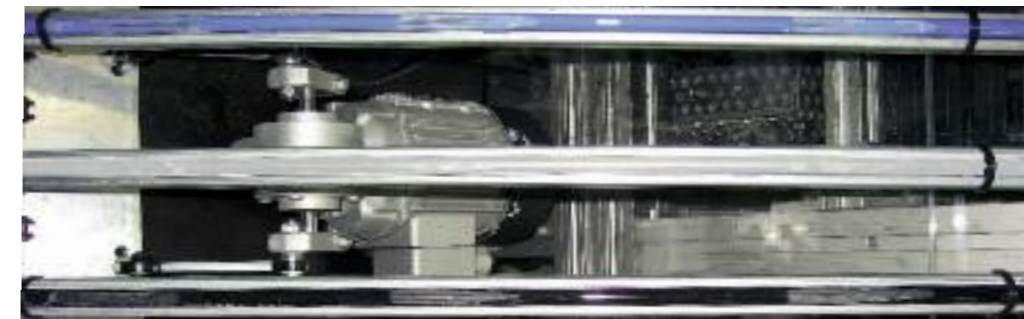
950 types from stock no cutting costs ...
(for up to 10 cuts of the same type)

| Delivery program Part No. | Max. package length [km] | Internal diameter approx. [mm] | Wall thickness approx. [mm] | External diameter approx. [mm] | Weight [g/m] |
|---------------------------|--------------------------|--------------------------------|-----------------------------|--------------------------------|--------------|
| CA PE.A.04.0 | 2,0 | 2,7 | 0,65 | 4 | 6 |
| CA PE.A.06.0 | 1,5 | 4,0 | 1,00 | 6 | 15 |
| CA PE.A.08.0 | 1,0 | 5,7 | 1,15 | 8 | 21 |
| CA PE.A.10.0 | 1,0 | 7,0 | 1,50 | 10 | 38 |
| CA PE.A.12.0 | 0,5 | 8,0 | 2,00 | 12 | 54 |
| CA PE.A.16.0 | 0,1 | 11,0 | 2,50 | 16 | 90 |

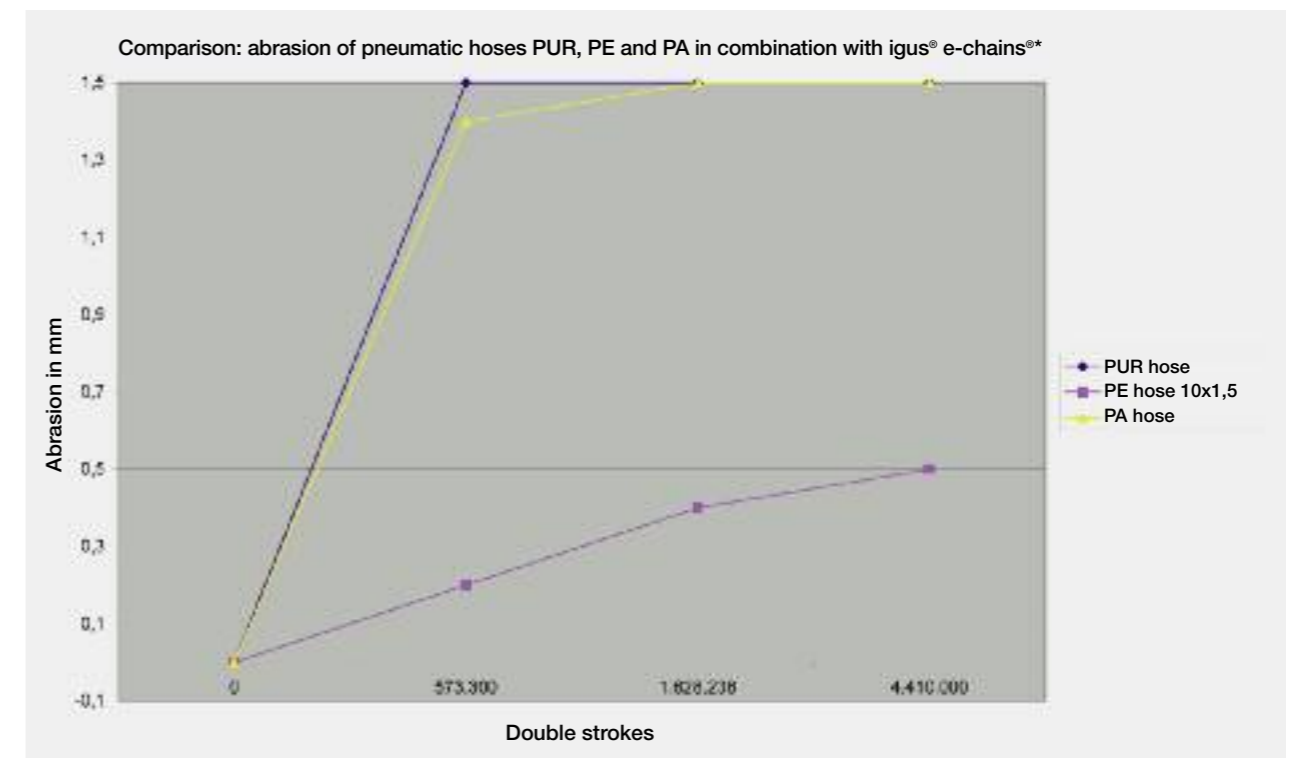
Order example: CA PE.A.04.0 – in your desired length (0,5 m steps)
CA PE chainflex® series .A Code material .04 Code Ø .0 Special identification

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Delivery time means time until shipping of goods.



igus® material abrasion test



* igus® e-chain® with opening link 450.30

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