

# TPE Power Cable

## Chainflex® CF35

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

igus®

CF35

Price Index



CLASS  
6.4.4

### Construction

**Conductors:** 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. green / yellow

**Inner Jacket:** TPE

**Shielding:** Tinned copper braid, 90% optical coverage

**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

**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:** IEC 60332-1-2, CEI 20-35, FT1, VW-1 **NFPA 79:** Complies to NFPA 79 2012 chapter 12.9, **CE:** 2006/95/EG CEI: 20-35, **RoHS:** Complies to 2011/65/EU (RoHS-II).

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

Test cable CF34-25-04

### Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- designed for AC motors with variable frequency drive (VFD)
- for unsupported 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<br>and Rated Cross-<br>Section in mm² | Outer Diameter<br>(approx) |        | Copper Index |         | Weight  |         |
|-------------|-----|---------------------------------------------------------|----------------------------|--------|--------------|---------|---------|---------|
|             |     |                                                         | in.                        | (mm)   | lbs/mft      | (kg/km) | lbs/mft | (kg/km) |
| CF35-05-04  | 20  | 4 x 0.5                                                 | .32                        | (8.0)  | 26.5         | (39)    | 55.1    | (81)    |
| CF35-07-04  | 18  | 4 x 0.75                                                | .34                        | (8.5)  | 35.3         | (52)    | 67.3    | (99)    |
| CF35-15-04  | 16  | 4 x 1.5                                                 | .37                        | (9.5)  | 56.0         | (82)    | 99.0    | (146)   |
| CF35-25-04  | 14  | 4 x 2.5                                                 | .45                        | (11.5) | 85.9         | (128)   | 138.9   | (207)   |
| CF35-40-04  | 12  | 4 x 4                                                   | .53                        | (13.5) | 134.9        | (201)   | 218.8   | (326)   |
| CF35-60-04  | 10  | 4 x 6                                                   | .63                        | (16.0) | 200.0        | (298)   | 302.0   | (450)   |
| CF35-100-04 | 8   | 4 x 10                                                  | .77                        | (19.5) | 305.0        | (449)   | 457.0   | (672)   |
| CF35-160-04 | 6   | 4 x 16                                                  | .91                        | (23.0) | 485.2        | (723)   | 673.2   | (1003)  |
| CF35-250-04 | 4   | 4 x 25                                                  | 1.08                       | (27.5) | 778.5        | (1160)  | 1022.8  | (1524)  |

NOTE: The mentioned external diameters are maximum values.

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

