

# PVC Power cable | CF31

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

Product improvement!

**CFRIP**  
-technology

Strip cables 50% faster!

[www.igus.eu/CFRIP](http://www.igus.eu/CFRIP)

- Conductor** < 10 mm<sup>2</sup>: stranded conductor in especially bending-resistant version consisting of bare copper wires (following EN 60228).  
≥ 10 mm<sup>2</sup>: 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)
- CFRIP** Strip cables 50% faster! The tear strip is in the inner jacket (starting from manufacturing date 5/2013).  
Video ► [www.igus.eu/CFRIP](http://www.igus.eu/CFRIP)
- Bending radius** **moved** minimum 7,5 x d  
**fixed** minimum 4 x d
- Temperature** **moved** +5 °C to +70 °C for use in energy chains® with > 50.000 cycles  
-5 °C to +70 °C following DIN EN 60811, part 1-4 chapter 8.2  
**fixed** -20 °C to +70 °C
- v max. unsupported/gliding** 10 m/s, 5 m/s
- a max.** 80 m/s<sup>2</sup>
- Travel distance** Freely suspended travel distances and up to 100 m for gliding applications, Class 4
- UV-resistant** Medium

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eplan download, configurator ► [www.igus.eu/CF31](http://www.igus.eu/CF31)

**1030 types from stock no cutting costs ...**  
(for up to 10 cuts of the same type)

## Class 5.4.2 (5 high load requirements 4 travel distance up to 100 m 2 oil-resistant)

- 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
- 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
- CEI** Following CEI 20-35
- CE** Following 2006/95/EG
- Lead free** Following 2011/65/EC (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.
- CTP** Certified according to N° C-DE.PB49.V.00397
- EAC** Certified according to N° TC RU C-DE.ME77.B.00964

**New! Guaranteed lifetime for this series according to the "chainflex® guarantee club" conditions ► Page 22-25**

Double strokes*				5 million			7,5 million		10 million	
Temperature, from/to [°C]	v max. [m/s]	unsupported	gliding	a max. [m/s <sup>2</sup> ]	Travel distance [m]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-5 / +5						10	11	12		
+5 / +60	10	5		80	≤ 100	7,5	8,5	9,5		
+60 / +70						10	11	12		

\* higher number of double strokes possible

### Typical application area

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

**... no minimum order quantity ...**

igus® GmbH Cologne | Tel. +49(0)2203/9649-800 Fax -222 | info@igus.de | www.chainflex.eu



Strip cables 50% faster!




Image exemplary.

Delivery program Part No.	Number of cores and conductor nominal cross section [mm <sup>2</sup> ]	External diameter max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF31.15.04	(4 G 1,5)C	10,5	94	168
CF31.25.04	(4 G 2,5)C	12,0	141	250
CF31.25.05	(5 G 2,5)C	13,0	174	295
CF31.40.04	(4 G 4,0)C	13,5	217	328
CF31.40.05	(5 G 4,0)C	15,0	281	401
CF31.60.04	(4 G 6,0)C	16,0	318	487
CF31.60.05	(5 G 6,0)C	18,0	385	562
CF31.100.04	(4 G 10,0)C	20,5	539	796
CF31.100.05	(5 G 10,0)C	22,5	687	960
CF31.160.04	(4 G 16,0)C	23,5	823	1129
CF31.250.04	(4 G 25,0)C	28,5	1254	1720
CF31.350.04	(4 G 35,0)C	32,5	1716	2307
CF31.500.04	(4 G 50,0)C	37,5	2420	3177
CF31.700.04 <sup>(5)</sup>	(4 G 70,0)C	43,0	3454	4085

<sup>(5)</sup> 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

 **prices** price list online  
[www.chainflex.eu/CF31](http://www.chainflex.eu/CF31)

 **delivery time** despatched in  
24 hours or today

 eplan download, configurator ► [www.igus.eu/CF31](http://www.igus.eu/CF31)

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