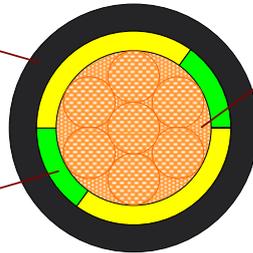


TPE - e-chain[®] - power cable for maximum load requirements (class 6.6.4): oil- and biooil-resistant, flame-retardant, hydrolysis- and microbe-resistant as well as UV-resistant.

Outer jacket: Pressure extruded, flame-retardant TPE mixture

Core insulation: Mechanically high-quality TPE mixture



Conductor: Conductor strand in bending-stable version consisting of bare copper wires

Example drawing

Core design:

Conductor: Conductor strand in bending-stable version consisting of bare copper wires.
Core insulation: Mechanically high-quality TPE mixture.
Core identification: greenyellow

Jacket design:

Outer jacket: Low-adhesion mixture on the basis of TPE, especially abrasion-stable and highly bending-stable, adapted to suit the requirements in e-chains[®].

- oil-resistant (following DIN EN 60811-2-1)
- biooil-resistant (following VDMA 24568 (tested by DEA with Plantocut 8 S-MB))
- flame-retardant (following IEC 60332-1-2, CEI 20-35, FT-1 & VW-1)
- hydrolysis-resistant (following DIN VDE 0282 Part 10 - A)
- microbe-resistant (following DIN EN 50396)
- silicon-free (following PV 3.10.7 - status 1992)
- lead-free (following 2011/65/EU (RoHS-II))
- clean room ISO class 1 (following DIN ISO 14644-1 tested by IPA)
- UV-resistance: High

Colour outer jacket: Signal black (similar to RAL 9004)

Cable marking (White):

„00000 m** igus chainflex CFPE... 600/1000V E310776

cigus AWM Style 21218 VW-1 AWM I/II A/B 80°C 1000V FT-1 CE

RoHS-II conform www.igus.de +++ chainflex cable works +++

* **Length printing:** Not calibrated. Only intended as an orientation aid.

⊙ / ⊚: Cable identification according to part no. (see [technical table](#) for details).

Ex.: CFPE.40.01: => ...chainflex CFPE.40.01 1G4,0 600/1000V...

General mechanical values:

(for individual details see [technical table](#))

Guaranteed lifetime for this series according to the "chainflex [®] guarantee club" conditions (see chainflex [®] catalogue and www.igus.eu/chainflex-guarantee)				
Double strokes*		5 million	7,5 million	10 million
Temperature (from/to) [°C]	Travel distance (TD)	Min. bending radius for e-chain [®] use [Factor multiplied by outer diameter (d)] (Ex.: CFPE.40.01 at 20°C: 7,5 x 6,5 mm → Min. bending radius 48,75 mm)		
-35 / -25	≤ 400 m	10,0	11,0	12,0
-25 / +80		7,5	8,5	9,5
+80 / +90		10,0	11,0	12,0

*: Minimum guarantee lifetime of the cable under the specified conditions.

The installation of the cable is recommended within the middle temperature range.

Temperature range	-40 °C ←	-35 °C ←	-25 °C ↔ +80 °C	→ +90 °C
Min. bending radius for fixed installation	7,5 x d	6,8 x d	4,0 x d	6,8 x d
Torsion (at 1 m cable length)	---	±45°	±90°	±45°

General electrical values:

(for individual details see [technical table](#))

Nominal voltage: 600 / 1000 V (following DIN VDE 0250)

Test voltage: 4 kV (following VDE 0281-2)

Certifications:

- cigus: (E310776: Style 10492 & 21218, 1000 V / 80 °C)
- GL type approval certificate: No. 61 938-14 HH

Guidelines: CE, NFPA (following 79-2012 chapter 12.9), EAC & TR (CTP)

Subject to misprints and errors. Technical modifications are possible at any time. Maybe older batches do not have all or other features.

Please refer regarding the availability of the items especially the information in the latest chainflex[®] catalogue.

Date	Author
12 May 2014	D. Borsberg

TPE - e-chain[®] - power cable for maximum load requirements (class 6.6.4): oil- and biooil-resistant, flame-retardant, hydrolysis- and microbe-resistant as well as UV-resistant.

Technical tables:

Mechanical values:

① Part no.	② Number of cores & nominal cross section [mm ²] ^{***}	External diameter (d) ^{****} [max. mm]	Copper index [kg / km]	Weight [kg / km]
CFPE.15.01	1G1,5	5,0	17	31
CFPE.25.01	1G2,5	6,0	29	47
CFPE.40.01	1G4,0	6,5	43	67
CFPE.60.01	1G6,0	7,0	64	87
CFPE.100.01	1G10,0	8,0	106	133
CFPE.160.01	1G16,0	9,5	170	205
CFPE.250.01	1G25,0	11,0	264	311
CFPE.350.01	1G35,0	12,5	370	418
CFPE.500.01	1G35,0	14,5	528	583
CFPE.700.01	1G70,0	16,5	766	822
CFPE.950.01	1G95,0	20,0	1009	1105
CFPE.1200.01	1G120,0	21,0	1276	1378

*** G ⇒ Cable contains a green/yellow core.

**** External diameters are maximum values and may tend toward lower tolerance limits.

Electrical values:

Nominal cross section [mm ²] (following)	Conductor resistance [approx. Ω / km] at 20 °C	Max. current rating [A] at 30 °C*
	DIN EN 50289-1-2	DIN VDE 0298-4
1,5	13,3	21
2,5	7,98	30
4,0	4,95	41
6,0	3,3	53
10,0	1,91	74
16,0	1,21	99
25,0	0,78	131
35,0	0,554	162
50,0	0,41	202
70,0	0,29	250
95,0	0,22	301
120,0	0,18	352

* The max. current rating depends on factors such as the individual environmental conditions and the type of installation.

