

TPE Motor cable | CF300-UL-D

- For very high mechanical load requirements
- TPE outer jacket
- Oil-resistant, bio-oil-resistant
- Flame-retardant
- UV-resistant
- Hydrolysis/microbe-resistant

Dynamic Information

	Bend radius	E-Chain® flexible fixed	min. 7.5 x d min. 6 x d min. 4 x d
	Temperature	E-Chain® flexible fixed unsupported	-31 °F to +194 °F (-35 °C to +90 °C) -49 °F to +194 °F (-45 °C to +90 °C) -58 °F to +194 °F (-50 °C to +90 °C) 32.81 ft/s (10 m/s)
	v max.	gliding	19.69 ft/s (6 m/s)
	a max.		328.1 ft/s² (100 m/s²)
	Travel distance		Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more, Class 6
	Torsion		± 90°, with 3.281 ft (1 m) cable length

Cable structure

	Conductors	Conductor consisting of bare copper wires (according to EN 60228).
	Conductor 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 E-Chains®. Color: Signal black (similar to RAL 9004)

Electrical Information

	Nominal voltage	1000 V
	Test voltage	4000 V (following DIN EN 50396)

Properties and approvals

	UV resistance	High
	Oil resistance	Oil resistant (following DIN EN 60811-404), bio-oil resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	Flame resistance	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	UL/CSA	Style 10492 and 21218, 1000 V, 80 °C
	NFPA 79	Complies to NFPA 79-2015 chapter 12.9

Configurators ► www.igus.com/CF300

FLEX® CF300.UL.D
Image exemplary.

1,244 types from stock ... no cutting costs*
... no minimum order quantity ... *(up to 10 cuts of the same part number)

Class 6.6.4.2



DNV-GL

Certified according to GL type testing – Certificate no.: 61 938-14 HH



EAC

Certified according to no. TC RU C-DE.ME77.B.01255



CTP

Certified according to no. C-DE.PB49.B.00420



CEI

Following CEI 20-35



Lead-free

Following 2011/65/EC (RoHS-II)



Cleanroom

According to ISO Class 1. Outer jacket material complies with CF34-UL-25-04-D, tested by IPA according to standard 14644-1



DESINA

According to VDW, DESINA standardisation



CE

Following 2014/35/EC

Guaranteed lifetime according to guarantee conditions (Page 22-25)

Cycles*	Temperature, from/to [°F]		v max. [ft/s] unsupported	a max. gliding	Travel distance [ft]	5 million	7.5 million	10 million
	Temperature, from/to [°F]	v max. [ft/s] unsupported				R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-31 / -13						10	11	12
-13 / +176	32.81	19.69	328.10	≤ 1,312		7.5	8.5	9.5
+176 / +194						10	11	12

* Higher number of cycles possible - please ask for your individual calculation.

Typical application areas

- For very high mechanical load requirements
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling, Clean room, semiconductor insertion, outdoor cranes, low temperature applications

Part No.	AWG	Number of Conductors and rated cross section [mm²]	Outer diameter max.		Copper index	Weight
			in.	mm		
CF300-UL-40-01-D	12	1 x 4.0	0.26	6.5	26.2	39
CF300-UL-60-01-D	10	1 x 6.0	0.28	7.0	39.0	58
CF300-UL-100-01-D	8	1 x 10.0	0.31	8.0	64.5	96
CF300-UL-160-01-D	6	1 x 16.0	0.37	9.5	103.5	154
CF300-UL-250-01-D	4	1 x 25.0	0.43	11.0	161.3	240
CF300-UL-350-01-D	2	1 x 35.0	0.49	12.5	225.8	336
CF300-UL-500-01-D	1	1 x 50.0	0.57	14.5	322.5	480
CF300-UL-700-01-D	2/0	1 x 70.0	0.65	16.5	467.7	696
CF300-UL-950-01-D	3/0	1 x 95.0	0.79	20.0	616.2	917
CF300-UL-1200-01-D	4/0	1 x 120.0	0.85	21.5	779.5	1160
CF300-UL-1500-01-D	300	1 x 150.0	0.93	23.5	964.3	1435
CF300-UL-1850-01-D	350	1 x 185.0	1.04	26.5	1193.4	1776

Note: The mentioned outer diameters are maximum values.
G = with green-yellow earth core x = without earth core



36 months guarantee on every chainflex® cable ...
... up to 10 million cycles guaranteed ...