

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®	min. 7.5 x d
		flexible	min. 6 x d
		fixed	min. 4 x d
	Temperature	E-Chain®	-31 °F to +194 °F (-35 °C to +90 °C)
		flexible	-49 °F to +194 °F (-45 °C to +90 °C)
		fixed	-58 °F to +194 °F (-50 °C to +90 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
		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
	NFFPA 79	Complies to NFFPA 79-2015 chapter 12.9

Configurators ► www.igus.com/CF300

Requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	1,312 ft +
Oil resistance	none	1	2	3	4	5	6	7	highest
Torsion	none	1	2	3	4	5	6	7	±180°

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*	5 million						7.5 million		10 million	
	Temperature, from/to [°F]	v max. [ft/s] unsupported	a max. [ft/s²] gliding	Travel distance [ft]	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]	R min. [factor x d]
-31 / -13				≤ 1,312	10	11	12			
-13 / +176		32.81	19.69		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	lbs/mft	kg/km	lbs/mft	kg/km
CF300-UL-40-01-D	12	1 x 4.0	0.26	6.5	26.2	39	41.0	61
CF300-UL-60-01-D	10	1 x 6.0	0.28	7.0	39.0	58	55.1	82
CF300-UL-100-01-D	8	1 x 10.0	0.31	8.0	64.5	96	82.7	123
CF300-UL-160-01-D	6	1 x 16.0	0.37	9.5	103.5	154	127.0	189
CF300-UL-250-01-D	4	1 x 25.0	0.43	11.0	161.3	240	192.2	286
CF300-UL-350-01-D	2	1 x 35.0	0.49	12.5	225.8	336	258.0	384
CF300-UL-500-01-D	1	1 x 50.0	0.57	14.5	322.5	480	356.8	531
CF300-UL-700-01-D	2/0	1 x 70.0	0.65	16.5	467.7	696	508.7	757
CF300-UL-950-01-D	3/0	1 x 95.0	0.79	20.0	616.2	917	687.4	1023
CF300-UL-1200-01-D	4/0	1 x 120.0	0.85	21.5	779.5	1160	854.1	1271
CF300-UL-1500-01-D	300	1 x 150.0	0.93	23.5	964.3	1435	1041.6	1550
CF300-UL-1850-01-D	350	1 x 185.0	1.04	26.5	1193.4	1776	1353.3	2014

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

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

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

