

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400 m
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±180°				

# Motor cable | PUR | chainflex® CF270.UL.D

- For medium duty applications
- PUR outer jacket
- Shielded
- Oil and coolant-resistant
- Notch-resistant
- Flame retardant
- Hydrolysis and microbe-resistant
- PVC and halogen-free

## Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	-25 °C to +80 °C
		flexible	-40 °C to +80 °C (following DIN EN 60811-504)
		fixed	-50 °C to +80 °C (following DIN EN 50305)
	v max.	unsupported	10 m/s
		gliding	2 m/s
	a max.		50 m/s²
	Travel distance	Unsupported travel distances and up to 10 m for gliding applications, Class 2	

## Cable structure

	Conductor	Stranded conductor in bending-resistant design consisting of bare copper wires (following DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Core structure	Cores wound with high tensile strength centre element.
	Core identification	Black cores with white numerals, one core green-yellow. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L-
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage approx. 55 % inear, approx. 80 % optical
	Outer jacket	Low-adhesion, highly abrasion-resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2). Colour: Pastel orange (similar to RAL 2003)

## Electrical information

	Nominal voltage	600/1000 V (following DIN VDE 0298-3)
	Testing voltage	4000 V (following DIN EN 50395)

# Class 4.2.3.1

## Properties and approvals

	UV resistance	Medium.
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3.
	Offshore	MUD-resistant following NEK 606 - status 2009.
	Flame retardant	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).
	Halogen-free	Following DIN EN 60754.
	UL/CSA	Style 10989 and 21223, 1000 V, 80 °C
	NFFPA	Following NFFPA 79-2012 chapter 12.9.
	EAC	Certificate no. RU C-DE.ME77.B.02324 (TR ZU)
	CTP	Certificate no. C-DE.PB49.B.00420 (Fire safety)
	CEI	Following CEI 20-35.
	Lead-free	Following 2011/65/EU (RoHS-II).
	Cleanroom	According to ISO Class 1. Outer jacket material complies with CF27.07.05.02.01.D, tested by IPA according to standard 14644-1.
	DESINA	According to VDW, DESINA standardisation.
	CE	Following 2014/35/EU.

## Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-25/-15	12.5	13.5	14.5
-15/+70	10	11	12
+70/+80	12.5	13.5	14.5

\* Higher number of double strokes? Online lifetime calculation: [www.igus.eu/chainflexlife](http://www.igus.eu/chainflexlife)

## Typical mechanical application areas

- For medium duty applications
- Almost unlimited resistance to oil
- Indoor and outdoor applications without direct solar radiation
- Unsupported travel distances and up to 10 m for gliding applications
- Machining units/machine tools, low temperature applications



Example image



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Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
<b>New</b> CF270.UL.07.04.D	(4G0.75)C	8.0	52	97
CF270.UL.15.04.D	(4 G 1.5)C	9.5	90	156
CF270.UL.25.04.D	(4 G 2.5)C	11.5	154	240
CF270.UL.40.04.D	(4 G 4.0)C	12.5	231	337
CF270.UL.60.04.D	(4 G 6.0)C	14.5	337	465
CF270.UL.100.04.D	(4 G 10.0)C	18.0	545	747
CF270.UL.160.04.D	(4 G 16.0)C	22.0	861	1130
CF270.UL.250.04.D	(4 G 25.0)C	25.5	1316	1691
CF270.UL.350.04.D	(4 G 35.0)C	33.0	1864	2483

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.  
G = with green-yellow earth core x = without earth core



Order example: **CF270.UL.07.04.D** – to your desired length (0.5 m steps)  
CF270.UL.D chainflex® series .07 Code nominal cross section .04 Code Number of cores



Online order ► [www.chainflex.eu/CF270.UL.D](http://www.chainflex.eu/CF270.UL.D)



Delivery time 24h or today.  
Delivery time means time until shipping of goods.

