

chainflex [®] cable	Jacket	Shield	Bend radius e-chain® [factor x d]	Temperature e-chain [®] from/to [°C]		Approvals and standards					Oil-resistant	Torsion-resistant	v max. [m/s] unsupported	v max. [m/s] gliding	a max.	Page	
Motor cables			45	- 5 (- 70									0		00	01.0	
CF885	PVC		15	+5/+70			NFPA		REACH ROHS				3		20	310	
CF886	PVC	✓ ✓	15	+5/+70			NFPA CU		REACH ROHS				3		20	312	
CF210.UL	PVC	✓	10	+5/+70			NFPA CU		REACH ROHS Clean-	(6张			10	2	50	314	New
CF30	PVC		7.5	+5/+70		• AL us (nº	NFPA CU		REACH ROHS clean	C€ \k		√	10	5	80	316	
CF31	PVC	✓	7.5	+5/+70	CUL)U				REACH ROHS clean-	CER			10	5	80	320	
CF895	iguPUR		15	-20/+80		S RLus (ne			REACH ROHS	CER			3		20	324	
CF896	iguPUR	√	15	-20/+80	C UL U LISTED		NFPA C L	₽€A[REACH ROHS	Cer			3		20	326	New
CF270.UL.D	PUR	✓	10	-25/+80						C € ĽK	✓		10	2	50	328	New
CF27.D	PUR	✓	7.5	-25/+80			NFPA C L			€ € [™]	✓		10	5	80	332	
CF34.UL.D	TPE		7.5	-35/+90						○ CER	✓	✓	10	6	80	336	
CF35.UL	TPE	\checkmark	7.5	-35/+90					REACH ROHS clean-	CER	✓		10	6	80	340	
CF37.D	TPE		7.5	-35/+90				⊨∈EA[€ € C€ CK	✓	✓	10	6	80	344	New
CF38	TPE	✓	7.5	-35/+90				₽ (=)[A[REACH ROHS Clean	CER	✓		10	6	80	346	New
Spindle cabl	es/Sing	gle	core	S													
CF885	PVC		15	+5/+70				₽€ A [REACH ROHS	CER			3		20	348	
CF885.PE	PVC		15	+5/+70				⊨€ A [REACH ROHS	CER			3		20	350	
CF886	PVC	✓	15	+5/+70				⊨ (=) [A[REACH ROHS	CER			3		20	352	
CF270.UL.D	PUR	√	10	-25/+80	C (UL)U		NFPA	• 🖲 EAC		■CER	√		10	2	50	354	
CF300.UL.D	TPE		7.5	-35/+90		• RL us ne				■ C€ヒ₩	✓	√	10	6	100	356	
CFPE	TPE		7.5	-35/+90					REACH ROHS clean-	CER	✓	√	10	6	100	358	
CF310.UL	TPE	✓	7.5	-35/+90					REACH ROHS clean-	CER	✓		10	6	100	360	
CF330.D	TPE		7.5	-35/+90					REACH ROHS COM	○ ()	✓	√	10	6	100	362	New
CF340	TPE	✓	7.5	-35/+90				₽	REACH ROHS Clean	CER	✓		10	6	100	364	New
Medium volt	age cal	ble	S														
CFCRANE.PUR	PUR	√	10	-20/+80) NFPK C		REACH ROHS	CER	✓		10	6	50	366	
CFCRANE	igupren	\checkmark	10	-20/+80					REACH ROHS	CER	✓		10	6	50	368	
Twistable mo	otor cal	ole	s (tw	istable	cal	oles c	hapte	r 🕨 Pag	je 370)								
CFROBOT6	PUR		10	-25/+80		Salus (ne		⊨ ■EAC	REACH ROHS Clean-	CER	\checkmark	\checkmark				390	
CFROBOT7	PUR	✓	10	-25/+80				EAC	REACH ROLS Clean-	CER	✓	✓				392	
Guaranteed s ► Selection t	36-month chainflex [®] guarantee Guaranteed service life for predictable reliability ► Selection table from page 306 www.igus.eu/chainflexlife																



chainflex[®] guarantee



Guaranteed s

	chainflex [®] cable	Temp	perature, n/to [°C]	v max. unsupported		a max. [m/s²]	Travel distance [m]	Minimum bend radius [factor x d]	Minimum bend radius [factor x d]	Minimum bend radius [factor x d]	Page
Motor cables								5 million (1 million) double strokes *	7.5 million (3 million) double strokes *	10 million <mark>(5 million)</mark> double strokes *	
		+5	/ +15					17.5	18.5	19.5	
	CF885	+15	5/+60	3	-	20	≤ 10	15	16	17	310
		+60) / +70					17.5	18.5	19.5	
		+5	/ +15					17.5	18.5	19.5	
All and a second s	CF886	+15	5/+60	3	-	20	≤ 10	15	16	17	312
		+60) / +70					17.5	18.5	19.5	
		+5	/ +15					12.5	13.5	14.5	
ANAL STREET, S	CF210.UL	New! +15	5/+60	10	2	50	≤ 10	10	11	12	314
) / +70					12.5	13.5	14.5	
		+5	/ +15					10	11	 12	
	CF30		5/+60	10	5	80	≤ 100	7.5	8.5	9.5	316
)/+70					10	11	12	
			/ +15					10	11	12	
	CF31		5/+60	10	5	80	≤ 100	7.5	8.5	9.5	320
	0101) / +70		-			10	11	12	
)/-10					17.5	 18.5	 19.5	
	CF895) / +70	3	-	20	≤ 10	15	16	17	324
	01033) / +80	U		20	10	17.5	18.5	19.5	024
)/-10					17.5	18.5	19.5	
	CF896)/+70	3	-	20	≤ 10	15	16	19.5	326
12 Marine	01090) / +80	5	-	20	210	17.5	18.5	19.5	520
			5/-15					12.5	 13.5	 14.5	
			5/-15 5/+70	10	0	50	≤ 10				328
	GF270.0L.D) / +70) / +80	10	2	50	≤ 10	10 12.5	11 13.5	12 14.5	320
11111			5/-15	10	-	00	. 100	10	11	12	000
ALIAN	CF27.D		5/+70	10	5	80	≤ 100	7.5	8.5	8.5	332
) / +80					10	 11	 12	
			5/-25		_			10	11	12	
	CF34.UL.D		5 / +80	10	6	80	≤ 400	7.5	8.5	9.5	336
) / +90					10	 11	12	
and the second se			5/-25					10	11	12	
	CF35.UL		5 / +80	10	6	80	≤ 400	7.5	8.5	9.5	340
		+80) / +90					10	11	12	
								5 million	7.5 million	12.5 million	
			5/-25					10	11	12	
	CF37.D		5 / +80	10	6	80	≤ 400	7.5	8.5	9.5	344
) / +90					10	11	12	
			5 / -25					10	11	12	
	CF38	New! -25	5 / +80	10	6	80	≤ 400	7.5	8.5	9.5	346
		+80) / +90					10	11	12	

⁽¹⁾ Guaranteed service life for these series (details **>** see page 28-29)

* Higher number of double strokes? Calculate service life online: > www.igus.eu/chainflexlife Values in brackets apply to the CF885/CF886 and CF895/CF896 series



ervic	e life ⁽	1)
adius	Minimum bend radius	Page



	cable	from/to [°C]	unsupported	gliding	[m/s ²]	Travel distance [m]	[factor x d]	Minimum bend radius [factor x d]	[factor x d]	Pa
ndle cables/Single	cores						5 million <mark>(1 million)</mark> double strokes *	7.5 million <mark>(3 million)</mark> double strokes *	10 million <mark>(5 million)</mark> double strokes *	
		+5 / +15					17.5	18.5	19.5	
Carlo Carlos	CF885	+15 / +60	3	-	20	≤ 10	15	16	17	34
		+60 / +70					17.5	18.5	19.5	
		+5 / +15					17.5	18.5	19.5	
	CF885.PE	+15 / +60	3	-	20	≤ 10	15	16	17	3
		+60 / +70					17.5	18.5	19.5	
		+5 / +15					17.5	18.5	19.5	
	CF886	+15 / +60	3	-	20	≤ 10	15	16	17	3
		+60 / +70					17.5	18.5	19.5	
		-25 / -15					12.5	13.5	14.5	
	CF270.UL.D	-15 / +70	10	2	50	≤ 10	10	11	12	3
		+70 / +80					12.5	13.5	14.5	
		-35 / -25					10	11	12	
	CF300.UL.D	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	
		+80 / +90					10	11	12	
		-35 / -25					10	11	12	
San da an	CFPE	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	;
		+80 / +90					10	11	12	
		-35 / -25					10	11	12	
	CF310.UL	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	;
		+80 / +90					10	11	12	
							5 million	7.5 million	12.5 million	
		-35 / -25					10	11	12	
	CF330.D New!	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	;
		+80 / +90					10	11	12	
		-35 / -25					10	11	12	
	CF340 New!	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	:
		+80 / +90					10	11	12	
lium voltage cable	es									
		-20 / -10					105	13.5	14 5	
	CFCRANE.PUR		10	6	50	- 100	12.5		14.5	
and the second se	UFURAINE.PUK	-10 / +70	10	0	00	≤ 400	10	11	12	;
		+70 / +80					12.5	13.5	14.5	
	CFCRANE	-20 / -10 -10 / +70	10	6	50	≤ 400	12.5 10	13.5 11	14.5 12	;
			111	h	50		10	11	1.7	

.ig Figures in brackets refer to series CF885 and CF886







igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year መ

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309

UL-verified chainflex[®] guarantee ... www.igus.eu/ul-verified

PVC

36 5 million

PVC outer jacket

Double strokes guaranteed

• For flexing applications

Motor cable | PVC | chainflex® CF885

📄 15 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®



age

ple

 Flame-retardant 						
Dynamia information						
Dynamic information Bend radius	e-chain [®] linear	minimum 15 x d				
	flexible	minimum 12 x d				
	fixed	minimum 8 x d				
Can Temperature	e-chain® linear	+5°C up to +70°C				
	flexible	-5°C up to +70°C (following DIN EN 60811-504)				
	fixed	-15°C up to +70°C (following DIN EN 50305)				
v max.	unsupported	3m/s				
a max.	20m/s ²					
Travel distance	Unsupported trav	els up to 10m, Class 1				
Cable structure						
Conductor	Conductor consis	sting of bare copper wires (according to DIN EN 60228).				
Core insulation	Mechanically high	n-quality, especially low-capacitance TPE mixture.				
Core structure	Cores wound with	n an optimised pitch length.				
K Core identification	Black cores with	white numbers, one green-yellow core.				
	1. Core: U / L1 / (C/L+				
	2. Core: V / L2					
	3. Core: W / L3 /	D/L-				
Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains [®] . Colour: Pastel orange (similar to RAL 2003)					
Electrical information						
Kun Nominal voltage		wing DIN VDE 0298-3)				
¥°	1,000V (following	-				
Testing voltage	4,000V (following	DIN EN 50395)				
Properties and approvals						
Flame-retardant	According to IEC	60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame				
Silicone-free	Free from silicone 1992)	which can affect paint adhesion (following PV 3.10.7 - status				
UL verified		3129699: "igus 36-month chainflex cable guarantee and ator based on 2 billion test cycles per year"				
	See data sheet fo	or details ▶www.igus.eu/CF885				

EPLAN download, configurators ► www.igus.eu/CF885

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

Class 3.1.1.1

EAC

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UK UKCA

REACH REACH

RoHS Lead-free

Basic requirements	
Travel distance	unsu
Oil resistance	
Torsion	

Following NFPA 79-2018, chapte
Certificate No. RU C-DE.ME77.B
In accordance with regulation (EC
Following 2011/65/EC (RoHS-II/F
Following 2014/35/EU
In accordance with the valid regul

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5
Higher number of double strol	kes? Service life calculation c	nline ▶www.igus.eu/chainflex	life

* Higł

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.15.04	4G1.5	8.0	67	105
CF885.25.04	4G2.5	10.0	110	163
CF885.40.04	4G4.0	11.5	175	244
CF885.60.04	4G6.0	13.5	237	360
CF885.100.04	4G10	17.0	412	514
CF885.160.04	4G16	20.0	690	857

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



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Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase



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C) No. 1907/2006 (REACH)

RoHS-III)

lations of the United Kingdom (as at 08/2021)







igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year





















PVC

36 5 million

Double strokes guaranteed

Motor cable | PVC | chainflex® CF886

🖹 15 x d

Bend radius, e-chain[®]

10m

Travel distance, e-chain®



● PV ● Shi	r flexing applicatio C outer jacket ielded me-retardant	ns	
Dynan	nic information		
	Bend radius	e-chain [®] linear flexible fixed	minimum 15 x d minimum 12 x d minimum 8 x d
°	Temperature	e-chain [®] linear flexible fixed	+5°C up to +70°C -5°C up to +70°C (following DIN EN 60811-504) -15°C up to +70°C (following DIN EN 50305)
v C	v max.	unsupported	3m/s
a	a max.	20m/s ²	
	Travel distance	Unsupported trave	els up to 10m, Class 1
Cable	structure		
	Conductor	Conductor consis	ting of bare copper wires (according to DIN EN 60228).
(Q	Core insulation	Mechanically high	-quality, especially low-capacitance TPE mixture.
(G	Core structure	Cores wound with	n an optimised pitch length.
	Core identification	1. Core: U / L1 / C 2. Core: V / L2	
		3. Core: W / L3 / I	
Q	Overall shield	Braiding made of Coverage approx.	tinned copper wires. 60% optical
(P	Outer jacket		C mixture, adapted to suit the requirements in e-chains $^{\ensuremath{ extsf{B}}}$. nge (similar to RAL 2003)
Electri	ical information		
	Nominal voltage	600/1 000V (follow	ving DIN VDE 0298-3)
1 U	Norminal voltage	1,000V (following	-
	Testing voltage	4,000V (following	
Prope	rties and approvals		
	Flame-retardant	According to IEC	60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
Ň	Silicone-free	Free from silicone	which can affect paint adhesion (following PV 3.10.7 – status

Class 3.1.1.1

UK UKCA

Basic requirements Travel distance **Oil resistance** Torsion

UL verified	Certificate No. B129699: "igus service life calculator based on 2
Rus UL/CSA AWM	See data sheet for details
NFPA NFPA	Following NFPA 79-2018, chapte
EAC	Certificate No. RU C-DE.ME77.B
REACH REACH	In accordance with regulation (EC
Rous Lead-free	Following 2011/65/EC (RoHS-II/F
CECE	Following 2014/35/EU
	In accordance with the valid regul

Guaranteed service life (details see page 28-29)

	Double strokes*	1 million	
	Temperature, from/to [°C]	R min. [factor x d]	
	+5/+15	17.5	
	+15/+60	15	
	+60/+70	17.5	
	* Illada a una una la aura fala u la la atr		

* Higher number of double strokes? Service life calculation online >www.igus.eu/chainflexlife

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1

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- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF886.15.04	(4G1.5)C	9.0	82	119
CF886.25.04	(4G2.5)C	10.5	132	181
CF886.40.04	(4G4.0)C	12.0	204	263
CF886.60.04	(4G6.0)C	14.5	269	377
CF886.100.04	(4G10)C	18.5	458	577
CF886.160.04	(4G16)C	21.0	760	829

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

EPLAN download, configurators ► www.igus.eu/CF886

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36-month chainflex cable guarantee and 2 billion test cycles per year" w.igus.eu/CF886

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RoHS-III)

lations of the United Kingdom (as at 08/2021)

R min.

[factor x d]

19.5

17

19.5

R min. [factor x d] 18.5 16 18.5

























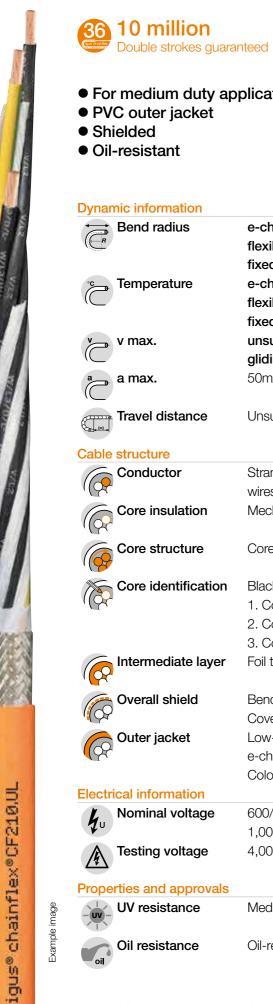




Motor cable | PVC | chainflex® CF210.UL

膏 10 x d

Bend radius, e-chain®



Medium	

Oil resistance

1,000V (following UL)



Flame-retardant



New



PVC

Dynamic information	
Bend radius	

Synamo monnaton		
Bend radius	e-chain [®] linear	minimum 10 x d
	flexible	minimum 8 x d
	fixed	minimum 5 x d
Cartemperature	e-chain® linear	+5°C up to +70°C
	flexible	-5°C up to +70°C (following DIN EN 60811-504)
	fixed	-15°C up to +70°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	2m/s
a max.	50m/s²	
Travel distance	Unsupported trav	els and up to 10m for gliding applications, Class 2
Cable structure		
Conductor	Stranded conduct wires (following D	ctor in bending-resistant version consisting of bare copper IN EN 60228).
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound with	h high tensile strength centre elements.
K Core identification	Black cores with	white numbers, one green-yellow core.
	1. Core: U / L1 / (C / L+
	2. Core: V / L2	
	3. Core: W / L3 /	D/L-
Intermediate layer	Foil taping over th	ne outer layer.
Overall shield	Bending-resistant	t braiding made of tinned copper wires.
	Coverage linear a	nprox 55% ontical approx 80%

Coverage linear approx. 55%, optical approx. 80% Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: Pastel orange (similar to RAL 2003)

Electrical information

Testing voltage

Properties and approvals



Oil-resistant (following DIN EN 50363-4-1), Class 2

600/1,000V (following DIN VDE 0298-3)

4,000V (following DIN EN 50395)

Class 4.2.2.1	Oil resistance Torsion
Flame-retardant	According to IEC 60332-1-2,
Silicone-free	Free from silicone which can a 1992)
UL verified	Certificate No. B129699: "ig service life calculator based of
Rus UL/CSA AWM	See data sheet for details \blacktriangleright w
NFPA NFPA	Following NFPA 79-2018, cha
EAC	Certificate No. RU C-DE.ME7
REACH REACH	In accordance with regulation
Rouse Lead-free	Following 2011/65/EC (RoHS
clean-	According to ISO Class 2. The CF5.10.07 - tested by IPA acc
CE	Following 2014/35/EU
	In accordance with the valid re

Basic requirements

Travel distance

Oil registered

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
+5/+15	12.5	
+15/+60	10	
+60/+70	12.5	

* Higher number of double strokes? Service life calculation online >www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Light oil influence, Class 2
- No torsion, Class 1

CA

- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

	Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF210.UL.05.04	(4G0.5)C	7.0	34	63
	CF210.UL.15.04	(4G1.5)C	10.0	86	140
	CF210.UL.25.04	(4G2.5)C	11.5	146	209
	CF210.UL.40.04	(4G4.0)C	13.0	195	288

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



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low			4				highest
rted		2	4			≥ 4	00m
none		2		hig	hest		
none	1			±3(60°		

Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

affect paint adhesion (following PV 3.10.7 – status

'igus 36-month chainflex cable guarantee and on 2 billion test cycles per year" www.igus.eu/CF210.UL

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77.B.00863/20

n (EC) No. 1907/2006 (REACH)

S-II/RoHS-III)

ne outer jacket material of this series complies with ccording to standard DIN EN ISO 14644-1

regulations of the United Kingdom (as at 08/2021)

R min.

[factor x d]

14.5

12

14.5

R min. [factor x d] 13.5 11 13.5







Motor cable | PVC | chainflex

📄 7.5 x d

Bend radius.

7.5 x d



([®] CF30	
e-chain [®]	100m Travel distance,



• For heavy duty applications

Double strokes guaranteed

• PVC outer jacket

36 10 million

• Oil-resistant

PVC

Flame-retardant

Dynamic information

bynamic mormation		
Bend radius	e-chain [®] linear flexible	minimum 7.5 x d minimum 6 x d
1944.44 ¹	fixed	minimum 4 x d
Carl Temperature	e-chain [®] linear	+5°C up to +70°C
	flexible	-5°C up to +70°C (following DIN EN 60811-504)
	fixed	-15°C up to +70°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	5m/s
a max.	80m/s ²	
Travel distance	Unsupported trav	els and up to 100m for gliding applications, Class 5
Torsion	Torsion ±90°, with	n 1m cable length, Class 2
Cable structure		
Conductor		Stranded conductor in especially bending-resistant version copper wires (following DIN EN 60228).

consisting of bare copper wires (following DIN EN 60228). Cores ≥ 10mm²:Conductor cable consisting of pre-leads (following DIN EN 60228). Core insulation Mechanically high-quality, especially low-capacitance XLPE mixture.

Core structure Cores wound with a short pitch length around a high tensile strength centre element. Core identification Black cores with white numbers, one green-yellow core.

1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L- 4. Core: 4 / N Outer jacket Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: jet black (similar to RAL 9005) Strip cables faster: a tear strip is moulded into the outer jacket Video <a>vww.igus.eu/CFRIP

Electrical information Nominal voltage

20

 $\left(\left(\mathcal{C} \right) \right)$

Testing voltage

600/1,000V (following DIN VDE 0298-3) 1,000V (following UL) 4,000V (following DIN EN 50395)

Class 5.5.2.2

REACH REACH

RoHS Lead-free

C E CE

CA

EU202

UK UKCA

Cleanroom

Basic requirements Travel distance **Oil resistance** Torsion

Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resistant (folle
Flame-retardant	According to IEC
Silicone-free	Free from silicon 1992)
UL verified	Certificate No. service life calcu
UL/CSA AWM	See data sheet
NFPA NFPA	Following NFPA
EREEAC	Certificate No. F

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

Guaranteed	service I	ife (details	see	page	28-29)

Double strokes*	5 million	7.5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]
+5/+15	10	11
+15/+60	7.5	8.5
+60/+70	10	11
* Higher number of double stro	kes? Service life calculation o	nline Nwww.igus.eu/chainflext

er number of double strokes? Service life calculation online ▶www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Light oil influence, Class 2
- Torsion ±90°, with 1m cable length, Class 2
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units, machining units/packaging machines, quick handling, indoor cranes

EPLAN download, configurators ► www.igus.eu/CF30



llowing DIN EN 50363-4-1), Class 2

C 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

ne which can affect paint adhesion (following PV 3.10.7 – status

B129699: "igus 36-month chainflex cable guarantee and culator based on 2 billion test cycles per year" for details www.igus.eu/CF30

A 79-2018, chapter 12.9

RU C-DE.ME77.B.00863/20

According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min.

[factor x d]

12

9.5

12





CF30



Motor cable | PVC | chainflex® CF30

Strip cables 50% faster with CFRIP[®] tear strip

igus" chainflex" CF30

Example image

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF30.15.04	4G1.5	8.0	61	104
CF30.25.04	4G2.5	10.0	100	166
CF30.25.05	5G2.5	11.0	124	203
CF30.40.04	4G4.0	11.5	163	249
CF30.40.05	5G4.0	12.5	204	302
CF30.60.04	4G6.0	13.5	237	343
CF30.60.05	5G6.0	15.0	297	410
CF30.100.04	4G10	16.5	407	548
CF30.100.05	5G10	19.5	515	684
CF30.160.04	4G16	20.0	646	826
CF30.160.05	5G16	23.5	815	1067
CF30.250.04	4G25	25.0	1014	1320
CF30.350.04	4G35	28.5	1439	1795
CF30.500.04	4G50	34.0	2061	2528

Order example: CF30.15.04 - to your desired length (0.5m steps) 1 CF30 chainflex® series .15 Code nominal cross section .04 Number of cores Order online ► www.igus.eu/CF30



Delivery time 24hrs or today. Delivery time means time until goods are shipped.

cost down...

Class 5.5.2.2



Do the chainflex[®] price check ... www.igus.eu/cf-price-check

... for example: reduce cost with CF885 ...

Basic requirements

Travel distance

Oil resistance

Torsion

G = with green-yellow earth core x = without earth core

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase



EU2022

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EU2022

IQUS

VILZ

EPLAN download, configurators ► www.igus.eu/CF30







igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIR

c**RL**us

NFPA

EAC

REACH

RoHS

clean-room

CE

UK CA

Reduce cost, improve technology, now!





See 319

PVC

36 10 million

• PVC outer jacket

 Shielded • Oil-resistant

Double strokes guaranteed

• For heavy duty applications

Motor cable | PVC | chainflex® CF31

膏 7.5 x d

Bend radius, e-chain®

100m

Travel distance, e-chain®



 Flame-retardant 		
Dynamic information		
Bend radius	e-chain [®] linear	minimum 7.5 x d
R	flexible	minimum 6 x d
	fixed	minimum 4 x d
Cartemperature	e-chain® linear	+5°C up to +70°C
	flexible	-5°C up to +70°C (following DIN EN 60811-504)
	fixed	-15°C up to +70°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	5m/s
a max.	80m/s ²	
Travel distance	Unsupported trav	rels and up to 100m for gliding applications, Class 5
Cable structure		
Conductor	Cores <10mm ² :	Stranded conductor in especially bending-resistant version
	consisting of bare	e copper wires (following DIN EN 60228).
	Cores ≥ 10mm ²	Conductor cable consisting of pre-leads (following DIN EN
	60228).	
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound wit element.	h a short pitch length around a high tensile strength centre
Core identification	Black cores with	white numbers, one green-yellow core.
	1. Core: U / L1 /	C / L+ 2. Core: V / L2
	3. Core: W / L3 /	D / L- 4. Core: 4 / N
Inner jacket	PVC mixture ada	pted to suit the requirements in e-chains®.
Overall shield	Extremelv bendin	g-resistant braiding made of tinned copper wires.
	-	pprox. 70%, optical approx. 90%
Outer jacket	-	il-resistant PVC mixture, adapted to suit the requirements in
		ng DIN EN 50363-4-1).
		(similar to RAL 9005)
	-	r: a tear strip is moulded into the inner jacket
	Video ► www.ig	
Electrical information		
Ku Nominal voltage	600/1,000V (follo	wing DIN VDE 0298-3)
YU	1,000V (following	UL)
Testing voltage	4,000V (following	DIN EN 50395)

Basic requirements Travel distance Oil resistance Torsion

Class 5.5.2.1

5

. . . .

EAC

CECE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Cleanroom

UL verified

UL/CSA AWM

Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resista
Flame-retardant	Accordin
Silicone-free	Free from

1992) service life calculator based on 2 billion test cycles per year"

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed	service lif	fe (details	see page	28-29)
				/

Double strokes*	5 million	7.5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]
+5/+15	10	11
+15/+60	7.5	8.5
+60/+70	10	11
* Higher number of double stro	kes? Service life calculation o	nline Nwww.igus.eu/chainflex

er number of double strokes? Service life calculation online ▶www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Light oil influence, Class 2
- No torsion, Class 1

EU202

- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units, machining units/packaging machines, quick handling, indoor cranes

EPLAN download, configurators ► www.igus.eu/CF31



resistant (following DIN EN 50363-4-1), Class 2

cording to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

e from silicone which can affect paint adhesion (following PV 3.10.7 – status

Certificate No. B129699: "igus 36-month chainflex cable guarantee and See data sheet for details > www.igus.eu/CF31

According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1

> R min. [factor x d]

> > 12 9.5

12





CF31

PVC

7.5 x d



SP 321

Motor cable | PVC | chainflex® CF31

Strip cables 50% faster with CFRIP[®] tear strip

Class 5.5.2.1

Basic requirements Travel distance Oil resistance Torsion

igus chainflex CF31

Example image

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF31.15.04	(4G1.5)C	10.0	89	157
CF31.25.04	(4G2.5)C	11.5	133	221
CF31.25.05	(5G2.5)C	13.0	163	271
CF31.40.04	(4G4.0)C	13.0	203	300
CF31.40.05	(5G4.0)C	14.5	258	354
CF31.60.04	(4G6.0)C	16.0	288	455
CF31.60.05	(5G6.0)C	17.0	356	532
CF31.100.04	(4G10)C	18.5	468	670
CF31.100.05	(5G10)C	21.5	609	857
CF31.160.04	(4G16)C	23.0	738	1035
CF31.250.04	(4G25)C	27.5	1153	1586
CF31.350.04	(4G35)C	31.0	1592	2104
CF31.500.04	(4G50)C	36.5	2224	2902
CF31.700.04	(4G70)C	43.0	3203	4173

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: CF31.15.04 - to your desired length (0.5m steps) CF31 chainflex® series .15 Code nominal cross section .04 Number of cores

Order online ► www.igus.eu/CF31

Delivery time 24hrs or today.

Delivery time means time until goods are shipped.



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase

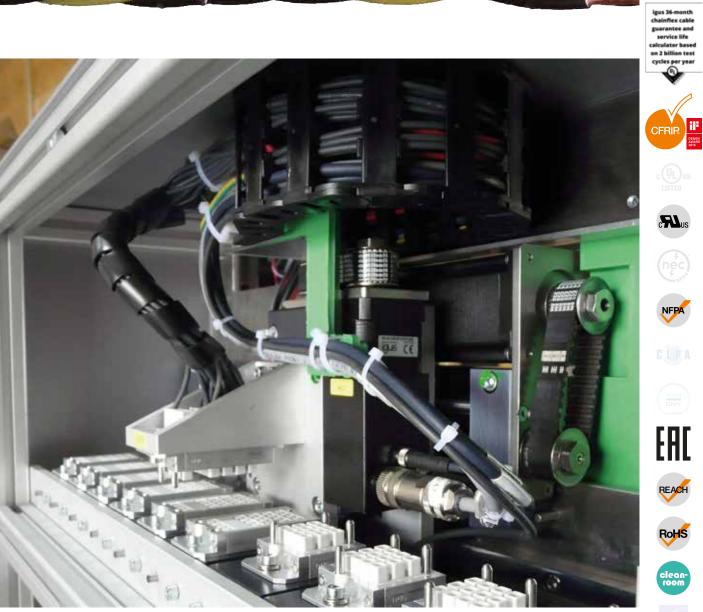


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iqus

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chainflex® CF31 motor cable in a fast picker

EPLAN download, configurators ► www.igus.eu/CF31













UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

36 5 million

Motor cable | iguPUR | chainflex[®] CF895

🕞 15 x d

10m

Travel distance, e-chain®



Double strokes gua	aranteed 🥌 Ben	d radius, e-chain®
 For flexing applica iguPUR outer jack Oil-resistant Flame-retardant 		
	e-chain [®] linear	minimum 15 x d
Bend radius	• • • • • • • • • • • • • •	
C	flexible	minimum 12 x d
	fixed	minimum 8 x d
🦕 Temperature	e-chain [®] linear	-20°C up to +80°C
	flexible	-40°C up to +80°C (

C Temperature	e-chain [®] linear flexible	-20°C up to +80°C -40°C up to +80°C (following DIN EN 60811-504)
	fixed	-50° C up to $+80^{\circ}$ C (following DIN EN 50305)
v max.	unsupported	3m/s
a max.	20m/s ²	
Travel distance	Unsupported trav	els up to 10m, Class 1
Cable structure		
Conductor	Conductor consis	sting of bare copper wires (according to DIN EN 60228).
Core insulation	Mechanically high	n-quality, especially low-capacitance TPE mixture.
Core structure	Cores wound with	n an optimised pitch length.
Core identification	Black cores with	white numbers, one green-yellow core.
	1. Core: U / L1 / 0	C/L+
	2. Core: V / L2	
	3. Core: W / L3 /	D/L-
Outer jacket	0	IPUR mixture, adapted to suit the requirements in e-chains [®] . ange (similar to RAL 2003)

Electrical information

Ku Nominal voltage	600/1,000V (following DIN VDE 0298-3)
40	1,000V (following UL)
Testing voltage	4,000V (following DIN EN 50395)

Medium

Properties and approvals

Oil resistance

UV resistance

oi

Oil-resistant (following DIN EN 50363-10-2), Class 3

mage ple



Class 3.1.3.1

Travel distance	unsu
Oil resistance	
Torsion	

Basic requirements

Flame-retardant	According to IEC 60332-1-2, C
Silicone-free	Free from silicone which can aff 1992)
UL verified	Certificate No. B129699: "igu service life calculator based or
	See data sheet for details 🕨 w
NFPA NFPA	Following NFPA 79-2018, chap
EREEAC	Certificate No. RU C-DE.ME77
REACH REACH	In accordance with regulation (I
Rous Lead-free	Following 2011/65/EC (RoHS-I
CECE	Following 2014/35/EU
	In accordance with the valid reg

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	
Temperature, from/to [°C]	R min. [factor x d]	
-20/-10	17.5	
-10/+70	15	
+70/+80	17.5	
I light a university of allowing a students		

* Higher number of double strokes? Service life calculation online www.igus.eu/chainflexlife

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- With influence of oil, Class 3
- No torsion, Class 1

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iqus:

EU2022

iqus

- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF895.15.04	4G1.5	8.0	67	101
CF895.25.04	4G2.5	10.0	110	153
CF895.40.04	4G4.0	11.5	175	239
CF895.60.04	4G6.0	13.5	262	353
CF895.100.04	4G10	17.0	436	543
CF895.160.04	4G16	20.0	653	824

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

low		3				highest
orted	1	3			≥ 4	100m
none		3	hig	hest		
none	1		±3(60°		

Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

fect paint adhesion (following PV 3.10.7 – status

gus 36-month chainflex cable guarantee and n 2 billion test cycles per year" /ww.igus.eu/CF895

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7.B.00302/19

(EC) No. 1907/2006 (REACH)

-II/RoHS-III)

gulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 18.5 16 18.5

R min. [factor x d] 19.5 17 19.5







iguPUR

New

Basic requirements Travel distance Oil resistance Torsion

unsuppo

According to IEC 60332-1-2, Cab
Free from silicone which can affec 1992)
Certificate No. B129699: "igus service life calculator based on 2 See data sheet for details ► www
Following NFPA 79-2018, chapter
Certificate No. RU C-DE.ME77.B.
In accordance with regulation (EC
Following 2011/65/EC (RoHS-II/F
Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	
Temperature, from/to [°C]	R min. [factor x d]	
-20/-10	17.5	
-10/+70	15	
+70/+80	17.5	
Licher pumber of double atr	alvaa? Canviaa lifa aalaulatian anli	

* Higher number of double strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

Class 3.1.3.1

Flame-retardant

Silicone-free

🚇 UL verified

Rus UL/CSA AWM

NFPA

NFPA

EAC

CE CE

CA

REACH REACH

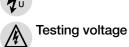
RoHS Lead-free

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- With influence of oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

	Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF896.07.04	(4G0.75)C	7.5	52	79
	CF896.15.04	(4G1.5)C	9.0	82	122
	CF896.25.04	(4G2.5)C	10.5	132	173
	CF896.40.04	(4G4.0)C	12.0	204	257
	CF896.60.04	(4G6.0)C	14.5	306	378
	CF896.100.04	(4G10)C	18.5	458	653
	CF896.160.04	(4G16)C	21.0	709	835

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

Motor cable iguPUR chainflex® CF896								
36 5 million Double strokes guaranteed 15 x d Bend radius, e-chain [®] 10m Travel distance, e-chain [®]								
 For flexing application iguPUR outer jacket Oil-resistant Shielded Dynamic information	ons	● Flame-retare	dant					
Bend radius	e-chain [®] linear flexible fixed e-chain [®] linear	minimum 15 x d minimum 12 x d minimum 8 x d -20°C up to +80°C						
v max.	flexible fixed unsupported	-40°C up to +80°C (follo -50°C up to +80°C (follo 3m/s	•	,				
a max.	20m/s ²							
Travel distance	Unsupported trave	els up to 10m, Class 1						
Cable structure Conductor	Conductor consis	ting of bare copper wires	(according to DIN EN	N 60228).				
Core insulation	Mechanically high	-quality, especially low-ca	apacitance TPE mixtu	re.				
Core structure	Cores wound with	n an optimised pitch lengtl	h.					
Core identification	Black cores with white numbers, one green-yellow core. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L-							
Overall shield	0	tinned copper wires. 60% optical						
Outer jacket	Coverage approx. 60% optical Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains [®] . Colour: Pastel orange (similar to RAL 2003)							
Electrical information								
Ku Nominal voltage	600/1,000V (follow 1,000V (following	ving DIN VDE 0298-3) UL)						



4,000V (following DIN EN 50395)

Properties and approvals



Oil-resistant (following DIN EN 50363-10-2), Class 3

EPLAN download, configurators ► www.igus.eu/CF896

Medium

S

EU2022

IGUS

nple image

low		3				highest
orted	1	3			≥ 4	100m
none		3	hig	hest		
none	1		±3(60°		

ole Flame, VW-1, FT1, FT2 / Horizontal Flame

ct paint adhesion (following PV 3.10.7 – status

36-month chainflex cable guarantee and 2 billion test cycles per year" w.igus.eu/CF896

er 12.9

8.00302/19

C) No. 1907/2006 (REACH)

RoHS-III)

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 18.5 16 18.5

R min. [factor x d] 19.5 17 19.5







36 10 million

• PUR outer jacket

Shielded

Double strokes guaranteed

• For medium duty applications

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

膏 10 x d

Bend radius, e-chain[®]

Notch-resistant

Flame-retardant



• Oil-resistant and co	olant-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 up to +80°C
	flexible	-40°C up to +80°C (following DIN EN 60811-504)
	fixed	-50°C up to +80°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	2m/s
a max.	50m/s ²	
Travel distance	Unsupported trav	vels and up to 10m for gliding applications, Class 2
Cable structure		
Conductor	Stranded conduc	ctor in bending-resistant version consisting of bare copper
	wires (following D	NN EN 60228).
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound wit	h high tensile strength centre elements.
K Core identification	Black cores with	white numbers, one green-yellow core.
(\mathbf{Q})	1. Core: U / L1 /	C/L+
	2. Core: V / L2	
	3. Core: W / L3 /	D/L-
Intermediate layer	Foil taping over th	ne outer layer.
Overall shield	Bending-resistan	t braiding made of tinned copper wires.
	-	approx. 55%, optical approx. 80%
Outer jacket	Low-adhesion, h	alogen-free, highly abrasion resistant PUR mixture, adapted
	to suit the require	ements in e-chains [®] (following DIN EN 50363-10-2)
	Colour: Pastel ora	ange (similar to RAL 2003)
Electrical information		
Nominal voltage	600/1 000V (follo	wing DIN VDF (1298-3)

F

Nominal voltage **Testing voltage**

600/1,000V (following DIN VDE 0298-3) 1,000V (following UL) 4,000V (following DIN EN 50395)

image ble

CF276.UL.D

chainflex

ship

EPLAN download, configurators ► www.igus.eu/CF270.UL.D

Clas

CA

UK UKCA

New

10m

Hydrolysis and microbe-resistant

Travel distance, e-chain®

Class 4.2.3.1	Basic requirements Travel distance Oil resistance Torsion
Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resistant (following DIN
Offshore	MUD-resistant following N
Flame-retardant	According to IEC 60332-
Silicone-free	Free from silicone which c 1992)
Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699 service life calculator bas
	See data sheet for details
NFPA NFPA	Following NFPA 79-2018,
EAC	Certificate No. RU C-DE.
REACH REACH	In accordance with regula
Rous Lead-free	Following 2011/65/EC (Re
cleanroom	According to ISO Class 1. CF77.UL.05.12.D - tested
	According to VDW, DESIN
CECE	Following 2014/35/EU

Guaranteed service life (details see page 28-29)

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 strok	es? Service life calculation of	online Nwww.igus.eu/chainflex	life

ner number of double strokes? Service life calculation online ▶www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications







owing DIN EN 50363-10-2), Class 3

ollowing NEK 606 - status 2009

C 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

ne which can affect paint adhesion (following PV 3.10.7 – status

B129699: "igus 36-month chainflex cable guarantee and ulator based on 2 billion test cycles per year" for details www.igus.eu/CF270.UL.D

79-2018, chapter 12.9

RU C-DE.ME77.B.00863/20

vith regulation (EC) No. 1907/2006 (REACH)

65/EC (RoHS-II/RoHS-III)

O Class 1. The outer jacket material of this series complies with .D - tested by IPA according to standard DIN EN ISO 14644-1 DW, DESINA standardisation

In accordance with the valid regulations of the United Kingdom (as at 08/2021)





CF270.UL.D

PUR

10 x d



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



Basic requirements Travel distance Torsion

Class 4.2.3.1

igus° chainflex° CF270.UL.D

Example image

	Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
	CF270.UL.07.04.D	(4G0.75)C	8.0	46	95
New	CF270.UL.10.06.D	(6G1.0)C	9.5	87	133
	CF270.UL.15.04.D	(4G1.5)C	10.0	86	140
	CF270.UL.25.04.D	(4G2.5)C	11.5	146	210
	CF270.UL.40.04.D	(4G4.0)C	13.0	195	296
CF270.UL.60.04.D		(4G6.0)C	15.0	289	416
	CF270.UL.100.04.D	(4G10)C	18.0	449	644
	CF270.UL.160.04.D	(4G16)C	22.0	698	997
	CF270.UL.250.04.D (4G25)C		25.5	1045	1384
	CF270.UL.350.04.D	(4G35)C	33.0	1520	2111

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 (0.5m steps) CF270.UL.D chainflex® series .07 Code nominal cross section .04 Number of cores



8

Order online ▶ www.igus.eu/CF270.UL.D

Delivery time 24hrs or today. Delivery time means time until goods are shipped.



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].



S

More on this on page 24/25 and online: www.igus.eu/cfcase

cost down...



Reduce cost, improve technology, now! Do the chainflex[®] price check ... www.igus.eu/cf-price-check

... for example: reduce cost with CF31 ...

EPLAN download, configurators ► www.igus.eu/CF270.UL.D



chainflex® CF270.UL.D motor cable in a system for sharpening knives

















Motor cable | PUR | chainflex® CF27.D

膏 7.5 x d



resistance	
------------	--

Oil resistance lio





Hydrolysis and microbe-resistant



Notch-resistant

Flame-retardant

• PVC and halogen-free

- For extremely heavy duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant

Dynamic information

ynamic information		
Bend radius	e-chain [®] linear	minimum 7.5 x d
	flexible	minimum 6 x d
	fixed	minimum 4 x d
🛌 Temperature	e-chain [®] linear	-25°C up to +80°C
	flexible	-40°C up to +80°C (following DIN EN 60811-504)
	fixed	-50°C up to +80°C (following DIN EN 50305)
v max.	unsupported	10m/s
\subset	gliding	5m/s
a max.	80m/s ²	
\subset		
Travel distance	Unsupported trav	vels and up to 100m for gliding applications, Class 5
able structure		
Conductor		ctor in especially bending-resistant version consisting of bare
19		owing DIN EN 60228).
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound arc	ound a high tensile strength centre element.
Core identification	Black cores with	white numbers, one green-yellow core.
	1. Core: U / L1 /	C/L+
	2. Core: V / L2	
	3. Core: W / L3 /	D/L-
🦰 Inner jacket		pted to suit the requirements in e-chains [®] .
· ·	·	
Overall shield	Extremely bendir	ng-resistant braiding made of tinned copper wires.
(\$2	-	approx. 70%, optical approx. 90%
Couter jacket	•	alogen-free, highly abrasion resistant PUR mixture, adapted
(2		ements in e-chains [®] (following DIN EN 50363-10-2)
		ange (similar to RAL 2003)
		er: a tear strip is moulded into the inner jacket
Q	Video ► www.ig	
ectrical information		
	600/1.000V (follo	wing DIN VDE 0298-3)
	1,000V (following	
	.,	,

4,000V (following DIN EN 50395)

Properties and approvals UV-UV

Medium

Oil-resistant (following DIN EN 50363-10-2), Class 3









ČÀ

Basic requirements Travel distance Oil resistance Torsion

Offshore	MUD-resistant following NEK 606
Flame-retardant	According to IEC 60332-1-2, Cabl
Silicone-free	Free from silicone which can affect 1992)
hal Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699: "igus service life calculator based on 2
Rus UL/CSA AWM	See data sheet for details ► www
	Following NFPA 79-2018, chapter
DNV	Type Approval Certificate TAE0000
	Certificate No. RU C-DE.ME77.B.
REACH	In accordance with regulation (EC)
Rous Lead-free	Following 2011/65/EC (RoHS-II/Ro
clean- room	According to ISO Class 1. The oute
	CF77.UL.05.12.D - tested by IPA a According to VDW, DESINA stand
CECE	Following 2014/35/EU
	In accordance with the valid regula

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-25/-15	10	
-15/+70	7.5	
+70/+80	10	
* Higher number of double	strokes? Service life calculation online	•\//\

le strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 100m for gliding applications, Class 5
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quid Guarantee handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature application due to the second s

chainflex CF27.D igus

ple



IQUS

EU2022



- status 2009

ble Flame, VW-1, FT1, FT2 / Horizontal Flame

t paint adhesion (following PV 3.10.7 – status

36-month chainflex cable guarantee and billion test cycles per year" w.igus.eu/CF27.D

12.9

)03XA

.00863/20

C) No. 1907/2006 (REACH)

RoHS-III)

ter jacket material of this series complies with according to standard DIN EN ISO 14644-1 dardisation

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 11 8.5 11

R min. [factor x d] 12 9.5 12











Motor cable | PUR | chainflex® CF27.D

Strip cables 50% faster with CFRIP[®] tear strip

Travel distance Oil resistance Class 6.5.3.1

Basic requirements Torsion

igus° chainflex° CF27.D

Example image

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF27.07.04.D	(4G0.75)C	9.5	55	115
CF27.15.04.D	(4G1.5)C	11.0	90	165
CF27.25.04.D	(4G2.5)C	12.5	135	231
CF27.500.04.D	(4G50)C	37.0	2244	2817

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



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase



Order example: CF27.07.04.D - to your desired length (0.5m steps) **`** CF27.D chainflex[®] series .07 Code nominal cross section .04 Number of cores



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EU202

S

Delivery time 24hrs or today. Delivery time means time until goods are shipped.

cost down...



Do the chainflex® price check ... www.igus.eu/cf-price-check

... here's an idea for you: highest abrasion resistance with CF38 ...

...life up



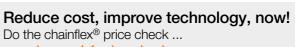
Modular design, easy to retrofit: igus[®] E4 e-chain[®] and chainflex[®] cables.

EPLAN download, configurators ► www.igus.eu/CF27.D















Motor cable | TPE | chainflex® CF34.UL.D



36	10 million
	Double strokes guaranteed



TPE





- For extremely heavy duty applications UV-resistant
 - Hydrolysis and microbe-resistant
- Oil and bio-oil-resistant
- Flame-retardant

TPE outer jacket

D

Dynamic information			
Bend radius	e-chain [®] linear	minimum 7.5 x d	
	flexible	minimum 6 x d	
	fixed	minimum 4 x d	
🛌 Temperature	e-chain® linear	-35°C up to +90°C	
	flexible	-45°C up to +90°C (following DIN EN 60811-504)	
	fixed	-50°C up to +90°C (following DIN EN 50305)	
v max.	unsupported	10m/s	
	gliding	6m/s	
a max.	80m/s ²		
Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6		
Torsion	Torsion $\pm 90^{\circ}$, with 1m cable length, Class 2		
Cable structure			
Conductor	Cores <10mm ² :Stranded conductor in especially bending-resistan consisting of bare copper wires (following DIN EN 60228).		
	0	Conductor cable consisting of pre-leads (following DIN EN	
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.	
Core structure Cores wound with a short pitch length around a high tensile st		h a short pitch length around a high tensile strength centre	
	element.		
Core identification	Black cores with white numbers, one green-yellow core.		
	1. Core: U / L1 / (C / L+ 2. Core: V / L2	
	3. Core: W / L3 /	D / L- 4. Core: 4 / N	
Outer jacket	Low-adhesion, e	xtremely abrasion-resistant and highly flexible TPE mixture,	
TY.	adapted to suit th	e requirements in e-chains®.	
	Colour: Signal bla	ack (similar to RAL 9004)	
	<u> </u>	· · · · · · · · · · · · · · · · · · ·	

Strip cables faster: a tear strip is moulded into the outer jacket



Nominal voltage

Testing voltage

600/1,000V (following DIN VDE 0298-3) 1,000V (following UL) 4,000V (following DIN EN 50395)

Video www.igus.eu/CFRIP

Basic requirements Travel distance Oil resistance Torsion

Class 6.6.4.2

Properties and approvals High UV resistance Oil resistance Flame-retardant

1992)

Silicone-free UL verified

UL/CSA AWM

NFPA

DNV DNV

EAC REACH REACH

RoHS Lead-free

Cleanroom CECE

UK UKCA

CA

ISO standard 14644-1

Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	

* Higher number of double strokes? Service life calculation online www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quid handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applicat

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EPLAN download, configurators ► www.igus.eu/CF34.UL.D

EU202





Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4 According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

Free from silicone which can affect paint adhesion (following PV 3.10.7 - status

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year" See data sheet for details > www.igus.eu/CF34.UL.D

Following NFPA 79-2018, chapter 12.9

Type Approval Certificate TAE00003X9

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1, material/cable tested by IPA according to DIN EN

According to VDW, DESINA standardisation

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 11 8.5 11

R min. [factor x d] 12 9.5 12









RoHS











337

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Motor cable | TPE | chainflex® CF34.UL.D

Strip cables 50% faster with CFRIP[®] tear strip

igus chainflex CF34.UL.D

Example image

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF34.UL.15.04.D	4G1.5	8.0	61	102
CF34.UL.25.04.D	4G2.5	10.0	100	159
CF34.UL.40.04.D	4G4.0	11.5	163	236
CF34.UL.60.04.D	4G6.0	13.5	237	332
CF34.UL.60.05.D	5G6.0	15.0	297	406
CF34.UL.100.04.D	4G10	16.5	407	537
CF34.UL.100.05.D	5G10	19.5	515	670
CF34.UL.160.04.D	4G16	20.0	646	819
CF34.UL.160.05.D	5G16	22.5	815	1009
CF34.UL.250.04.D	4G25	24.5	1014	1271
CF34.UL.100.04.O.PE.D ¹¹⁾	4x10	16.5	407	537
CF34.UL.160.04.O.PE.D ¹¹⁾	4x16	20.0	646	819

¹¹⁾ Phase-out model

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



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase



JILZ

Order example: CF34.UL.15.04.D - to your desired length (0.5m steps) 8 CF34.UL.D chainflex® series .15 Code nominal cross section .04 Number of cores



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Order online ► www.igus.eu/CF34.UL.D

Delivery time 24hrs or today. Delivery time means time until goods are shipped.

cost down...

Class 6.6.4.2



Reduce cost, improve technology, now! Do the chainflex[®] price check ... www.igus.eu/cf-price-check

... for example: reduce cost with CF300.UL.D ...

...life up

EPLAN download, configurators ► www.igus.eu/CF34.UL.D













Motor cable | TPE | chainflex[®] CF35.UL

膏 7.5 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®



 For extremely heave TPE outer jacket Shielded Oil and bio-oil-resi 		 Flame-retardant UV-resistant Hydrolysis and microbe-resistant
	e-chain [®] linear	minimum 7.5 x d
Bend radius		
l <u>c</u>	flexible	minimum 6 x d
	fixed	minimum 4 x d
Cartemperature	e-chain [®] linear	-35°C up to +90°C
	flexible	-45°C up to +90°C (following DIN EN 60811-504)
	fixed	-50°C up to +90°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	6m/s
a max.	80m/s ²	
Travel distance	Unsupported trav	els and up to 400m and more for gliding applications, Class 6

36 10 million

Double strokes guaranteed

Cable structure	
Conductor	Cores <10mm ² :Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).
	Cores \geq 10mm²: Conductor cable consisting of pre-leads (following DIN EN 60228).
Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound with a short pitch length around a high tensile strength centre element.
Core identification	Black cores with white numbers, one green-yellow core. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L- 4. Core: 4 / N
Inner jacket	TPE mixture adapted to suit the requirements in e-chains [®] .
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains [®] . Colour: Signal black (similar to RAL 9004)



Electrical information

20

A

Nominal voltage



600/1,000V (following DIN VDE 0298-3) 1,000V (following UL) 4,000V (following DIN EN 50395)

Cla

Basic requirements Travel distance

	Travel distance unsuppo
Class 6.6.4.1	Oil resistance Torsion
Properties and approvals	
UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 24568 with Plantocut 8 S-MB to
Flame-retardant	According to IEC 60332-1-2, C
Silicone-free	Free from silicone which can affe 1992)
UL verified	Certificate No. B129699: "igu service life calculator based on
Nus UL/CSA AWM	See data sheet for details ► wv
NFPA NFPA	Following NFPA 79-2018, chap
DNV	Type Approval Certificate TAE00
EAC	Certificate No. RU C-DE.ME77.
REACH REACH	In accordance with regulation (E
Rouse Lead-free	Following 2011/65/EC (RoHS-II
cleanroom	According to ISO Class 1. The c CF34.UL.25.04.D - tested by IF
CECE	Following 2014/35/EU
	In accordance with the valid reg

Guaranteed service life (details see page 28-29)

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]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12
Higher number of double strokes? Service life calculation online ▶www.igus.eu/chainflexlife			

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1

IQUS

- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applica Guarantee

chainflex CF35,UL supi

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EU2022



60811-404), bio-oil-resistant (following VDMA tested by DEA), Class 4 Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

fect paint adhesion (following PV 3.10.7 – status

jus 36-month chainflex cable guarantee and n 2 billion test cycles per year" /ww.igus.eu/CF35.UL

pter 12.9

)0003X9

.B.00863/20

(EC) No. 1907/2006 (REACH)

II/RoHS-III)

outer jacket material of this series complies with PA according to standard DIN EN ISO 14644-1

gulations of the United Kingdom (as at 08/2021)



CF35.UL

TPE

7.5 x d

Guarantee

36

igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIP

c RLus

NFPA

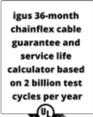
EAC

REACH

RoHS

lean 'oom





UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

SS 341

Motor cable | TPE | chainflex® CF35.UL

Strip cables 50% faster with CFRIP[®] tear strip

Class 6.6.4.1

Basic requirements Travel distance Oil resistance Torsion

igus° chainflex° CF35.UL

Example image

Part No.	Number of cores and conductor nominal cross section [mm ²]		Copper index [kg/km]	Weight [kg/km]
CF35.UL.05.04	(4G0.5)C	7.5	42	79
CF35.UL.07.04	(4G0.75)C	8.0	58	90
CF35.UL.15.04	(4G1.5)C	10.0	89	146
CF35.UL.25.04	(4G2.5)C	11.5	133	207
CF35.UL.40.04	(4G4.0)C	13.0	203	290
CF35.UL.60.04	(4G6.0)C	16.0	288	423
CF35.UL.100.04	(4G10)C	18.5	468	632
CF35.UL.160.04	(4G16)C	23.0	738	974
CF35.UL.250.04	(4G25)C	27.5	1153	1481
CF35.UL.60.03.O.PE	(3x6.0)C	14.5	229	344
CF35.UL.250.03.O.PE	(3x25)C	24.5	880	1163

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

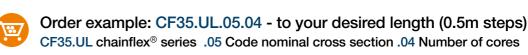


Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase







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Order online ► www.igus.eu/CF35.UL



Delivery time 24hrs or today. Delivery time means time until goods are shipped.

cost down...



Reduce cost, improve technology, now! Do the chainflex[®] price check ... www.igus.eu/cf-price-check

...life up

EPLAN download, configurators ► www.igus.eu/CF35.UL







igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIP

c**RL**us

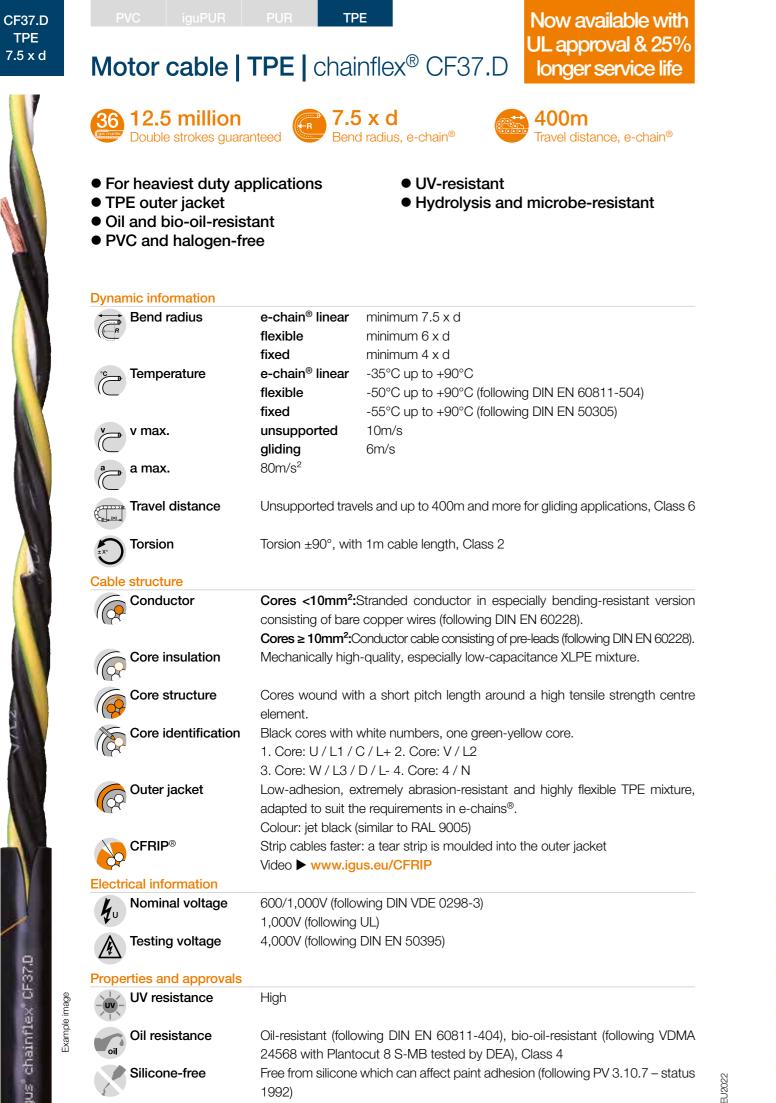
NFPA

... for example: reduce cost with CF310.UL ...









1992)

Basic requirements Travel distance Oil resistance Class 7.6.4.2 Torsion

Following DIN EN 60754

Certificate No. B129699: "igu
service life calculator based on
See data sheet for details > wv
(from production date 01/2022)
Certificate No. RU C-DE.ME77.

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1 According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12
Higher number of double strok	es? Service life calculation of	online www.igus.eu/chainflexl	life

Typical application areas

Halogen-free

🔍 UL verified

UL AWM

97

C E CE

CA

Б

UK UKCA

EHEEAC

REACH REACH

RoHS Lead-free

Cleanroom

DESINA

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

	Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF37.15.04.D	4G1.5	8.0	61	95
New	CF37.25.04.D	4G2.5	10.0	100	149
New	CF37.40.04.D	4G4.0	11.5	163	221
New	CF37.60.04.D	4G6.0	13.5	237	317
New	CF37.60.05.D	5G6.0	15.0	297	387
New	CF37.100.04.D	4G10	16.5	407	503
New	CF37.100.05.D	5G10	19.0	515	634
New	CF37.160.04.D	4G16	20.0	646	773
New	CF37.160.05.D	5G16	22.5	815	963
New	CF37.250.04.D	4G25	24.0	1014	1203
8	CF37.500.03.O.PE.D	3x50	30.0	1530	1826

EUS

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

TPE



us 36-month chainflex cable guarantee and 2 billion test cycles per year" ww.igus.eu/CF37.D

.B.00863/20











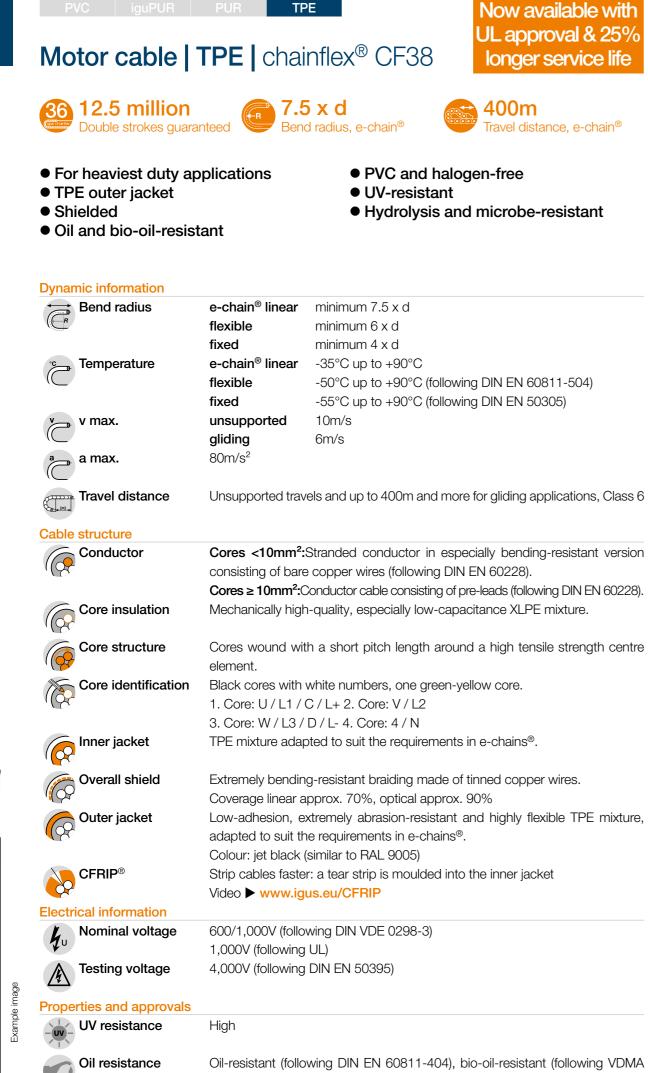












TPE

Class 7.6.4.1

Silicone-free

Halogen-free

🔍 UL verified

UL AWM

FI

EAC

CECE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Cleanroom

Basic requirements Travel distance **Oil resistance** Torsion

Free from silicone which can 1992)	affeo
Following DIN EN 60754	
Certificate No. B129699: "	igus
service life calculator based	on (

is 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year" See data sheet for details www.igus.eu/CF38 (from production date 01/2022) Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	
Higher number of double stre	leas? Convice life coloulation onli	

* Higher number of double strokes? Service life calculation online ▶www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

	Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF38.15.04	(4G1.5)C	10.0	89	140
New	CF38.25.04	(4G2.5)C	11.5	133	198
New	CF38.40.04	(4G4.0)C	13.0	203	280
New	CF38.60.04	(4G6.0)C	16.0	288	409
New	CF38.100.04	(4G10)C	18.5	468	613
New	CF38.160.04	(4G16)C	23.0	738	943
New	CF38.250.04	(4G25)C	27.0	1153	1432
New	CF38.100.03.O.PE	(3x10)C	17.0	358	494
New	CF38.160.03.O.PE	(3x16)C	20.5	565	762
New 8	CF38.500.03.O.PE	(3x50)C	33.0	1714	2129

igus chainflex CF38

24568 with Plantocut 8 S-MB tested by DEA), Class 4

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

CF38

TPE

7.5 x d



ect paint adhesion (following PV 3.10.7 – status

R min. [factor x d] 11 8.5 11

R min.

[factor x d]

12

9.5



Spindle cable/Single core | PVC | chainflex® CF885



36 5 million Double strokes guaranteed







- For flexing applications
- PVC outer jacket
- Flame-retardant

PVC

Dynamic information

Bend radius	e-chain [®] linear flexible	minimum 15 x d minimum 12 x d	
	fixed	minimum 8 x d	
• Temperature	e-chain [®] linear	+5°C up to +70°C	
	flexible	-5°C up to +70°C (following DIN EN 60811-504)	
	fixed	-15°C up to +70°C (following DIN EN 50305)	
v max.	unsupported	3m/s	
a max.	20m/s ²		
Travel distance	Unsupported trav	els up to 10m, Class 1	
Cable structure			
Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).		
Core insulation	Mechanically high-quality PVC mixture.		
Couter jacket	Low-adhesion PV	'C mixture, adapted to suit the requirements in e-chains [®] .	
	Colour: Pastel orange (similar to RAL 2003)		
Electrical information			
L Nominal voltage	600/1,000V (follow	wing DIN VDE 0298-3)	
7 U	600V (following U	L)	
Testing voltage	4,000V (following	DIN EN 50395)	
Properties and approvals			
Flame-retardant	According to IEC	60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame	

Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
UL/CSA AWM	See data sheet for details > www.igus.eu/CF885
	Following NFPA 79-2018, chapter 12.9
EAC EAC	Certificate No. RU C-DE.ME77.B.00302/19

REACH REACH

In accordance with regulation (EC) No. 1907/2006 (REACH)

Class 3.1.1.1

Basic requirements Travel distance **Oil resistance** Torsion

RoHS Lead-free Following 2011/65/EC (RoHS-II/RoHS-III) **(€**^{CE} Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5
Higher number of double strol	kes? Service life calculation c	online ▶www.igus.eu/chainflex	life

* Hig

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.40.01	1x4.0	7.5	41	78
CF885.60.01	1x6.0	8.0	61	100
CF885.100.01	1x10	9.5	100	157
CF885.160.01	1x16	11.5	159	237
CF885.250.01	1x25	12.5	248	325
CF885.350.01	1x35	15.0	347	474
CF885.500.01	1x50	16.5	495	644
CF885.700.01	1x70	18.5	686	844
CF885.950.01	1x95	20.5	931	1024

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



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EU202

IQUS

Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase

Example image



In accordance with the valid regulations of the United Kingdom (as at 08/2021)







349

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified





















CE UK CA

Spindle cable/Single core | PVC | chainflex® CF885.PE



PVC







- For flexing applications
- PVC outer jacket
- Flame-retardant

Dynamic information

Juan			
	Bend radius	e-chain [®] linear	minimum 15 x d
IL.		flexible	minimum 12 x d
		fixed	minimum 8 x d
°	Temperature	e-chain [®] linear	+5°C up to +70°C
		flexible	-5°C up to +70°C (following DIN EN 60811-504)
		fixed	-15°C up to +70°C (following DIN EN 50305)
V	v max.	unsupported	3m/s
a	a max.	20m/s ²	
	Travel distance	Unsupported trave	els up to 10m, Class 1
Cable	structure		
	Conductor	Conductor consis	ting of bare copper wires (according to DIN EN 60228).
6	Core insulation	Mechanically high	-quality PVC mixture.
	Core identification	Green-yellow	
Q	Outer jacket		C mixture, adapted to suit the requirements in e-chains [®] . nge (similar to RAL 2003)
Electr	ical information		
4u	Nominal voltage		ving DIN VDE 0298-3)
		600V (following UL	
A	Testing voltage	4,000V (following	DIN EN 50395)
Prope	erties and approvals		

Properties and approvals

Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	See data sheet for details > www.igus.eu/CF885.PE
	Following NFPA 79-2018, chapter 12.9

Class 3.1.1.1

CA

Basic requirements Travel distance unsuppor Oil resistance Torsion

FAL EAC	Certificate No. RU C-DE.ME77.B
REACH	In accordance with regulation (EC
Rous Lead-free	Following 2011/65/EC (RoHS-II/F
CECE	Following 2014/35/EU
	In accordance with the valid regul

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	
Temperature, from/to [°C]	R min. [factor x d]	
+5/+15	17.5	
+15/+60	15	
+60/+70	17.5	

* Higher number of double strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.PE.25.01	1G2.5	6.5	25	59
CF885.PE.40.01	1G4.0	7.5	61	83
CF885.PE.60.01	1G6.0	8.0	61	100
CF885.PE.100.01	1G10	9.5	100	155
CF885.PE.160.01	1G16	11.0	159	226
CF885.PE.250.01	1G25	12.5	248	342

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



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Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase

Example image

CF885,P

chainfle

EPLAN download, configurators ► www.igus.eu/CF885.PE

low		3	5			highest
rted	1				≥ 2	100m
ione	1		hig	hest		
ione	1		±3(60°		

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C) No. 1907/2006 (REACH)

(RoHS-III)

lations of the United Kingdom (as at 08/2021)

R min. [factor x d] 18.5 16 18.5

R min. [factor x d] 19.5 17 19.5



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Spindle cable/Single core | PVC | chainflex® CF886



PVC







- For flexing applications
- PVC outer jacket
- Shielded
- Flame-retardant

Dynamic information

Dynai	nic information		
	Bend radius	e-chain [®] linear	minimum 15 x d
		flexible	minimum 12 x d
		fixed	minimum 8 x d
°	Temperature	e-chain [®] linear	+5°C up to +70°C
$(\)$		flexible	-5°C up to +70°C (following DIN EN 60811-504)
		fixed	-15°C up to +70°C (following DIN EN 50305)
Č	v max.	unsupported	3m/s
a	a max.	20m/s ²	
	Travel distance	Unsupported trave	els up to 10m, Class 1
Cable	structure		
6	Conductor	Conductor consis	ting of bare copper wires (according to DIN EN 60228).
6	Core insulation	Mechanically high	-quality PVC mixture.
	Overall shield	Braiding made of	tinned copper wires.
l <mark>(</mark> Ç	1	Coverage approx.	60% optical
	Outer jacket	Low-adhesion PV	C mixture, adapted to suit the requirements in e-chains [®] .
(8		Colour: Pastel ora	nge (similar to RAL 2003)
Electr	ical information		
L	Nominal voltage	600/1,000V (follow	ving DIN VDE 0298-3)
70		600V (following UI	_)
	Testing voltage	4,000V (following	DIN EN 50395)
Prope	erties and approvals		

Properties and approvals

Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details > www.igus.eu/CF886

UL/CSA AWM **.**

Class 3.1.1.1

EAC

€^{CE}

REACH REACH

RoHS Lead-free

Basic requirements Travel distance **Oil resistance** Torsion

Following NFPA 79-2018, chapter Certificate No. RU C-DE.ME77.E In accordance with regulation (EC Following 2011/65/EC (RoHS-II/F Following 2014/35/EU In accordance with the valid regu	
In accordance with regulation (E0 Following 2011/65/EC (RoHS-II/I Following 2014/35/EU	Following NFPA 79-2018, chapte
Following 2011/65/EC (RoHS-II/I Following 2014/35/EU	Certificate No. RU C-DE.ME77.E
Following 2014/35/EU	In accordance with regulation (EC
Ŭ	Following 2011/65/EC (RoHS-II/I
In accordance with the valid regu	Following 2014/35/EU
	In accordance with the valid regu

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5
Higher number of double strol	kes? Service life calculation o	nline www.igus.eu/chainflex	life

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF886.160.01	(1x16)C	11.5	186	262
CF886.250.01	(1x25)C	13.0	280	363
CF886.350.01	(1x35)C	15.5	394	535

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



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].

More on this on page 24/25 and online: www.igus.eu/cfcase

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/RoHS-III)

ulations of the United Kingdom (as at 08/2021)







igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year





















Spindle cable/Single core | PUR | chainflex® CF270.UL.D

	oolant-resistant	 Flame-retardant Hydrolysis and microbe-resistant PVC and halogen-free 		
ynamic information				
Bend radius	e-chain [®] linear	minimum 10 x d		
	flexible fixed	minimum 8 x d minimum 5 x d		
E Temperature	e-chain [®] linear	-25°C up to +80°C		
	flexible	-40°C up to +80°C (following DIN EN 60811-504)		
	fixed	-50° C up to $+80^{\circ}$ C (following DIN EN 50305)		
v max.	unsupported	10m/s		
	gliding	2m/s		
a max.	50m/s ²			
Travel distance	Unsupported trav	vels and up to 10m for gliding applications, Class 2		
able structure				
Conductor	Conductor cable	consisting of pre-leads (following DIN EN 60228).		
Core insulation	Mechanically hig	h-quality TPE mixture.		
Overall shield	Bending-resistan	Bending-resistant braiding made of tinned copper wires.		
	Coverage linear a	Coverage linear approx. 55%, optical approx. 80%		
Outer jacket		alogen-free, highly abrasion resistant PUR mixture, adapted to		
	-	ents in e-chains [®] (following DIN EN 50363-10-2)		
actrical information	Colour: Pastel or	ange (similar to RAL 2003)		
ectrical information	600/1 000V (follo	wing DIN VDE 0298-3)		
	1,000V (following	-		
Testing voltage	4,000V (following	DIN EN 50395)		
operties and approvals	5			
UV resistance	Medium			
Oil resistance	Oil-resistant (follo	wing DIN EN 50363-10-2), Class 3		
Offshore	MUD-resistant fo	llowing NEK 606 - status 2009		
Flame-retardant	According to IEC	60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame		
Silicone-free		e which can affect paint adhesion (following PV 3.10.7 – status		
	1992)			
Halogen-free	Following DIN EN	N 60754		

EPLAN download, configurators ► www.igus.eu/CF270.UL.D

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

Class	4.2	2.3.1
Class	4.2	.3.1

UL verified

Basic requirements Travel distance Oil resistance Torsion

UL verified	Certificate No. B129699: "igus service life calculator based on 2
UL/CSA AWM	See data sheet for details ► www
NFPA NFPA	Following NFPA 79-2018, chapter
EAC	Certificate No. RU C-DE.ME77.B.
REACH REACH	In accordance with regulation (EC
Rous Lead-free	Following 2011/65/EC (RoHS-II/F
clean- room	According to ISO Class 1. The out CF77.UL.05.12.D - tested by IPA
DESINA	According to VDW, DESINA stand
CECE	Following 2014/35/EU
	In accordance with the valid regula

Guaranteed service life (details see page 28-29)

Oouble strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-25/-15	12.5	
-15/+70	10	
+70/+80	12.5	
ligher number of double atr	al cao O Can dan life an la datian an li	

* Higher number of double strokes? Service life calculation online www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF270.UL.60.01.D	(1x6.0)C	7.5	72	95
CF270.UL.100.01.D	(1x10)C	8.5	114	145
CF270.UL.160.01.D	(1x16)C	9.5	178	209
CF270.UL.250.01.D	(1x25)C	11.0	269	304
CF270.UL.350.01.D	(1x35)C	13.0	374	419
CF270.UL.500.01.D	(1x50)C	15.0	525	579
CF270.UL.700.01.D	(1x70)C	17.0	751	804

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

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Igus



Certificate No. B129699: "igus 36-month chainflex cable guarantee and 2 billion test cycles per year" w.igus.eu/CF270.UL.D

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C) No. 1907/2006 (REACH)

RoHS-III)

uter jacket material of this series complies with according to standard DIN EN ISO 14644-1 ndardisation

lations of the United Kingdom (as at 08/2021)

R min.

[factor x d]

14.5

12

14.5

R min. [factor x d] 13.5 11 13.5



























TPE

36 10 million

• TPE outer jacket

• Flame-retardant

• Oil and bio-oil-resistant

Double strokes guaranteed

• For extremely heavy duty applications

Spindle cable/Single core | TPE | chainflex® CF300.UL.D

Bend radius, e-chain®

UV-resistant

400m

• Hydrolysis and microbe-resistant

Travel distance, e-chain[®]

膏 7.5 x d

Following NFPA 79-2018, chapter
Type Approval Certificate TAE000
Certificate No. RU C-DE.ME77.B.
In accordance with regulation (EC)
Following 2011/65/EC (RoHS-II/R
According to ISO Class 1. The out CF34.UL.25.04.D - tested by IPA According to VDW, DESINA stand
Following 2014/35/EU
In accordance with the valid regula

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	

* Higher number of double strokes? Service life calculation online >www.igus.eu/chainflexlife

Typical application areas

NFPA

DNV

DNV

CECE

EHE EAC

REACH REACH

RoHS Lead-free

Cleanroom

DESINA

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF300.UL.40.01.D	1x4.0	6.0	41	59
CF300.UL.60.01.D	1x6.0	7.0	61	83
CF300.UL.100.01.D	1x10	7.5	100	124
CF300.UL.160.01.D	1x16	9.5	159	195
CF300.UL.250.01.D	1x25	11.5	248	294
CF300.UL.350.01.D	1x35	12.5	347	395
CF300.UL.500.01.D	1x50	14.5	495	551
CF300.UL.700.01.D	1x70	16.5	710	769
CF300.UL.950.01.D	1x95	20.0	936	1042
CF300.UL.1200.01.D	1x120	21.5	1184	1295
CF300.UL.1500.01.D	1x150	23.5	1469	1579
CF300.UL.1850.01.D	1x185	26.5	1928	2052

		~
		x
		2
		\sim

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

Dynamic information			
Bend radius	e-chain [®] linear	minimum 7.5 x d	
	flexible	minimum 6 x d	
	fixed	minimum 4 x d	
Cartemperature	e-chain® linear	-35°C up to +90°C	
	flexible	-45°C up to +90°C (following DIN EN 60811-504)	
	fixed	-50°C up to +90°C (following DIN EN 50305)	
v max.	unsupported	10m/s	
	gliding	6m/s	
a max.	100m/s ²		
Travel distance	Unsupported trav	els and up to 400m and more for gliding applications, Class 6	
Torsion	Torsion ±90°, with	h 1m cable length, Class 2	
Cable structure			
Conductor	Conductor cable	consisting of pre-leads (following DIN EN 60228).	
Core insulation	Mechanically high-quality TPE mixture.		
Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains [®] . Colour: Signal black (similar to RAL 9004)		
Electrical information			
Ku Nominal voltage	600/1,000V (follo 1,000V (following	wing DIN VDE 0298-3) UL)	
Testing voltage	4,000V (following	DIN EN 50395)	
Properties and approvals			
UV resistance	High		
Oil resistance		wing DIN EN 60811-404), bio-oil-resistant (following VDMA ocut 8 S-MB tested by DEA), Class 4	
Flame-retardant		60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame	
Silicone-free	Free from silicone 1992)	which can affect paint adhesion (following PV 3.10.7 – status	
UL verified		3129699: "igus 36-month chainflex cable guarantee and ator based on 2 billion test cycles per year"	
CRUUS UL/CSA AWM		or details > www.igus.eu/CF300.UL.D	

EPLAN download, configurators ► www.igus.eu/CF300.UL.D





image



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C) No. 1907/2006 (REACH)

RoHS-III)

ter jacket material of this series complies with according to standard DIN EN ISO 14644-1 dardisation

lations of the United Kingdom (as at 08/2021)

R min.

[factor x d]

12

9.5 12

R min. [factor x d] 11 8.5 11





igus 34-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year















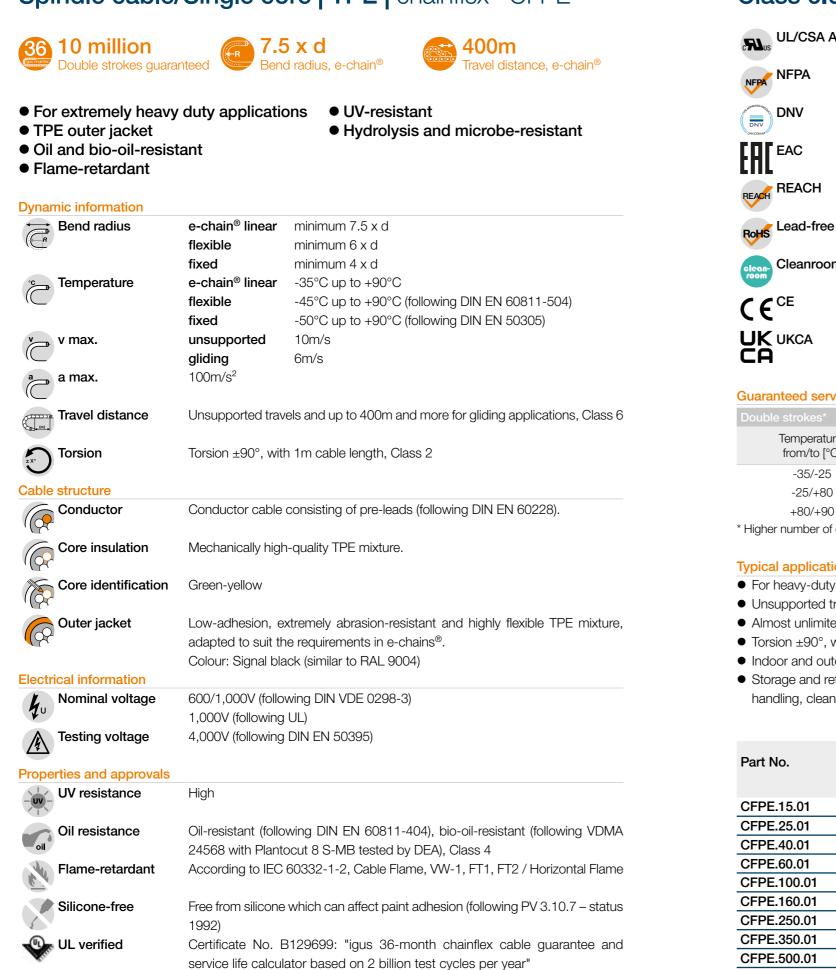






TPE

Spindle cable/Single core | TPE | chainflex® CFPE



36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

Class 6.6.4.2

UL/CSA AWM

DNV

Cleanroom

Basic requirements Travel distance Oil resistance Torsion

See data sheet for details >www .
Following NFPA 79-2018, chapter
Type Approval Certificate TAE0000
Certificate No. RU C-DE.ME77.B.
In accordance with regulation (EC)
Following 2011/65/EC (RoHS-II/Re
According to ISO Class 1. The out CF34.UL.25.04.D - tested by IPA a Following 2014/35/EU
In accordance with the valid regula

Guaranteed service life (details see page 28-29)

ouble strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	

* Higher number of double strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFPE.15.01	1G1.5	4.5	16	31
CFPE.25.01	1G2.5	5.5	25	42
CFPE.40.01	1G4.0	6.0	41	59
CFPE.60.01	1G6.0	7.0	61	83
CFPE.100.01	1G10	7.5	100	124
CFPE.160.01	1G16	9.5	159	195
CFPE.250.01	1G25	11.5	248	294
CFPE.350.01	1G35	12.5	347	395
CFPE.500.01	1G50	14.5	495	551
CFPE.700.01	1G70	16.5	725	813
CFPE.950.01	1G95	20.0	936	1080

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



CUS



.igus.eu/CFPEE

12.9

)03XC

.00863/20

C) No. 1907/2006 (REACH)

RoHS-III)

ter jacket material of this series complies with according to standard DIN EN ISO 14644-1

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 11 8.5 11

[factor x d] 12 9.5 12

R min.





igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



















Spindle cable/Single core | TPE | chainflex[®] CF310.UL







- For extremely heavy duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant

Dynamic information

	Bend radius	e-chain [®] linear	minimum 7.5 x d	
		flexible	minimum 6 x d	
		fixed	minimum 4 x d	
°	Temperature	e-chain® linear	-35°C up to +90°C	
$(\bigcirc$		flexible	-45°C up to +90°C (following DIN EN 60811-504)	
		fixed	-50°C up to +90°C (following DIN EN 50305)	
V	v max.	unsupported	10m/s	
		gliding	6m/s	
a	a max.	100m/s ²		
	Travel distance	Unsupported trave	els and up to 400m and more for gliding applications, Class 6	
Cable	structure			
(P	Conductor	Conductor cable c	consisting of pre-leads (following DIN EN 60228).	
(Q	Core insulation	Mechanically high-quality TPE mixture.		
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires.		
(Q)		Coverage linear approx. 70%, optical approx. 90%		
6	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture,		
02		adapted to suit the requirements in e-chains [®] .		
		Colour: Signal blac	ck (similar to RAL 9004)	
Electr	ical information			
μu	Nominal voltage		ving DIN VDE 0298-3)	
¥ ·		1,000V (following l	-	
	Testing voltage	4,000V (following I	DIN EN 50395)	
Prope	rties and approvals			
	UV resistance	High		
	Oil resistance	Oil-resistant (follov	ving DIN EN 60811-404), bio-oil-resistant (following VDMA	
oil		24568 with Planto	cut 8 S-MB tested by DEA), Class 4	
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame		
	Silicone-free	Free from silicone v 1992)	which can affect paint adhesion (following PV 3.10.7 – status	
	UL verified		129699: "igus 36-month chainflex cable guarantee and	
1 mail	-		tor based on 2 billion test cycles per year"	

L/CSA AWM

- Flame-retardant
- UV-resistant
- Hydrolysis and microbe-resistant

Bas	ic requirements	
	Travel distance	unsup
	Oil resistance	
	Torsion	

Class 6.6.4.1

DNV

EAC

(€^{CE}

CA

UK UKCA

REACH REACH

RoHS Lead-free

ass 6.6.4.1	Torsion none
NFPA	Following NFPA 79-2018, chapter
DNV	Type Approval Certificate TAE0000
EAC	Certificate No. RU C-DE.ME77.B.0
REACH	In accordance with regulation (EC)
Lead-free	Following 2011/65/EC (RoHS-II/Ro
Cleanroom	According to ISO Class 1. The oute CF34.UL.25.04.D - tested by IPA a
CE	Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Oouble strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	
Higher number of double str	okas? Sanvica life coloulation onlin	

* Higher number of double strokes? Service life calculation online >www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm ²]	cross section (d) max.		Weight [kg/km]
CF310.UL.25.01	(1x2.5)C	6.0	41	58
CF310.UL.40.01	(1x4.0)C	6.5	57	77
CF310.UL.60.01	(1x6.0)C	7.0	80	101
CF310.UL.100.01	(1x10)C	8.5	121	146
CF310.UL.160.01	(1x16)C	10.0	184	223
CF310.UL.250.01	(1x25)C	12.0	280	329
CF310.UL.350.01	(1x35)C	13.0	395	444
CF310.UL.500.01	(1x50)C	15.0	536	587
CF310.UL.700.01	(1x70)C	18.0	779	851
CF310.UL.950.01	(1x95)C	21.0	1015	1125
CF310.UL.1200.01	(1x120)C	22.0	1270	1378
CF310.UL.1500.01	(1x150)C	24.5	1592	1700
CF310.UL.1850.01	(1x185)C	27.5	2066	2189

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

See data sheet for details www.igus.eu/CF310.UL



12.9

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00863/20

) No. 1907/2006 (REACH)

oHS-III)

er jacket material of this series complies with according to standard DIN EN ISO 14644-1

R min.

[factor x d] 12

9.5

12

R min. [factor x d] 11 8.5 11





igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year





















TPE

Spindle cable/Single core | TPE | chainflex[®] CF330.D







For heaviest duty applications

- TPE outer jacket
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Dynar	nic information			
	Bend radius	e-chain® linear	minimum 7.5 x d	
		flexible	minimum 6 x d	
		fixed	minimum 4 x d	
°	Temperature	e-chain [®] linear	-35°C up to +90°C	
(flexible	-50°C up to +90°C (following DIN EN 60811-504)	
		fixed	-55°C up to +90°C (following DIN EN 50305)	
V	v max.	unsupported	10m/s	
$(\ $		gliding	6m/s	
a	a max.	100m/s ²		
	Travel distance	Unsupported trave	els and up to 400m and more for gliding applications, Class 6	
±X°)	Torsion	Torsion ±90°, with	1m cable length, Class 2	
Cable	structure			
	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).		
6	Core insulation	Mechanically high	-quality TPE mixture.	
\bigcap	Outer jacket	Low-adhesion, ex	tremely abrasion-resistant and highly flexible TPE mixture,	
(8	1	adapted to suit the	e requirements in e-chains [®] .	
		Colour: jet black (s	similar to RAL 9005)	
Electr	ical information			
Ju.	Nominal voltage	600/1,000V (follov	ving DIN VDE 0298-3)	
70		1,000V (following	UL)	
	Testing voltage	4,000V (following	DIN EN 50395)	
Prope	rties and approvals			
	UV resistance	High		
	Oil resistance	Oil-resistant (follow	ving DIN EN 60811-404), bio-oil-resistant (following VDMA	
oil		24568 with Plantocut 8 S-MB tested by DEA), Class 4		

24568 with Plantocut 8 S-MB tested by DEA), Class 4 Free from silicone which can affect paint adhesion (following PV 3.10.7 - status Silicone-free 1992) Following DIN EN 60754

service life calculator based on 2 billion test cycles per year"

Certificate No. B129699: "igus 36-month chainflex cable guarantee and

Halogen-free •

UL verified



400m

New

Class 7.6.4.2

UL AWM	See data sheet for details ► www. (from production date 01/2022) Certificate No. RU C-DE.ME77.
REACH REACH	In accordance with regulation (E
Rous Lead-free	Following 2011/65/EC (RoHS-II/
Cleanroom DESINA	According to ISO Class 1. The or CF9.15.07 - tested by IPA accorr According to VDW, DESINA star
	Following 2014/35/EU
UK UKCA CA	In accordance with the valid regu

Basic requirements

Travel distance

Oil resistance

Torsion

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	
* I l'ala a una sa ala a una fala u la la atu	al can Quantina life, and a station and an	N

* Higher number of double strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

	Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF330.60.01.D	1x6.0	7.0	61	77
New	CF330.100.01.D	1x10	7.5	100	119
New	CF330.160.01.D	1x16	9.5	159	181
New	CF330.250.01.D	1x25	11.5	248	284
New	CF330.350.01.D	1x35	12.5	347	385
New	CF330.500.01.D	1x50	14.5	495	534
New	CF330.700.01.D	1x70	16.5	710	754
New	CF330.950.01.D	1x95	20.0	936	1015
New	CF330.1200.01.D	1x120	21.5	1184	1265
New	CF330.1500.01.D	1x150	23.5	1469	1548
New	CF330.1850.01.D	1x185	26.5	1928	2016

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









S





sheet for details > www.igus.eu/CF330.D

No. RU C-DE.ME77.B.00863/20

ance with regulation (EC) No. 1907/2006 (REACH)

2011/65/EC (RoHS-II/RoHS-III)

g to ISO Class 1. The outer jacket material of this series complies with 7 - tested by IPA according to standard DIN EN ISO 14644-1 to VDW, DESINA standardisation

ance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 11 8.5 11

R min. [factor x d] 12 9.5 12



CF330.D

TPE

7.5 x d



















TPE

Spindle cable/Single core | TPE | chainflex[®] CF340







For heaviest duty applications

- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Dynar	nic information			
	Bend radius	e-chain [®] linear	minimum 7.5 x d	
		flexible	minimum 6 x d	
		fixed	minimum 4 x d	
°	Temperature	e-chain [®] linear	-35°C up to +90°C	
(flexible	-50°C up to +90°C (following DIN EN 60811-504)	
		fixed	-55°C up to +90°C (following DIN EN 50305)	
V	v max.	unsupported	10m/s	
(gliding	6m/s	
a	a max.	100m/s ²		
	Travel distance	Unsupported trave	els and up to 400m and more for gliding applications, Class 6	
Cable	structure			
	Conductor	Conductor cable of	consisting of pre-leads (following DIN EN 60228).	
6	Core insulation	Mechanically high-quality TPE mixture.		
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires.		
(Q)		Coverage linear approx. 70%, optical approx. 90%		
\bigcap	Outer jacket	Low-adhesion, ex	tremely abrasion-resistant and highly flexible TPE mixture,	
(22		adapted to suit the	e requirements in e-chains [®] .	
		Colour: jet black (s	similar to RAL 9005)	
Electr	ical information			
L	Nominal voltage	600/1,000V (follow	ving DIN VDE 0298-3)	
70		1,000V (following	UL)	
	Testing voltage	4,000V (following	DIN EN 50395)	
Prope	rties and approvals			
	UV resistance	High		
		1 "9"		
	Oil resistance	Oil-resistant (follow	ving DIN EN 60811-404), bio-oil-resistant (following VDMA	
oil		24568 with Planto	cut 8 S-MB tested by DEA), Class 4	

Free from silicone which can affect paint adhesion (following PV 3.10.7 - status 1992) Following DIN EN 60754

service life calculator based on 2 billion test cycles per year"

Certificate No. B129699: "igus 36-month chainflex cable guarantee and

Now available with UL approval & 25% longer service life

Travel distance, e-chain®

400m

New

Class 7.6.4.1

FI

EHE EAC

CE CE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Cleanroom

UL AWM

Basic requirements Travel distance Oil resistance Torsion

See data sheet for details > www.igus.eu/CF340 (from production date 01/2022) Certificate No. RU C-DE.ME77.B.00863/20 In accordance with regulation (EC) No. 1907/2006 (REACH) Following 2011/65/EC (RoHS-II/RoHS-III) According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12
Higher number of double strok	kes? Service life calculation of	online Nwww.igus.eu/chainflex	life

Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

	Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New	CF340.40.01	(1x4.0)C	6.5	57	73
New	CF340.160.01	(1x16)C	10.0	184	215
New	CF340.250.01	(1x25)C	12.0	280	319
New	CF340.350.01	(1x35)C	13.0	395	433
New	CF340.500.01	(1x50)C	15.0	536	574
New	CF340.700.01	(1x70)C	17.5	779	832
New	CF340.950.01	(1x95)C	21.0	1015	1093
New	CF340.1200.01	(1x120)C	22.0	1270	1341
New	CF340.1500.01	(1x150)C	24.5	1592	1642
New	CF340.1850.01	(1x185)C	27.5	2066	2157
New	CF340.2400.01	(1x240)C	30.5	2566	2731

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

igus chainflex CF340

EU2022

IQUS

Silicone-free

Halogen-free



















CE



Medium voltage cable | PUR | chainflex® CFCRANE.PUR







- For maximum voltages and outputs
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Flame-retardant

Dynamic information

Nominal voltage	6/10kV or 8.7/15	5kV (following DIN VDE 0250),	
Electrical information			
	Colour: Red		
(·····································	ements in e-chains [®] (following DIN EN 50363-10-2)		
Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted		
Overall shield	Extremely bending-resistant wrapping made of tinned copper wires Coverage approx. 85% optical		
Core insulation	Inner and outer semiconducting layer made of conductive rubber. Insulating sheath made of highly-quality, heat-resistant and ozone-proof ethylene propyl- ene rubber (EPR).		
Conductor	Highly-flexible cable consisting of bare copper wires (according to DIN EN 60228).		
Cable structure			
Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6		
a max.	50m/s ²		
(C	gliding	6m/s	
v max.	unsupported	10m/s	
	flexible fixed	-25°C up to +80°C (following DIN EN 60811-504) -30°C up to +80°C (following DIN EN 50305)	
Temperature	e-chain [®] linear	-20°C up to +80°C	
	fixed	minimum 5 x d	
R	flexible	minimum 8 x d	
Bend radius	e-chain [®] linear	minimum 10 x d	

4 Nominal voltage	6/10kV or 8.7/15kV (following DIN VDE 0250),
¥	further voltages upon request.
Testing voltage	24kV (following DIN VDE 0250, Part 813)
Properties and approvals	
UV resistance	Medium

Oil-resistant (following DIN EN 50363-10-2), Class 3

(T)		
oil	Oil resistance	

Flame-retardant According to IEC 60332-1-2

• PVC and halogen-free

- Notch-resistant
- Hydrolysis and microbe-resistant

Class 6.6.3.1

Silicone-free

Halogen-free

🔍 UL verified

REACH REACH

RoHS Lead-free

CECE

h.

Basic requirements Travel distance Oil resistance Torsion

Free from silicone which can affect 1992) Following DIN EN 60754
Certificate No. B129699: "igus service life calculator based on 2 In accordance with regulation (EC
Following 2011/65/EC (RoHS-II/F
Following 2014/35/EU

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-20/-10	12.5	
-10/+70	10	
+70/+80	12.5	

* Higher number of double strokes? Service life calculation online <a>www.igus.eu/chainflexlife

Typical application areas

- For maximum voltages and outputs, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1

EU2022

EU202

- Indoor and outdoor applications, UV-resistant
- Ship to shore, crane applications, conveyor technology

Part No.	Number of cores and conductor nominal cross section	Outer diameter (d) max.	Copper index	Weight
	[mm ²]	[mm]	[kg/km]	[kg/km]
CFCRANE.PUR.350.01.6/10kV	(1x35/16)C	26.0	568	852
CFCRANE.PUR.500.01.6/10kV	(1x50/16)C	27.0	722	1025
CFCRANE.PUR.700.01.6/10kV	(1x70/16)C	29.0	941	1249
CFCRANE.PUR.950.01.6/10kV	(1x95/16)C	31.0	1166	1523

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

ble

EPLAN download, configurators ► www.igus.eu/CFCRANE.PUR





ct paint adhesion (following PV 3.10.7 – status

s 36-month chainflex cable guarantee and 2 billion test cycles per year" C) No. 1907/2006 (REACH)

RoHS-III)

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 13.5 11 13.5







R min.

[factor x d] 14.5

12

14.5



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

367

REACH

RoHS

CE

UK CA

iguPUR

Medium voltage cable | igupren | chainflex® CFCRANE









- For maximum voltages and outputs Flame-retardant
- igupren outer jacket
- Shielded
- Oil-resistant

Dynamic information

Testing voltage

A

ynamic information			
Bend radius	e-chain [®] linear	minimum 10 x d	
	flexible	minimum 8 x d	
	fixed	minimum 5 x d	
🖕 Temperature	e-chain [®] linear	-20°C up to +80°C	
	flexible	-25°C up to +80°C (following DIN EN 60811-504)	
	fixed	-30°C up to +80°C (following DIN EN 50305)	
v max.	unsupported	10m/s	
$(\bigcirc$	gliding	6m/s	
a max.	50m/s ²		
Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6		
able structure			
Conductor	Highly-flexible ca 60228).	able consisting of tinned copper wires (following DIN EN	
Core insulation	Inner and outer semiconducting layer made of conductive rubber. Insulating sheath made of highly-quality, heat-resistant and ozone-proof ethylene propyl- ene rubber (EPR).		
Overall shield	Extremely bending-resistant, tinned copper shield. Coverage approx. 95% optical		
Outer jacket	Low-adhesion iguprene mixture, especially abrasion resistant, adapted to suit the requirements in e-chains [®] (following VDE 0207, Part 21).		
YY .			
	Colour: Red		
lectrical information			
ku Nominal voltage	6/10kV (following	DIN VDE 0250), other voltages upon request.	

17kV (following DIN VDE 0250, Part 813)

Basic requirements Travel distance Oil resistance Torsion

Class 6.6.3.1

High
Oil-resistant (following DIN EN 60
According to IEC 60332-1-2
Free from silicone which can affect 1992)
Certificate No. B129699: "igus service life calculator based on 2
In accordance with regulation (EC
Following 2011/65/EC (RoHS-II/I
Following 2014/35/EU
In accordance with the valid regu

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
-20/-10	12.5	
-10/+70	10	
+70/+80	12.5	

* Higher number of double strokes? Service life calculation online >www.igus.eu/chainflexlife

Typical application areas

- For maximum voltages and outputs, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Ship to shore, crane applications, conveyor technology



EU2022

EU202

S

This cable series will be individually manufactured for your special project. Due to this we do not have this cable on stock, but can offer it exactly for your special demands.

Medium voltage cables available from stock (CFCRANE.PUR)

<hr/>
Page 366

image

ble





60811-404)

ect paint adhesion (following PV 3.10.7 – status

us 36-month chainflex cable guarantee and 2 billion test cycles per year" EC) No. 1907/2006 (REACH)

/RoHS-III)

ulations of the United Kingdom (as at 08/2021)

R min. [factor x d] 13.5 11 13.5

R min. [factor x d] 14.5 12 14.5







REACH

RoHS

369

CFCRANE igupren 10 x d



igus 34-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year