



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							[]							
CF885	PVC		15	+5/+70		IÉC) NEPA C			CER		3		20	318
CF886	PVC	✓	15	+5/+70				REACH ROHS TOT	C C C C C C C C C C C C C C C C C C C		3		20	320
CF210.UL	PVC	✓	10	+5/+70			● (=) E H	REACH ROHS Clean-	CER		10	2	50	322
CF30	PVC		7.5	+5/+70		NEPA C		REACH ROHS Cicon-	C € ĽŔ		✓ 10	5	80	324
CF31	PVC	✓	7.5	+5/+70		NEPA C		REACH ROHS Clean-	Cer	✓	10	5	80	328
CF895	iguPUR		15	-20/+80		PEC NEPA D	••••••••••••••••••••••••••••••••••••••	REACH ROHS	C€₽₽	✓	3		20	332
CF896	iguPUR	✓	15	-20/+80		NEPA D		REACH ROHS	C€₽₽	✓	3		20	334
CF270.UL.D	PUR	✓	10	-25/+80		ec) NFPA C	• • EA	REACH ROHS Clean-	~ ()	✓	10	2	50	336
CF27.D	PUR	✓	7.5	-25/+80				REACH ROHS Clean	<u>↓</u> CER	✓	10	5	80	340
CF34.UL.D	TPE		7.5	-35/+90		C NFPA C		REACH ROHS clean-	№ С€К	√	✓ 10	6	80	344
CF35.UL	TPE	✓	7.5	-35/+90	(1)	C NFPA C		REACH ROHS Clean-	CER	✓	10	6	80	348
CF37.D	TPE		7.5	-35/+90			B A ()	REACH ROHS clean	₩ C€₩	√	✓ 10	6	80	352
CF38	TPE	✓	7.5	-35/+90				REACH ROHS Clean	CER	✓	10	6	80	354
Spindle cable	es/Sing	gle	core	s										
CF885	PVC		15	+5/+70				REACH ROHS	CER		3		20	356
CF885.PE	PVC		15	+5/+70			• 🗐 [A	REACH ROHS	C€₽₽		3		20	358
CF886	PVC	✓	15	+5/+70			•	REACH ROHS	C€ K		3		20	360
CF270.UL.D	PUR	✓	10	-25/+80		NFPA 6	• • EA	REACH ROHS Clean-	₩ C€₩	✓	10	2	50	362
CF300.UL.D	TPE		7.5	-35/+90		ec) NFPA C		REAGH ROHS COOM	₢€₽₿	\checkmark	✓ 10	6	100	364
CFPE	TPE		7.5	-35/+90		ec NFPA C		REACH ROHS Clean	CER	✓	√ 10	6	100	366
CF310.UL	TPE	✓	7.5	-35/+90				REACH ROHS Clean-	CER	✓	10	6	100	368
CF330.D	TPE		7.5	-35/+90			•	REACH ROHS Clean	ℴℴℇℰ	✓	✓ 10	6	100	370
CF340	TPE	✓	7.5	-35/+90				REACH ROHS clean-			10	6	100	372
Medium volt	age cal	ble	s _											
CFCRANE.PUR	PUR	\checkmark	10	-20/+80		IEC) NEPA C		READH ROHS	CER	\checkmark	10	6	50	374
CFCRANE	igupren	✓	10	-20/+80				REACH ROHS	CER	✓	10	6	50	376
Twistable mo	otor cal	ole	s (tw	istable	cables	chapte	er ▶ Pa	ge 378)						
CFROBOT6	PUR		10	-25/+80			∎×⊜EA	REACH ROHS Clean-	CER	✓	\checkmark			398
CFROBOT7	PUR	✓	10	-25/+80		C NFPA C	• • EA	REACH ROHS clean-	CER	\checkmark	✓			400
36-month cha	ainflex®	aı	Jarai	ntee										

36-month chainflex[®] guarantee Guaranteed service life for predictable reliability ► Selection table from page 314



chainflex[®] guarantee



Guaranteed s

	chainflex [®] cable	Temperature, from/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
Notor cables							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	
	CF885	+15 / +60	3	-	20	≤ 10	15	16	17	318
		+60 / +70					17.5	18.5	19.5	
		+5 / +15					17.5	18.5	19.5	
All and	CF886	+15 / +60	3	-	20	≤ 10	15	16	17	320
		+60 / +70					17.5	18.5	19.5	
		+5 / +15					12.5	13.5	14.5	
	CF210.UL	+15 / +60	10	2	50	≤ 10	10	11	12	322
Pr 2 Pr 2		+60 / +70					12.5	13.5	14.5	
		+5 / +15					10	11	12	
	CF30	+15/+60	10	5	80	≤ 100	7.5	8.5	9.5	324
		+60 / +70					10	11	12	
		+5 / +15					10	11	12	
	CF31	+15 / +60	10	5	80	≤ 100	7.5	8.5	9.5	328
		+60 / +70					10	11	12	
		-20 / -10					17.5	18.5	19.5	
	CF895	-10 / +70	3	-	20	≤ 1 0	15	16	17	332
		+70 / +80	Ū				17.5	18.5	19.5	002
		-20 / -10					17.5	18.5	19.5	
100	CF896	-10 / +70	3	-	20	≤ 1 0	15	16	17	334
LER		+70 / +80	Ū				17.5	18.5	19.5	
		-25 / -15					12.5	13.5	14.5	
		-15 / +70	10	2	50	≤ 10	10	11	12	336
SHELL .	01270.02.0	+70 / +80	10	2	50	310	12.5	13.5	14.5	000
		-25 / -15					10	11	12	
111111	CF27.D	-15 / +70	10	5	80	≤ 100	7.5	8.5	8.5	340
ANIAN CONTRACT	UF21.D	+70 / +80	10	5	00	5100	10	11	12	540
		-35 / -25	_							
		-35 / -25 -25 / +80	10	6	00	- 100	10	11	12	044
	GF34.0L.D		10	6	80	≤ 400	7.5	8.5	9.5	344
		+80 / +90					10	11	12	
11233		-35 / -25	10	<u> </u>	00	. 100	10	11	12	0.40
MARK	GF35.UL	-25 / +80	10	6	80	≤ 400	7.5	8.5	9.5	348
		+80 / +90					10	11	12	
							5 million	7.5 million	12.5 million	
		-35 / -25	40				10	11	12	050
	CF37.D	-25 / +80	10	6	80	≤ 400	7.5	8.5	9.5	352
		+80 / +90					10	11	12	
	0=00	-35 / -25					10	11	12	
	CF38	-25 / +80	10	6	80	≤ 400	7.5	8.5	9.5	354
		+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



ervi	ce	life	(1)	
adius	Minim	um bend radiu [factor x d]		Page

chainflex[®] guarantee



Guaranteed s

	chainflex [®] cable	Temperature,	v max.	m/s]	a max.	Travel	Minimum bend radius	Minimum bend radius	Minimum bend radius	Page
	Cable	from/to [°C]	unsupported	gliding	[m/s ²]	distance [m]	[factor x d]	[factor x d]	[factor x d]	
pindle cables/Single	e cores						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	
the second and the	CF885	+15 / +60	3	-	20	≤ 10	15	16	17	356
		+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	358
		+60 / +70					17.5	18.5	19.5	
		+5 / +15					17.5	18.5	19.5	
Same and	CF886	+15 / +60	3	-	20	≤ 10	15	16	17	360
		+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	362
		+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	364
		+80 / +90					10	11	12	
		-35 / -25					10	11	12	
	CFPE	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	366
		+80 / +90					10	11	12	
		-35 / -25					10	11	12	
	CF310.UL	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	368
		+80 / +90					10	11	12	
							5 million	7.5 million	12.5 million	
		-35 / -25	10			100	10	11	12	
	CF330.D	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	370
		+80 / +90					10	11	12	
1111	05040	-35 / -25	10		400	400	10	11	12	070
1111	CF340	-25 / +80	10	6	100	≤ 400	7.5	8.5	9.5	372
		+80 / +90					10	11	12	
edium voltage cabl	es									
		-20 / -10					12.5	13.5	14.5	
	CFCRANE.PUR	-10 / +70	10	6	50	≤ 400	10	11	12	374
		+70 / +80					12.5	13.5	14.5	
		-20 / -10					12.5	13.5	14.5	
Second Second	CFCRANE	-10 / +70	10	6	50	≤ 400	10	11	12	376
		+70 / +80					12.5	13.5	14.5	

Figures in brackets refer to series CF885 and CF886



ervice	e life	(1)	
adius	Minimum bend radiu	s	Page



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

PVC

36 5,000,000

Double strokes guaranteed

For flexing applications

Motor cable | PVC | chainflex® CF885

🖹 15 x d

Bend radius, e-chain[®]

10m

Travel distance, e-chain®



gge

ple

 For flexing application PVC outer jacket 	ons				
 Flame-retardant 					
Dynamic information					
Bend radius	e-chain [®] linear	minimum 15 x d			
	flexible	minimum 12 x d			
	fixed	minimum 8 x d			
Comperature	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-quality, especially low-capacitance TPE mixture.				
Core structure	Cores wound with an optimised pitch length.				
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/I-			
Couter jacket		'C mixture, adapted to suit the requirements in e-chains [®] .			
		inge (similar to RAL 2003)			
Electrical information					
K. Nominal voltage	600/1,000V (follow	wing DIN VDE 0298-3)			
40	1,000V (following	UL)			
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	Certificate No. E	3129699: "igus 36-month chainflex cable guarantee and ator based on 2 billion test cycles per year"			
		r 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

€^{CE}

REACH REACH

RoHS Lead-free

Basic requirements Travel distance	unsu
Oil resistance	anoa
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 o	nline 🕨 www.igus.eu/chainfle>	dife

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]
CF885.15.04	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



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/cf-case

EU2023

EU2023

IQUS⁻



er 12.9

3.00302/19

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 5,000,000

• PVC outer jacket

• Flame-retardant

Dynamic information

 $\overset{\longleftarrow}{\underset{R}{\longleftarrow}}$ Bend radius

Carl Temperature

v max.

a max.

Travel distance

Shielded

Double strokes guaranteed

• For flexing applications

Motor cable | PVC | chainflex® CF886

flexible

flexible

fixed

20m/s²

e-chain[®] linear

unsupported

fixed

🖹 15 x d

e-chain[®] linear minimum 15 x d

minimum 12 x d

minimum 8 x d

3m/s

Unsupported travels up to 10m, Class 1

+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)

Bend radius, e-chain®

10m

Travel distance, e-chain®



Basic requirements Travel distance Oil resistance Torsion

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

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	
* Il la la autor ma la autor a fora a la la ante	al card Carrian life anlautation andian	N

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

Typical application areas

Class 3.1.1.1

CA

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

EU2023

iqus

EU2023

- 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

Cable structure	
Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
Core structure	Cores wound with an optimised pitch length.
K Core identification	Black cores with white numbers, one green-yellow core.
(02	1. Core: U / L1 / C / L+
	2. Core: V / L2
	3. Core: W / L3 / D / L-
Overall shield	Braiding made of tinned copper wires.
	Coverage approx. 60% optical
Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®.
	Colour: Pastel orange (similar to RAL 2003)
Electrical information	
Nominal voltage	600/1,000V (following DIN VDE 0298-3)
Ku Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
Nominal voltage Mominal voltage Testing voltage	
7 U	1,000V (following UL)
Testing voltage	1,000V (following UL)
Testing voltage Properties and approvals	1,000V (following UL) 4,000V (following DIN EN 50395)
Testing voltage Properties and approvals Flame-retardant Silicone-free	1,000V (following UL) 4,000V (following DIN EN 50395) 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

image

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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] 18.5 16 18.5

R min. [factor x d] 19.5 17 19.5





SP 321





















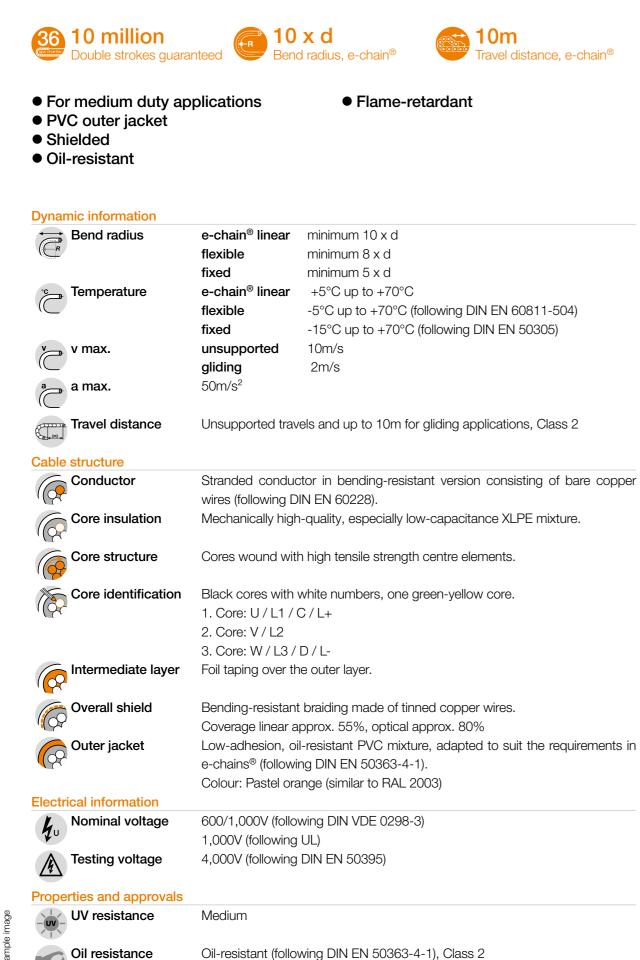






PVC

Motor cable | PVC | chainflex® CF210.UL



Class 4.2.2.1

Silicone-free

🚇 UL verified

NFPA

NFPA

EHE EAC

C E CE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Cleanroom

UL/CSA AWM

Flame-retardant

uns	Travel distance
	Oil resistance
	Torsion

Basic requirements

Free from silicone which can affect 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/R
According to ISO Class 2. The out CF5.10.07 - tested by IPA accord 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]	
+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
- 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]
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



EU2023



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

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

ct paint adhesion (following PV 3.10.7 – status

36-month chainflex cable guarantee and billion test cycles per year" w.igus.eu/CF210UL

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C) No. 1907/2006 (REACH)

RoHS-III)

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

ations 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









36 10 million Double strokes guaranteed

PVC







- For heavy duty applications
- PVC outer jacket
- Oil-resistant
- Flame-retardant

Dynamic information

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

Black cores with white numbers, one green-yellow core.

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

Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in

1. Core: U / L1 / C / L+ 2. Core: V / L2

3. Core: W / L3 / D / L- 4. Core: 4 / N

e-chains® (following DIN EN 50363-4-1).

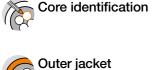
600/1,000V (following DIN VDE 0298-3)

Colour: jet black (similar to RAL 9005)

Video <a>vww.igus.eu/CFRIP

Conductor	Cores <10mm ⁺ : Stranded conductor in especially bending-resistant version				
	consisting of bare copper wires (following DIN EN 60228).				
	Cores ≥ 10mm ² : 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				

element.







Electrical information Nominal voltage

Testing voltage

1,000V (following UL) 4,000V (following DIN EN 50395)

Clas

C E CE

CA

UK UKCA

Cleanroom

Basic requirements Travel distance Oil resistance on

Class 5.5.2.2	OII resistance Torsion
Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resistant (followi
Flame-retardant	According to IEC 60
Silicone-free	Free from silicone w 1992)
UL verified	Certificate No. B1 service life calculate
Nus UL/CSA AWM	See data sheet for o
NFPA NFPA	Following NFPA 79-
EREEAC	Certificate No. RU (
REACH REACH	In accordance with
Rous Lead-free	Following 2011/65/

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
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 or	nline 🕨 www.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
- 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



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

0332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

which can affect paint adhesion (following PV 3.10.7 – status

29699: "igus 36-month chainflex cable guarantee and tor based on 2 billion test cycles per year" details www.igus.eu/CF30

9-2018, chapter 12.9

C-DE.ME77.B.00863/20

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

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

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





CF30

PVC



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

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 ¹¹⁾	4G50	34.0	2061	2528

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/cf-case



VILZ

Oil resistance Class 5.5.2.2 Torsion

Basic requirements Travel distance unsupported

1





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Order online ► www.igus.eu/CF30

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

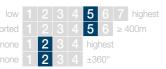
cost down...



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

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

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

Reduce cost, improve technology, now!

































- For heavy duty applications
- PVC outer jacket
- Shielded

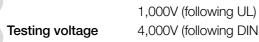
PVC

- Oil-resistant
- Flame-retardant

Dynamic information

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	+5°C up to +70°C
$(\bigcirc$		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	10m/s
$(\bigcirc$		gliding	5m/s
a	a max.	80m/s ²	
	Travel distance	Unsupported trave	els and up to 100m for gliding applications, Class 5
Cable	structure		
6	Conductor	Cores <10mm ² :	Stranded conductor in especially bending-resistant version
()		consisting of bare o	opper wires (following DIN EN 60228).
		Cores ≥ 10mm ² : C	Conductor cable consisting of pre-leads (following DIN EN 60228).
(Core insulation	Mechanically high	-quality, especially low-capacitance XLPE mixture.
6	Core structure		n a short pitch length around a high tensile strength centre
	• • • • • •	element.	
	Core identification		vhite numbers, one green-yellow core.
10			C/L+2. Core: V/L2
~			D / L- 4. Core: 4 / N
	Inner jacket	PVC mixture adap	ted to suit the requirements in e-chains $^{\ensuremath{ extsf{e}}}$.
	Overall shield	Extremely bending	g-resistant braiding made of tinned copper wires.
l <mark>(</mark> Q		Coverage linear ap	oprox. 70%, optical approx. 90%
\bigcap	Outer jacket	Low-adhesion, oil	-resistant PVC mixture, adapted to suit the requirements in
(22		e-chains [®] (followir	ng DIN EN 50363-4-1).
		Colour: jet black (s	similar to RAL 9005)
	CFRIP®	Strip cables faster	a tear strip is moulded into the inner jacket
Ý?		Video 🕨 www.igu	
Electr	ical information		
-	Naminal valtage	COO/1 000\//falley	

Nominal voltage



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

Class 5.5.2.1

Basic requirements Travel distance Oil resistance Torsion

Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resistant (following DIN EN 503
Flame-retardant	According to IEC 60332-1-2, Cab
Silicone-free	Free from silicone which can affect 1992)
UL verified	Certificate No. B129699: "igus service life calculator based on 2
UL/CSA AWM	See data sheet for details > www
NFPA	Following NFPA 79-2018, chapter
	Certificate No. RU C-DE.ME77.B.
REACH	In accordance with regulation (EC
RoHS Lead-free	Following 2011/65/EC (RoHS-II/R
clean-	According to ISO Class 2. The out CF5.10.07 - tested by IPA accord
CECE	Following 2014/35/EU
UK UKCA CA	In accordance with the valid regula

Guaranteed service life (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 strok	ces? Service life calculation o	nlina 🕨 www.igus.eu/chainflex

* Higher 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

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- 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



0363-4-1), Class 2

ble 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/CF31

er 12.9

8.00863/20

C) No. 1907/2006 (REACH)

RoHS-III)

Iter jacket material of this series complies with ding to standard DIN EN ISO 14644-1

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

R min. [factor x d]

> 12 9.5

12





CF31

PVC

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 room

CE



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	Outer diameter (d) max.	Copper index	Weight
	[mm ²]	[mm]	[kg/km]	[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[®].

٦R

More on this on page 24/25 and online: www.igus.eu/cf-case



chainflex® CF31 motor cable in a fast picker

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

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

331

CE

UK CA

36 5 million

• Oil-resistant

Flame-retardant

Double strokes guaranteed

• For flexing applications

• iguPUR outer jacket

Motor cable | iguPUR | chainflex[®] CF895

膏 15 x d

Bend radius, e-chain[®]

10m

Travel distance, e-chain®



Basic requirements	
Travel distance	un
Oil resistance	
Torsion	

1992)

		service life calculator
	Rus UL/CSA AWM	See data sheet for de
		Following NFPA 79-20
	FALE	Certificate No. RU C-I
	REACH	In accordance with re
	Rous Lead-free	Following 2011/65/EC
N 60811-504) N 50305)	CECE	Following 2014/35/EL
		In accordance with the
	Guaranteed service life ((details see page 28-29)
	Double strokes*	1 million
o DIN EN 60228).	Temperature, from/to [°C]	R min. [factor x d]
	-20/-10	17.5
PE mixture.	-10/+70	15
	+70/+80	17.5

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

Typical application areas

Class 3.1.3.1

Silicone-free

UL verified

Flame-retardant

- 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 [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

Dynamic information Bend radius	e-chain [®] linear	minimum 15 x d
E Denu rauius	flexible	minimum 12 x d
	fixed	minimum 8 x d
Townstruct		
Temperature	e-chain [®] linear	-20°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	3m/s
a max.	20m/s ²	
Travel distance	Unsupported trav	vels 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 wit	h an optimised pitch length.
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 igu	uPUR mixture, adapted to suit the requirements in e-chains®.
	Colour: Pastel ora	ange (similar to RAL 2003)
Electrical information		
Nominal voltage		wing DIN VDE 0298-3)
¥	1,000V (following	UL)

Testing voltage 4,000V (following DIN EN 50395)

Properties and approvals

UV resistance

Oil resistance oi

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

mage

ple



Medium

EU2023

iqus

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

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/CF895

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00302/19

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

Following 2011/65/EC (RoHS-II/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







Motor cable | iguPUR | chainflex® CF896

36 5,000,000 Double strokes guara	K=R	x d d radius, e-chain [®]	Travel distance, e-chain®
 For flexing application iguPUR outer jacket Oil-resistant Shielded 		● Flame-re	tardant
Dynamic information			
Bend radius	e-chain [®] linear flexible fixed	minimum 15 x d minimum 12 x d minimum 8 x d	
C Temperature	e-chain [®] linear flexible fixed		following DIN EN 60811-504) 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 wi	res (according to DIN EN 60228).
Core insulation	Mechanically high	n-quality, especially low	r-capacitance TPE mixture.
Core structure	Cores wound wit	h an optimised pitch le	ngth.
Core identification	Black cores with 1. Core: U / L1 / 2. Core: V / L2 3. Core: W / L3 /		een-yellow core.
Overall shield	Braiding made of Coverage approx	tinned copper wires. 60% optical	
Outer jacket	•	uPUR mixture, adapted ange (similar to RAL 20	to suit the requirements in e-chains [®] . 03)
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	Medium		
Oil resistance	Oil-resistant (follo	wing DIN EN 50363-10	D-2), Class 3

Class 3.1.3.1

L/CSA AWM

NFPA

EAC

C €^{CE}

UK UKCA

REACH REACH

RoHS Lead-free

	Basic requirements Travel distance	low unsupported		5 6 7 highest 5 6 ≥ 400m		
Class 3.1.3.1	Oil resistance Torsion	none	1 2 3 4 1 2 3 4	highest ±360°		
Flame-retardant	According to IEC 603	32-1-2, Cable	e Flame, VV	/-1, FT1, FT2 /		
Silicone-free	Free from silicone which 1992)	ch can affect p	paint adhes	ion (following P		
UL verified	Certificate No. B129699: "igus 36-month chainflex cable service life calculator based on 2 billion test cycles per year'					
RLus UL/CSA AWM	See data sheet for de	tails 🕨 www.	igus.eu/CF	896		
	Following NFPA 79-2018, chapter 12.9					
EAC	Certificate No. RU C-I	DE.ME77.B.0	0302/19			
REACH	In accordance with re	gulation (EC)	No. 1907/2	2006 (REACH)		
Rous Lead-free	Following 2011/65/EC	C (RoHS-II/Ro	HS-III)			

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	
I light an unable an of allowing a stu	al card Caradian life, and a detion, and in	

* 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
- 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]
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

Example image



Q

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igus

/ Horizontal Flame

PV 3.10.7 - status

le guarantee and

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





Double strokes guaranteed

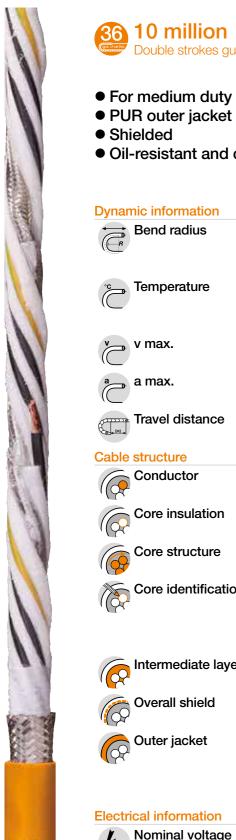
Motor cable | PUR | chainflex® CF270.UL.D

膏 10 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®



 For medium duty applications PUR outer jacket Shielded Oil-resistant and coolant-resistant 		 Notch-resistant Flame-retardant Hydrolysis and microbe-resistant PVC and halogen-free 	
Dynamic information			
Bend radius	e-chain [®] linear flexible fixed	minimum 10 x d minimum 8 x d minimum 5 x d	
C Temperature	e-chain [®] linear flexible fixed	-25°C up to +80°C -40°C up to +80°C (following DIN EN 60811-504) -50°C up to +80°C (following DIN EN 50305)	
v max.	unsupported gliding	10m/s 2m/s	
a max.	50m/s ²		
Travel distance	Unsupported travels and up to 10m for gliding applications, Class 2		
Cable structure			
Conductor	Stranded conductor in bending-resistant version consisting of bare copper wires (following DIN EN 60228).		
Core insulation	Mechanically high	n-quality, especially low-capacitance XLPE mixture.	
Core structure	Cores wound with 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	-	t braiding made of tinned copper wires. pprox. 55%, optical approx. 80%	
Outer jacket	-	alogen-free, highly abrasion resistant PUR mixture, adapted	

Electrical information

Nominal voltage Testing voltage

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

Colour: Pastel orange (similar to RAL 2003)

to suit the requirements in e-chains® (following DIN EN 50363-10-2)

image ble

Basic requirements Travel distance Oil resistance Class 4.2.3.1 Torsion

Properties and approvals	
UV resistance	Medium
Oil resistance	Oil-resistant (following DIN EN 50363-1
Offshore	MUD-resistant following NEK 606 - sta
Flame-retardant	According to IEC 60332-1-2, Cable Fla
Silicone-free	Free from silicone which can affect pain 1992)
Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699: "igus 36-n service life calculator based on 2 billion
BLus UL/CSA AWM	See data sheet for details <a>www.igus
NFPA NFPA	Following NFPA 79-2018, chapter 12.9
EAC	Certificate No. RU C-DE.ME77.B.0086
REACH REACH	In accordance with regulation (EC) No.
Rous Lead-free	Following 2011/65/EC (RoHS-II/RoHS-
clean room	According to ISO Class 1. The outer jac CF77.UL.05.12.D - tested by IPA acco
	According to VDW, DESINA standardis
	Following 2014/35/EU
UK UKCA CA	In accordance with the valid regulations

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	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

EPLAN download, configurators ► www.igus.eu/CF270ULD

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EU202(



-10-2), Class 3

atus 2016

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

int adhesion (following PV 3.10.7 – status

month chainflex cable guarantee and on test cycles per year" us.eu/CF270ULD

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63/20

. 1907/2006 (REACH)

S-III)

acket material of this series complies with cording to standard DIN EN ISO 14644-1 isation

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























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	47	81
CF270.UL.10.06.D	(6G1.0)C	9.5	87	133
CF270.UL.15.04.D	(4G1.5)C	9.0	78	116
CF270.UL.25.04.D	(4G2.5)C	10.5	129	173
CF270.UL.40.04.D	(4G4.0)C	12.5	193	255
CF270.UL.60.04.D	(4G6.0)C	14.5	297	356
CF270.UL.100.04.D	(4G10)C	17.0	495	551
CF270.UL.160.04.D	(4G16)C	20.5	755	819
CF270.UL.250.04.D	(4G25)C	25.0	1117	1256
CF270.UL.350.04.D	(4G35)C	28.0	1597	1696

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/CF270ULD

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[®].



EU2020

EU202

S

More on this on page 24/25 and online: www.igus.eu/cf-case

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/CF270ULD



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

















Motor cable | PUR | chainflex® CF27.D

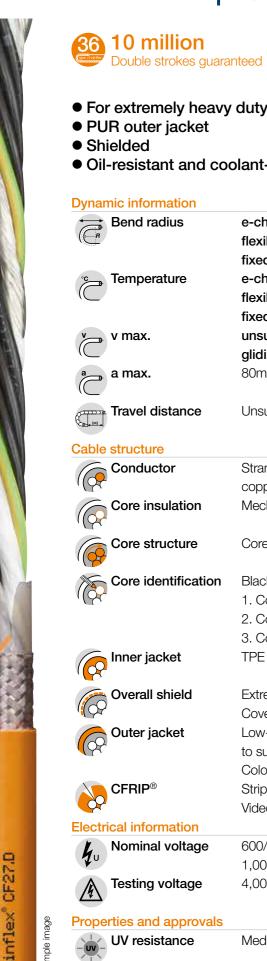
📄 7.5 x d

Bend radius, e-chain®

Notch-resistant

Flame-retardant

• PVC and halogen-free



Oil resistance lio

Medium





Hydrolysis and microbe-resistant

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

Dynai	mic information			
Ì	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	
$(\bigcirc$		flexible	-40°C up to +80°C (following DIN EN 60811-504)	
		fixed	-50°C up to +80°C (following DIN EN 50305)	
V	v max.	unsupported	10m/s	
$(\bigcirc$		gliding	5m/s	
a	a max.	80m/s ²		
	Travel distance	Unsupported trave	els and up to 100m for gliding applications, Class 5	
Cable	structure			
	Conductor		tor in especially bending-resistant version consisting of bare owing DIN EN 60228).	
$(\bigcirc$	Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.		
	Core structure	Cores wound around a high tensile strength centre element.		
K	Core identification	Black cores with v	white numbers, one green-yellow core.	
$\left(\left(\frac{1}{2} \right) \right)$		1. Core: U / L1 / (D/L+	
		2. Core: V / L2		
		3. Core: W / L3 /	D/L-	
	Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.		
(m	Overall shield	Extremely bending	g-resistant braiding made of tinned copper wires.	
((Ç	1		oprox. 70%, optical approx. 90%	
	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted		
<mark>(</mark> &			ments in e-chains [®] (following DIN EN 50363-10-2)	
			nge (similar to RAL 2003)	
	CFRIP®		a tear strip is moulded into the inner jacket	
¢?		Video ▶ www.igu		
lectr	ical information	C C		
L	Nominal voltage	600/1,000V (follow	wing DIN VDE 0298-3)	
40	-	1,000V (following	UL)	
	Testing voltage	4,000V (following DIN EN 50395)		

Class 6.5.3.1

Basic requirements Travel distance Oil resistance Torsion

Offshore	MUD-resistant following NEK 606 - s
Flame-retardant	According to IEC 60332-1-2, Cable I
Silicone-free	Free from silicone which can affect pa 1992)
Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699: "igus 36 service life calculator based on 2 bil
UL/CSA AWM	See data sheet for details > www.ic
	Following NFPA 79-2018, chapter 12
DNV	Type Approval Certificate TAE00003
EHI EAC	Certificate No. RU C-DE.ME77.B.00
REACH REACH	In accordance with regulation (EC) N
Rous Lead-free	Following 2011/65/EC (RoHS-II/RoF
clean-	According to ISO Class 1. The outer CF77.UL.05.12.D - tested by IPA ac
	According to VDW, DESINA standard
	Following 2014/35/EU
UK UKCA CA	In accordance with the valid regulation

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 doub	le strokes? Service life calculatio	n online 🕨 🗤

* 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 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, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

ble





status 2016

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

paint adhesion (following PV 3.10.7 – status

36-month chainflex cable guarantee and pillion test cycles per year" igus.eu/CF27D

12.9

ЗХА

0863/20

No. 1907/2006 (REACH)

HS-III)

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

ions 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

Class 6.5.3.1

Basic requirements Travel distance Oil resistance Torsion

igus° chainflex° CF27.D

Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
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/cf-case



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



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

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S



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

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

...life up



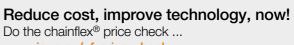
Modular design, easy to retrofit: igus[®] E4 e-chain[®] and chainflex[®] cables.

EPLAN download, configurators ► www.igus.eu/CF27D















36 10 million

TPE outer iacket

Double strokes guaranteed

• For extremely heavy duty applications

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

TPE

膏 7.5 x d

Bend radius, e-chain®

UV-resistant

400m

Hvdrolvsis and microbe-resistant

Travel distance, e-chain®



 TPE outer jacket Oil and bio-oil-resist Flame-retardant 	ant	• Hydrolysis and microbe-resistant	
Dynamic information			
Bend radius	e-chain [®] linear flexible fixed	minimum 7.5 x d minimum 6 x d minimum 4 x d	
* Temperature	e-chain [®] linear flexible fixed	-35°C up to +90°C -45°C up to +90°C (following DIN EN 60811-504) -50°C up to +90°C (following DIN EN 50305)	
v max.	unsupported gliding	10m/s 6m/s	
a max.	80m/s ²		
Travel distance	Unsupported trav	els 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 <10mm²: Stranded conductor in especially bending-resistant version 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: $V/L2$		
Outer jacket	 Core: W / L3 / D / L- 4. Core: 4 / N 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) Strip cables faster: a tear strip is moulded into the outer jacket Video www.igus.eu/CFRIP		
Electrical information			
Ku Nominal voltage	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	Oil-resistant (following DIN EN 60811- 24568 with Plantocut 8 S-MB tested b
Flame-retardant	According to IEC 60332-1-2, Cable Fla
Silicone-free	Free from silicone which can affect pain 1992)
UL verified	Certificate No. B129699: "igus 36-r service life calculator based on 2 billio
CAL UL/CSA AWM	See data sheet for details > www.igu
	Following NFPA 79-2018, chapter 12.9
DNV	Type Approval Certificate TAE00003X9
EAC	Certificate No. RU C-DE.ME77.B.0086
REACH	In accordance with regulation (EC) No.
Rous Lead-free	Following 2011/65/EC (RoHS-II/RoHS-
cleanroom	According to ISO Class 1, material/ca ISO standard 14644-1
	According to VDW, DESINA standardis
CECE	Following 2014/35/EU
	In accordance with the valid regulations

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, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

EPLAN download, configurators ► www.igus.eu/CF34ULD

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EU2026



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

nt adhesion (following PV 3.10.7 – status

month chainflex cable guarantee and on test cycles per year" us.eu/CF34ULD

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63/20

. 1907/2006 (REACH)

S-III)

able tested by IPA according to DIN EN

isation

ns 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

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

CF34.UL.D

TPE





RoHS











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

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

Class 6.6.4.2

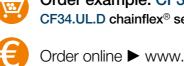
Basic requirements Travel distance Oil resistance Torsion

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

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 online ► www.igus.eu/CF34ULD



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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/cf-case



JILZ

EPLAN download, configurators ► www.igus.eu/CF34ULD







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

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







36 10 million

• TPE outer jacket

• Oil and bio-oil-resistant

Shielded

Double strokes guaranteed

• For extremely heavy duty applications

Motor cable | TPE | chainflex® CF35.UL

膏 7.5 x d

Bend radius, e-chain®

Flame-retardant

• UV-resistant

400m

Hydrolysis and microbe-resistant

Travel distance, e-chain[®]



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 trav	Unsupported travels and up to 400m and more for gliding applications, Class 6	
Cable structure			
Conductor		Stranded conductor in especially bending-resistant version	
1194	•	copper wires (following DIN EN 60228).	
	Cores \geq 10mm ² : 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.		
102	1. Core: U / L1 / C / L+ 2. Core: V / L2		
	3. Core: W / L3 / D / L- 4. Core: 4 / N		
Inner jacket	TPE mixture adap	oted to suit the requirements in e-chains®.	
Cverall shield	Extremely bendin	g-resistant braiding made of tinned copper wires.	
	Coverage linear a	pprox. 70%, optical approx. 90%	
Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture,		
	-	ne requirements in e-chains [®] .	
		ack (similar to RAL 9004)	
	•	r: a tear strip is moulded into the inner jacket	
	Video 🕨 www.ig	us.eu/CFRIP	
Electrical information			
Ku Nominal voltage	1,000V (following	wing DIN VDE 0298-3)	
Testing voltage	4,000V (following	-	

Class 6.6.4.1

Basic requirements Travel distance Oil resistance Torsion

Properties and approvals	
UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 6 24568 with Plantocut 8 S-MB te
Flame-retardant	According to IEC 60332-1-2, Ca
Silicone-free	Free from silicone which can affe 1992)
UL verified	Certificate No. B129699: "igus service life calculator based on
	See data sheet for details ► www
NFPA NFPA	Following NFPA 79-2018, chapt
DNV	Type Approval Certificate TAE00
EAC	Certificate No. RU C-DE.ME77.
REACH	In accordance with regulation (E
Rous Lead-free	Following 2011/65/EC (RoHS-II/
clean- com Cleanroom	According to ISO Class 1. The or CF34.UL.25.04.D - tested by IP/
CECE	Following 2014/35/EU
	In accordance with the valid regu

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 applications

EPLAN download, configurators ► www.igus.eu/CF35UL

nple image

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

ect paint adhesion (following PV 3.10.7 – status

us 36-month chainflex cable guarantee and 2 billion test cycles per year" ww.igus.eu/CF35UL

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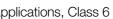
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EC) No. 1907/2006 (REACH)

I/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)









349

UK CA

CF35.UL TPE 7.5 x d
Guarantee Gue choinflex 366 Constanting
igus 34-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year
CFRIP
cRLus
nec)
NFPA
CUBA
EAE
REACH
RoHS
clean-
-/ _0
CE

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]	Outer diameter (d) max. [mm]	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 ¹¹⁾	(3x6.0)C	14.5	229	344
CF35.UL.250.03.O.PE ¹¹⁾	(3x25)C	24.5	880	1163

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

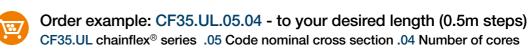


Cables available in the chainflex[®] CASE

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/cf-case







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







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

CFRIP

c**RL**us

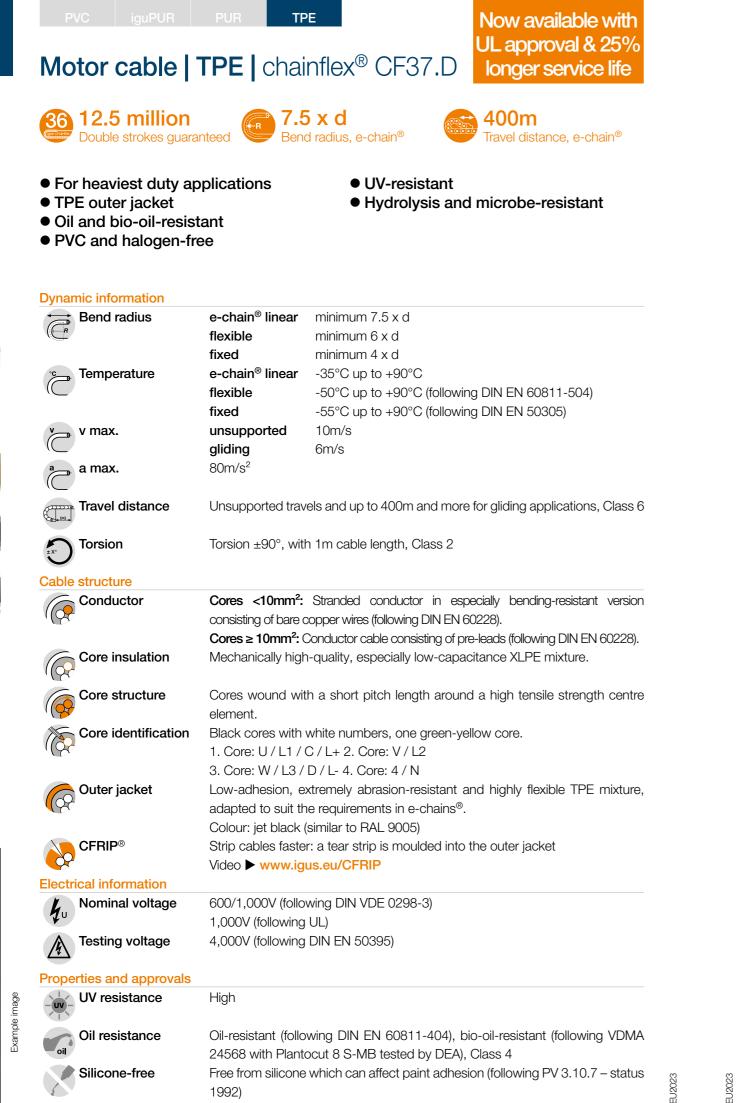
NFPA

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









CF37.15.04.D CF37.25.04.D CF37.40.04.D

Part No.

[mm²]4G1.5 4G2.5 4G4.0 CF37.60.04.D 4G6.0 CF37.60.05.D 5G6.0 4G10 CF37.100.04.D CF37.100.05.D 5G10 CF37.160.04.D 4G16 CF37.160.05.D 5G16 CF37.250.04.D 4G25 CF37.500.03.O.PE.D¹¹⁾ 3x50

Almost unlimited resistance to oil, also with bio-oils, Class 4

EU2023

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 \mathbf{x} = without earth core

1992)

CF37.D

TPE

7.5 x d



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/CF37D

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

Basic requirements

Class 7.6.4.2

Halogen-free

🔍 UL verified

UL AWM

91

C E CE

CA

UK UKCA

EHEEAC

REACH REACH

RoHS Lead-free

Cleanroom

Typical application areas

For heavy-duty applications, Class 7

Torsion ±90°, with 1m cable length, Class 2

Indoor and outdoor applications, UV-resistant

Guaranteed service life (details see page 28-29)

DESINA

Travel distance

Oil resistance

Following DIN EN 60754

Following 2014/35/EU

Number of cores and conductor

nominal cross section

Torsion

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

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

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 strokes? Service life calculation online ▶ www.igus.eu/chainflexlife			

• Unsupported travels and up to 400m and more for gliding applications, Class 6

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

Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
8.0	61	95
10.0	100	149
11.5	163	221
13.5	237	317
15.0	297	387
16.5	407	503
19.0	515	634
20.0	646	773
22.5	815	963
24.0	1014	1203
30.0	1530	1826



CF37.D

TPE

7.5 x d

Guarantee

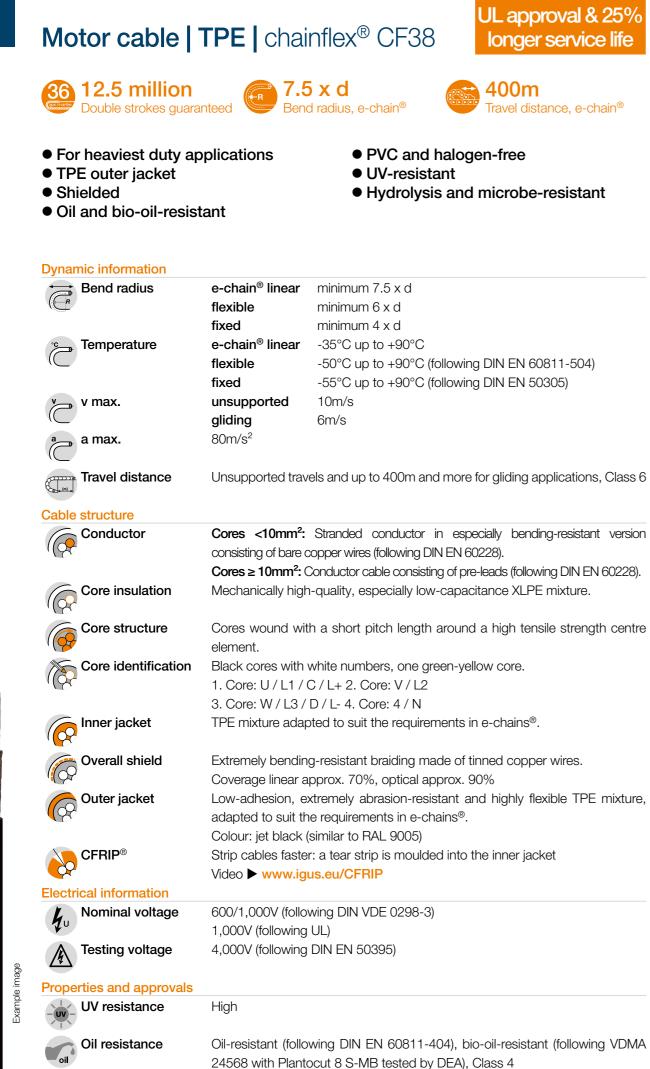












TPE

Now available with

EU2023

Class 7.6.4.1

Silicone-free

Halogen-free

🔍 UL verified

UL AWM

h.

FI

EHE EAC

CE CE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Cleanroom

Basic requirements Travel distance Oil resistance Torsion

Free from silicone which can affer 1992) Following DIN EN 60754
Certificate No. B129699: "igus service life calculator based on a See data sheet for details ►www
Certificate No. RU C-DE.ME77.E
In accordance with regulation (E
Following 2011/65/EC (RoHS-II/
According to ISO Class 1. The ou CF9.15.07 - tested by IPA accor 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]	
-35/-25	10	
-25/+80	7.5	
+80/+90	10	
Higher number of double stro	okas? Sanvica life calculation online	► \v

* Higher number of double strokes? Service life calculation online b 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 [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF38.15.04	(4G1.5)C	10.0	89	140
CF38.25.04	(4G2.5)C	11.5	133	198
CF38.40.04	(4G4.0)C	13.0	203	280
CF38.60.04	(4G6.0)C	16.0	288	409
CF38.100.04	(4G10)C	18.5	468	613
CF38.160.04	(4G16)C	23.0	738	943
CF38.250.04	(4G25)C	27.0	1153	1432
CF38.100.03.O.PE	(3x10)C	17.0	358	494
CF38.160.03.O.PE	(3x16)C	20.5	565	762
CF38.500.03.O.PE	(3x50)C	33.0	1714	2129

EU2023

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 CF38

7.5 x d

CF38

TPE



ect paint adhesion (following PV 3.10.7 – status

is 36-month chainflex cable guarantee and 2 billion test cycles per year" w.igus.eu/CF38

B.00863/20

EC) No. 1907/2006 (REACH)

/RoHS-III)

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

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



Spindle cable/Single core | PVC | chainflex[®] CF885

minimum 15 x d

minimum 12 x d

minimum 8 x d

3m/s

Unsupported travels up to 10m, Class 1

Mechanically high-quality PVC mixture.

Colour: Pastel orange (similar to RAL 2003)

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

4,000V (following DIN EN 50395)

600V (following UL)

1992)

+5°C up to +70°C



PVC

For flexing applications

 PVC outer jacket Flame-retardant

Dynamic information Bend radius

Temperature

v max.

a max.

Cable structure

 (\mathbf{Q})

4

A

Travel distance

Conductor

Outer jacket

Electrical information

Nominal voltage

Testing voltage

Properties and approvals Flame-retardant

Silicone-free

UL/CSA AWM

UL verified

Core insulation



e-chain[®] linear

e-chain[®] linear

unsupported

flexible

flexible

20m/s²

fixed

fixed



-5°C up to +70°C (following DIN EN 60811-504)

-15°C up to +70°C (following DIN EN 50305)

Conductor consisting of bare copper wires (according to DIN EN 60228).

Low-adhesion PVC mixture, adapted to suit the requirements in e-chains[®].

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"

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

See data sheet for details > www.igus.eu/CF885

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00302/19





Basic requirements Travel distance Torsion

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

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

*Н

Typical application areas

Class 3.1.1.1

RoHS Lead-free

CECE

CA

UK UKCA

- 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

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/cf-case

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chainfle

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



In accordance with the valid regulations 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



















CE UK CA

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



PVC







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

Dynamic information

- j			
	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)
<pre>v</pre>	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 PVC mixture.
	Core identification	Green-yellow	
	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)
Dropo	rtice and enprovele		

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"
Rus UL/CSA AWM	See data sheet for details <a>www.igus.eu/CF885PE
	Following NFPA 79-2018, chapter 12.9

Class 3.1.1.1

ĊA

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/R
CECE	Following 2014/35/EU
	In accordance with the valid regula

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 b 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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Example image

EPLAN download, configurators ► www.igus.eu/CF885PE

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low			3				highest
rted	1	2	3			≥ 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]

19.5

17

19.5

R min. [factor x d] 18.5 16 18.5







CF885.PE



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



















CE UK CA



Spindle cable/Single core | PVC | chainflex® CF886



PVC







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

Dynamic information

	Bend radius	e-chain [®] linear flexible	minimum 15 x d minimum 12 x d
		fixed	minimum 8 x d
	T		
°	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.
((Q		Coverage approx.	
	Outer jacket	0	C mixture, adapted to suit the requirements in e-chains [®] .
(8			nge (similar to RAL 2003)
Electr	ical information		
L	Nominal voltage	600/1,000V (follow	ving DIN VDE 0298-3)
₽ ∪		600V (following UL	_)
	Testing voltage	4,000V (following	DIN EN 50395)
_			

Properties and approvals

Silicone-free

UL/CSA AWM

UL verified

Flame-retardant 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 1992)

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

Class 3.1.1.1

EAC

CECE

CA

UK UKCA

REACH REACH

RoHS Lead-free

Basic requirements Travel distance **Oil resistance** Torsion

Following NFPA 79-2018, chapte
Certificate No. RU C-DE.ME77.E
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*	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/chainfle	klife

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



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Cables available in the chainflex[®] CASE

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/RoHS-III)

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igus 34-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

		 Hydrolysis and microbe-resistant PVC and halogen-free 	
ynamic inforn	nation		
Bend rad	dius e-chain [®] line flexible fixed	ear minimum 10 x d minimum 8 x d minimum 5 x d	
C Tempera	flexible	-40°C up to +80°C (following DIN EN 60811-504)	
v max.	fixed unsupported gliding	-50°C up to +80°C (following DIN EN 50305) 10m/s 2m/s	
a max.	50m/s ²		
Travel di	istance Unsupported	travels and up to 10m for gliding applications, Class 2	
able structure		able consisting of pre-leads (following DIN EN 60228).	
Core ins	ulation Mechanically	high-quality TPE mixture.	
Overall s	· · · · ·	Bending-resistant braiding made of tinned copper wires.	
Outer jac	cket Low-adhesion suit the requir	Coverage linear approx. 55%, optical approx. 80% Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains [®] (following DIN EN 50363-10-2) Colour: Pastel orange (similar to RAL 2003)	
lectrical inform	mation		
⊉ ∪	1,000V (follow	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)	
Testing v	voltage 4,000V (follow	wing DIN EN 50395)	
roperties and	approvals		
UV resis	stance Medium		
Oil resist	tance Oil-resistant (following DIN EN 50363-10-2), Class 3	
oil		nt following NEK 606 - status 2016	
oil Offshore	e MUD-resistar		
		IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame	
Offshore	etardant According to	IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame	

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

Class	4.2.3.1

UL verified

UL/CSA AWM

NFPA

NFPA

EHE EAC

REACH REACH

RoHS Lead-free

(€^{CE}

Cleanroom

Basic requirements Travel distance Oil resistance Torsion

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/Re
According to ISO Class 1. The out CF77.UL.05.12.D - tested by IPA a 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]	
-25/-15	12.5	
-15/+70	10	
+70/+80	12.5	
l l'ada a constanta a constanta da la contra		

* Higher number of double strokes? Service life calculation online lewww.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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36-month chainflex cable guarantee and billion test cycles per year" w.igus.eu/CF270ULD

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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

ations 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





























TPE

36 10 million

Double strokes guaranteed

• For extremely heavy duty applications

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

Bend radius, e-chain®

UV-resistant

400m

Travel distance, e-chain[®]

膏 7.5 x d

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/Ro
According to ISO Class 1. The oute CF34.UL.25.04.D - tested by IPA a According to VDW, DESINA stand
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

NFPA

DNV

DNV

CECE

CA

UK UKCA

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 [mm²]	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

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	- LLL

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

Flame-retardant	ant	
Dynamic information		
Bend radius	e-chain [®] linear	minimum 7.5 x d
(LR	flexible	minimum 6 x d
	fixed	minimum 4 x d
Comperature	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
$(\bigcirc$	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 $\pm 90^{\circ}$ , with 1m cable length, Class 2	
Cable structure		
Conductor	Conductor cable	consisting of pre-leads (following DIN EN 60228).
Core insulation	Mechanically high	n-quality TPE mixture.
Couter jacket	Low-adhesion, e	xtremely abrasion-resistant and highly flexible TPE mixture,
	adapted to suit th	ne requirements in e-chains [®] .
	Colour: Signal bla	ack (similar to RAL 9004)
Electrical information	Ū.	
K Nominal voltage	600/1,000V (follo	wing DIN VDE 0298-3)
	1,000V (following	
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
oil	24568 with Plante	ocut 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 which can affect paint adhesion (following PV 3.10.7 – status 1992)	
UL verified		3129699: "igus 36-month chainflex cable guarantee and ator based on 2 billion test cycles per year"
UL/CSA AWM		or details > www.igus.eu/CF300ULD

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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

In accordance with the valid regulations 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 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year















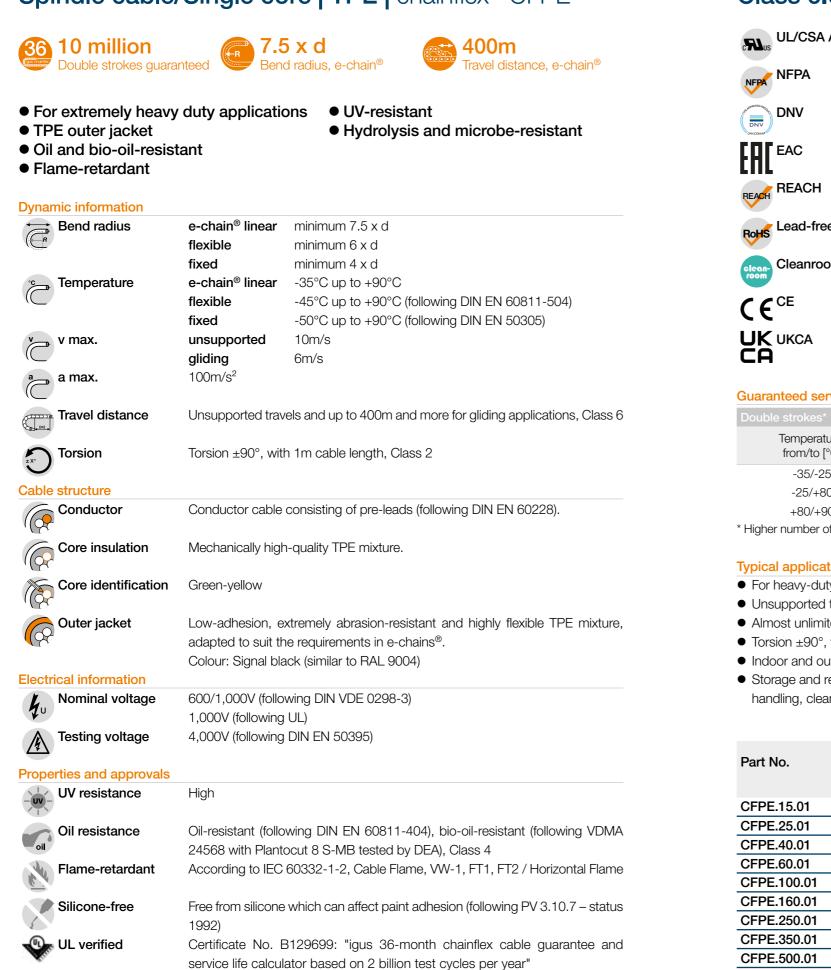






TPE

## 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

**Basic requirements Travel distance Oil resistance** Torsion

UL/CSA AWM	See data sheet for details
NFPA	Following NFPA 79-2018, chapte
DNV	Type Approval Certificate TAE000
EAC	Certificate No. RU C-DE.ME77.E
REACH	In accordance with regulation (E
Lead-free	Following 2011/65/EC (RoHS-II/
Cleanroom	According to ISO Class 1. The ou CF34.UL.25.04.D - tested by IPA Following 2014/35/EU
UKCA	In accordance with the valid regu

#### 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 > 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



#### /w.igus.eu/CFPEE

ter 12.9

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.B.00863/20

EC) No. 1907/2006 (REACH)

/RoHS-III)

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

gulations 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







Hydrolysis and microbe-resistant

Flame-retardant

• UV-resistant

- 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	
$(\bigcirc$		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).	
(Q	Core insulation	Mechanically high-quality TPE mixture.		
	Overall shield	Extremely bending	-resistant braiding made of tinned copper wires.	
(Q)		Coverage linear ap	pprox. 70%, optical approx. 90%	
6	Outer jacket	Low-adhesion, ex	tremely abrasion-resistant and highly flexible TPE mixture,	
		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 (following 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 6	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)		
Pres	UL verified	Certificate No. B	129699: "igus 36-month chainflex cable guarantee and tor based on 2 billion test cycles per year"	
		o		

L/CSA AWM See data sheet for details > www.igus.eu/CF310UL

#### EPLAN download, configurators ► www.igus.eu/CF310UL



Class 6.6.4.1

CA

**Basic requirements Travel distance Oil resistance** Torsion

	Following NFPA 79-2018, chapte
DNV	Type Approval Certificate TAE000
FALE	Certificate No. RU C-DE.ME77.B
REACH	In accordance with regulation (EC
Rous Lead-free	Following 2011/65/EC (RoHS-II/F
Cleanroom Cleanroom	According to ISO Class 1. The ou CF34.UL.25.04.D - tested by IPA Following 2014/35/EU
	In accordance with the valid regu

#### 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	
ligher pumber of double at	values O Carries life selevilation and	

* 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 [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	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

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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 CF310.UL



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B.00863/20

EC) No. 1907/2006 (REACH)

/RoHS-III)

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

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





















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



• TPE outer jacket

Oil and bio-oil-resistant

• PVC and halogen-free

For heaviest duty applications

Hydrolysis and microbe-resistant





400m Travel distance, e-chain®

> Now available with UL approval & 25% longer service life

Dynar	nic	info	rmati	ion

• UV-resistant

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	-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 max.	100m/s ²		
Travel distance	Unsupported trav	vels and up to 400m and more for gliding applications, Class 6	
Torsion	Torsion ±90°, wit	Torsion $\pm 90^{\circ}$ , with 1m cable length, Class 2	
Cable structure			
Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).		
Core insulation	Mechanically high	Mechanically high-quality TPE mixture.	
Outer jacket	Low-adhesion, e	extremely abrasion-resistant and highly flexible TPE mixture,	
(C)	adapted to suit th	ne requirements in e-chains [®] .	
	Colour: jet black	(similar to RAL 9005)	
Electrical information			
L Nominal voltage	600/1,000V (follo	wing DIN VDE 0298-3)	
<b>₽</b> ∪	1,000V (following	I UL)	
Testing voltage	4,000V (following	4,000V (following DIN EN 50395)	
Properties and approvals			
UV resistance	High		
Oil resistance		Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA	
		ocut 8 S-MB tested by DEA), Class 4	
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status		

Halogen-free

0. UL verified



unsupported

See data sheet for details > www
Certificate No. RU C-DE.ME77.B
In accordance with regulation (EC
Following 2011/65/EC (RoHS-II/F
According to ISO Class 1. The ou CF9.15.07 - tested by IPA accord According to VDW, DESINA stand
Following 2014/35/EU
In accordance with the valid regul

#### 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 str	okos? Son <i>i</i> co lifo calculation onlino	14

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

#### Typical application areas

UL AWM

FI

=[

CECE

CA

**UK** UKCA

EHE EAC

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 [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF330.60.01.D	1x6.0	7.0	61	77
CF330.100.01.D	1x10	7.5	100	119
CF330.160.01.D	1x16	9.5	159	181
CF330.250.01.D	1x25	11.5	248	284
CF330.350.01.D	1x35	12.5	347	385
CF330.500.01.D	1x50	14.5	495	534
CF330.700.01.D	1x70	16.5	710	754
CF330.950.01.D	1x95	20.0	936	1015
CF330.1200.01.D	1x120	21.5	1184	1265
CF330.1500.01.D	1x150	23.5	1469	1548
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 x = without earth core

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

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

Following DIN EN 60754

1992)



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#### w.igus.eu/CF330D

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C) No. 1907/2006 (REACH)

RoHS-III)

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

nce 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

























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 travels and up to 400m and more for gliding applications, Class 6		
Cable	structure			
	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).		
Q	Core insulation	Mechanically high	-quality TPE mixture.	
	Overall shield	Extremely bending	g-resistant braiding made of tinned copper wires.	
$(\mathcal{O})$		Coverage linear ap	oprox. 70%, optical approx. 90%	
6	Outer jacket	Low-adhesion, ex	tremely abrasion-resistant and highly flexible TPE mixture,	
		adapted to suit the	e requirements in e-chains [®] .	
		Colour: jet black (	similar to RAL 9005)	
Electr	ical information			
4 u	Nominal voltage	600/1,000V (follow	ving DIN VDE 0298-3)	
¥		1,000V (following	UL)	
	Testing voltage	4,000V (following DIN EN 50395)		

#### Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
Halogen-free	Following DIN EN 60754
UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and

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

**Basic requirements Travel distance Oil resistance** Torsion

Following 2014/35/EU

See data sheet for details > www.igus.eu/CF340 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

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 strol	kes? Service life calculation of	online 🕨 www.igus.eu/chainflex	life

#### Typical application areas

Cleanroom

CE CE

CA

**UK** UKCA

- 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]
CF340.40.01	(1x4.0)C	6.5	57	73
CF340.160.01	(1x16)C	10.0	184	215
CF340.250.01	(1x25)C	12.0	280	319
CF340.350.01	(1x35)C	13.0	395	433
CF340.500.01	(1x50)C	15.0	536	574
CF340.700.01	(1x70)C	17.5	779	832
CF340.950.01	(1x95)C	21.0	1015	1093
CF340.1200.01	(1x120)C	22.0	1270	1341
CF340.1500.01	(1x150)C	24.5	1592	1642
CF340.1850.01	(1x185)C	27.5	2066	2157
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

Example image

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

iqus

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<del>IQUS</del>



Now available with UL approval & 25% longer service life

400m

Travel distance, e-chain®























## Medium voltage cable | PUR | chainflex® CFCRANE.PUR







Notch-resistant



- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Flame-retardant

#### Dynamic information

Dynar	nic information			
	Bend radius	e-chain [®] linear	minimum 10 x d	
		flexible	minimum 8 x d	
		fixed	minimum 5 x d	
°C	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	v max.	unsupported	10m/s	
(		gliding	6m/s	
a	a max.	50m/s ²		
	Travel distance	Unsupported trave	els and up to 400m and more for gliding applications, Class 6	
Cable	structure			
	Conductor	Highly-flexible cab 60228).	ble consisting of bare copper wires (according to DIN EN	
(Q	Core insulation		emiconducting layer made of conductive rubber. Insulating ghly-quality, heat-resistant and ozone-proof ethylene propyl-	
(O	Overall shield	Extremely bending Coverage approx.	g-resistant wrapping made of tinned copper wires 85% optical	
R	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains [®] (following DIN EN 50363-10-2) Colour: Flame red (similar to RAL 3000)		
Electr	ical information			
L	Nominal voltage	6/10kV or 8.7/15k	V (following DIN VDE 0250),	
70		further voltages upon request.		
	Testing voltage	24kV (following DI	N VDE 0250, Part 813)	
Prope	rties and approvals			
	UV resistance	Medium		
oil	Oil resistance	Oil-resistant (follov	ving DIN EN 50363-10-2), Class 3	

Flame-retardant According to IEC 60332-1-2

Silicone-free Free from silicone which can affect paint adhesion (following PV 3.10.7 - status 1992)

## Class 6.6.3.1

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REACH

 $\mathbf{C}\mathbf{E}^{CE}$ 

CA

**UK** UKCA

RoHS Lead-free

**Basic requirements Travel distance Oil resistance** Torsion

Following DIN EN 60754

Halogen-free	Following D
UL verified	Certificate service life o
REACH	In accordan

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

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]
-20/-10	12.5	13.5	14.5
-10/+70	10	11	12
+70/+80	12.5	13.5	14.5
* Higher number of double stro	kes? Service life calculation o	nline  www.igus.eu/chainfle	xlife

#### 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

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JS^{*}

- 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

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

Hydrolysis and microbe-resistant



No. B129699: "igus 36-month chainflex cable guarantee and calculator based on 2 billion test cycles per year" nce with regulation (EC) No. 1907/2006 (REACH)

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





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























iguPUR

## Medium voltage cable | igupren | chainflex® CFCRANE









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

#### **Dynamic information**

Jynamic Information			
Bend radius	e-chain [®] linear	minimum 10 x d	
<b>H</b>	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	
	gliding	6m/s	
a max.	50m/s ²		
Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6		
Cable structure			
Conductor	Highly-flexible ca 60228).	able consisting of tinned copper wires (following DIN EN	
Core insulation		semiconducting layer made of conductive rubber. Insulating highly-quality, heat-resistant and ozone-proof ethylene propyl- ).	
Coverall shield	Extremely bendir	Extremely bending-resistant, tinned copper shield.	
	Coverage approx	k. 95% optical	
Couter jacket	Low-adhesion ig	Low-adhesion iguprene mixture, especially abrasion resistant, adapted to suit	
	the requirements	in e-chains [®] (following VDE 0207, Part 21).	
	-	d (similar to RAL 3000)	
Electrical information		· · ·	
Ku Nominal voltage	6/10kV (following	DIN VDE 0250), other voltages upon request.	

**Testing voltage** 

17kV (following DIN VDE 0250, Part 813)

**Basic requirements Travel distance Oil resistance** Torsion

Class 6.6.3.1

Properties and approvals	
UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 60
Flame-retardant	According to IEC 60332-1-2
Silicone-free	Free from silicone which can affect 1992)
UL verified	Certificate No. B129699: "igus service life calculator based on 2
REACH	In accordance with regulation (EC
Rous Lead-free	Following 2011/65/EC (RoHS-II/F
CECE	Following 2014/35/EU
UK UKCA CA	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



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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) ▶ Page 374

image

ble



0811-404)

ect paint adhesion (following PV 3.10.7 – status

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

/RoHS-III)

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





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



