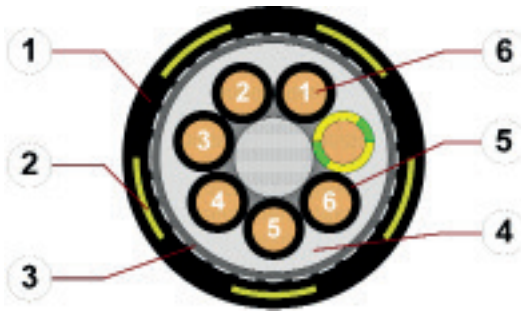


Data sheet

chainflex® CFSPECIAL.572



Motor cable for TopDrive applications | For heavy duty applications, PUR outer jacket, shielded, oil-resistant and coolant-resistant, flame retardant, PVC and halogen-free, UV-resistant, hydrolysis and microbe-resistant



1. Outer jacket: Pressure extruded PUR mixture
2. Reinforcement: Tensile strength aramid braiding (embedded in the outer jacket)
3. Overall shield: Bending-resistant braiding made of tinned copper wires
4. Inner jacket: Pressure extruded, gusset-filling TPE mixture
5. Core insulation: Mechanically high-quality XLPE or TPE mixture
6. Conductor: Especially bending-stable version consisting of bare copper wires

Example image
For detailed overview please see design table

Cable structure



Conductor

Multi core: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).
Single core: Conductor cable consisting of pre-leads (following DIN EN 60228).



Core insulation

Multi core: Mechanically high-quality, especially low-capacitance XLPE mixture.
Single core: Mechanically high-quality TPE mixture.



Inner jacket

TPE mixture adapted to suit the requirements in e-chains®.



Overall shield

Bending-resistant braiding made of tinned copper wires.
Coverage linear approx. 70 %, optical approx. 90 %



Outer jacket

Low-adhesion, halogen-free PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2).
Colour: Jet black (similar to RAL 9005)

„00000 m** igus chainflex CFSPECIAL.572.① ----② 600/1000V E310776
cRUus AWM Style 10835 VW-1 AWM I/II A/B 80°C 1000V FT1 DNV TAE00004G3
CE RoHS-II conform www.igus.eu +++ chainflex cable works +++

* **Length printing:** Not calibrated. Only intended as an orientation aid.
① / ② Cable identification according to Part No. (see technical table).
Example: ... chainflex CFSPECIAL.572.2400.01 (1x240)C 600/1000V ...



Example image

Data sheet

chainflex® CFSPECIAL.572








Motor cable for TopDrive applications | For heavy duty applications, PUR outer jacket, shielded, oil-resistant and coolant-resistant, flame retardant, PVC and halogen-free, UV-resistant, hydrolysis and microbe-resistant





Example image

Dynamic information

	Bend radius	e-chain® linear flexible fixed	minimum 10 x d minimum 8 x d minimum 5 x d
	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	10 m/s 2 m/s
	a max.		50 m/s ²
	Travel		For hanging TopDrive applications up to 50 m

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4000 V (following DIN EN 50395)



Data sheet














chainflex® CFSPECIAL.572



Motor cable for TopDrive applications | For heavy duty applications, PUR outer jacket, shielded, oil-resistant and coolant-resistant, flame retardant, PVC and halogen-free, UV-resistant, hydrolysis and microbe-resistant



Properties and approvals

-  **UV resistance** High
-  **Oil resistance** Oil-resistant (following DIN EN 50363-10-2)
-  **Offshore** MUD-resistant following NEK 606 - status 2009
-  **Flame retardant** According to IEC 60332-1-2, FT1, VW-1
-  **Silicone-free** Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
-  **Halogen-free** Following DIN EN 60754
-  **PFAS-free** Use of PFAS-free materials according to the content of the REACH directive and its rules for the production and processing of chemical substances
-  **UL/CSA AWM** Details see table UL/CSA AWM
-  **NFPA** Following NFPA 79-2018, chapter 12.9
-  **DNV** Type Approval Certificate TAE00004G3
-  **REACH** In accordance with regulation (EC) No. 1907/2006 (REACH)
-  **Lead-free** Following 2011/65/EC (RoHS-II/RoHS-III)
-  **CE** Following 2014/35/EU



Properties and approvals

UL/CSA AWM Details

Conductor nominal cross section [mm ²]	Number of cores	UL style core insulation	UL style outer jacket	UL Temperature Rating [°C]	UL Voltage Rating [V]
2.5	37	30054	21233	80	1000
4.0	7	30054	21233	80	1000
240	1	10492	10835	80	1000
300	1	10492	10835	80	1000
400	1	10492	10835	80	1000

Example image

Data sheet

chainflex® CFSPECIAL.572



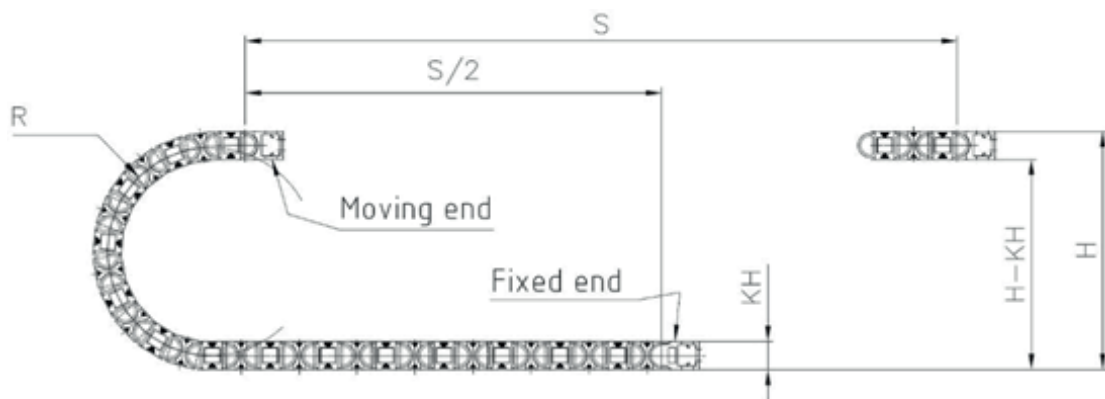
Motor cable for TopDrive applications | For heavy duty applications, PUR outer jacket, shielded, oil-resistant and coolant-resistant, flame retardant, PVC and halogen-free, UV-resistant, hydrolysis and microbe-resistant



Example image

Typical lab test setup for this cable series

Test bend radius R	approx. 250 - 300 mm
Test travel S	approx. 1 - 15 m
Test duration	minimum 2 - 4 million double strokes
Test speed	approx. 0.5 - 2 m/s
Test acceleration	approx. 0.5 - 1.5 m/s ²



Typical mechanical application areas

- For increased tensile load
- Almost unlimited resistance to oil
- For hanging TopDrive applications up to 50 m



Data sheet

chainflex® CFSPECIAL.572



Motor cable for TopDrive applications | For heavy duty applications, PUR outer jacket, shielded, oil-resistant and coolant-resistant, flame retardant, PVC and halogen-free, UV-resistant, hydrolysis and microbe-resistant

Technical tables:

Mechanical information

Part No.	Number of cores and conductor nominal cross section [mm ²]	Outer diameter maximum [mm]	Copper index [kg/km]	Weight [kg/km]
Multi core Motor cables				
CFSPECIAL.572.25.37	(37x2.5)C	40.0	1086	1901
CFSPECIAL.572.40.07	(7G4.0)C	19.5	350	540
Spindle cables/Single cores				
CFSPECIAL.572.2400.01	(1x240)C	34.5	2581	3081
CFSPECIAL.572.3000.01	(1x300)C	37.5	3189	3799
CFSPECIAL.572.4000.01	(1x400)C	42.0	4269	5007

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

Electrical information

Conductor nominal cross section [mm ²]	Maximum conductor resistance at 20 °C (following DIN EN 50289-1-2) [Ω/km]	Max. current rating at 30 °C [A]
2.5	7,98	30
4.0	4,95	41
240	0,09	724
300	0,06	880
400	0,05	1022

The final maximum current rating depends among other things on the ambient conditions, the type of the installation and the number of loaded cores.



Example image

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Design table

Part No.	Number of cores	Core design drawing
CFSPECIAL.572.xxx.01	1	
CFSPECIAL.572.xx.07	7	
CFSPECIAL.572.xx.37	37	



Example image

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