

readycable® power cable suitable for Siemens

6FX_002-5CA31, basic cable, TPE 7.5xd

MAT9050004



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- For extremely heavy duty applications
- TPE outer jacket
- Overall shield
- Hydrolysis and microbe-resistant
- Flame retardant
- Silicone-free
- UV resistance: High
- Oil-resistant (following DIN EN 60811-404), resistant to bio oils (following VDMA 24568 with Plantocut 8 S-MB tested by DEA)
- CFRIP®
- Guarantee up to 4 years

Product description

Introducing the readycable® power cable, designed specifically for Siemens 6FX_002-5CA31. This robust cable features a TPE outer jacket, making it perfect for extremely heavy-duty applications. With high oil resistance, UV protection, and suitability for both indoor and outdoor use, it excels in demanding environments. Its flame-retardant and hydrolysis-resistant properties ensure durability, while its silicone-free design adds versatility. Ideal for storage units, machining tools, and outdoor cranes.

Manufacturer attributes

Manufacturer Part No	6FX_002-5CA31
Cable type	Basic cable

Connectors

Connector A	round plug, socket
Connector B	open cable end



General properties

Number of cores and conductor nominal cross-section	(4G2.5)C
Outer diameter (d) max. mm	11.5 mm
Weight per km	207 kg/km
Copper index kg/km	133 kg/km

Electricity attributes

 Nominal voltage	600/1,000V (according to DIN VDE 0298-3)
UL Voltage Rating	1000 V
 Test voltage	4000V (according to DIN EN 50395)
Maximum conductor resistance at 20°C [$\mu\Omega$/km]	7.9800



Cable structure



Conductor

Stranded conductor in an especially bend-resistant version consisting of bare copper wires (according to DIN EN 60228).



Core insulation

Mechanically high-quality, especially low-capacity XLPE mixture.



Conductor colours

Cores black with white numbers, one core green-yellow. 1st core: U / L1 / C / L+ 2nd core: V / L2
3rd core: W / L3 / D / L- 4th core: 4 / N
(4G2.5)C

Core group 1 core structure



Inner jacket

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



Overall shield

Extremely flexible braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%



Outer jacket

Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.



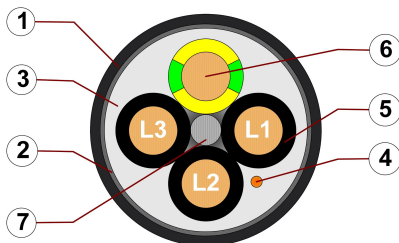
Outer jacket colour

Signal black (comparable to RAL 9004)



CFRIP®

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



1. Outer jacket: pressure extruded, flame-retardant TPE mixture
2. Overall shield: extremely flexible braiding made of tinned copper wires
3. Inner jacket: pressure-extruded, gusset-filling TPE mixture
4. CFRIP: tear strip for faster stripping
5. Core insulation: mechanically high-quality, especially low-capacity XLPE mixture
6. Conductor: particularly flexible version consisting of bare copper wires
7. Strain relief: high tensile strength centre element



Properties and approvals

	UV resistance	High
	Oil resistance	Oil-resistant (according to DIN EN 60811-404), bio-oil-resistant (according to VDMA 24568 with Plantocut 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 (according to PV 3.10.7 – status 1992)
	UL verified	Certificate no. V293650: "The igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	UL/CSA AWM	Style 10492 and 22188, 1000 V, 80 °C
	NFPA	According to NFPA 79-2018, chapter 12.9
	DNV	Type approval certificate TAE00003X9
	REACH	In accordance with Regulation (EC) No. 1907/2006 (REACH)
	Lead-free	According to 2011/65/EU (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1
	CE	According to 2014/35/EU



Dynamic properties

	Min. bend radius, e-chain (factor)	7.5 x d
	Min. bend radius, e-chain	86.25 mm
	Min. bend radius, flexible (factor)	6 x d
	Min. bend radius, fixed (factor)	4 x d
	Temperature e-chain®	-35°C up to +90°C
	Temperature, flexible	-45°C to +90°C (according to DIN EN 60811-504)
	Temperature, fixed	-50°C to +90°C (according to DIN EN 50305)
	v max. unsupported (speed)	10 m/s
	v max. gliding (speed)	6 m/s
	a max. (acceleration)	80 m/s ²
	travel length	Class 13
	torsion	No torsion



chainflex®Lifetime

Guaranteed service life for this series according to guarantee conditions
Further information: [chainflex® guarantee](#)

Double strokes*					5 million	7.5 million	10 million
Temperature,	v max. [m/s]		a max.	Travel	R min. [Factor x d]	R min. [Factor x d]	R min. [Factor x d]
from/to [°C]	unsupported	gliding	[m/s²]	[m]			
-35 / -25					10	11	12
-25 / +80	10	6	80	≤ 400	7.5	8.5	9.5
+80 / +90					10	11	12

* Higher number of double strokes possible - please ask for your individual calculation.

Certificates and standards

