


10024020	DATA SHEET	
Valid from: 2025-09-17	ÖLFLEX® SERVO 718 CH zeroCM	

Application

ÖLFLEX® SERVO 718 CH zeroCM cables are double-shielded, low capacitance motor cables with XLPE core insulation and halogen-free outer sheath. They are also suitable for use in dry and damp areas. They are suitable for outdoor use if the indicated temperature range is observed.

They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

The zeroCM®-Technology is based on a special stranding-concept, which eliminates magnetic coupling and reduces capacitance coupling to its minimum. By using this cable, low- and high-frequency leakage currents will be proven reduced at the location of the frequency drive but also in the system surroundings.

Cable-charging-currents which occur when a cable is driven by power-electronics are reduced as well due to optimized capacitances.

This results often in better EMI-values emitted by the related active component; this usually allows the use of higher cable-length.

The zeroCM®-technology provides full electro-magnetically symmetry of the cable, this keeps the ground-potential clean, without any disturbances even by high load or higher cable length.

The earthing concept is composed of the defined cross-section of the protective conductor and the braided shield (see table).

Application range:

The intended use of these cables is the connecting between frequency converter and motor, connecting between servo controller and motor


Design

Certification	EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper acc. to IEC 60228 resp. EN IEC 60228, Class 5
Core insulation	halogen free cross-linked compound, XLPE
Core identification	power cores: acc. to VDE 0293-308 resp. HD 308: black, brown, grey, GNYE ground conductor Control cores: white, black
Cable assembly	control pair: 2 cores stranded together, foil wrapping, braid, foil wrapping. 3 power cores stranded together. Stranded power cores are stranded with GN/YE core and screened control pair.
Wrapping	foil
Screen	aluminium laminated foil braid of tinned copper wires, coverage $\geq 70\%$ (nominal value)
Outer sheath	halogen-free compound colour: black, similar RAL 9005

Electrical properties

Nominal voltage	IEC: U ₀ / U: 600 / 1000 V AC
Test voltage	Power cores: core / core and core screen: 4000 V AC Control cores: core / core: 4000 V AC core / screen: 2000 V AC
Transfer impedance at 30 MHz	max. 250 mΩ/m

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Mechanical and thermal properties

Min. bending radius	occasional flexing: 15 x outer diameter fixed installation: 6 x outer diameter
Temperature range	occasional flexing: -15 °C up to +90 °C max. conductor temp. fixed installation: -40 °C up to +90 °C max. conductor temp.
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 no flame propagation acc. to IEC 60332-3-24 resp. EN IEC 60332-3-24 (Cat. C) for outer diameter > 12.0 mm
Oil resistance	acc. to EN 50290-2-22, TM54
UV-resistance	Acc. to EN 50525-1 cables with black sheath are suitable for a permanent outdoor use (change of colour allowed).
Halogen-free	acc. to IEC 60 754-3 resp. EN 60754-3
Low corrosivity	acc. to IEC 60754-2 resp. EN 60754-2
Smoke density	acc. to IEC 61034-2 resp. EN 61034-2
Toxicity	acc. to EN 45545-2: ≤ 6 EN 50305
Tests	acc. to IEC 60811, EN 50395, EN 50396,
EU Directives	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

Article No.	Dimension	Braid cross section
		[mm ²]
10024020	3X1.5+1G1+(2x1.5)	2.5
10024021	3X2.5+1G1.5+(2x1.5)	4
10024022	3X4+1G2.5+(2x1.5)	4
10024023	3X6+1G4+(2x1.5)	6
10024024	3X10+1G6+(2x1.5)	6
10024025	3X16+1G10+(2x1.5)	10

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