

0036439	DATA SHEET	
valid from: 01.04.2024	ÖLFLEX® SERVO 2YSLCYK-JB	

Application

ÖLFLEX® SERVO 2YSLCYK-JB are double shielded low capacitance cables of flexible design, with PVC sheath and PE core insulation. They are suitable for frequency converters operated by three-phase current motors. They are also suitable for use in dry, damp or wet areas. They are largely resistant to acids, alkalis and certain oils at room temperature.

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 earthing concept for this version with the protective conductor splitted in thirds is composed of the defined cross-sections of the protective conductors and the screening braid.

This design avoids all cable-relevant parts from high frequency discharge currents, which may damage motor bearings especially at high frequencies and long cable lengths.

This design also improves EMC noise situation of the whole drive system. Additionally, due to the design the frequency converter system is burdened with lower capacitive reactive power compared to PVC insulated cables.

Application range:

Connection cable between frequency converter and motor, paper industry, chemical industry, heavy industry

Design

Design	based on DIN VDE 0276-603 / HD 603 S1 + A3 DIN 57250-1 resp. VDE 0250-1
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 60228, class 5
Insulation	PE compound acc. to EN 50290-2-23, table 1, column L/MD
Core identification code	acc. to VDE 0293-308 resp. HD 308 S2
Stranding	3+3 cores twisted concentrically, protective conductor divided into three positioned in the gusset
Screen	double screening with aluminium-coated plastic foil (metal-side outwards) and braid of tinned copper wires, braid coverage min. 70% (nominal value)
Outer sheath	PVC sheath, acc. to EN 50363-4-1, UV resistant, cold flexible, outdoor use colour: black, similar RAL 9005

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm
Transfer impedance	max. 250 mΩ/m (at 30 MHz)
Nominal voltage	600/1000 V
Test voltage	C/C: 4000 V C/S: 4000 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: -15 °C up to +70 °C max. conductor temperature fixed installation: -40 °C up to +70 °C max. conductor temperature
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
UV resistance	acc. to EN 50525-1 cable with black sheath are suitable for permanent outdoor use.

Tests

acc. to IEC 60811 resp. EN 60811, VDE 0472, EN 50395, EN 50396

General requirements

These cables are conform to the EU-Directive 2014/35 EU
(Low Voltage Directive).

A part of these cables (see www.lappkabel.com/cpr) are classified
in accordance with the EU-Regulation no. 305/2011 (CPR).

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Environmental information These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

Part number	Dimension	Conductor design: approx. number x wire diameter [mm]	Core identification code	Copper braid: max. wire diameter [mm]	Copper braid: nom. cross section [mm²]	Outer diameter (nominal) [mm]	Current ratings at 30 °C [A]	Inductance per core at 800 Hz [µH/km]	Capacitance core/core at 800 Hz [nF/km]	Capacitance core/screen at 800 Hz [nF/km]	Transfer impedance at 1 MHz [Ω/km]	Transfer impedance at 10 MHz [Ω/km]	Transfer impedance at 30 MHz [Ω/km]
0036439	3X1.5+3G0.25	29x0.25	3xGNYE, BN, BK, GY	0.21	2.5	11.4	18	366	70	110	-	-	240
0036440	3X2.5+3G0.5	50x0.25	3xGNYE, BN, BK, GY	0.21	4	12.2	26	340	80	130	18	175	210
0036441	3X4+3G0.75	54x0.3	3xGNYE, BN, BK, GY	0.21	6	14.4	34	339	90	150	11	95	210
0036442	3X6+3G1.0	82x0.3	3xGNYE, BN, BK, GY	0.21	6	15.7	44	321	90	150	6	50	150
0036443	3X10+3G1.5	78x0.4	3xGNYE, BN, BK, GY	0.26	6	18.0	61	301	120	200	7	60	180
0036444	3X16+3G2.5	126x0.4	3xGNYE, BN, BK, GY	0.26	10	20.2	82	285	140	230	9	80	190
0036445	3X25+3G4	196x0.4	3xGNYE, BN, BK, GY	0.26	10	23.8	108	280	140	240	4	32	95
0036446	3X35+3G6	276x0.4	3xGNYE, BN, BK, GY	0.31	16	26.9	135	271	150	260	3	26	85
0036447	3X50+3G10	396x0.4	3xGNYE, BN, BK, GY	0.31	16	32.6	168	270	190	320	2	13	40
0036448	3X70+3G10	532x0.4	3xGNYE, BN, BK, GY	0.31	16	36.4	207	262	190	320	2	18	45
0036449	3X95+3G16	722x0.4	3xGNYE, BN, BK, GY	0.31	16	42.0	250	261	250	410	2	18	45
0036450	3X120+3G16	931x0.4	3xGNYE, BN, BK, GY	0.31	25	47.8	292	256	110	180	2	18	45
0036451	3X150+3G25	1160x0.4	3xGNYE, BN, BK, GY	0.41	25	51.6	335	256	110	180	2	18	45
0036479	3X185+3G35	1420x0.4	3xGNYE, BN, BK, GY	0.41	35	56.5	382	255	110	180	2	18	45
0036453	3X240+3G50	1920x0.4	3xGNYE, BN, BK, GY	0.41	35	65.1	453	254	110	180	2	18	45

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