


0037000	DATA SHEET	
valid from: 30.03.2026	ÖLFLEX® SERVO 9YSLCY-JB	


Application

ÖLFLEX® SERVO 9YSLCY-JB and ÖLFLEX® SERVO 9YSLCY-JB BK are flexible motor supply cables having special EMC performance due to double shield, with low capacitance design and PVC sheath. The cables feature UL-AWM approval for USA and Canada. Construction 9YSLCY-JB has a special concentric conductor array design, where protective conductor is split into 3 individual cores with reduced overall cross-section. This design avoids that from all cable-relevant parts high frequency discharge currents can pass lubrication film of motor bearings. This effect may damage motor bearings, especially if switching frequency of the frequency converter is very high and/or long cable lengths are required. The earthing concept for the earth-symmetrical 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 also improves EMC noise situation of the whole drive system. Contrary to usage of PVC insulated cables, PP insulated cables show significant reduction of useless reactive power always needed for charging and discharging the cable during operating of the frequency converter. The cables are designed for use in dry, damp and wet conditions. Construction 9YSLCY-JB BK is UV-resistant and suitable for outdoor use. Approval terms of USA or Canada don't include outdoor use. At room temperature they are widely resistant to acids, alkali-resistant and resistant to certain oils. They are suitable for free, non-continuously recurring movements without tensile load or compulsory guidance and also for fixed installation. Furthermore the cables are flame retardant and self-extinguishing.

Application range:

Connecting cable between frequency converter and three-phase motors, with small and large sizes, in the range of paper industry, chemical industry, heavy industry.


Design

Design	acc. to UL AWM Style 2570, UL 758
Certification	 AWM I/II A/B (File No. E63634) Classification of fire behaviour acc. to EN 13501-6 and EN 50575 (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
Insulation	Polypropylen (PP) Type 9Y, low capacity acc. to EN 50290-2-25 type 2, 90°C and UL AWM Style 10492, 80°C, 1000 V
Core identification code	acc. to HD 308 S2 resp. VDE 0293-308
Cable assembly	9YSLCY-JB: 4 cores twisted together in one layer 9YSLCY-JB BK: 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	9YSLCY-JB: transparent PVC sheath, 80°C, TM2 acc. to EN 50363-4-1 flame retardant and self-extinguishing acc. to IEC 60332-1-2 resp. EN 60332-1-2 9YSLCY-JB BK: black PVC sheath, 90°C, TM 3 acc. to EN 50363-4-1 flame retardant and self-extinguishing acc. to IEC 60332-1-2 resp. EN 60332-1-2, UV-resistant, cold flexible, outdoor use

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm
Transfer impedance	max. 250 Ω /km (at 30 MHz)
Nominal voltage	IEC U ₀ /U: 600/1000 V UL/CSA: 1000 V
Test voltage	core/core: 4000 V AC core/screen: 4000 V AC

Creator: SESC / PDC	Document: DB0037000EN	Page 1 of 3
Released: LABU / PDC	Version: 10	

0037000	DATA SHEET	
valid from: 30.03.2026	ÖLFLEX® SERVO 9YSLCY-JB	

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 4 x outer diameter
Temperature range	Part No. 0037000 up to 0037014 ÖLFLEX SERVO 9YSLCY-JB, TRANSPARENT occasional flexing (VDE/IEC): -5 °C up to +80 °C max. conductor temp. occasional flexing (UL/CSA): -5 °C up to +80 °C max. conductor temp. fixed installation (VDE/IEC): -40 °C up to +80 °C max. conductor temp. fixed installation (UL/CSA): up to +80 °C max. conductor temp.

Part No. 0036998, 0037015 up to 0037028 ÖLFLEX SERVO 9YSLCY-JB, BLACK

Flammability	occasional flexing (VDE/IEC): -5 °C up to +90 °C max. conductor temp. occasional flexing (UL/CSA): -5 °C up to +80 °C max. conductor temp. fixed installation (VDE/IEC): -40 °C up to +90 °C max. conductor temp. fixed installation (UL/CSA): up to +80 °C max. conductor temp. flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test VW-1, Cable flame test CSA: FT1
UV resistance	9YSLCY-JB BK: EN 50525-1, cables with black sheath are suitable for a 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).

Environmental information

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

Creator: SESC / PDC	Document: DB0037000EN	Page 2 of 3
Released: LABU / PDC	Version: 10	

0037000	DATA SHEET	
valid from: 30.03.2026	ÖLFLEX® SERVO 9YSLCY-JB	

Part number	Dimension	Conductor cross section meets minimum	Cond. Spec. No of wires (nominal) x wire diameter (max. value)	EMC Copper braid wire diameter	Copper braid: Nominal cross section	Outer diameter (nominal)	Current ratings at 30°C	Inductance per core at 800 Hz	Capacitance core/core at 800 Hz	Capacitance core/screen at 800 Hz	Transfer impedance		
											at 1 MHz	at 10 MHz	at 30 MHz
	[mm²]	[AWG/kcmil]	[x mm]	[mm]	[mm²]	[mm]	[A]	[µH/km]	[nF/km]	[nF/km]	[Ω/km]	[Ω/km]	[Ω/km]
0037000	4G1,5	16AWG	29x0,25	0,2	2,5	10,5	18	366	70	110	18	90	230
0037001	4G2,5	14AWG	50x0,25	0,2	4	11,8	26	340	80	130	11	80	210
0037002	4G4	12AWG	54x0,3	0,2	4	13,3	34	339	90	150	6	50	210
0037003	4G6	10AWG	82x0,3	0,2	6	14,9	44	321	90	150	7	60	150
0037004	4G10	8AWG	78x0,4	0,25	6	17,7	61	301	120	200	9	80	180
0037005	4G16	6AWG	126x0,4	0,25	6	21,5	82	285	140	230	4	32	190
0037006	4G25	4AWG	196x0,4	0,25	16	26,3	108	280	120	210	3	26	95
0037007	4G35	2AWG	276x0,4	0,3	16	29,7	135	271	150	260	2	13	85
0037008	4G50	1AWG	396x0,4	0,3	16	35,8	168	270	190	320	2	18	40
0037009	4G70	2/0AWG	532x0,4	0,3	16	40,9	207	262	190	320	2	18	45
0037010	4G95	3/0AWG	722x0,4	0,3	25	45,4	250	261	250	410	2	18	45
0037011	4G120	4/0AWG	931x0,4	0,3	25	49,8	292	256	260	430	2	18	45
0037012	4G150	250kcmil	1160x0,4	0,4	35	56,1	335	256	270	450	2	18	45
0037013	4G185	350kcmil	1420x0,4	0,4	35	61,4	382	255	280	470	2	18	45
0037014	4G240	450kcmil	1924x0,4	0,4	35	67,9	453	254	290	480	2	18	45
0037015	3X1,5+3G0,25	16AWG/24AWG	29x0,25	0,2	2,5	11,4	18	366	70	110	18	90	230
0037016	3X2,5+3G0,5	14AWG/21AWG	50x0,25	0,2	4	12,8	26	340	80	130	11	80	210
0037017	3X4+3G0,75	12AWG/19AWG	54x0,3	0,2	6	13,6	34	339	90	150	6	50	210
0037018	3X6+3G1,0	10AWG/18AWG	82x0,3	0,2	6	14,2	44	321	90	150	7	60	150
0037019	3X10+3G1,5	8AWG/16AWG	78x0,4	0,25	6	17,4	61	301	120	200	9	80	180
0037020	3X16+3G2,5	6AWG/14AWG	126x0,4	0,25	10	20,0	82	285	140	230	4	32	190
0037021	3X25+3G4	4AWG/12AWG	196x0,4	0,25	10	24,3	108	280	120	210	3	26	95
0037022	3X35+3G6	2AWG/10AWG	276x0,4	0,3	16	27,5	135	271	150	260	2	13	85
0037023	3X50+3G10	1AWG/8AWG	396x0,4	0,3	16	31,1	168	270	190	320	2	18	40
0037024	3X70+3G10	2/0AWG/8AWG	532x0,4	0,3	16	37,1	207	262	190	320	2	18	45
0036997	3X70+3G16	2/0AWG/6AWG	532x0,4	0,3	16	37,4	207	262	190	320	2	18	45
0037025	3X95+3G16	3/0AWG/6AWG	722x0,4	0,3	16	40,0	250	261	250	410	2	18	45
0037026	3X120+3G16	4/0AWG/6AWG	931x0,4	0,3	25	42,6	292	256	260	430	2	18	45
0037027	3X150+3G25	250kcmil/4AWG	1160x0,4	0,4	25	50,0	335	256	270	450	2	18	45
0037028	3X185+3G35	350kcmil/AWG2	1420x0,4	0,4	35	55,6	382	255	280	470	2	18	45
0036998	3X240+3G50	450kcmil/AWG1	1924x0,4	0,4	35	57,2	453	254	290	480	2	18	45

Creator: SESC / PDC	Document: DB0037000EN	Page 3 of 3
Released: LABU / PDC	Version: 10	