1133600	DATA SHEET	LAPP
valid from: 2023-01-13	ÖLFLEX® SERVO 2XSLCY-JB	

Application

ÖLFLEX® SERVO 2XSLCY-JB are flexible cables, having special EMC-performance due to double shield, with low capacitance design and PVC sheath. They are designed for the European, North American and Canadian market. The cables are ideal suitable for three-phase motors of small, medium and large sizes operated by frequency converters. The cables are designed for use in dry, damp and wet conditions. They are suitable for free, non-continuously recurring movements without tensile load or compulsory guidance and also for fixed installation. The cables are suitable for outdoor use due to their black outer sheath. At room temperature they are widely resistant to acids, alkali-resistant and resistant to certain oils. Furthermore, the cables are flame retardant and self-extinguishing.
The version with earth-symmetrical construction (3+3) has a split protective conductor with a reduced overall cross-section.
This concentric conductor arrangement avoids to a large extent the high-frequency motor bearing currents which can lead to motor bearing damage, especially at high frequencies and long motor cables. This design also improves the electromagnetic compatibility (EMC) of the entire drive system.

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

Design

Design	acc. to UL: AWM Style 2570, UL 758 and acc. to CSA 22.2 No. 210 and based on HD 603 S1 + A3 and DIN 57250-1 resp. VDE 0250-1
Certification	: AWM Style 2570, UL 758 (File No. E63634) : AWM II A/B (File No. E63634) 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	XLPE
Core identification code	acc. to VDE 0293-308 resp. HD 308 S2
Stranding	4 cores: twisted together in one layer 3+3 cores: twisted concentrically, protective conductor divided into three, positioned in the interstices
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 based compound UV-resistant, flame retardant colour: black

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm
Nominal voltage	EN: 600/1000 V
Rated voltage	UL/CSA: 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 (EN): -15°C up to +90°C max. conductor temperature occasional flexing (UL/CSA): up to +80°C max. conductor temperature fixed installation (EN): -40°C up to +90°C max. conductor temperature fixed installation (UL/CSA): up to +80°C max. conductor temperature
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test VW-1 acc. to UL 1581 CSA: FT1 acc. to CSA C22.2 No. 2556

Weather and UV resistance	acc. to EN 50620 acc. to EN ISO 4892-2, method A (change of colour allowed) acc. to EN 50525-1 cable with black sheath are suitable for permanent outdoor use
Tests	acc. to IEC 60811, EN 50395, EN 50396, UL 1581 and CSA C 22.2
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).

Part number	Dimension	Conductor design: max. wire Ø [mm]	Core identification code	Copper braid: max. wire Ø [mm]	Copper braid: nom. cross section [mm²]	Outer Ø (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]
1133600	4G1.5	0.26	GNYE, BN, BK, GY	0.21	2.5	10.9	23	366	70	110	-	-	240
1133601	4G2.5	0.26	GNYE, BN, BK, GY	0.21	4	12.1	32	340	80	130	18	175	210
1133602	4G4	0.31	GNYE, BN, BK, GY	0.21	4	14.1	42	339	90	150	11	95	210
1133603	4G6	0.31	GNYE, BN, BK, GY	0.21	6	15.6	54	321	90	150	6	50	150
1133604	4G10	0.41	GNYE, BN, BK, GY	0.26	6	18.0	75	301	120	200	7	60	180
1133605	4G16	0.41	GNYE, BN, BK, GY	0.26	6	20.9	100	285	140	230	9	80	190
1133606	4G25	0.41	GNYE, BN, BK, GY	0.26	16	26.0	127	280	140	240	4	32	95
1133607	4G35	0.41	GNYE, BN, BK, GY	0.31	16	29.6	158	271	150	260	3	26	85
1133608	4G50	0.41	GNYE, BN, BK, GY	0.31	16	32.8	192	270	190	320	2	13	40
1133609	4G70	0.41	GNYE, BN, BK, GY	0.31	16	38.0	246	262	190	320	2	18	45
1133610	4G95	0.41	GNYE, BN, BK, GY	0.31	25	42.5	298	261	250	410	2	18	45
1133611	4G120	0.41	GNYE, BN, BK, GY	0.31	25	47.0	346	256	260	430	2	18	45
1133612	4G150	0.41	GNYE, BN, BK, GY	0.41	35	52.9	399	256	270	450	2	18	45
1133613	4G185	0.41	GNYE, BN, BK, GY	0.41	35	57.6	456	255	280	470	2	18	45
1133614	4G240	0.41	GNYE, BN, BK, GY	0.41	35	65.6	538	254	290	480	2	18	45
1133615	3X1.5+3G0.25	0.26	3xGNYE, BN, BK, GY	0.21	2.5	10.9	23	366	70	110	-	-	240
1133616	3X2.5+3G0.5	0.26	3xGNYE, BN, BK, GY	0.21	4	12.0	32	340	80	130	18	175	210
1133617	3X4+3G0.75	0.31	3xGNYE, BN, BK, GY	0.21	6	13.5	42	339	90	150	11	95	210
1133618	3X6+3G1.0	0.31	3xGNYE, BN, BK, GY	0.21	6	14.7	54	321	90	150	6	50	150
1133619	3X10+3G1.5	0.41	3xGNYE, BN, BK, GY	0.26	6	16.7	75	301	120	200	7	60	180
1133620	3X16+3G2.5	0.41	3xGNYE, BN, BK, GY	0.26	10	20.2	100	285	140	230	9	80	190
1133621	3X25+3G4	0.41	3xGNYE, BN, BK, GY	0.26	10	23.4	127	280	140	240	4	32	95
1133622	3X35+3G6	0.41	3xGNYE, BN, BK, GY	0.31	16	26.7	158	271	150	260	3	26	85
1133623	3X50+3G10	0.41	3xGNYE, BN, BK, GY	0.31	16	30.9	192	270	190	320	2	13	40
1133624	3X70+3G10	0.41	3xGNYE, BN, BK, GY	0.31	16	34.4	246	262	190	320	2	18	45
1133625	3X95+3G16	0.41	3xGNYE, BN, BK, GY	0.31	16	38.3	298	261	250	410	2	18	45
1133626	3X120+3G16	0.41	3xGNYE, BN, BK, GY	0.31	25	42.3	346	256	260	430	2	18	45
1133627	3X150+3G25	0.41	3xGNYE, BN, BK, GY	0.41	25	47.5	399	256	270	450	2	18	45
1133628	3X185+3G35	0.41	3xGNYE, BN, BK, GY	0.41	35	51.9	456	255	280	470	2	18	45
1133629	3X240+3G50	0.41	3xGNYE, BN, BK, GY	0.41	35	59.0	538	254	290	480	2	18	45