



DATA SHEET	0036425_5EN
ÖLFLEX® SERVO 2YSLCY-JB	valid from : 07.03.2008

Application

ÖLFLEX® SERVO 2YSLCY and 2YSLCYK are flexible cables having special EMC- performance due double shielded, low capacitance design. Ideal for frequency converters for variable speed of 3 ~ AC motors, small, medium and large sizes. Contrary to usage of PVC insulated cables, PE insulated cables shows significant reduction of useless reactive power always needed for charging and discharging the cable during operating of the frequency converter.

2YSLCYK having a special concentric conductor array design, where PE conductor is splitted into 3 individuals. Its concentric design avoids from all cable-relevant parts of high frequency discharge currents, passing lubricating film of motors bearings. This effect may damage motors bearing, especially if switching frequency of the frequency converter is very high (up to 20kHz) and / or long cable lengths are required. This design also improves EMC noise situation of the whole drive system.

Cables are suitable in dry, damp and wet rooms/ locations. 2YSLCYK version is UV light protected for outdoor use incl. direct burial. Good resistance against acids, caustic solutions and certain oils at room temperature. Suitable for free, as well as for static use. Not suitable for continuously moving appliance under tensile load or if during flexing, accompanied by guidance.

Design

Conductor	fine wire strand of bare copper, in acc. to IEC 60228 resp. VDE 0295 Cl. 5
Insulation	Polyethylene (PE) 2YI2 acc. VDE 0207-2
Colour code	acc. HD 308 S2 /VDE 0293-308 conductors colour coded with one gnye conductor.
Twisting	4 conductors twisted together in one layer. 2YSLCYK version having splitted PE conductors, segmented into 3 individuals.
Screening	aluminium-mylar tape wrap, metal-side outwards, on top a tinned copper wire braid
Sheath	2YSLCY: PVC sheath made of PVC compound YM2 acc. VDE 0207 -5, leadfree, flame retardant & selve-extinguishing , transparent. 2YSLCYK PVC sheath made of cold-flexible PVC compound DMV5 acc. VDE 0276-603, leadfree, UV resistant. black, outdoor and direct burial use, flame retardant & selve-extinguishing, IEC 60332.1
EEU directives	cables conforms to EEC 79/29 directive (Low Voltage Directive)
Marking on the sheath:	(Example)

LAPPKABEL STUTTGART ÖLFLEX® SERVO 2YSLCY-JB 0.6/1kV 4G120 NCC ROHS CE
LAPPKABEL STUTTGART ÖLFLEX® SERVO 2YSLCYK-JB 0.6/1kV 3X120+3G16 NCC ROHS CE

Electrical properties at 20°C

Insulation resistance		min. GΩ x cm	20
Transfer impedance	at 30 MHz	Ω/km	< 250
Nominal voltage		U ₀ /U V	600/1000
Test voltage	core/core, core/screen	U _{eff} V	4000

Mechanical and thermal characteristics

Minimum bend radius	single bending	Cable-Ø D in mm	4 x D
	multiple bending	Cable-Ø D in mm	20 x D
Permissible temperature range	static	°C	- 40 to + 70
Permissible pulling force		°C	-5 to +70
Flame propagation	flame retardant to VDE 0482-332-1-2 / IEC 60332-1		

elaborated by: PD KL: V. Huber	Document: DB0036425_5EN	page 1 of 1
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PD 1 PM Huber Date 07.03.2008

Technical datas of
ÖLFLEX-SERVO 2YSLCY-JB

U0/U: 0,6/1kV

Cabels type short name	Number of conductors & nominal cross section in mm	Conductor design: Number of strands (nom.) x individual wire diameter (max)	Conductor ident code acc. VDE 0293-308 HD 308 S2	U. I. Lapp P.N.	SPECIAL aspect. PVC jacket lead free in general YK= low temp rating & outdoor use	EMC: copper braid		Outer diameter (nominal) in mm	Ampacity per cond. at environmental temp. of +30°C in	Inductivity per conductor mH/km	Capacity cond/cond. in uF/km	Capacity cond./shield. in uF/km	EMC: Transfer impedance		
						wire diameter (max. value) in mm	braid nominal cross section (min value) in mm²						at 1 MHz in Ohm/km	at 10 MHz in Ohm/km	at 30 MHz in Ohm/km
2YSLCY-JB	4G1,5	29x0,25	GNYE,BN,BK,GY	0036425	Y, transp.	0,2	2,5	11,6	18	0,366	0,07	0,11			240
2YSLCY-JB	4G2,5	50x0,25	GNYE,BN,BK,GY	0036426	Y, transp.	0,2	4	13,1	26	0,340	0,08	0,13	18	175	210
2YSLCY-JB	4G4	54x0,3	GNYE,BN,BK,GY	0036427	Y, transp.	0,2	4	15,2	34	0,339	0,09	0,15	11	95	210
2YSLCY-JB	4G6	82x0,3	GNYE,BN,BK,GY	0036428	Y, transp.	0,2	6	16,9	44	0,321	0,09	0,15	6	50	150
2YSLCY-JB	4G10	78x0,4	GNYE,BN,BK,GY	0036429	Y, transp.	0,25	6	20,4	61	0,301	0,12	0,2	7	60	180
2YSLCY-JB	4G16	126x0,4	GNYE,BN,BK,GY	0036430	Y, transp.	0,25	6	23,8	82	0,285	0,14	0,23	9	80	190
2YSLCY-JB	4G25	196x0,4	GNYE,BN,BK,GY	0036431	Y, transp.	0,25	16	28,1	108	0,280	0,12	0,21	4	32	95
2YSLCY-JB	4G35	276x0,4	GNYE,BN,BK,GY	0036432	Y, transp.	0,3	16	31,2	135	0,271	0,15	0,26	3	26	85
2YSLCY-JB	4G50	396x0,4	GNYE,BN,BK,GY	0036433	Y, transp.	0,3	16	37,4	168	0,270	0,19	0,32	2	13	40
2YSLCY-JB	4G70	532x0,4	GNYE,BN,BK,GY	0036434	Y, transp.	0,3	16	42,1	207	0,262	0,19	0,32	2	18	45
2YSLCY-JB	4G95	722x0,4	GNYE,BN,BK,GY	0036435	Y, transp.	0,3	25	48,3	250	0,261	0,25	0,41	2	18	45
2YSLCY-JB	4G120	931x0,4	GNYE,BN,BK,GY	0036436	Y, transp.	0,3	25	52,4	292	0,256	0,26	0,43	2	18	45
2YSLCY-JB	4G150	1160x0,4	GNYE,BN,BK,GY	0036437	Y, transp.	0,4	35	59,1	335	0,256	0,27	0,45	2	18	45
2YSLCY-JB	4G185	1420x0,4	GNYE,BN,BK,GY	0036438	Y, transp.	0,4	35	64,3	382	0,255	0,28	0,47	2	18	45
2YSLCY-JB	4G240	1920x0,4	GNYE,BN,BK,GY	0036452	Y, transp.	0,4	35	67,0	453	0,254	0,29	0,48	2	18	45
2YSLCYK-JB	3GX1,5+3G0,25	29x0,25	3xGNYE,BN,BK,GY	0036439	YK, black	0,2	2,5	12,2	18	0,366	0,07	0,11			240
2YSLCYK-JB	3X2,5+3G0,5	50x0,25	3xGNYE,BN,BK,GY	0036440	YK, black	0,2	4	13,8	26	0,340	0,08	0,13	18	175	210
2YSLCYK-JB	3X4+3G0,75	54x0,3	3xGNYE,BN,BK,GY	0036441	YK, black	0,2	4	15,8	34	0,339	0,09	0,15	11	95	210
2YSLCYK-JB	3X6+3G1,0	82x0,3	3xGNYE,BN,BK,GY	0036442	YK, black	0,2	6	17,0	44	0,321	0,09	0,15	6	50	150
2YSLCYK-JB	3X10+3G1,5	78x0,4	3xGNYE,BN,BK,GY	0036443	YK, black	0,25	6	19,6	61	0,301	0,12	0,2	7	60	180
2YSLCYK-JB	3X16+3G2,5	126x0,4	3xGNYE,BN,BK,GY	0036444	YK, black	0,25	6	22,7	82	0,285	0,14	0,23	9	80	190
2YSLCYK-JB	3X25+3G4	196x0,4	3xGNYE,BN,BK,GY	0036445	YK, black	0,25	16	25,9	108	0,280	0,12	0,21	4	32	95
2YSLCYK-JB	3X35+3X6	276x0,4	3xGNYE,BN,BK,GY	0036446	YK, black	0,3	16	28,5	135	0,271	0,15	0,26	3	26	85
2YSLCYK-JB	3X50+3G10	396x0,4	3xGNYE,BN,BK,GY	0036447	YK, black	0,3	16	34,9	168	0,270	0,19	0,32	2	13	40
2YSLCYK-JB	3X70+3G10	532x0,4	3xGNYE,BN,BK,GY	0036448	YK, black	0,3	16	37,9	207	0,262	0,19	0,32	2	18	45
2YSLCYK-JB	3X95+3G16	722x0,4	3xGNYE,BN,BK,GY	0036449	YK, black	0,3	25	43,5	250	0,261	0,25	0,41	2	18	45
2YSLCYK-JB	3X120+3G16	931x0,4	3xGNYE,BN,BK,GY	0036450	YK, black	0,3	25	47,2	292	0,256	0,26	0,43	2	18	45
2YSLCYK-JB	3X150+3G25	1160x0,4	3xGNYE,BN,BK,GY	0036451	YK, black	0,4	35	52,5	335	0,256	0,27	0,45	2	18	45
2YSLCYK-JB	3X185+3G35	1420x0,4	3xGNYE,BN,BK,GY	0036479	YK, black	0,4	35	59,5	382	0,255	0,28	0,47	2	18	45