FESTOONFLEX-LX
0,6/1 kV
(N)3GRD3GÖU -J / -O

rubber cables suitable for festoon systems

MAIN APPLICATION

Flexible power and cables for use on festoon system and for connecting movable parts of machine tools and any material handling equipment with fast movement strong acceleration and frequent bending during operation.

CONSTRUCTION

Conductor:	Bare copper conductor, flexible cl.5 IEC 60228
Insulation:	EPR compound better than 3GI3 Specially developed crushproof compound with improved electrical and mechanical characteristics
Cores identification:	Colours according to DIN VDE 0293 part 308 / HD 308 S2 Standard colours: - 1 core: black - 3 cores: brown, black, grey - 4G cores: green/yellow, brown, black, grey - 5G cores: green/yellow, blue, brown, black, grey - >5 cores: black with printed numbers + 1 green/yellow
Screen:	For individually screened pairs Made of tinned copper surface covered: approx 80%
Laying-up:	Short lay length for better flexibilty Cores arrangement in maximum 3 layer
Separation (if any):	Tape(s)
Outer sheath:	Black polychloroprene rubber based compound UV resistant, oil and chemical resistant better than 5GM3
Antitwisting protection:	Synthetic yarns Firmly bonded between inner and outer sheath
Outer sheath:	Black polychloroprene rubber compound UV resistant oil and chemical resistant better then 5GM2
Marking:	U.T.V. CAVI manufactured BY PALAZZO - PANZERFLEX-L 0,6/1 kV nc x cross section

PARAMETERS

Electrical	Rated voltage	Uo/U= 0,6/1 kV
	Maximum permissible operating voltage in AC systems	Um = 1,2 kV
	AC test voltage over 5 minutes	3,5 kV - power cores & control 2,5 kV - screened pairs cables
	Current Carrying Capacity	According to DIN VDE 0298 part 4
Thermal	Fully flexible operation	- 30 °C
	Fixed installation	- 40 °C
	Maximum permissible operating temperature of the conductor	90 °C
	Short-circuit temperature of the conductor	250 °C
Mechanical	Tensile load	Up to -15N/mm^2
	Minimum bending radii	According to DIN VDE 0298 part 3
	Reeling operation	60 m/min
	Festoon systems	Up to 240 m/min
Chemical	Resistance to oil	According to VDE / IEC standard
	Weather resistance	Unrestricted use outdoor and indoor, UV resistant, moisture resistant.

TABLE 1 - FESTOONFLEX-LX 0,6/1 kV (N)3GRD3GÖU -J / -O Power Cables

Low Voltage Festooning

N. of cores and nominal section (N·mm²)	Main conductor D.C. resist. at 20 °C Ohm/km	Main conductor nom. diam. mm	Splitted protec. earth cond. nom. diam. mm	Overall diameter min. mm	Overall diameter max. mm	Net weight approx. kg/km	Maximum permissible tensile force N	Current carrying capacity at 30 °C* Laid straight A	Current carrying capacity at 30 °C* Suspended in free air A
1x16	1,21	5,1	-	9,9	12,0	233	240	141	148
1x25	0,780	6,5	-	11,8	13,9	333	375	187	196
1x35	0,554	7,5	-	12,8	14,9	425	525	231	243
1x50	0,386	9,1	-	15,3	17,4	603	750	288	302
1x70	0,272	10,8	-	17,1	19,2	816	1050	357	375
1x95	0,206	12,1	-	18,4	20,5	1.012	1425	430	452
1x120	0,161	14,3	-	21,4	23,5	1.323	1800	503	528
1x150	0,129	16,1	-	23,6	25,7	1.627	2250	577	606
1x185	0,106	17,5	-	25,8	27,9	1.950	2775	658	691
1x240	0,0801	19,9	-	28,0	31,2	2.466	3600	771	810
3x25+3G16/3	0,780	6,5	3,0	25,5	27,6	1.354	1125	131	138
3x35+3G16/3	0,554	7,5	3,0	27,4	30,6	1.685	1575	162	170
3x50+3G25/3	0,386	9,1	4,0	32,0	35,2	2.329	2250	202	212
3x70+3G35/3	0,272	10,8	4,9	36,2	39,4	3.188	3150	250	263
3x95+3G50/3	0,206	12,1	5,4	39,9	43,1	4.032	4275	301	316
3x120+3G70/3	0,161	14,3	6,6	46,3	50,3	5.382	5400	352	370
4G1,5	13,3	1,5	-	11,5	13,6	201	90	23	24
4G2,5	7,98	2,0	-	12,5	14,6	260	150	30	32
4G4	4,95	2,4	-	14,1	16,2	354	240	41	43
4G6	3,30	3,0	-	16,4	18,5	476	360	53	56
4G10	1,91	4,0	-	19,2	21,3	696	600	74	78
4G16	1,21	5,1	-	22,3	24,4	1.020	960	99	104
4G25	0,780	6,5	-	27,2	30,4	1.536	1500	131	138
4G35	0,554	7,5	-	30,0	33,2	1.963	2100	162	170
4G50	0,386	9,1	-	35,4	38,6	2.764	3000	202	212
4G70	0,272	10,8	-	40,2	43,4	3.798	4200	250	263
4G95	0,206	12,1	-	44,0	48,0	4.764	5700	301	316
5G4	4,95	2,4	-	16,0	18,1	450	300	41	43
5G6	3,30	3,0	-	17,8	19,9	565	450	53	56
5G10	1,91	4,0	-	20,1	22,2	835	750	74	78
5G16	1,210	5,1	-	24,3	26,4	1.232	1200	99	104
5G25	0,780	6,5	-	29,7	32,9	1.860	1875	131	138
5G35	0,554	7,50	-	33,1	36,3	2.408	2625	162	170
7X1,5	13,3	1,5	-	15,0	17,1	340	158	23	24
12X1,5	13,3	1,5	-	20,0	22,1	573	270	23	24
18X1,5	13,3	1,5	-	20,5	22,6	637	405	23	24
24X1,5	13,3	1,5	-	23,8	25,9	837	540	23	24
30X1,5	13,3	1,5	-	27,2	29,3	1.090	675	23	24
36X1,5	13,3	1,5	-	27,0	30,2	1.135	810	23	24
7X2,5	7,98	2,0	-	16,4	18,5	443	263	30	32
12X2,5	7,98	2,0	-	22,4	24,5	785	450	30	32
18X2,5	7,98	2,0	-	22,6	24,7	868	675	30	32
24X2,5	7,98	2,0	-	27,1	29,2	1.203	900	30	32
30X2,5	7,98	2,0	-	29,7	32,9	1.495	1125	30	32
36X2,5	7,98	2,0	-	29,9	33,1	1.582	1350	30	32
3x(2x1)C	19,5	1,3	-	18,5	20,6	500	90	-	-
4x(2x1)C	19,5	1,3	-	20,5	22,6	615	120	-	-
6x(2x1)C	19,5	1,3	-	24,1	26,2	850	180	-	-
3x(2x1,5)C	13,3	1,5	-	19,6	21,7	563	135	-	-
4x(2x1,5)C	13,3	1,5	-	21,7	23,8	693	180	-	-
6x(2x1,5)C	13,3	1,5	-	26,4	28,5	1.003	270	-	-

*Tabulated values are valid up to 3 loaded conductors with or without earth core.
Derating factor shall be applied for multicores cables depending on loaded conductor. See page 45.
Correction factor for temperature other than 30 °C,