



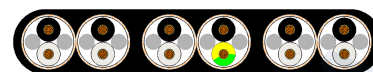
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

NGFLGOEU FLAT LOW VOLTAGE CABLE

Low voltage flat cable for festoon application



APPLICATION

Flexible low-voltage power and control cable for festoon systems and movable machine parts. Designed for high mechanical stresses and frequent bending in one plane; suitable for festoon trolley systems up to 180 m/min.

CONSTRUCTION

Component	Description
Conductor	Electrolytic bare copper; class 6 up to 25 mm ² , class 5 from 35 mm ²
Insulation	EPR rubber compound 3GI3
Core identification	Up to 5 cores: green/yellow, black, blue, brown, grey; over 5 cores: black with white numbers
Individual screen	Tinned copper braid; approx. 60% coverage, or approx. 80% for twisted/shielded pairs
Core arrangement	Cores arranged in parallel; more than 12 cores in parallel bundles
Outer sheath	CR rubber compound 5GM3; black

OPERATING CHARACTERISTICS

Parameter	Value
Rated voltage U ₀ /U	300/500 V (600 V)
Maximum AC operating voltage	0.7/1.2 kV
Maximum DC operating voltage	0.9/1.8 kV
AC test voltage	2.5 kV for 5 min
Maximum conductor temperature	+90 °C
Maximum short-circuit temperature	+250 °C
Fixed ambient temperature	-50 °C to +80 °C
Fully flexible temperature	-35 °C to +80 °C
Minimum bending radius	According to DIN VDE 0298 part 3
Maximum tensile load	15 N/mm ²
Festoon trolley speed	Up to 180 m/min

STANDARDS AND PERFORMANCE

Parameter	Value
Design standard	DIN VDE 0250-809
Current capacity	DIN VDE 0298-4
Oil resistance	DIN VDE 0473-404 paragraph 10
Weather resistance	Ozone, UV and moisture resistant
Installation	Indoor and outdoor use; dry, humid and wet rooms
Application	Festoon trolley systems; bending in one plane only; not for gantry or reeling

TECHNICAL DATA

Nominal dimensional data from the source technical sheet; source ordering codes omitted.

DIMENSIONS AND ELECTRICAL DATA											
Configuration	Cond. dia. max. mm	Height min. mm	Height max. mm	Width min. mm	Width max. mm	Bend radius min. mm	Weight kg/km	Tensile force max. N	R20 Ohm/km	Current A	Short circuit kA
3x1.5	1.5	5.7	6.2	11.7	12.5	19	130	68	13.3	24	0.21
4x1.5	1.5	5.7	6.2	15	15.8	19	170	90	13.3	24	0.21
5x1.5	1.5	5.5	6	18.5	20.1	18	210	113	13.3	24	0.21
7x1.5	1.5	5.5	6	25	26.8	18	280	158	13.3	24	0.21
8x1.5	1.5	5.5	6	27.5	29.3	18	310	180	13.3	24	0.21
10x1.5	1.5	6.2	6.7	35.5	37	20	440	225	13.3	24	0.21
12x1.5	1.5	6.3	6.8	42	43.5	20	530	270	13.3	24	0.21
24x1.5	1.5	11.5	12.3	51	53.2	62	1040	540	13.3	24	0.21
42x1.5	1.5	15.1	16.1	70.2	72.3	81	1920	945	13.3	24	0.21
4x2.5	2	6.8	7.3	18.5	19.5	22	260	150	7.98	32	0.36
5x2.5	2	6.6	7.4	22.9	24.6	22	320	188	7.98	32	0.36
7x2.5	2	6.8	7.4	31	32.8	22	440	263	7.98	32	0.36
8x2.5	2	6.8	7.4	34.1	35.9	22	490	300	7.98	32	0.36
10x2.5	2	7.4	8	43	45.3	24	660	375	7.98	32	0.36

- R20: conductor resistance at 20 deg C; current: carrying capacity free in air; short circuit: conductor short-circuit current.

TECHNICAL DATA

Nominal dimensional data from the source technical sheet; source ordering codes omitted.

DIMENSIONS AND ELECTRICAL DATA											
Configuration	Cond. dia. max. mm	Height min. mm	Height max. mm	Width min. mm	Width max. mm	Bend radius min. mm	Weight kg/km	Tensile force max. N	R20 Ohm/km	Current A	Short circuit kA
12x2.5	2	7.4	8	50.6	53.5	24	780	450	7.98	32	0.36
24x2.5	2	14.8	15.6	65.4	68	78	1690	900	7.98	32	0.36
7x(3x1)	1.3	8.7	10.3	49.3	51.8	41	770	315	19.5	19	0.14
4x4	2.8	8.4	8.9	22.5	23.5	36	390	240	4.95	43	0.57
4x6	3.5	9	9.5	25.4	26.9	38	500	360	3.3	56	0.86
4x10	4.5	10.5	11	30.1	32.6	44	750	600	1.91	78	1.43
4x16	5.6	12.1	12.9	36	37.5	65	1060	960	1.21	104	2.29
4x25	6.6	13.6	14.4	41.9	43.4	72	1500	1500	0.78	138	3.58
4x35	8.1	14.8	16.7	47	49.9	84	2040	2100	0.55	170	5.01
4x50	9.5	18	19	56	58	95	2830	3000	0.39	212	7.15
4x70	11.1	20.3	21.3	63.2	65.2	107	3820	4200	0.27	263	10.01
4x95	12.9	23.1	24.1	72.6	74.6	121	4930	5700	0.21	316	13.59
4x120	15	24.2	27.2	79.2	83.2	136	6220	7200	0.16	370	17.16
5x4	2.8	8.5	9	28.9	31.2	36	510	300	4.95	43	0.57

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DIMENSIONS AND ELECTRICAL DATA											
Configuration	Cond. dia. max. mm	Height min. mm	Height max. mm	Width min. mm	Width max. mm	Bend radius min. mm	Weight kg/km	Tensile force max. N	R20 Ohm/km	Current A	Short circuit kA
5x6	3.5	9.1	9.6	31.8	34.1	38	640	450	3.3	56	0.86
5x10	4.5	10.5	11.3	39.2	41.6	45	960	750	1.91	78	1.43
5x16	5.6	12.2	12.7	45.1	47.6	64	1360	1200	1.21	104	2.29
7x4	2.8	8.4	9	38.5	40.9	36	690	420	4.95	43	0.57
7x6	3.5	9	9.6	42.9	45.3	38	870	630	3.3	56	0.86
7x10	4.5	10.5	11.3	53	55.9	45	1320	1050	1.91	78	1.43
7x16	5.6	12.6	13.4	60.7	63.9	67	1990	1680	1.21	104	2.29
7x25	6.6	14.8	15.6	72.6	75.9	78	2820	2625	0.78	138	3.58
7x35	8.1	16.4	17.4	83.7	87	87	3820	3675	0.55	170	5.01
12x1(C)	1.3	6.6	7.1	48.2	51.3	21	660	180	19.5	19	0.14
4x1.5(C)	1.5	6.8	7.4	18.5	19.5	22	250	90	13.3	24	0.21
8x1.5(C)	1.5	6.8	7.4	35.1	35.1	22	510	180	13.3	24	0.21
12x1.5(C)	1.5	7.4	8	51.7	55	24	780	270	13.3	24	0.21

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CERTIFICATIONS



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