AnHui Feichun
Special Cable Co., Ltd
Professional Manufacturer

PLANOFLEX

NGFLGOEU-J/-O

Low Voltage Festoon Cable

Technical Specification
Complete Product Range



PLANOFLEX NGFLGOEU-J/-O - Premium Quality Festoon Cable System

PRODUCT OVERVIEW

PLANOFLEX NGFLGOEU-J/-O is a professional-grade low voltage flat cable system designed for festoon (overhead trolley) applications. It delivers superior performance in demanding industrial environments with high mechanical stresses and frequent bending operations.

KEY APPLICATIONS

- Festoon systems
- Machine tools
- Material handling
- Moveable machinery
- High-stress bending

QUALITY CERTIFICATIONS

VDE CERTIFIED | UL APPROVED | GOST-R

All standards met

ELECTRICAL & TECHNICAL PARAMETERS

Parameter	Specification
Rated Voltage	300/500V (600V)
Max. Operating Voltage AC	0.7/1.2 kV
Max. Operating Voltage DC	0.9/1.8 kV
AC Test Voltage	2.5 kV (5 min)
Standard	DIN VDE 0250-809
Certifications/Approvals	VDE, UL-File E 113313, GOST-R
Max. Tensile Load	15 N/mm²
Travel Speed (Guidance)	180 m/min

Torsional Stress	Not Allowed

THERMAL & MECHANICAL PROPERTIES

TEMPERATURE RATINGS

Conductor Max	90°C
Short Circuit	250°C
Fixed Install	-50°C to +80°C
Flex Operation	-35°C to +80°C

MECHANICAL RATINGS

Bending Test	Per DIN VDE
Oil Resistance	Acc. 0473-404
Weather Resist	Outdoor Safe
UV Resistant	Long-term Durable

DESIGN FEATURES & MATERIALS

Component	Specification
Conductor	Electrolytic copper, not tinned; Class 5-6 stranding
Insulation	PROTOLON - EPR, Rubber 3GI3 (DIN VDE 0207-20)
Core Identification	Up to 5: Colored (G/Y, Black, Blue, Brown, Grey); Above 5: Black + numbers
Individual Screen	Tinned copper braid; optimized 30 MHz; 60-80% coverage
Outer Sheath	CR Rubber, Compound 5GM3 (DIN VDE 0207-21); Black color
Weather Resistance	Outdoor/indoor; Ozone, UV & moisture resistant

FIVE CABLE TYPE CONFIGURATIONS

① NGFLGOEU-J Control Cables

Standard control cable configuration with multi-core design for control signal transmission. Ideal for precision control applications in festoon systems.

② NGFLGOEU-J Power Cables

High-capacity power transmission cables with 4-core, 5-core, and 7-core configurations. Available in cross-sections up to 120 mm² for heavy-duty power distribution.

③ (N)GFLGOEUO Control Cables with Individually Screened Cores

EMI-shielded control cables with individual screen for each core. Essential for sensitive control systems requiring protection from electromagnetic interference.

④ (N)GFLGOEU-O Bus Cables

Specialized bus distribution cables with orange/yellow core identification. Optimized for main power distribution in complex festoon systems with multiple connection points.

⑤ (N)GFLGOEU-J Power Cables with Individual Screen

Premium shielded power cables combining high-capacity power transmission with electromagnetic shielding for noise-sensitive industrial environments.

COMPLETE PRODUCT RANGE - ALL 52 CONFIGURATIONS

Legend: NGFLGOEU-J (J = black identification) | (N)GFLGOEUO (O = orange identification) | (N)GFLGOEU-J with screen

NGFLGOEU-J Control Cables

Cores × mm²	Height (mm)	Width (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
3×1.5	5.7-6.2	11.7-12.5	19	130	68	13.3	24	0.21
4×1.5	5.7-6.2	15-15.8	19	170	90	13.3	24	0.21
5×1.5	5.5-6.0	18.5-20.1	18	210	113	13.3	24	0.21
7×1.5	5.5-6.0	25-26.8	18	280	158	13.3	24	0.21
8×1.5	5.5-6.0	27.5-29.3	18	310	180	13.3	24	0.21
10×1.5	6.2-6.7	35.5-37	20	440	225	13.3	24	0.21
12×1.5	6.3-6.8	42-43.5	20	530	270	13.3	24	0.21
24×1.5	11.5-12.3	51-53.2	62	1040	540	13.3	24	0.21
42×1.5	15.1-16.1	70.2-72.3	81	1920	945	13.3	24	0.21
12×1(C)	6.6-7.1	48.2-51.3	21	660	180	19.5	19	0.14
4×1.5(C)	6.8-7.4	18.5-19.5	22	250	90	13.3	24	0.21
8×1.5(C)	6.8-7.4	35.1-35.1	22	510	180	13.3	24	0.21
12×1.5(C)	7.4-8.0	51.7-55	24	780	270	13.3	24	0.21

NGFLGOEU-J Power Cables - Standard & Extended Range

Cores × mm²	Height (mm)	Width (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
4×2.5	6.8-7.3	18.5-19.5	22	260	150	7.98	32	0.36
5×2.5	6.6-7.4	22.9-24.6	22	320	188	7.98	32	0.36
7×2.5	6.8-7.4	31-32.8	22	440	263	7.98	32	0.36
8×2.5	6.8-7.4	34.1-35.9	22	490	300	7.98	32	0.36
10×2.5	7.4-8.0	43-45.3	24	660	375	7.98	32	0.36
12×2.5	7.4-8.0	50.6-53.5	24	780	450	7.98	32	0.36
24×2.5	14.8-15.6	65.4-68	78	1690	900	7.98	32	0.36
7×(3×1)	8.7-10.3	49.3-51.8	41	770	315	19.5	19	0.14
4×4	8.4-8.9	22.5-23.5	36	390	240	4.95	43	0.57
4×6	9.0-9.5	25.4-26.9	38	500	360	3.3	56	0.86
4×10	10.5-11.0	30.1-32.6	44	750	600	1.91	78	1.43
4×16	12.1-12.9	36-37.5	65	1060	960	1.21	104	2.29
4×25	13.6-14.4	41.9-43.4	72	1500	1500	0.78	138	3.58
4×35	14.8-16.7	47-49.9	84	2040	2100	0.55	170	5.01
4×50	18-19	56-58	95	2830	3000	0.39	212	7.15
4×70	20.3-21.3	63.2-65.2	107	3820	4200	0.27	263	10.01
4×95	23.1-24.1	72.6-74.6	121	4930	5700	0.21	316	13.59
4×120	24.2-27.2	79.2-83.2	136	6220	7200	0.16	370	17.16

5-Core Power Cables (Extended Cross-sections)

Cores × mm²	Height (mm)	Width (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
5×4	8.5-9.0	28.9-31.2	36	510	300	4.95	43	0.57

5×6	9.1-9.6	31.8-34.1	38	640	450	3.3	56	0.86
5×10	10.5-11.3	39.2-41.6	45	960	750	1.91	78	1.43
5×16	12.2-12.7	45.1-47.6	64	1360	1200	1.21	104	2.29

7-Core Power Cables (Extended Cross-sections)

Cores × mm²	Height (mm)	Width (mm)	Bend R (mm)	Weight (kg/km)	Tensile (N)	R@20°C (Ω/km)	Current (A)	I²t (kA)
7×4	8.4-9.0	38.5-40.9	36	690	420	4.95	43	0.57
7×6	9.0-9.6	42.9-45.3	38	870	630	3.3	56	0.86
7×10	10.5-11.3	53-55.9	45	1320	1050	1.91	78	1.43
7×16	12.6-13.4	60.7-63.9	67	1990	1680	1.21	104	2.29
7×25	14.8-15.6	72.6-75.9	78	2820	2625	0.78	138	3.58
7×35	16.4-17.4	83.7-87	87	3820	3675	0.55	170	5.01

Note: * Current carrying capacity for free installation in air (IEC 60227). Bend radius = minimum bending radius free moving. R@20°C = conductor resistance at 20°C. I²t = short-circuit current (conductor). Complete specifications available for all 52 configurations. Custom sizes available upon request.

ENVIRONMENTAL & CHEMICAL PROPERTIES

- ✓ **Oil Resistance:** Acc. to DIN VDE 0473-404, paragraph 10
- ✓ **Outdoor Use:** Unrestricted use outdoors and indoors
- ✓ **Ozone Resistance:** Superior atmospheric ozone protection
- ✓ **UV Resistance:** Long-term outdoor durability guaranteed
- ✓ **Moisture Resistance:** Excellent performance in wet/damp environments
- ✓ **Temperature Range:** Operating from -35°C to +80°C
- ✓ **Bending Operations:** Single-plane bending, no torsion allowed
- ✓ **Flexibility Class:** Optimized for continuous flex applications

CONTACT & TECHNICAL SUPPORT

Company: AnHui Feichun Special Cable Co., Ltd

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Website: feichuncables.com

Website: reelingcable.com

Service: 24/7 Technical Support Available

Product Availability:

All 52 configurations listed in this document are available for immediate delivery. Large volume orders receive special pricing. Custom cable designs and modifications available. Technical consultation and sample testing upon request.

Quality Assurance: All PLANOFLEX cables manufactured under ISO 9001 certification with strict QC procedures. Every cable undergoes rigorous testing to ensure international standards compliance and superior performance.

Disclaimer: This technical specification contains general information about PLANOFLEX NGFLGOEU-J/-O cables. For specific applications, environmental conditions, or detailed requirements, consult our technical team. Performance claims are based on standard test conditions. All technical data is subject to change without notice. Document prepared by AnHui Feichun Special Cable Co., Ltd.

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