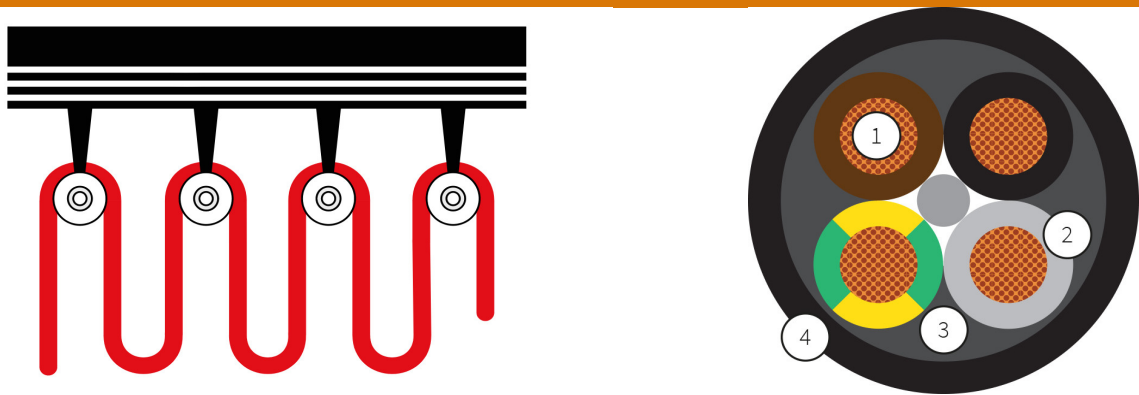


HEAVY DUTY FESTOON CABLE



Type Designation:
NGRDGOEU • (N)GRDGOEU • NGRDGCOEU • (N)GRDGCOEU • (N)3GRD5G-J/O • (N)3GRDGC5G-J/O
Equivalent to: Type TXG / TXG-D Heavy Duty Festoon Cable
Standards: IEC 60332-1, DIN VDE 0250 Part 813, DIN EN 60811-2-1
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Highly resilient festoon cable designed for continuous heavy duty environments. Engineered for exceptional durability and reliability in industrial applications with extreme mechanical stress, high travel speeds, and harsh environmental conditions.

KEY FEATURES & BENEFITS

✓ Maximum electromagnetic field prevention with braided outer shield incorporated into the sheath	✓ Maximum stability within the stranded bond resulting from pressure filled extrusion	✓ Small diameter due to a stranded, layered structure with 3-phase plus split earth conductors
✓ Excellent axial rigidity and resilience due to interlinked coextruded sheaths	✓ Complete selection of control, power, bus and optical fibre versions	✓ Durability resulting from wear-resistant sheathing compound
✓ Resistant to ozone, UV radiation, oil, and atmospheric corrosion	✓ Low flammability according to IEC 60332-1 plus FT1 standards	✓ Silicone-free and halogen-free composition
✓ Resistant to humidity and sulfur		

TYPICAL APPLICATIONS

- ▶ Container crane trolley power supply
- ▶ Process crane trolleys power supply
- ▶ Cranes in foundries and steel mills
- ▶ Stacker and reclaimer systems
- ▶ Car dumpers and ship unloaders
- ▶ Heavy-duty transport carriers

ELECTRICAL PARAMETERS

Rated Voltage Uo/U = 0.6 / 1.0 kV	Maximum AC Operating Voltage Uo/U = 0.7 / 1.2 kV
Maximum DC Operating Voltage Uo/U = 0.9 / 1.8 kV	AC Test Voltage (Power) 2.5 kV in AC
AC Test Voltage (Control) 2.0 kV in AC	Ampacity According to DIN VDE 0298 Part 4

MECHANICAL LOAD-BEARING CAPACITY

Travel Speed Up to 250 m/min (from 210 m/min with motorized festoon system)	Minimum Bending Radii (Fixed) 5 × Ø cable diameter
Minimum Bending Radii (Optical Fibre) 125 mm	Torsional Stress ± 90°/m
Tensile Load-Bearing Capacity 15 N/mm² during operation (DIN VDE 0298 Part 3)	

THERMAL & CHEMICAL SPECIFICATIONS

Ambient Temperature (Flexing) -35°C to +80°C	Ambient Temperature (Fixed) -50°C to +80°C
Maximum Operating Temperature at Conductor 90°C	Short Circuit Temperature at Conductor 250°C
Atmospheric Corrosion Resistance Unlimited	Combustion Behaviour Low flammability per IEC 60332-1 + FT1

DESIGN FEATURES

Conductor Flexible copper, Class 5 acc. to VDE 0295	Core Insulation EPR (Ethylene Propylene Rubber)
Outer Sheath Wear-resistant synthetic rubber compound (PCP)	Sheath Color Black
Shield (Screened Types) Tinned copper braid, approx. 85% coverage	Conductor Coding Black numbers on light-colored insulation with/without green-yellow

CONTROL CABLE TXG | 0.6/1 KV

Type of Cable	No. of Conductors & Cross Section [mm²]	Order No.	Outer Ø min./max. [mm]	Cu Weight approx. [kg/km]	Total Weight approx. [kg/km]	Permitted Tensile Load [N]
Control Cable	12 G 1.5	0624-12G1.5#	16.2 – 18.2	173	440	270
Control Cable	18 G 1.5	0624-18G1.5#	18.7 – 20.7	259	615	405
Control Cable	24 G 1.5	0624-24G1.5#	22.1 – 24.1	346	805	540
Control Cable	12 G 2.5	0624-12G2.5#	17.9 – 19.9	288	580	450
Control Cable	18 G 2.5	0624-18G2.5#	21.5 – 23.5	432	865	675
Control Cable	24 G 2.5	0624-24G2.5#	24.0 – 27.0	576	1,110	900
Control Cable	30 G 2.5	0624-30G2.5#	26.4 – 29.4	720	1,330	1,125
Control Cable	36 G 2.5	0624-36G2.5#	28.4 – 31.4	864	1,550	1,350

DATA CABLE TXG-D | 0.6/1 KV

Type of Cable	No. of Conductors & Cross Section [mm²]	Order No.	Outer Ø min./max. [mm]	Cu Weight approx. [kg/km]	Total Weight approx. [kg/km]	Permitted Tensile Load [N]
Data Cable	6 × (2×0.5)C	0625-6X2X0.5C#	22.1 – 25.1	214	850	90
Data Cable	6 × (2×1)C	0625-6X2X1C#	28.1 – 31.1	427	1,250	180
Data Cable	6 × (2×1.5)C	0625-6X2X1.5C#	30.5 – 33.5	540	1,450	225
Data Cable	9 × (2×1)C	0625-9X2X1C#	35.9 – 38.9	641	2,010	270
Optical Fibre	6 G 62.5-125	0666-6G62.5#	14.0 – 16.0	—	280	500
Optical Fibre	6 G 50-125	0666-6G50#	14.0 – 16.0	—	280	500
Optical Fibre	12 G 62.5-125	0666-12G62.5#	10.0 – 11.0	—	110	500
Optical Fibre	24 G 62.5-125	0666-24G62.5#	10.0 – 11.0	—	110	500
Optical Fibre	12 G 50-125	0666-12G50#	10.0 – 11.0	—	110	500
Optical Fibre	24 G 50-125	0666-24G50#	10.0 – 11.0	—	110	500
Optical Fibre	12 E 9-125	0666-12E9#	10.0 – 11.0	—	110	500
Optical Fibre	24 E 9-125	0666-24E9#	10.0 – 11.0	—	110	500

POWER CABLE TXG | 0.6/1 KV

Type of Cable	No. of Conductors & Cross Section [mm²]	Order No.	Outer Ø min./max. [mm]	Cu Weight approx. [kg/km]	Total Weight approx. [kg/km]	Permitted Tensile Load [N]
Power Cable	1 × 35	0623-1X35#	12.3 – 13.9	336	430	525
Power Cable	1 × 50	0623-1X50#	15.0 – 16.6	480	625	750
Power Cable	1 × 70	0623-1X70#	16.5 – 18.4	672	835	1,050
Power Cable	1 × 95	0623-1X95#	18.9 – 20.9	912	1,070	1,425
Power Cable	1 × 120	0623-1X120#	20.8 – 22.8	1,152	1,340	1,800
Power Cable	1 × 150	0623-1X150#	22.9 – 24.9	1,440	1,650	2,250
Power Cable	1 × 185	0623-1X185#	24.8 – 27.8	1,776	2,010	2,775
Power Cable	4 G 4	0624-4G4#	13.9 – 15.5	154	350	240
Power Cable	4 G 6	0624-4G6#	15.9 – 17.9	230	475	360
Power Cable	4 G 10	0624-4G10#	18.2 – 20.2	384	680	600
Power Cable	4 G 16	0624-4G16#	22.9 – 24.9	614	1,070	960
Power Cable	4 G 25	0624-4G25#	26.9 – 29.9	960	1,600	1,500
Power Cable	4 G 35	0624-4G35#	30.1 – 33.1	1,344	2,090	2,100
Power Cable	4 G 50	0624-4G50#	35.7 – 38.7	1,920	2,970	3,000
Power Cable	5 G 4	0624-5G4#	15.7 – 17.7	192	450	300
Power Cable	5 G 6	0624-5G6#	17.5 – 19.5	288	575	450
Power Cable	5 G 10	0624-5G10#	20.8 – 22.8	480	865	750
Power Cable	5 G 16	0624-5G16#	24.6 – 27.6	768	1,300	1,200
Power Cable	5 G 25	0624-5G25#	29.5 – 32.5	1,200	1,940	1,875
Power Cable	5 G 35	0624-5G35#	34.7 – 37.7	1,680	2,700	2,625

SCREENED POWER CABLE TXG | 0.6/1 KV

Type of Cable	No. of Conductors & Cross Section [mm²]	Order No.	Outer Ø min./max. [mm]	Cu Weight approx. [kg/km]	Total Weight approx. [kg/km]	Permitted Tensile Load [N]
Screened Power	4 G 4C	0622-4G4C#	14.8 – 17.8	277	485	240
Screened Power	4 G 6C	0622-4G6C#	17.2 – 20.2	402	700	360
Screened Power	4 G 10C	0622-4G10C#	19.7 – 22.7	610	925	600
Screened Power	3 × 16 + 3G2.5C	0622-4G16C#	22.2 – 25.2	758	1,150	720
Screened Power	3 × 25 + 3G4C	0622-4G25C#	25.3 – 28.3	1,134	1,610	1,125
Screened Power	3 × 35 + 3G6C	0622-4G35C#	29.3 – 32.3	1,547	2,160	1,575
Screened Power	3 × 50 + 3G10C	0622-4G50C#	35.0 – 38.0	2,181	3,090	2,250
Screened Power	3 × 70 + 3G10C	0622-4G70C#	40.9 – 43.9	2,892	4,100	3,150

APPLICATION RECOMMENDATIONS

This cable type is specifically recommended when:

- ▶ The system is subject to middle to high travel speeds and/or acceleration
- ▶ Due to a high duty cycle, the cable will be subject to frequent and continuous bending
- ▶ A very high resistance to atmospheric corrosion is expected for a longer period of time
- ▶ Operating temperatures reach down to -35°C

Design Code Nomenclature

N = Rubber insulation

RD = Round cable

G = Inner sheath rubber compound

C = Shield of braided copper

G = Outer sheath rubber compound

Ö = Oil-resistant sheath material

U = Outer sheath with low flammability acc DIN VDE 0472

-J = With green/yellow earth/ground core

-O = Without green/yellow earth/ground core