



Round rubber festoon & chain cables

(N)GRDGCGÖU

0.6/1 kV Screened Energy-Chain & Crane Festoon Cable

Halogen-free EPR/EVA copper-screened power, VFD and bus cable for energy chains



0.6/1 kV

DIN VDE 0250-814

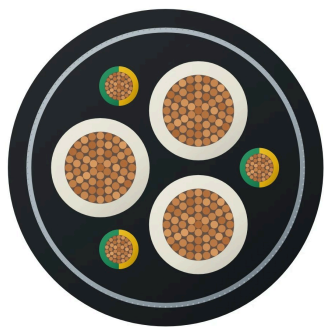
EMC Energy Chain

Application

Screened 0.6/1 kV energy-chain and crane festoon cable ((N)GRDGCGÖU / RONDOFLEX) to DIN VDE 0250-814 with Class 5 copper conductors, high-grade EPR insulation, EPR inner sheath, >80% tinned copper braid screen and low-friction EVA/elastomer outer sheath.

Typical uses: Container terminal STS & ASC cranes, Automated stacking cranes (RMG / RTG), Heavy indoor steelworks energy chains, Bulk material handling & ship loaders, Long-travel gantry drag chains, VFD inverter-driven hoist systems

Construction



Cross-section, not to scale

1 ConductorIEC 60228 / DIN VDE 0295
Class 5**2** Core insulation**3** Inner sheath**4** EMC copper braid screenSurface transfer
impedance < 100 mΩ/m at
30 MHz**5** Outer sheath

Technical data

Typical values

Rated voltage U ₀ /U	0.6/1 kV (max. AC 0.7/1.2 kV · DC 0.9/1.8 kV)
EMC screen & transfer impedance	Tinned copper braid (> 80 % coverage) · Transfer impedance < 100 mΩ/m at 30 MHz
Max. short-circuit temperature (≤ 5 s)	+250 °C
Ambient temperature — fixed installation	-50 to +80 °C
Max. tensile load & torsion	15 N/mm ² max. tensile load · Torsional stress not allowed
Standards	DIN VDE 0250-814 (VDE Reg. 7841) · DIN VDE 0298-3/-4 · IEC 60228 Class 5

AC test voltage	3.5 kV (5 min)
Max. conductor operating temperature	+90 °C
Ambient temperature — flexing / mobile	-35 to +80 °C
Max. travel speed	Up to 240 m/min in energy chains and festoon systems
Min. bending radius	Acc. to DIN VDE 0298-3
Standard packing	500 m / 1,000 m on wooden drums or custom chain lengths

Sizes

34 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Construction	Cond. Ø mm	OD min mm	OD max mm	Min. bend R mm	Weight ≈ kg/km	Max. pull N	Max. R20 Ω/km
Single-core 16–240C 10 sizes								
☐ (N)GRDGCGÖU-O 1×16C	1 × 16C	5.7	10.1	12.1	61	320	240	1.21
☐ (N)GRDGCGÖU-O 1×25C	1 × 25C	7.1	12.8	14.8	74	450	370	0.78
☐ (N)GRDGCGÖU-O 1×35C	1 × 35C	8.3	13.7	15.7	79	540	520	0.55
☐ (N)GRDGCGÖU-O 1×50C	1 × 50C	9.8	15.7	17.7	89	740	750	0.39
☐ (N)GRDGCGÖU-O 1×70C	1 × 70C	11.6	18.7	20.7	104	1,020	1,050	0.27
☐ (N)GRDGCGÖU-O 1×95C	1 × 95C	13.8	20.8	22.8	114	1,260	1,420	0.21
☐ (N)GRDGCGÖU-O 1×120C	1 × 120C	14.9	22.8	24.8	124	1,580	1,800	0.16
☐ (N)GRDGCGÖU-O 1×150C	1 × 150C	17.2	25.6	28.6	143	2,000	2,250	0.13
☐ (N)GRDGCGÖU-O 1×185C	1 × 185C	18.0	27.7	30.7	154	2,370	2,770	0.11
☐ (N)GRDGCGÖU-O 1×240C	1 × 240C	22.5	31.9	34.9	175	3,130	3,600	0.08
Screened VFD 3+3 & 4C 9 sizes								
☐ (N)GRDGCGÖU-J 3×35+3G16/3	3 × 35 + 3G16/3	8.1	26.4	29.4	147	1,770	1,570	0.55
☐ (N)GRDGCGÖU-J 3×50+3G25/3	3 × 50 + 3G25/3	10.0	31.5	34.5	173	2,560	2,250	0.39
☐ (N)GRDGCGÖU-J 3×70+3G35/3	3 × 70 + 3G35/3	11.9	37.6	40.6	203	3,550	3,150	0.27
☐ (N)GRDGCGÖU-J 4G2.5C	4 × 2.5C	1.9	11.2	13.2	66	310	150	7.98
☐ (N)GRDGCGÖU-J 4G4C	4 × 4C	2.9	15.2	17.2	86	490	240	4.95
☐ (N)GRDGCGÖU-J 4G6C	4 × 6C	3.6	17.0	19.0	95	650	360	3.3
☐ (N)GRDGCGÖU-J 4G10C	4 × 10C	4.6	19.2	21.2	106	870	600	1.91
☐ (N)GRDGCGÖU-J 3×16+3G2.5C	3 × 16 + 3G2.5C	5.9	20.3	22.3	112	1,050	720	1.21
☐ (N)GRDGCGÖU-J 3×25+3G4C	3 × 25 + 3G4C	7.2	25.7	28.7	144	1,610	1,120	0.78
Unscreened 4-core 6 sizes								
☐ (N)GRDGÖU-J 4G2.5	4 × 2.5	2.0	9.9	11.5	46	200	150	7.98
☐ (N)GRDGÖU-J 4G4	4 × 4	2.9	12.7	14.7	74	320	240	4.95
☐ (N)GRDGÖU-J 4G6	4 × 6	3.6	14.2	16.2	81	430	360	3.3
☐ (N)GRDGÖU-J 4G10	4 × 10	4.6	16.7	18.7	94	670	600	1.91
☐ (N)GRDGÖU-J 4G16	4 × 16	5.9	21.2	23.2	116	1,020	960	1.21
☐ (N)GRDGÖU-J 4G25	4 × 25	7.2	26.5	29.5	148	1,600	1,500	0.78

Order designation	Construction	Cond. Ø mm	OD min mm	OD max mm	Min. bend R mm	Weight ≈ kg/km	Max. pull N	Max. R20 Ω/km
Control 7–24 cores 6 sizes								
☐ (N)GRDGÖÜ-J 12G1.5	12 × 1.5	1.5	11.7	13.7	69	305	270	13.3
☐ (N)GRDGÖÜ-J 24G1.5	24 × 1.5	1.5	19.9	21.9	110	710	540	13.3
☐ (N)GRDGÖÜ-J 7G2.5	7 × 2.5	1.9	11.3	13.3	67	290	260	7.98
☐ (N)GRDGÖÜ-J 12G2.5	12 × 2.5	1.9	15.3	17.4	87	490	450	7.98
☐ (N)GRDGÖÜ-J 18G2.5	18 × 2.5	1.9	19.5	21.5	108	760	670	7.98
☐ (N)GRDGÖÜ-J 24G2.5	24 × 2.5	1.9	22.5	24.5	123	1,020	900	7.98
Screened bus pairs 3 sizes								
☐ (N)GRDGCGÖÜ-O 1×(2×0.5)C	1 × (2 × 0.5)C	0.9	8.0	10.0	40	135	10	39
☐ (N)GRDGCGÖÜ-O 4×(2×0.5)C	4 × (2 × 0.5)C	0.9	17.6	19.6	98	500	60	39
☐ (N)GRDGCGÖÜ-O 4×(2×1)C	4 × (2 × 1)C	1.3	26.3	29.3	147	1,130	180	19.5

– Configurations with suffix 'C' or '/3' include the tinned copper braid EMC screen; unscreened companion power/control sizes share the same EPR/EVA chain-optimized jacket.

Ampacity & short-circuit data

17 sizes

Cross-section mm ²	AWG ≈	Max. R20 Ω/km	Current rating in air 30 °C, A	Short-circuit 1 s kA
0.5	20	39	10	0.07
1.0	18	19.5	19	0.14
1.5	16	13.3	23	0.21
2.5	14	7.98	30	0.36
4	12	4.95	41	0.57
6	10	3.3	53	0.86
10	8	1.91	74	1.43
16	6	1.21	99	2.29
25	4	0.78	131	3.58
35	2	0.55	162	5.01
50	1	0.39	202	7.15
70	2/0	0.27	250	10.01
95	3/0	0.21	301	13.59
120	4/0	0.16	352	17.16
150	300 kcmil	0.13	404	21.45
185	350 kcmil	0.11	461	26.46
240	500 kcmil	0.08	546	34.32

– Current ratings apply at 30 °C ambient in free air per DIN VDE 0298-4; apply grouping derating when multiple power cables are bundled in the same energy chain.

Standards and approvals

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/n-grdgcgoeu-screened-energy-chain-cable



Typical values for this cable type, based on DIN VDE 0250-814. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.