



MV reeling cable

NTSCGEWÖU

Medium-Voltage Reeling Cable

MV 3-core + split-earth rubber reeling cable for cranes, stackers and mining plant



DIN VDE 0250-813

U0/U 1.8/3-20/35 kV

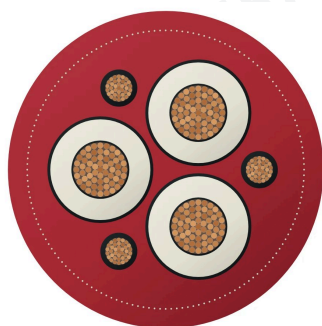
3C + 3 split earths

Application

Engineered to DIN VDE 0250-813 for medium-voltage mobile power from 1.8/3 kV to 20/35 kV under high dynamic tensile load, multi-plane deflection and continuous drum reeling.

Typical uses: Ship-to-shore & RMG port cranes, Bucket-wheel excavators & stacker-reclaimers, Open-cast & underground mining plant, Mobile crushers & draglines, Bulk material handling terminals

Construction



Cross-section, not to scale

1	Phase & earth conductors	IEC 60228 Class 5 / DIN VDE 0295
2	Inner conductor screen	DIN VDE 0250-813 field control
3	Core insulation	
4	Outer core screen	
5	Split protective earth (3 parts)	
6	Inner sheath	DIN VDE 0207-21
7	Anti-torsion reinforcement	
8	Outer sheath	

Technical data

Typical values

Rated voltage U0/U	1.8/3 to 18/30 kV (7 grades)	Max. operating voltage AC	2.1/3.6 to 20.8/36 kV (by grade)
Max. operating voltage DC	2.7/5.4 to 27/54 kV (by grade)	AC test voltage	6 to 43 kV (by grade, see table)
Partial discharge	≤ 40 pC (DIN VDE 0250-813)	Current rating	DIN VDE 0298-4 (30 °C in air)
Screen / Field control	Inner & outer semicon layers + 3 split earths	Temperature, flexing	–35 to +90 °C
Temperature, fixed	–40 to +90 °C	Max. conductor temperature	+90 °C
Short-circuit temperature	+250 °C	Min. bending radius, moving	10 × OD free · 12 × OD reeling · 15 × OD sheaves
Min. bending radius, fixed	6 × OD	Max. travel speed	120 m/min reeling (up to 240 m/min SMK)
Max. tensile load	20 N/mm ² perm. · 25–30 N/mm ² dynamic	Torsional stress	± 100 °/m (± 25 °/m on SMK)
S-bend distance	≥ 20 × OD	Oil resistance	EN 60811-404
Flame retardance	IEC 60332-1-2	UV & ozone	Ozone, UV and moisture resistant
Water	HD 22.16 / EN 50525-2-21 water resistant	Abrasion	Abrasion and tear-proof 5GM5 sandwich sheath
Standards	DIN VDE 0250-813	Standard packing	ISPM-15 heat-treated lagged drums with sealed moisture-proof ends

Sizes

77 standard constructions

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

Designation · grade	U0/U kV	Cores × mm ²	Cond. Ø mm	Outer Ø min mm	Outer Ø max mm	Weight ≈ kg/km	Min. bend R mm	Perm. pull N	Current 30 °C A
1.8/3 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 1.8/3 kV	1.8/3	3 × 25 + 3 × 25/3	7.1	34.3	37.3	2,110	373	1,500	131
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 1.8/3 kV	1.8/3	3 × 35 + 3 × 25/3	8.3	43.0	46.0	3,150	460	2,100	162
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 1.8/3 kV	1.8/3	3 × 50 + 3 × 25/3	9.9	46.4	49.4	3,840	494	3,000	202
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 1.8/3 kV	1.8/3	3 × 70 + 3 × 35/3	11.8	45.9	48.9	4,230	489	4,200	250
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 1.8/3 kV	1.8/3	3 × 95 + 3 × 50/3	13.8	50.3	54.3	5,440	543	5,700	301
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 1.8/3 kV	1.8/3	3 × 120 + 3 × 70/3	15.4	63.8	67.8	8,010	678	7,200	352
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 1.8/3 kV	1.8/3	3 × 150 + 3 × 70/3	17.2	67.7	71.7	9,240	717	9,000	404
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 1.8/3 kV	1.8/3	3 × 185 + 3 × 95/3	19.0	71.6	75.6	10,750	756	11,100	461
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 1.8/3 kV	1.8/3	3 × 240 + 3 × 120/3	21.8	79.4	83.4	13,640	834	14,400	540
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 1.8/3 kV	1.8/3	3 × 300 + 3 × 150/3	24.4	84.7	89.7	16,230	897	18,000	620
3.6/6 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 3.6/6 kV	3.6/6	3 × 25 + 3 × 25/3	7.1	35.5	38.5	2,210	385	1,500	131
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 3.6/6 kV	3.6/6	3 × 35 + 3 × 25/3	8.3	39.0	42.0	2,720	420	2,100	162
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 3.6/6 kV	3.6/6	3 × 50 + 3 × 25/3	9.9	42.4	45.4	3,380	454	3,000	202
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 3.6/6 kV	3.6/6	3 × 70 + 3 × 35/3	11.8	46.4	49.4	4,310	494	4,200	250
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 3.6/6 kV	3.6/6	3 × 95 + 3 × 50/3	13.8	51.4	55.5	5,570	555	5,700	301
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 3.6/6 kV	3.6/6	3 × 120 + 3 × 70/3	15.4	55.0	59.0	6,700	590	7,200	352
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 3.6/6 kV	3.6/6	3 × 150 + 3 × 70/3	17.2	58.8	62.8	7,820	628	9,000	404
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 3.6/6 kV	3.6/6	3 × 185 + 3 × 95/3	19.0	64.0	68.0	9,530	680	11,100	461
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 3.6/6 kV	3.6/6	3 × 240 + 3 × 120/3	21.8	72.5	76.5	12,120	765	14,400	540
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 3.6/6 kV	3.6/6	3 × 300 + 3 × 150/3	24.4	78.2	82.2	14,580	822	18,000	620

Designation · grade	U0/U kV	Cores × mm ²	Cond. Ø mm	Outer Ø min mm	Outer Ø max mm	Weight ≈ kg/km	Min. bend R mm	Perm. pull N	Current 30 °C A
6/10 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 6/10 kV	6/10	3 × 25 + 3 × 25/3	7.1	37.8	40.8	2,400	408	1,500	131
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 6/10 kV	6/10	3 × 35 + 3 × 25/3	8.3	40.2	43.2	2,830	432	2,100	162
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 6/10 kV	6/10	3 × 50 + 3 × 25/3	9.9	43.7	46.7	3,570	467	3,000	202
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 6/10 kV	6/10	3 × 70 + 3 × 35/3	11.8	47.7	50.7	4,570	507	4,200	250
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 6/10 kV	6/10	3 × 95 + 3 × 50/3	13.8	52.8	56.8	5,710	568	5,700	301
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 6/10 kV	6/10	3 × 120 + 3 × 70/3	15.4	56.2	60.2	6,840	602	7,200	352
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 6/10 kV	6/10	3 × 150 + 3 × 70/3	17.2	61.5	65.5	8,200	655	9,000	404
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 6/10 kV	6/10	3 × 185 + 3 × 95/3	19.0	65.3	69.3	9,690	693	11,100	461
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 6/10 kV	6/10	3 × 240 + 3 × 120/3	21.8	73.8	77.8	12,310	778	14,400	540
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 6/10 kV	6/10	3 × 300 + 3 × 150/3	24.4	79.5	83.5	14,780	835	18,000	620
8.7/15 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 8.7/15 kV	8.7/15	3 × 25 + 3 × 25/3	7.1	41.1	44.1	2,680	441	1,500	139
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 8.7/15 kV	8.7/15	3 × 35 + 3 × 25/3	8.3	43.7	46.7	3,150	467	2,100	172
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 8.7/15 kV	8.7/15	3 × 50 + 3 × 25/3	9.9	47.1	50.1	3,840	501	3,000	215
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 8.7/15 kV	8.7/15	3 × 70 + 3 × 35/3	11.8	52.0	56.0	5,010	560	4,200	265
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 8.7/15 kV	8.7/15	3 × 95 + 3 × 50/3	13.8	57.2	61.2	6,070	612	5,700	319
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 8.7/15 kV	8.7/15	3 × 120 + 3 × 70/3	15.4	62.1	66.1	7,480	661	7,200	371
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 8.7/15 kV	8.7/15	3 × 150 + 3 × 70/3	17.2	65.9	69.9	8,630	699	9,000	428
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 8.7/15 kV	8.7/15	3 × 185 + 3 × 95/3	19.0	69.8	73.8	10,140	738	11,100	488
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 8.7/15 kV	8.7/15	3 × 240 + 3 × 120/3	21.8	77.3	81.3	12,860	813	14,400	574
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 8.7/15 kV	8.7/15	3 × 300 + 3 × 150/3	24.4	84.2	89.2	15,730	892	18,000	660
12/20 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 12/20 kV	12/20	3 × 25 + 3 × 25/3	7.1	44.1	47.1	2,950	471	1,500	139
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 12/20 kV	12/20	3 × 35 + 3 × 25/3	8.3	46.6	49.6	3,440	496	2,100	172
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 12/20 kV	12/20	3 × 50 + 3 × 25/3	9.9	51.8	55.8	4,300	558	3,000	215
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 12/20 kV	12/20	3 × 70 + 3 × 35/3	11.8	55.0	59.0	5,350	590	4,200	265
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 12/20 kV	12/20	3 × 95 + 3 × 50/3	13.8	61.6	65.6	6,660	656	5,700	319
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 12/20 kV	12/20	3 × 120 + 3 × 70/3	15.4	65.1	69.1	7,870	691	7,200	371
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 12/20 kV	12/20	3 × 150 + 3 × 70/3	17.2	69.0	73.0	9,060	730	9,000	428
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 12/20 kV	12/20	3 × 185 + 3 × 95/3	19.0	74.3	78.3	10,850	783	11,100	488
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 12/20 kV	12/20	3 × 240 + 3 × 120/3	21.8	80.3	84.3	13,340	843	14,400	574
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 12/20 kV	12/20	3 × 300 + 3 × 150/3	24.4	87.2	92.2	16,250	922	18,000	660
14/25 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 14/25 kV	14/25	3 × 25 + 3 × 25/3	7.1	49.6	53.6	3,490	536	1,500	139
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 14/25 kV	14/25	3 × 35 + 3 × 25/3	8.3	52.2	56.2	3,990	562	2,100	172
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 14/25 kV	14/25	3 × 50 + 3 × 25/3	9.9	55.7	59.7	4,740	597	3,000	215
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 14/25 kV	14/25	3 × 70 + 3 × 35/3	11.8	61.2	65.2	5,990	652	4,200	265
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 14/25 kV	14/25	3 × 95 + 3 × 50/3	13.8	65.5	69.5	7,170	695	5,700	319
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 14/25 kV	14/25	3 × 120 + 3 × 70/3	15.4	69.0	73.0	8,410	730	7,200	371
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 14/25 kV	14/25	3 × 150 + 3 × 70/3	17.2	74.3	78.3	9,890	783	9,000	428
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 14/25 kV	14/25	3 × 185 + 3 × 95/3	19.0	78.2	82.2	11,460	822	11,100	488
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 14/25 kV	14/25	3 × 240 + 3 × 120/3	21.8	85.5	90.5	14,380	905	14,400	574
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 14/25 kV	14/25	3 × 300 + 3 × 150/3	24.4	91.1	96.1	16,970	961	18,000	660
18/30 kV 10 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 18/30 kV	18/30	3 × 25 + 3 × 25/3	7.1	53.1	57.1	3,860	571	1,500	139
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 18/30 kV	18/30	3 × 35 + 3 × 25/3	8.3	55.7	59.7	4,390	597	2,100	172
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 18/30 kV	18/30	3 × 50 + 3 × 25/3	9.9	59.1	63.1	5,140	631	3,000	215

Designation · grade	U0/U kV	Cores × mm ²	Cond. Ø mm	Outer Ø min mm	Outer Ø max mm	Weight ≈ kg/km	Min. bend R mm	Perm. pull N	Current 30 °C A
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 18/30 kV	18/30	3 × 70 + 3 × 35/3	11.8	64.7	68.7	6,440	687	4,200	265
☐ (N)TSCGEWÖU 3 × 95 + 3 × 50/3 · 18/30 kV	18/30	3 × 95 + 3 × 50/3	13.8	69.0	73.0	7,660	730	5,700	319
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 18/30 kV	18/30	3 × 120 + 3 × 70/3	15.4	73.8	77.8	9,160	778	7,200	371
☐ (N)TSCGEWÖU 3 × 150 + 3 × 70/3 · 18/30 kV	18/30	3 × 150 + 3 × 70/3	17.2	77.7	81.7	10,420	817	9,000	428
☐ (N)TSCGEWÖU 3 × 185 + 3 × 95/3 · 18/30 kV	18/30	3 × 185 + 3 × 95/3	19.0	81.6	85.6	12,020	856	11,100	488
☐ (N)TSCGEWÖU 3 × 240 + 3 × 120/3 · 18/30 kV	18/30	3 × 240 + 3 × 120/3	21.8	89.0	94.0	15,010	940	14,400	574
☐ (N)TSCGEWÖU 3 × 300 + 3 × 150/3 · 18/30 kV	18/30	3 × 300 + 3 × 150/3	24.4	95.6	100.6	17,900	1,006	18,000	660
20/35 kV 7 sizes									
☐ (N)TSCGEWÖU 3 × 25 + 3 × 25/3 · 20/35 kV	20/35	3 × 25 + 3 × 25/3	7.1	56.8	60.8	4,450	608	1,500	139
☐ (N)TSCGEWÖU 3 × 35 + 3 × 25/3 · 20/35 kV	20/35	3 × 35 + 3 × 25/3	8.4	61.1	65.1	5,260	651	2,100	172
☐ (N)TSCGEWÖU 3 × 50 + 3 × 25/3 · 20/35 kV	20/35	3 × 50 + 3 × 25/3	10.1	64.6	68.6	6,080	686	3,000	215
☐ (N)TSCGEWÖU 3 × 50 + 3 × 50/3 · 20/35 kV	20/35	3 × 50 + 3 × 50/3	10.1	63.2	67.2	6,500	672	3,000	215
☐ (N)TSCGEWÖU 3 × 70 + 3 × 35/3 · 20/35 kV	20/35	3 × 70 + 3 × 35/3	11.8	68.2	72.2	7,160	722	4,200	265
☐ (N)TSCGEWÖU 3 × 70 + 3 × 50/3 · 20/35 kV	20/35	3 × 70 + 3 × 50/3	11.8	68.2	72.2	7,590	722	4,200	265
☐ (N)TSCGEWÖU 3 × 120 + 3 × 70/3 · 20/35 kV	20/35	3 × 120 + 3 × 70/3	15.5	76.4	81.4	9,850	814	7,200	371

Electrical & tensile by cross-section

10 sizes

Cross-section mm ²	Phase cond. Ø mm	Max. R20 Ω/km	Ampacity 1.8/3–6/10 kV A (30 °C)	Ampacity 8.7/15–20/35 kV A (30 °C)	1 s short-circuit kA	Perm. pull (20 N/mm ²) N	Dynamic pull (30 N/mm ²) N
3 × 25 + 3 × 25/3	7.1	0.784	131	139	3.58	1,500	2,250
3 × 35 + 3 × 25/3	8.3	0.554	162	172	5.01	2,100	3,150
3 × 50 + 3 × 25/3	9.9	0.386	202	215	7.15	3,000	4,500
3 × 70 + 3 × 35/3	11.8	0.272	250	265	10.01	4,200	6,300
3 × 95 + 3 × 50/3	13.8	0.206	301	319	13.59	5,700	8,550
3 × 120 + 3 × 70/3	15.4	0.161	352	371	17.16	7,200	10,800
3 × 150 + 3 × 70/3	17.2	0.129	404	428	21.45	9,000	13,500
3 × 185 + 3 × 95/3	19.0	0.106	461	488	26.46	11,100	16,650
3 × 240 + 3 × 120/3	21.8	0.080	540	574	34.32	14,400	21,600
3 × 300 + 3 × 150/3	24.4	0.064	620	660	42.90	18,000	27,000

- Nominal current-carrying capacity for rubber cables laid on a surface at 30 °C ambient (DIN VDE 0298-4 Table 15). Apply derating factors for multi-layer drum reeling and higher ambient temperatures.

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.

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Typical values for this cable type, based on DIN VDE 0250-813. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.