



DIN VDE 0250-812 / 813 mining trailing cables

TGSH / TGSH2G

Underground Longwall Coal-Shearer Flexible Rubber

DIN VDE 0250-812 / 813 0.6/1–3.6/6 kV textile-braid & semicon-screened shearer cable



DIN VDE 0250-812 / 813

0.6/1 kV · 1.8/3 kV · 3.6/6 kV

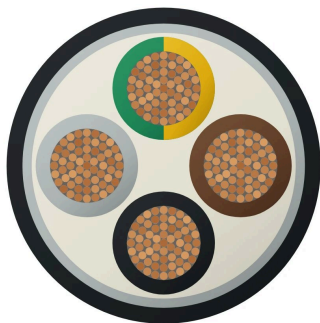
TG Textile + SH Elastomer Screen

Application

TGSH / TGSH2G is an underground longwall coal-shearer flexible rubber trailing cable combining a vulcanised textile reinforcement braid (TG = Textilgeflecht) with non-metallic semi-conductive elastomeric phase and control screens (SH = Schirm aus

Typical uses: Underground longwall coal shearers, Bretby drag-chain cable handlers, 1.1 kV, 3.3 kV & 6 kV coal faces, Roadheaders & face conveyors

Construction



Cross-section, not to scale

1	Phase, earth & control conductors	DIN EN 60228 Class 5
2	3G13 / 2G core insulation	DIN VDE 0207-20
3	Elastomeric phase screen (SH)	DIN VDE 0250-812 / 813
4	Symmetrical core & pilot lay-up	DIN VDE 0250-812
5	Inner sheath & TG textile braid	DIN VDE 0250-812
6	Outer sheath (5GM5)	DIN VDE 0207-21

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV · 1.8/3 kV (3.3 kV) · 3.6/6 kV AC	AC routine test voltage	3.0 kV (1 kV) · 6.5 kV (3 kV) · 11 kV (6 kV)
SH screen volume resistivity	≤ 300 Ω·cm conductive elastomer	Control bundle voltage	230/400 V AC screened pilot/control cores
Max. conductor temp. (TGSH / TGS2G)	+90 °C (TGSH) · +95/+105 °C (TGS2G)	Max. short-circuit temperature	+250 °C (5 s)
Ambient temperature (flexing)	-25 °C to +60 °C	Bretby flex-fatigue immunity	100 % free of metallic screen wires that
Min. bending radius (fixed)	5 × D fixed · 6 × D flexing	Max. tensile load	20–25 N/mm ² supported by TG textile braid
Oil & hydraulic emulsion	DIN EN 60811-404 resistant	Flame retardancy	DIN EN 60332-1-2 self-extinguishing
Tear & cut propagation	TG textile braid + 5GM5 polychloroprene	Standards	DIN VDE 0250-812 / DIN VDE 0250-813

Sizes

10 standard constructions

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

Order designation	Configuration	Phase size mm ²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard TGSH / TGS2G configurations 10 sizes						
☐ TGSH 3×35+3×16/3E+4×2.5 0.6/1 kV	3×35 + 3×16/3E + 4×2.5 (0.6/1 kV)	35	39.5	1,310	2,180	198
☐ TGSH 3×50+3×25/3E+4×2.5 0.6/1 kV	3×50 + 3×25/3E + 4×2.5 (0.6/1 kV)	50	43.8	1,840	2,840	219
☐ TGSH 3×70+3×35/3E+4×4 0.6/1 kV	3×70 + 3×35/3E + 4×4 (0.6/1 kV)	70	48.5	2,570	3,710	242
☐ TGSH 3×95+3×50/3E+4×4 0.6/1 kV	3×95 + 3×50/3E + 4×4 (0.6/1 kV)	95	53.8	3,490	4,780	269
☐ TGS2G 3×50+3×25/3E+4×4 1.8/3 kV	3×50 + 3×25/3E + 4×4 (1.8/3 kV TGS2G)	50	47.2	1,890	3,240	236
☐ TGS2G 3×70+3×35/3E+4×4 1.8/3 kV	3×70 + 3×35/3E + 4×4 (1.8/3 kV TGS2G)	70	52.0	2,570	4,120	260
☐ TGS2G 3×95+3×50/3E+4×4 1.8/3 kV	3×95 + 3×50/3E + 4×4 (1.8/3 kV TGS2G)	95	57.4	3,490	5,250	287
☐ TGS2G 3×120+3×70/3E+4×4 1.8/3 kV	3×120 + 3×70/3E + 4×4 (1.8/3 kV TGS2G)	120	62.0	4,430	6,380	310
☐ TGS2G 3×70+3×35/3E+4×4 3.6/6 kV	3×70 + 3×35/3E + 4×4 (3.6/6 kV TGS2G)	70	55.2	2,590	4,480	276
☐ TGS2G 3×95+3×50/3E+4×4 3.6/6 kV	3×95 + 3×50/3E + 4×4 (3.6/6 kV TGS2G)	95	60.5	3,510	5,640	302

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per DIN VDE 0250-812 / VDE 0250-813 (TGSH / TGS2G).

Electrical & ampacity data

10 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V rms
3×35 + 3×16/3E + 4×2.5 (0.6/1 kV)	0.568	150	128	168	3,500
3×50 + 3×25/3E + 4×2.5 (0.6/1 kV)	0.396	187	159	192	3,500
3×70 + 3×35/3E + 4×4 (0.6/1 kV)	0.279	229	195	226	3,500
3×95 + 3×50/3E + 4×4 (0.6/1 kV)	0.211	276	235	267	3,500
3×50 + 3×25/3E + 4×4 (1.8/3 kV TGS2G)	0.396	187	159	192	6,500
3×70 + 3×35/3E + 4×4 (1.8/3 kV TGS2G)	0.279	229	195	226	6,500
3×95 + 3×50/3E + 4×4 (1.8/3 kV TGS2G)	0.211	276	235	267	6,500
3×120 + 3×70/3E + 4×4 (1.8/3 kV TGS2G)	0.165	319	271	308	6,500
3×70 + 3×35/3E + 4×4 (3.6/6 kV TGS2G)	0.279	229	195	226	11,000
3×95 + 3×50/3E + 4×4 (3.6/6 kV TGS2G)	0.211	276	235	267	11,000

– Current ratings apply at +30 °C ambient in free air; apply standard derating factors for elevated ambient or drum layers.

Standards and approvals

- ✓ DIN VDE 0250-812 / 813
- ✓ DIN EN 60332-1-2
- ✓ EN 10204 3.1

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/tgsh-tgsh2g-underground-longwall-coal-shearer-flexible-rubber-trailing-cable



Typical values for this cable type, based on DIN VDE 0250-812 / VDE 0250-813 (TGSH / TGSH2G). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.