



Mining trailing & reeling cables

Type SHD-GC

Shielded Mining Trailing Cable (2–25 kV)

Shielded 3-core trailing & reeling cable with 2 grounds and 1 pilot, 2 to 25 kV

ICEA S-75-381 / NEMA WC 58

2–25 kV Shielded

MSHA Flame

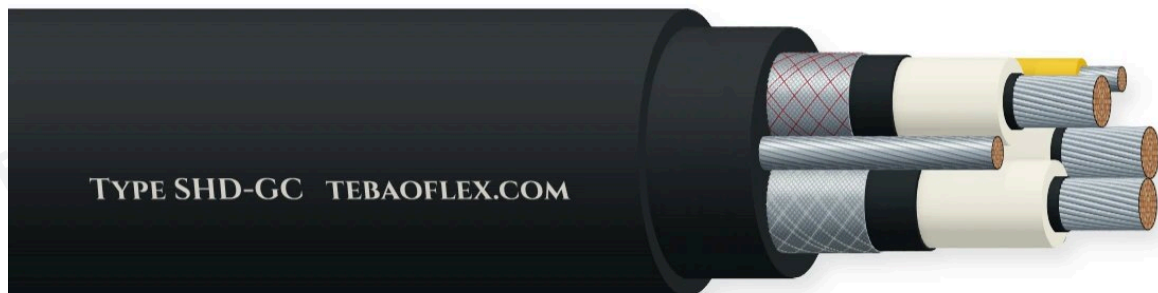


Application

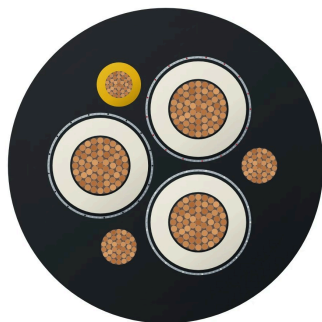
Extra-heavy-duty shielded portable power cable to ICEA S-75-381 / NEMA WC 58 with tinned copper composite phase shields, two interstitial grounds and one ground-check pilot for electric mining shovels, draglines, drills and continuous miners.

Typical uses: Electric rope shovels, Walking draglines, Rotary blasthole drills, Longwall & continuous miners, Mobile pit substations, Dredges & quarry plant

Construction



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Cross-section, not to scale

1	Phase conductors (3)	ASTM B172 / ASTM B33
2	Conductor shield	ICEA S-75-381 stress control
3	Phase insulation	ICEA S-75-381 Part 3
4	Insulation shield	
5	Metallic phase shield	ICEA S-75-381 Part 3
6	Grounding conductors (2)	10 AWG to 4/0 AWG each
7	Ground-check pilot (1)	
8	Reinforcing binder	
9	Outer jacket	ICEA S-75-381 / MSHA

Technical data

Typical values

Rated voltage classes	2,000 V · 5,000 V · 8,000 V · 15,000 V · 25,000 V (100 % insulation level)
Phase shielding	Semiconductive conductor & insulation screens + tinned copper / textile composite braid shield (≥ 60 % coverage)
Ground-check pilot	One yellow EPR/PP-insulated tinned copper pilot (10, 8 or 6 AWG) in third interstice
Min. operating temperature	−40 °C
Short-circuit temperature	+250 °C
Phase conductor stranding	Rope-lay stranded annealed tinned copper (133 to 1,221 strands)
Flame retardance	MSHA 30 CFR Part 7 flame test; CSA C22.2 No. 96 FT1 / FT4
Oil, water & sunlight	90 °C wet/dry rated; oil, chemical, ozone and UV sunlight resistant

Ampacity range	93 to 536 A (90 °C conductor, 40 °C ambient in free air)
Grounding conductors	Two uninsulated rope-lay tinned copper grounds in two outer interstices (in direct contact with phase shields)
Max. continuous conductor temp.	+90 °C (dry / wet)
Emergency overload temperature	+130 °C
Min. bending radius	8 × OD (2–5 kV); 12 × OD (8–25 kV) per ICEA S-75-381
Jacket reinforcement	Two-layer extra-heavy-duty thermoset CPE jacket with open-weave reinforcing cord
Abrasion, cut & crush	Extra-heavy-duty CPE sheath (3.9 to 7.5 mm radial wall) for open-pit haul roads and benches
Standards	ICEA S-75-381 / NEMA WC 58 (Tables 3-9 to 3-13)

Sizes

45 standard constructions

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

Voltage · size	Phase strands	Grounds / GC AWG/kcmil	Insulation in	Insulation mm	Jacket in	Jacket mm	Nominal OD in	Nominal OD mm	Weight ≈ lb/ft	Mass ≈ kg/km	Ampacity A (40 °C)
SHD-GC 2 kV · 6 AWG–500 kcmil 11 sizes											
☐ SHD-GC 2 kV · 3 × 6 AWG	133	2×10 / 1×10	0.070	1.8	0.155	3.9	1.29	32.8	1,069	1,590	93
☐ SHD-GC 2 kV · 3 × 4 AWG	259	2×8 / 1×10	0.070	1.8	0.155	3.9	1.40	35.6	1,295	1,927	122
☐ SHD-GC 2 kV · 3 × 2 AWG	259	2×6 / 1×10	0.070	1.8	0.170	4.3	1.59	40.4	1,778	2,645	159
☐ SHD-GC 2 kV · 3 × 1 AWG	259	2×5 / 1×8	0.080	2.0	0.190	4.8	1.76	44.7	2,163	3,218	184
☐ SHD-GC 2 kV · 3 × 1/0 AWG	266	2×4 / 1×8	0.080	2.0	0.190	4.8	1.86	47.2	2,508	3,731	211
☐ SHD-GC 2 kV · 3 × 2/0 AWG	323	2×3 / 1×8	0.080	2.0	0.205	5.2	2.00	50.8	3,001	4,465	243
☐ SHD-GC 2 kV · 3 × 3/0 AWG	418	2×2 / 1×8	0.080	2.0	0.205	5.2	2.13	54.1	3,470	5,163	279
☐ SHD-GC 2 kV · 3 × 4/0 AWG	532	2×1 / 1×8	0.080	2.0	0.220	5.6	2.31	58.7	4,192	6,237	321
☐ SHD-GC 2 kV · 3 × 250 kcmil	627	2×1/0 / 1×6	0.095	2.4	0.220	5.6	2.51	63.8	5,213	7,756	355
☐ SHD-GC 2 kV · 3 × 350 kcmil	888	2×2/0 / 1×6	0.095	2.4	0.235	6.0	2.81	71.4	6,824	10,153	435
☐ SHD-GC 2 kV · 3 × 500 kcmil	1,221	2×4/0 / 1×6	0.095	2.4	0.265	6.7	3.19	81.0	9,014	13,411	536
SHD-GC 5 kV · 6 AWG–500 kcmil 12 sizes											
☐ SHD-GC 5 kV · 3 × 6 AWG	133	2×10 / 1×8	0.110	2.8	0.185	4.7	1.56	39.6	1,560	2,322	93
☐ SHD-GC 5 kV · 3 × 4 AWG	259	2×8 / 1×8	0.110	2.8	0.185	4.7	1.68	42.7	1,895	2,820	122
☐ SHD-GC 5 kV · 3 × 2 AWG	259	2×6 / 1×8	0.110	2.8	0.205	5.2	1.87	47.5	2,445	3,639	159
☐ SHD-GC 5 kV · 3 × 1 AWG	259	2×5 / 1×8	0.110	2.8	0.205	5.2	1.95	49.5	2,800	4,167	184
☐ SHD-GC 5 kV · 3 × 1/0 AWG	266	2×4 / 1×8	0.110	2.8	0.220	5.6	2.08	52.8	3,230	4,807	211
☐ SHD-GC 5 kV · 3 × 2/0 AWG	329	2×3 / 1×8	0.110	2.8	0.220	5.6	2.20	55.9	3,800	5,655	243
☐ SHD-GC 5 kV · 3 × 3/0 AWG	418	2×2 / 1×8	0.110	2.8	0.235	6.0	2.36	59.9	4,475	6,660	279
☐ SHD-GC 5 kV · 3 × 4/0 AWG	532	2×1 / 1×8	0.110	2.8	0.235	6.0	2.50	63.5	5,265	7,835	321
☐ SHD-GC 5 kV · 3 × 250 kcmil	627	2×1/0 / 1×6	0.120	3.0	0.250	6.4	2.69	68.3	6,105	9,085	355
☐ SHD-GC 5 kV · 3 × 300 kcmil	741	2×1/0 / 1×6	0.120	3.0	0.250	6.4	2.81	71.4	6,875	10,231	398
☐ SHD-GC 5 kV · 3 × 350 kcmil	888	2×2/0 / 1×6	0.120	3.0	0.265	6.7	2.95	74.9	7,795	11,600	435
☐ SHD-GC 5 kV · 3 × 500 kcmil	1,221	2×4/0 / 1×6	0.120	3.0	0.280	7.1	3.31	84.1	10,415	15,499	536

Voltage · size	Phase strands	Grounds / GC AWG/kcmil	Insulation in	Insulation mm	Jacket in	Jacket mm	Nominal OD in	Nominal OD mm	Weight ≈ lb/ft	Mass ≈ kg/km	Ampacity A (40 °C)
SHD-GC 8 kV · 4 AWG–500 kcmil 11 sizes											
☐ SHD-GC 8 kV · 3 × 4 AWG	259	2×8 / 1×8	0.150	3.8	0.205	5.2	1.94	49.3	2,308	3,435	122
☐ SHD-GC 8 kV · 3 × 2 AWG	259	2×6 / 1×8	0.150	3.8	0.220	5.6	2.12	53.8	2,920	4,345	159
☐ SHD-GC 8 kV · 3 × 1 AWG	329	2×5 / 1×8	0.150	3.8	0.220	5.6	2.21	56.1	3,292	4,899	184
☐ SHD-GC 8 kV · 3 × 1/0 AWG	259	2×4 / 1×8	0.150	3.8	0.220	5.6	2.32	58.9	3,675	5,469	211
☐ SHD-GC 8 kV · 3 × 2/0 AWG	329	2×3 / 1×8	0.150	3.8	0.235	6.0	2.46	62.5	4,304	6,405	243
☐ SHD-GC 8 kV · 3 × 3/0 AWG	413	2×2 / 1×8	0.150	3.8	0.250	6.4	2.62	66.5	5,200	7,738	279
☐ SHD-GC 8 kV · 3 × 4/0 AWG	532	2×1 / 1×8	0.150	3.8	0.250	6.4	2.75	69.8	5,840	8,691	321
☐ SHD-GC 8 kV · 3 × 250 kcmil	608	2×1/0 / 1×6	0.150	3.8	0.250	6.4	2.89	73.4	6,774	10,081	355
☐ SHD-GC 8 kV · 3 × 300 kcmil	741	2×1/0 / 1×6	0.150	3.8	0.265	6.7	3.04	77.2	7,423	11,047	398
☐ SHD-GC 8 kV · 3 × 350 kcmil	888	2×2/0 / 1×6	0.150	3.8	0.280	7.1	3.21	81.3	8,543	12,713	435
☐ SHD-GC 8 kV · 3 × 500 kcmil	1,221	2×4/0 / 1×6	0.150	3.8	0.295	7.5	3.56	90.4	11,260	16,757	536
SHD-GC 15 kV · 2 AWG–4/0 AWG 6 sizes											
☐ SHD-GC 15 kV · 3 × 2 AWG	259	2×6 / 1×8	0.210	5.3	0.235	6.0	2.41	61.2	3,145	4,679	164
☐ SHD-GC 15 kV · 3 × 1 AWG	259	2×5 / 1×8	0.210	5.3	0.235	6.0	2.52	64.0	3,567	5,307	187
☐ SHD-GC 15 kV · 3 × 1/0 AWG	266	2×4 / 1×8	0.210	5.3	0.250	6.4	2.64	67.0	3,976	5,916	215
☐ SHD-GC 15 kV · 3 × 2/0 AWG	323	2×3 / 1×8	0.210	5.3	0.250	6.4	2.73	69.3	4,526	6,734	246
☐ SHD-GC 15 kV · 3 × 3/0 AWG	418	2×2 / 1×8	0.210	5.3	0.265	6.7	2.90	73.7	5,231	7,783	283
☐ SHD-GC 15 kV · 3 × 4/0 AWG	532	2×1 / 1×8	0.210	5.3	0.265	6.7	3.05	77.5	6,033	8,976	325
SHD-GC 25 kV · 1 AWG–4/0 AWG 5 sizes											
☐ SHD-GC 25 kV · 3 × 1 AWG	259	2×5 / 1×8	0.260	6.6	0.265	6.7	2.95	74.9	5,290	7,872	191
☐ SHD-GC 25 kV · 3 × 1/0 AWG	259	2×4 / 1×8	0.260	6.6	0.265	6.7	3.05	77.5	5,800	8,631	218
☐ SHD-GC 25 kV · 3 × 2/0 AWG	329	2×3 / 1×8	0.260	6.6	0.280	7.1	3.20	81.3	6,515	9,695	249
☐ SHD-GC 25 kV · 3 × 3/0 AWG	413	2×2 / 1×8	0.260	6.6	0.280	7.1	3.33	84.6	7,215	10,737	286
☐ SHD-GC 25 kV · 3 × 4/0 AWG	532	2×1 / 1×8	0.260	6.6	0.295	7.5	3.50	88.9	8,250	12,277	327

– Ampacity based on 90 °C conductor temperature at 40 °C ambient in free air (single cable) per ICEA S-75-381.

– Grounds / GC column lists 2 × uninsulated tinned copper grounding conductors and 1 × yellow insulated ground-check pilot conductor.

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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Email

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Web

tebaoflex.com/cables/type-shd-gc-cable-icea-nema-msha



Typical values for this cable type, based on ICEA S-75-381 / NEMA WC 58. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.