



Mining trailing & reeling cables

Type G

Portable Mining Power Cable (ICEA/NEMA/MSHA)

Flat 2C+G (600–2,000 V) and Round 3C+3G / 4C+4G (2,000 V) EPR/CPE cables

ICEA S-75-381 / NEMA WC 58

600–2,000 V · Flat & Round

MSHA Flame

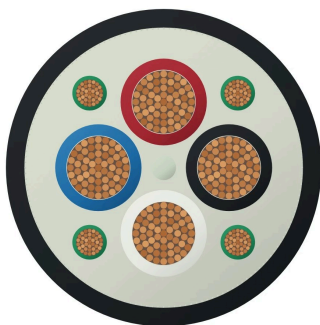


Application

Heavy-duty unshielded Type G portable mining power cable to ICEA S-75-381 / NEMA WC 58 with rope-lay tinned copper conductors, 90 °C EPR insulation, dedicated grounding conductors and a reinforced CPE jacket for DC shuttle cars, drills and loaders.

Typical uses: DC underground shuttle cars, Roof bolters & face drills, Cutting & loading machines, Mine dewatering pumps, Mobile conveyors & feeders, Quarry & industrial portable power

Construction



Cross-section, not to scale

1	Power conductors	ASTM B172 / ASTM B33
2	Primary insulation	ICEA S-75-381 Part 3
3	Grounding conductor(s)	ICEA S-75-381 Table 3-3
4	Reinforcing fibre	
5	Outer jacket	ICEA S-75-381 Part 4 / MSHA

Technical data

Typical values

Rated voltage	600 to 2,000 V (Flat 2C+G); 2,000 V (Round 3C+3G & 4C+4G)	Ampacity range (40 °C ambient)	72 to 328 A (Flat 2C, 8 AWG–4/0 AWG); 59 to 487 A (Round 3C, 8 AWG–500 kcmil)
Grounding conductors	Flat 2C: central tinned copper ground between power cores · Round 3C/4C: 3 or 4 interstitial tinned copper grounds (≥ 50 % of one phase core area)	Ground-check conductor	None (specify Type G-GC when a yellow ground-check monitoring pilot is required)
Max. continuous conductor temp.	+90 °C (dry or wet locations)	Emergency overload / short-circuit	+130 °C emergency overload · +250 °C short-circuit
Min. operating temperature	–40 °C (cold-bend and impact resistant)	Min. bending radius	6 × minor thickness H (Flat 2C); 6 × OD up to 2.0 in OD and 8 × OD over 2.0 in OD (Round 3C/4C)
Conductor stranding	Flexible rope-lay stranded annealed tinned copper (133 to 532 strands in Flat 2C; up to 1,221 strands in 500 kcmil Round)	Outer jacket & reinforcement	Two-layer reinforced extra-heavy-duty thermoset jacket
Flame resistance	MSHA 30 CFR Part 7 Subpart K flame test; CAN/CSA-C22.2 No. 96 FT4	Abrasion, oil & environment	Oil, abrasion, cut, impact, ozone, water and sunlight resistant
Standards	ICEA S-75-381 / NEMA WC 58; CAN/CSA-C22.2 No. 96		

Sizes

8 standard constructions

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

Configuration · size	Power strands	Ground conductor	Insulation in	Insulation mm	Height H mm	Width W mm	H × W in	Weight ≈ lb/ft	Mass ≈ kg/km	Ampacity A (40 °C)
☐ Type G Flat · 2 × 8 AWG + G	133 (7×19)	1 × 8 AWG	0.060	1.5	13.0	21.3	0.51 × 0.84	340	505	72
☐ Type G Flat · 2 × 6 AWG + G	133 (7×19)	1 × 8 AWG	0.060	1.5	14.2	23.6	0.56 × 0.93	440	655	95
☐ Type G Flat · 2 × 4 AWG + G	259 (7×37)	1 × 6 AWG	0.060	1.5	15.5	26.7	0.61 × 1.05	580	863	127
☐ Type G Flat · 2 × 2 AWG + G	259 (7×37)	1 × 5 AWG	0.060	1.5	18.5	31.5	0.73 × 1.24	850	1,265	167
☐ Type G Flat · 2 × 1 AWG + G	259 (7×37)	1 × 4 AWG	0.080	2.0	20.6	35.6	0.81 × 1.40	1,070	1,592	191
☐ Type G Flat · 2 × 1/0 AWG + G	259 (7×37)	1 × 3 AWG	0.080	2.0	23.6	38.4	0.93 × 1.51	1,310	1,949	217
☐ Type G Flat · 2 × 2/0 AWG + G	329 (7×47)	1 × 2 AWG	0.080	2.0	25.1	41.4	0.99 × 1.63	1,600	2,381	250
☐ Type G Flat · 2 × 4/0 AWG + G	532 (19×28)	1 × 1/0 AWG	0.080	2.0	27.9	48.0	1.10 × 1.89	2,300	3,423	328

– Paired H × W values indicate nominal minor height × major width in inches and millimetres.

– Ampacity based on 90 °C conductor temperature at 40 °C ambient in free air.

Round 3C & 4C · 2,000 V

24 sizes

Configuration · size	Phase strands	Grounds count × AWG	Insulation mils	Insulation mm	Nominal OD in	Nominal OD mm	Weight ≈ lb/ft	Mass ≈ kg/km	Ampacity A (40 °C)
Type G Round 3C · 2,000 V (3 Power + 3 Interstitial Grounds) 12 sizes									
Type G Round · 3 × 8 AWG	133	3 × 10 AWG	60	1.52	0.97	24.6	595	885	59
Type G Round · 3 × 6 AWG	259	3 × 10 AWG	60	1.52	1.05	26.7	745	1,109	79
Type G Round · 3 × 4 AWG	259	3 × 10 AWG	60	1.52	1.19	30.2	1,050	1,563	104
Type G Round · 3 × 2 AWG	259	3 × 9 AWG	60	1.52	1.34	34.0	1,460	2,173	138
Type G Round · 3 × 1 AWG	259	3 × 8 AWG	80	2.03	1.51	38.4	1,880	2,798	161
Type G Round · 3 × 1/0 AWG	266	3 × 7 AWG	80	2.03	1.65	41.9	2,320	3,453	186
Type G Round · 3 × 2/0 AWG	323	3 × 6 AWG	80	2.03	1.75	44.5	2,730	4,063	215
Type G Round · 3 × 3/0 AWG	418	3 × 5 AWG	80	2.03	1.89	48.0	3,350	4,985	249
Type G Round · 3 × 4/0 AWG	532	3 × 4 AWG	80	2.03	2.04	51.8	3,950	5,878	287

Configuration · size	Phase strands	Grounds count×AWG	Insulation mils	Insulation mm	Nominal OD in	Nominal OD mm	Weight ≈ lb/kft	Mass ≈ kg/km	Ampacity A (40° C)
Type G Round · 3 × 250 kcmil	627	3 × 3 AWG	95	2.41	2.39	60.7	4,960	7,381	320
Type G Round · 3 × 350 kcmil	888	3 × 2 AWG	95	2.41	2.68	68.1	6,700	9,971	394
Type G Round · 3 × 500 kcmil	1,221	3 × 1/0 AWG	95	2.41	3.03	77.0	8,850	13,170	487
Type G Round 4C · 2,000 V (4 Power + 4 Interstitial Grounds) 12 sizes									
Type G Round · 4 × 8 AWG	133	4 × 12 AWG	60	1.52	1.05	26.7	720	1,071	54
Type G Round · 4 × 6 AWG	259	4 × 12 AWG	60	1.52	1.15	29.2	920	1,369	72
Type G Round · 4 × 4 AWG	259	4 × 10 AWG	60	1.52	1.29	32.8	1,290	1,920	93
Type G Round · 4 × 2 AWG	259	4 × 9 AWG	60	1.52	1.46	37.1	1,820	2,708	122
Type G Round · 4 × 1 AWG	259	4 × 8 AWG	80	2.03	1.69	42.9	2,360	3,512	143
Type G Round · 4 × 1/0 AWG	266	4 × 7 AWG	80	2.03	1.84	46.7	2,900	4,316	165
Type G Round · 4 × 2/0 AWG	323	4 × 6 AWG	80	2.03	1.98	50.3	3,480	5,179	192
Type G Round · 4 × 3/0 AWG	418	4 × 5 AWG	80	2.03	2.13	54.1	4,150	6,176	221
Type G Round · 4 × 4/0 AWG	532	4 × 4 AWG	80	2.03	2.31	58.7	4,950	7,366	255
Type G Round · 4 × 250 kcmil	627	4 × 3 AWG	95	2.41	2.66	67.6	6,180	9,197	280
Type G Round · 4 × 350 kcmil	888	4 × 2 AWG	95	2.41	2.98	75.7	8,300	12,352	335
Type G Round · 4 × 500 kcmil	1,221	4 × 1/0 AWG	95	2.41	3.40	86.4	11,050	16,444	395

- Round Type G cables distribute 3 (in 3C) or 4 (in 4C) grounding conductors symmetrically in all outer interstices and omit the ground-check pilot.
- Where a yellow ground-check monitoring conductor is required, select Type G-GC.

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

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Web

tebaoflex.com/cables/type-g-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.