



Medium-voltage power cables

Type MP-GC

Mine Power Feeder Cable (2–15 kV)

Shielded 3-core stationary mine power feeder cable with 2 grounds and 1 pilot, 2–15 kV



ICEA S-75-381 / NEMA WC 58

2–15 kV Feeder

EPR/CPE & XLPE/PVC

Application

Medium-voltage stationary mine power feeder cable to ICEA S-75-381 / NEMA WC 58 with Class B copper conductors, copper-tape shielded cores, two uninsulated grounds and an 8 AWG ground-check pilot for mine shafts, boreholes, tunnels and substations.

Typical uses: Mine main power feeders, Borehole & shaft drops, Underground load centres, Tunnel & slope distribution, Prep plants & concentrators, Pit substation interconnects

Construction



Cross-section, not to scale

1	Phase conductors (3)	ASTM B3 / ASTM B8
2	Conductor screen	ICEA S-75-381 Part 5
3	Phase insulation	
4	Insulation screen	ICEA S-75-381 Part 5
5	Metallic phase shield	ICEA S-75-381 Part 5
6	Grounding conductors (2)	
7	Ground-check pilot (1)	
8	Assembly binder tape	
9	Outer jacket	ICEA S-75-381 / MSHA / FT4

Technical data

Typical values

Rated voltage classes	2 kV, 5 kV, 8 kV & 15 kV (100 % insulation level)
Phase shielding	Extruded semiconductive conductor & insulation screens + helically applied copper tape shield
Ground-check pilot	One yellow EPR/PP or XLPE/PVC insulated copper conductor (8 AWG) in third interstice
Min. operating temperature	−40 °C (EPR/CPE construction); −25 °C (XLPE/PVC construction)
Short-circuit temperature	+250 °C
Phase conductor stranding	Compact or concentric-lay stranded annealed bare/tinned copper, Class B (7, 19 or 37 strands)
Flame retardance	MSHA 30 CFR Part 7 flame test; UL 1072 / CSA C22.2 No. 96 FT4
Sunlight & weather	UV-stabilised black CPE or PVC outer jacket for exposed surface tray and aerial runs

Ampacity range	93 to 536 A (90 °C conductor, 40 °C ambient in free air)
Grounding conductors	Two uninsulated concentric-lay bare or tinned copper grounds (10 AWG to 4/0 AWG) in two outer interstices
Max. continuous conductor temp.	+90 °C (EPR or XLPE, dry / wet)
Emergency overload temperature	+130 °C
Min. installation bend radius	12 × OD (fixed / stationary feeder installation)
Installation duty	Stationary feeder distribution (aerial messenger, borehole, shaft, duct, tray or direct burial) — not for reeling/dragging
Chemical, oil & moisture	90 °C wet/dry rated; heavy-duty CPE or PVC jacket resists mine water, oil, acids and alkalis
Standards	ICEA S-75-381 / NEMA WC 58 Part 5; ICEA S-93-639 / NEMA WC 74

Sizes

11 standard constructions

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

Power cores 3×AWG/kcmil	Phase strands	Grounds (2) AWG/kcmil	Pilot (GC) AWG	Insulation in	Insulation mm	Jacket in	Jacket mm	Nominal OD in	Nominal OD mm	Weight ≈ lb/kft	Mass ≈ kg/km	Ampacity A (40 °C)
☐ Type MP-GC 5 kV · 3 × 6 AWG	7	2 × 10	8	0.090	2.3	0.110	2.8	1.30	33.0	1,060	1,577	93
☐ Type MP-GC 5 kV · 3 × 4 AWG	7	2 × 8	8	0.090	2.3	0.110	2.8	1.41	35.8	1,441	2,144	122
☐ Type MP-GC 5 kV · 3 × 2 AWG	7	2 × 6	8	0.090	2.3	0.110	2.8	1.47	37.3	1,827	2,718	159
☐ Type MP-GC 5 kV · 3 × 1 AWG	19	2 × 5	8	0.090	2.3	0.110	2.8	1.54	39.1	2,168	3,226	184
☐ Type MP-GC 5 kV · 3 × 1/0 AWG	19	2 × 4	8	0.090	2.3	0.110	2.8	1.63	41.4	2,602	3,871	211
☐ Type MP-GC 5 kV · 3 × 2/0 AWG	19	2 × 3	8	0.090	2.3	0.110	2.8	1.72	43.7	3,010	4,478	243
☐ Type MP-GC 5 kV · 3 × 3/0 AWG	19	2 × 2	8	0.090	2.3	0.140	3.6	1.89	48.0	3,265	4,859	279
☐ Type MP-GC 5 kV · 3 × 4/0 AWG	19	2 × 1	8	0.090	2.3	0.140	3.6	2.01	51.0	4,190	6,234	321
☐ Type MP-GC 5 kV · 3 × 250 kcmil	37	2 × 1/0	8	0.090	2.3	0.140	3.6	2.10	53.3	4,825	7,179	355
☐ Type MP-GC 5 kV · 3 × 350 kcmil	37	2 × 2/0	8	0.090	2.3	0.140	3.6	2.31	58.7	6,062	9,019	435
☐ Type MP-GC 5 kV · 3 × 500 kcmil	37	2 × 4/0	8	0.090	2.3	0.140	3.6	2.59	65.8	8,427	12,538	536

- Published table dimensions reflect 0.090 in (2.3 mm) nominal insulation thickness (ICEA S-75-381 5 kV 100 % insulation level, also used for 2/5 kV dual-rated feeders).
- For 8 kV (100 % level = 0.115 in / 2.9 mm insulation) and 15 kV (100 % level = 0.175 in / 4.4 mm insulation), request project-specific dimensional drawings.

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/type-mp-gc-mine-power-feeder-cable



Typical values for this cable type, based on ICEA S-75-381 / NEMA WC 58 Part 5. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.