



# 3/C CU 25KV 133% XLPE/CPE RHINOPOWER™ Type MP-GC. MSHA Approved

Class B Copper conductors, Cross-Linked Polyethylene (XLPE) 133% Insulation Level, Copper Tape Shield, Polyvinyl Chloride (PVC) Jacket, 90°C



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compact stranded bare copper per ASTM B3 and ASTM B496
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** Cross Linked Polyethylene (XLPE) 100% and 133% Insulation Level
4. **Insulation Shield:** Strippable semi-conducting cross-linked copolymer
5. **Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
6. **Grounding Conductors:** Two Class B compressed stranded bare copper per ASTM B3 and ASTM B8
7. **Ground Check:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 with yellow high strength, polypropylene insulation
8. **Filler:** Rubber Fillers as needed
9. **Reinforcement:** Tape and Reinforcing twine applied over the core for improved mechanical integrity and ease of stripping
10. **Jacket:** Black, mold cured, single layer, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available
11. **Reflective Stripe:** Highly visible reflective stripe embedded into the outer jacket to increase safety and help prevent cable runover (optional, contact your sales representative for part number)

## APPLICATIONS AND FEATURES:

RHINOPOWER™ Type MP-GC mine power feeder cable is a heavy-duty power cable for use in stationary horizontal HV mine power distribution circuits, for permanent or semi-portable applications with power transmission in deep mines, surface mines, open pits, tunnels, in conduit or duct (not to exceed max rated voltage), and suitable for direct burial in wet or dry locations. For vertical drop requirements consult with factory application specialist.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B496 Compact Round Concentric-lay-standard copper
- ICEA S-75-381 Portable and Power Feeder Cables for Use in Mines
- MSHA Approved



**SAMPLE PRINT LEGEND:**

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG COMPACT CU 3/C TYPE MP-GC 25000V 133% INS. LEVEL 90°C P-07-K130025 MSHA

**Table 1 – Weights and Measurements**

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Ground Check Size	Ground Check Strands	Ground Check Insulation Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Jacket Color
AWG/Kcmil	No.	No.	inch	mil	inch	No. x AWG	AWG	No.	mil	mil	inch	lb/1000ft	
2	3	7	0.268	345	0.994	2 x 6	8	168	45	140	2.610	3980	BK
1	3	19	0.299	345	1.025	2 x 5	8	168	45	140	2.700	4380	BK
1/0	3	19	0.336	345	1.062	2 x 4	8	168	45	140	2.790	4830	BK
2/0	3	19	0.376	345	1.102	2 x 3	8	168	45	170	2.950	5520	BK
3/0	3	19	0.423	345	1.149	2 x 2	8	168	45	170	3.060	6180	BK
4/0	3	19	0.475	345	1.201	2 x 1	8	168	45	170	3.180	6980	BK
250	3	37	0.520	345	1.246	2 x 1/0	8	168	45	170	3.280	7700	BK
350	3	37	0.616	345	1.342	2 x 2/0	8	168	45	170	3.510	9370	BK
500	3	37	0.736	345	1.462	2 x 4/0	8	168	45	170	3.800	11980	BK

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM

**Table 2 – Electrical and Engineering Data**

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive Reactance	Inductive Reactance	Working Tension	Min Bending Radius	Allowable Ampacity In Air 90°C
AWG/Kcmil	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	lb	inch	Amp
2	0.164	0.205	0.085	0.053	454	31.3	168
1	0.130	0.163	0.080	0.051	572	32.4	191
1/0	0.104	0.130	0.075	0.049	722	33.5	218
2/0	0.082	0.103	0.070	0.048	910	35.4	249
3/0	0.065	0.081	0.065	0.046	1147	36.7	286
4/0	0.052	0.065	0.060	0.044	1446	38.2	326
250	0.044	0.055	0.057	0.043	1709	39.4	360
350	0.031	0.039	0.051	0.041	2393	42.1	439
500	0.022	0.028	0.045	0.038	3418	45.6	536

\* Ampacities based upon ICEA S-75-381 Table I-1.

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.