3/C CU 8KV 133% EPR/CPE RHINOPOWER™ Type MP-GC. MSHA Approved

Class B Copper conductors, Ethylene Propylene Rubber (EPR) 133% Insulation Level, Copper Tape Shield, Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes



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:** Ethylene Propylene Rubber (EPR) 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

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SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG CMPCT CU 3/C TYPE MP-GC 8000V 133% INS. -- LEVEL P-07-K140017-MSHA

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground Check Size	Ground Check Strands	Ground Check Insulation Thickness	Jacket Thickness	Approx. OD	Approx. Weight
AWG/ Kcmil	No.	No.	inch	mil	inch	AWG	No.	mil	mil	inch	lb/1000ft
6	3	7	0.169	140	0.485	10	7	30	110	1.45	1240
4	3	7	0.213	140	0.529	8	7	45	110	1.54	1550
2	3	7	0.268	140	0.584	8	7	45	110	1.68	1990
1	3	19	0.299	140	0.615	8	7	45	110	1.78	2310
1/0	3	19	0.336	140	0.652	8	7	45	140	1.90	2720
2/0	3	19	0.376	140	0.692	8	7	45	140	2.00	3170
3/0	3	19	0.423	140	0.739	8	7	45	140	2.12	3730
4/0	3	19	0.475	140	0.791	8	7	45	140	2.25	4420
250	3	37	0.52	140	0.836	8	7	45	140	2.35	5040
300	3	37	0.57	140	0.886	8	7	45	140	2.48	5700
350	3	37	0.616	140	0.932	8	7	45	140	2.58	6470
400	3	37	0.659	140	0.975	8	7	45	140	2.70	7330
450	3	37	0.7	140	1.016	8	7	45	140	2.85	8060
500	3	37	0.736	140	1.052	8	7	45	140	2.93	8900

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

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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
6	0.417	0.521	0.057	0.049	179.000	17.4	93
4	0.262	0.328	0.049	0.045	285.000	18.5	122
2	0.164	0.205	0.042	0.042	454.000	20.2	159
1	0.130	0.163	0.039	0.040	572.000	21.4	184
1/0	0.104	0.130	0.036	0.039	722.000	22.8	211
2/0	0.082	0.103	0.033	0.038	910.000	24	243
3/0	0.065	0.081	0.030	0.036	1147.000	25.4	279
4/0	0.052	0.065	0.028	0.035	1446.000	27	321
250	0.044	0.055	0.026	0.034	1709.000	28.2	355
300	0.037	0.046	0.024	0.033	2051.000	29.8	398
350	0.031	0.039	0.022	0.033	2393.000	31	435
400	0.027	0.034	0.021	0.032	2734.000	32.4	470
450	0.024	0.030	0.020	0.032	3075.000	34.2	502
500	0.022	0.028	0.019	0.031	3418.000	35.2	536

* Ampacities based upon ICEA S-75-381 Table I-1.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.