

3/C CU 5KV 100% & 133% EPR/CPE RHINOPOWER™ Type MP-GC. MSHA Approved

Class B Cu Conductors, Ethylene Propylene Rubber (EPR) 100% & 133% Insulation Level, Cu Tape Shield, Chlorinated Polyethylene (CPE) Jacket w/ Optional Reflective Stripes, 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:** 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 Standard Specification for 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 3/C COMPACT CU TYPE MP-GC 5000V 100% OR 133% INS. LEVEL P-07-K140017 MSHA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground Size	Ground Strands	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.	AWG	No.	mil	mil	inch	lb/1000ft
TBA	6	3	7	0.169	90	0.385	10	7	10	7	30	110	1.21	950
TBA	4	3	7	0.213	90	0.429	8	7	8	7	45	110	1.32	1250
TBA	2	3	7	0.268	90	0.484	6	7	8	7	45	110	1.45	1660
TBA	1	3	19	0.299	90	0.515	5	7	8	7	45	110	1.53	1940
TBA	1/0	3	19	0.336	90	0.552	4	7	8	7	45	110	1.63	2290
57841001	2/0	3	19	0.376	90	0.592	3	7	8	7	45	110	1.74	2730
58691299	3/0	3	19	0.423	90	0.639	2	7	8	7	45	140	1.88	3290
TBA	4/0	3	19	0.475	90	0.691	1	19	8	7	45	140	2.00	3930
58701399	250	3	37	0.52	90	0.736	1/0	19	8	7	45	140	2.13	4580
TBA	300	3	37	0.57	90	0.786	1/0	19	8	7	45	140	2.25	5190
TBA	350	3	37	0.616	90	0.832	2/0	19	8	7	45	140	2.35	5940
TBA	400	3	37	0.659	90	0.875	3/0	19	8	7	45	140	2.45	6740
TBA	450	3	37	0.7	90	0.916	3/0	19	8	7	45	140	2.55	7340
TBA	500	3	37	0.736	90	0.952	4/0	19	8	7	45	140	2.64	8180

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Cond. Number	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	No.	Ω/1000ft	Ω/1000ft	MΩ*1000ft	MΩ/1000ft	lb	inch	Amp
TBA	6	3	0.417	0.521	0.044	0.044	179.000	14.5	93
TBA	4	3	0.262	0.328	0.038	0.041	285.000	15.8	122
TBA	2	3	0.164	0.205	0.032	0.038	454.000	17.4	159
TBA	1	3	0.130	0.163	0.029	0.037	572.000	18.4	184
TBA	1/0	3	0.104	0.130	0.027	0.035	722.000	19.6	211
57841001	2/0	3	0.082	0.103	0.024	0.034	910.000	20.9	243
58691299	3/0	3	0.065	0.081	0.022	0.033	1147.000	22.6	279
TBA	4/0	3	0.052	0.065	0.020	0.032	1446.000	24	321
58701399	250	3	0.044	0.055	0.019	0.031	1709.000	25.6	355
TBA	300	3	0.037	0.046	0.017	0.031	2051.000	27	398
TBA	350	3	0.031	0.039	0.016	0.030	2393.000	28.2	435
TBA	400	3	0.027	0.034	0.015	0.030	2734.000	29.4	470
TBA	450	3	0.024	0.030	0.015	0.029	3075.000	30.6	502
TBA	500	3	0.022	0.028	0.014	0.029	3418.000	31.7	539

† Ampacity based on ICEA S-75-381 Table I-1 and is for a single isolated cable in air operated with an open-circuited shield at an ambient temperature of 40°C and a conductor temperature of 90°C

