

3/C CU 8KV 100% XLP/PVC RHINOPOWER™ Type MP-GC

Class B Copper conductors, Cross-Linked Polyethylene (XLP) 100% 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 (XLP), 100% 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. **Ground Check:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 with yellow high strength, polypropylene insulation
7. **Grounding Conductors:** Two Class B compressed stranded bare copper per ASTM B3 and ASTM B8
8. **Filler:** Rubber Fillers as needed
9. **Tape:** Polyester tape, applied over the cable core for improved mechanical integrity and ease of stripping
10. **Reinforcement:** Reinforcing twine applied over the taped core
11. **Jacket:** Black, single layer, flame resistant, thermoplastic Polyvinyl Chloride (PVC). Alternate colors available

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

SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG COMPACT CU 3/C TYPE MP-GC 8000V 100% INS. LEVEL 90°C P-07-K130025 MSHA



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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	115	0.435	10	7	10	7	30	110	1.33	1130
TBA	4	3	7	0.213	115	0.479	8	7	8	7	45	110	1.43	1440
57172499	2	3	7	0.268	115	0.534	6	7	8	7	45	110	1.55	1850
TBA	1	3	19	0.299	115	0.565	5	7	8	7	45	110	1.65	2170
TBA	1/0	3	19	0.336	115	0.602	4	7	8	7	45	110	1.75	2550
56994999	2/0	3	19	0.376	115	0.642	3	7	8	7	45	140	1.88	3040
TBA	3/0	3	19	0.423	115	0.689	2	7	8	7	45	140	2.00	3600
56994899	4/0	3	19	0.475	115	0.741	1	19	8	7	45	140	2.12	4270
TBA	250	3	37	0.52	115	0.786	1/0	19	8	7	45	140	2.25	4950
TBA	300	3	37	0.57	115	0.836	1/0	19	8	7	45	140	2.35	5560
TBA	350	3	37	0.616	115	0.882	2/0	19	8	7	45	140	2.46	6350
TBA	400	3	37	0.659	115	0.925	3/0	19	8	7	45	140	2.57	7190
TBA	450	3	37	0.7	115	0.966	3/0	19	8	7	45	140	2.66	7790
58765799	500	3	37	0.736	115	1.002	4/0	19	8	7	45	140	2.75	8660

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	0.062	0.046	179.000	16	93
TBA	4	3	0.262	0.328	0.053	0.043	285.000	17.2	122
57172499	2	3	0.164	0.205	0.045	0.040	454.000	18.6	159
TBA	1	3	0.130	0.163	0.042	0.039	572.000	19.8	184
TBA	1/0	3	0.104	0.130	0.038	0.037	722.000	21	211
56994999	2/0	3	0.082	0.103	0.035	0.036	910.000	22.6	243
TBA	3/0	3	0.065	0.081	0.032	0.035	1147.000	24	279
56994899	4/0	3	0.052	0.065	0.029	0.034	1446.000	25.4	321
TBA	250	3	0.044	0.055	0.027	0.033	1709.000	27	355
TBA	300	3	0.037	0.046	0.025	0.032	2051.000	28.2	398
TBA	350	3	0.031	0.039	0.023	0.031	2393.000	29.5	435
TBA	400	3	0.027	0.034	0.022	0.031	2734.000	30.8	470
TBA	450	3	0.024	0.030	0.021	0.030	3075.000	31.9	502
58765799	500	3	0.022	0.028	0.020	0.030	3418.000	33	536

† 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



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