3/C CU 8KV 133% XLP/PVC RHINOPOWER™ Type MP-GC

Class B Copper conductors, Cross-Linked Polyethylene (XLP) 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 (XLP), 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. **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 133% INS. LEVEL 90°C P-07-K130025 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	140	0.485	10	7	10	7	30	110	1.45	1290
TBA	4	3	7	0.213	140	0.529	8	7	8	7	45	110	1.54	1600
TBA	2	3	7	0.268	140	0.584	6	7	8	7	45	110	1.68	2050
TBA	1	3	19	0.299	140	0.615	5	7	8	7	45	110	1.78	2390
TBA	1/0	3	19	0.336	140	0.652	4	7	8	7	45	140	1.90	2810
TBA	2/0	3	19	0.376	140	0.692	3	7	8	7	45	140	2.00	3260
TBA	3/0	3	19	0.423	140	0.739	2	7	8	7	45	140	2.12	3840
TBA	4/0	3	19	0.475	140	0.791	1	19	8	7	45	140	2.25	4540
TBA	250	3	37	0.52	140	0.836	1/0	19	8	7	45	140	2.35	5180
TBA	300	3	37	0.57	140	0.886	1/0	19	8	7	45	140	2.48	5850
TBA	350	3	37	0.616	140	0.932	2/0	19	8	7	45	140	2.58	6630
TBA	400	3	37	0.659	140	0.975	3/0	19	8	7	45	140	2.70	7510
TBA	450	3	37	0.7	140	1.016	3/0	19	8	7	45	140	2.85	8270
TBA	500	3	37	0.736	140	1.052	4/0	19	8	7	45	140	2.93	9130

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	0.069	0.049	179.000	17.4	93
TBA	4	3	0.262	0.328	0.059	0.045	285.000	18.5	122
TBA	2	3	0.164	0.205	0.051	0.042	454.000	20.2	159
TBA	1	3	0.130	0.163	0.047	0.040	572.000	21.4	184
TBA	1/0	3	0.104	0.130	0.043	0.039	722.000	22.8	211
TBA	2/0	3	0.082	0.103	0.040	0.038	910.000	24	243
TBA	3/0	3	0.065	0.081	0.036	0.036	1147.000	25.4	279
TBA	4/0	3	0.052	0.065	0.033	0.035	1446.000	27	321
TBA	250	3	0.044	0.055	0.031	0.034	1709.000	28.2	355
TBA	300	3	0.037	0.046	0.029	0.033	2051.000	29.8	398
TBA	350	3	0.031	0.039	0.027	0.033	2393.000	31	435
TBA	400	3	0.027	0.034	0.026	0.032	2734.000	32.4	470
TBA	450	3	0.024	0.030	0.024	0.032	3075.000	34.2	502
TBA	500	3	0.022	0.028	0.023	0.031	3418.000	35.2	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