

3/C CU 15KV 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 15000V 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
570247	2	3	7	0.268	175	0.654	6	7	8	7	45	140	1.88	2390
TBA	1	3	19	0.299	175	0.685	5	7	8	7	45	140	1.98	2740
TBA	1/0	3	19	0.336	175	0.722	4	7	8	7	45	140	2.05	3090
570246	2/0	3	19	0.376	175	0.762	3	7	8	7	45	140	2.15	3560
578497	3/0	3	19	0.423	175	0.809	2	7	8	7	45	140	2.26	4140
570248	4/0	3	19	0.475	175	0.861	1	19	8	7	45	140	2.40	4880
580351	250	3	37	0.52	175	0.906	1/0	19	8	7	45	140	2.50	5530
TBA	300	3	37	0.57	175	0.956	1/0	19	8	7	45	140	2.64	6250
TBA	350	3	37	0.616	175	1.002	2/0	19	8	7	45	140	2.75	7070
TBA	400	3	37	0.659	175	1.045	3/0	19	8	7	45	140	2.92	8090
TBA	450	3	37	0.7	175	1.086	3/0	19	8	7	45	140	3.00	8700
580348	500	3	37	0.736	175	1.122	4/0	19	8	7	45	170	3.10	9620

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
570247	2	3	0.164	0.205	0.058	0.044	454.000	22.6	164
TBA	1	3	0.130	0.163	0.054	0.043	572.000	23.8	187
TBA	1/0	3	0.104	0.130	0.050	0.041	722.000	24.6	215
570246	2/0	3	0.082	0.103	0.046	0.040	910.000	25.8	246
578497	3/0	3	0.065	0.081	0.042	0.038	1147.000	27.1	283
570248	4/0	3	0.052	0.065	0.039	0.037	1446.000	28.8	325
580351	250	3	0.044	0.055	0.036	0.036	1709.000	30	359
TBA	300	3	0.037	0.046	0.034	0.035	2051.000	31.7	401
TBA	350	3	0.031	0.039	0.032	0.034	2393.000	33	438
TBA	400	3	0.027	0.034	0.030	0.034	2734.000	35	473
TBA	450	3	0.024	0.030	0.029	0.033	3075.000	36	504
580348	500	3	0.022	0.028	0.027	0.033	3418.000	37.2	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



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