

3/C CU 25KV 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 25000V 133% 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	2	3	7	0.268	345	0.994	6	7	8	7	45	140	2.61	3980
TBA	1	3	19	0.299	345	1.025	5	7	8	7	45	140	2.70	4380
TBA	1/0	3	19	0.336	345	1.062	4	7	8	7	45	140	2.79	4830
TBA	2/0	3	19	0.376	345	1.102	3	7	8	7	45	170	2.95	5520
TBA	3/0	3	19	0.423	345	1.149	2	7	8	7	45	170	3.06	6180
TBA	4/0	3	19	0.475	345	1.201	1	19	8	7	45	170	3.18	6980
TBA	250	3	37	0.52	345	1.246	1/0	19	8	7	45	170	3.28	7700
TBA	300	3	37	0.57	345	1.296	1/0	19	8	7	45	170	3.39	8440
TBA	350	3	37	0.616	345	1.342	2/0	19	8	7	45	170	3.51	9370
TBA	400	3	37	0.659	345	1.385	3/0	19	8	7	45	170	3.62	10320
TBA	450	3	37	0.7	345	1.426	3/0	19	8	7	45	170	3.71	11020
TBA	500	3	37	0.736	345	1.462	4/0	19	8	7	45	170	3.80	11980

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	2	3	0.164	0.205	0.085	0.053	454.000	31.3	168
TBA	1	3	0.130	0.163	0.080	0.051	572.000	32.4	191
TBA	1/0	3	0.104	0.130	0.075	0.049	722.000	33.5	218
TBA	2/0	3	0.082	0.103	0.070	0.048	910.000	35.4	249
TBA	3/0	3	0.065	0.081	0.065	0.046	1147.000	36.7	286
TBA	4/0	3	0.052	0.065	0.060	0.044	1446.000	38.2	326
TBA	250	3	0.044	0.055	0.057	0.043	1709.000	39.4	360
TBA	300	3	0.037	0.046	0.054	0.042	2051.000	40.7	402
TBA	350	3	0.031	0.039	0.051	0.041	2393.000	42.1	439
TBA	400	3	0.027	0.034	0.048	0.040	2734.000	43.4	473
TBA	450	3	0.024	0.030	0.046	0.039	3075.000	44.5	504
TBA	500	3	0.022	0.028	0.045	0.038	3418.000	45.6	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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