3/C CU 133% 25KV EPR/CPE RHINOPOWER™ Type MP-GC. MSHA Approved

Class B Copper conductors, Ethylene Propylene Rubber (EPR) 133% Insulation Level, Copper Tape Shield, Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes



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 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 25000V 133% INS. LEVEL P-07-K140017 MSHA

Table 1 – Weights and Measurements

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	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.	mil	mil	inch	lb/1000ft
2	3	7	0.268	345	0.994	8	7	45	140	2.61	3860
1	3	19	0.299	345	1.025	8	7	45	140	2.70	4250
1/0	3	19	0.336	345	1.062	8	7	45	140	2.79	4690
2/0	3	19	0.376	345	1.102	8	7	45	170	2.95	5360
3/0	3	19	0.423	345	1.149	8	7	45	170	3.06	6000
4/0	3	19	0.475	345	1.201	8	7	45	170	3.18	6780
250	3	37	0.52	345	1.246	8	7	45	170	3.28	7490
300	3	37	0.57	345	1.296	8	7	45	170	3.39	8210
350	3	37	0.616	345	1.342	8	7	45	170	3.51	9120
400	3	37	0.659	345	1.385	8	7	45	170	3.62	10050
450	3	37	0.7	345	1.426	8	7	45	170	3.71	10740
500	3	37	0.736	345	1.462	8	7	45	170	3.80	11680

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Strand count meets minimum number per ASTM

Table 2 – Electrical and Engineering Data

Cond. Size	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	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	lb	inch	Amp
2	0.164	0.205	0.071	0.053	454.000	31.3	168
1	0.130	0.163	0.066	0.051	572.000	32.4	191
1/0	0.104	0.130	0.062	0.049	722.000	33.5	218
2/0	0.082	0.103	0.058	0.048	910.000	35.4	249
3/0	0.065	0.081	0.054	0.046	1147.000	36.7	286
4/0	0.052	0.065	0.050	0.044	1446.000	38.2	326
250	0.044	0.055	0.047	0.043	1709.000	39.4	360
300	0.037	0.046	0.044	0.042	2051.000	40.7	402
350	0.031	0.039	0.042	0.041	2393.000	42.1	439
400	0.027	0.034	0.040	0.040	2734.000	43.4	473
450	0.024	0.030	0.038	0.039	3075.000	44.5	504
500	0.022	0.028	0.037	0.038	3418.000	45.6	536

* Ampacities based upon ICEA S-75-381 Table I-1.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.