

# 3/C CU 8KV 133% 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:

- Conductor:** Class B compact stranded bare copper per ASTM B3 and ASTM B496
- Conductor Shield:** Semi-conducting cross-linked copolymer
- Insulation:** Ethylene Propylene Rubber (EPR) 100% and 133% Insulation Level
- Insulation Shield:** Strippable semi-conducting cross-linked copolymer
- Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
- Grounding Conductors:** Two Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- Ground Check:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 with yellow high strength, polypropylene insulation
- Filler:** Rubber Fillers as needed
- Reinforcement:** Tape and Reinforcing twine applied over the core for improved mechanical integrity and ease of stripping
- Jacket:** Black, mold cured, single layer, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available
- 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

**SAMPLE PRINT LEGEND:**

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG CMPCT CU 3/C TYPE MP-GC 8000V 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	Ground Check Size	Jacket Thickness	Approx. OD	Approx. Weight	Jacket Color
AWG/ Kcmil	No.	No.	inch	mil	inch	No. x AWG	AWG	mil	inch	lb/1000ft	
6	3	7	0.169	140	0.485	2 x 8	8	110	1.450	1240	BK
4	3	7	0.213	140	0.529	2 x 8	8	110	1.540	1550	BK
2	3	7	0.268	140	0.584	2 x 6	8	110	1.680	1990	BK
1	3	19	0.299	140	0.615	2 x 5	8	110	1.780	2310	BK
1/0	3	19	0.336	140	0.652	2 x 4	8	140	1.900	2720	BK
2/0	3	19	0.376	140	0.692	2 x 3	8	140	2.000	3170	BK
3/0	3	19	0.423	140	0.739	2 x 2	8	140	2.120	3730	BK
4/0	3	19	0.475	140	0.791	2 x 1	8	140	2.250	4420	BK
250	3	37	0.520	140	0.836	2 x 1/0	8	140	2.350	5040	BK
350	3	37	0.616	140	0.932	2 x 2/0	8	140	2.580	6470	BK
500	3	37	0.736	140	1.052	2 x 4/0	8	140	2.930	8900	BK

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

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

**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
6	0.417	0.521	0.057	0.049	179	17.4	93
4	0.262	0.328	0.049	0.045	285	18.5	122
2	0.164	0.205	0.042	0.042	454	20.2	159
1	0.130	0.163	0.039	0.040	572	21.4	184
1/0	0.104	0.130	0.036	0.039	722	22.8	211
2/0	0.082	0.103	0.033	0.038	910	24.0	243
3/0	0.065	0.081	0.030	0.036	1147	25.4	279
4/0	0.052	0.065	0.028	0.035	1446	27.0	321
250	0.044	0.055	0.026	0.034	1709	28.2	355
350	0.031	0.039	0.022	0.033	2393	31.0	435
500	0.022	0.028	0.019	0.031	3418	35.2	536

\* Ampacities based upon ICEA S-75-381 Table I-1.

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.