3/C CU 2000V Type G-GC RHINOFLEX™ CPE Mining Cable 90°C. MSHA Approved

Flexible Copper conductors, Ethylene Propylene Rubber (EPR) insulation, Extra Heavy Duty Two Layer Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B33/B172
2. **Separator Tape:** Non-conducting tape applied between the conductor and insulation to facilitate stripping and Ethylene Propylene Rubber (EPR), color coded black, white, red.
3. **Ground Conductors:** Two mylar taped, tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172
4. **Ground Check Conductor:** Tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172 with yellow, high durometer, Ethylene Propylene Rubber (EPR) insulation.
5. **Filler:** Filler as needed
6. **Binder:** Binder Tape
7. **Inner Jacket:** Black, mold cured, extra heavy-duty integral fill flame resistant, thermosetting Chlorinated Polyethylene (CPE)
8. **Reinforcement:** Reinforcing twine applied between the two jacket layers
9. **Outer Jacket:** Black, mold cured, extra heavy-duty, modified integral fill, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available
10. **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:

RHINOFLEX™ Type G-G cable is a heavy-duty cable for use where flexibility and maximum protection is required. For use with all portable, temporary, and permanent power applications such as mobile or stationary mining equipment, shuttle cars, mobile drills, pumps, roof bolters, conveyors, and any portable power where equipment grounding is required, It is ideal for use anytime extra-durable, flexible cable is required. Also suitable for continuous submersion in water. Ground check conductor provides fail-safe ground monitoring. Embossed print legend for easy cable identification. Cold Bend and Impact Tested to -50°C.

SPECIFICATIONS:

- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

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SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG 3/C TYPE G-GC PORTABLE POWER CABLE 90°C WET OR DRY 2000V FT5 -50°C P-07-KA140024 MSHA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Ground Check Size	Inner Jacket Thickness	Jacket Thickness	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	No.	inch	mil	inch	No. x AWG	AWG	mil	mil	inch	lb/1000ft
591266	8	3	168	0.153	60	0.287	2 x 10	10	55	145	1.026	661
585557	6	3	133	0.198	60	0.336	1 x 10	10	55	95	1.050	789
585028	4	3	259	0.235	60	0.388	1 x 8	10	60	95	1.190	1014
585725	2	3	308	0.302	60	0.452	2 x 7	8	65	90	1.325	1413
589268	1	3	385	0.347	80	0.529	2 x 6	8	70	120	1.510	1724
592479^	1/0	3	273	0.385	80	0.551	2 x 5	8	65	160	1.650	2316
585726	2/0	3	324	0.400	80	0.594	2 x 4	8	85	100	1.636	2401
587197	4/0	3	532	0.550	80	0.751	1 x 2	8	80	135	2.040	3715
590199	250	3	608	0.682	100	0.816	1 x 2	8	100	120	2.390	4386
587531	350	3	855	0.809	100	0.926	2 x 1/0	8	100	125	2.680	5801

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
^ Orange outer jacket

Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance	Working Tension	Min Bending Radius	Allowable Ampacity In Air 90°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	lb	inch	Amp
8	0.715	0.903	0.036	112	8.2	59
6	0.450	0.568	0.034	179	8.4	79
4	0.282	0.356	0.033	285	9.5	104
2	0.179	0.226	0.031	453	10.6	138
1	0.143	0.180	0.031	572	12.0	161
1/0	0.109	0.142	0.030	746	13.2	217
2/0	0.090	0.114	0.030	910	13.0	215
4/0	0.057	0.073	0.029	1447	16.3	287
250	0.048	0.062	0.026	1710	19.1	320
350	0.035	0.046	0.025	2394	21.4	394

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