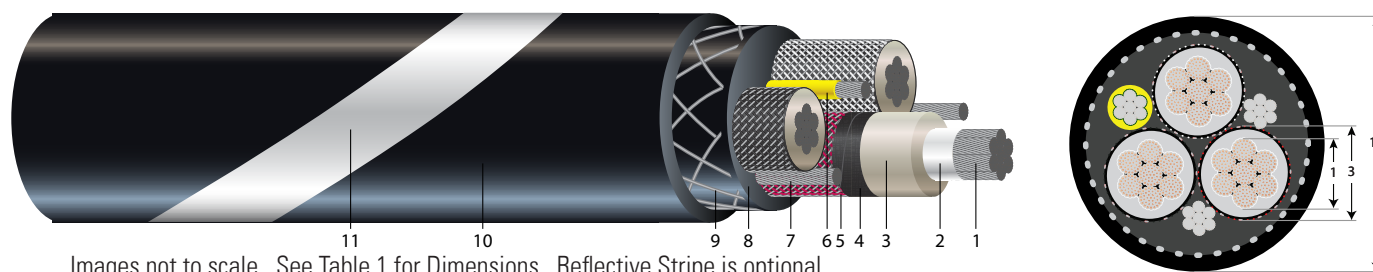


3/C CU 2000V Type SHD-GC RHINOSHIELD™ CPE Mining Cable 90°C

Flexible Copper conductors, EPR insulation, Cu/Nylon Braid Shield, Extra Heavy Duty Two Layer Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes



Images not to scale. See Table 1 for Dimensions. Reflective Stripe is optional.

CONSTRUCTION:

- Conductor:** Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B33/B172.
- Separator Tape:** Non-conducting tape applied between the conductor and insulation to facilitate stripping.
- Insulation:** Ethylene Propylene Rubber (EPR).
- Shield Separator:** Non-conducting SBR tape applied to the phase insulation with a 50% overlap, adhesive side up.
- Braid Shield:** Tin coated, soft drawn, annealed, copper braid shield (60% minimum coverage), combined with color coded nylon (black, white, red) with a 40% maximum coverage.
- Ground Check Conductor:** Tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172 with high strength yellow, polypropylene insulation.
- Ground Conductors:** Two uninsulated, tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172.
- Inner Jacket:** Black, mold cured, extra heavy-duty integral fill, flame resistant, thermosetting Chlorinated Polyethylene (CPE).
- Reinforcement:** Reinforcing twine applied between the two jacket layers.
- Outer Jacket:** Black, mold cured, extra heavy-duty, 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:

RHINOSHIELD™ Type SHD-GC is a heavy-duty trailing cable where flexibility and maximum protection is required. For use with mobile, reeling, or stationary mining equipment, continuous mining machines, longwall mining systems, and blast hole drillers. It is also an excellent choice for shovels, draglines, dredges, cranes and marine shore-to-ship power supplies, and anytime extra-durable, flexible cable is required. Suitable for continuous submersion in water. Ground check conductor provides fail-safe ground monitoring. Embossed print legend for easy cable identification.

SPECIFICATIONS:

- MSHA Approved, Cold Bend and Impact Tested to -50°C
- ICEA S-75-381/NEMA WC 58 Portable and Power Feeder Cables for use in Mines and Similar Applications
- ASTM B33 Tinned Soft or Annealed Copper Wire for Electrical Purpose
- ASTM B172 Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors

SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG CU 3/C EPR TYPE SHD-GC 2000V -50°C 90°C P-07-KA140013 MSHA



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SPEC 47301_PSS DIVISION DATE: 07/12/2017 Rev:1.0.00M

Table 1 – Weights & Measurements

Stock Code	Phase Conductors			Insulation		Ground Conductors		Ground Check Conductor			Jacket Thickness	Nominal OD (11)	Weight
	Size	Strands	Diameter (1)	Thickness	Diameter (3)	Size	Strands	Size	Strands	Insul. Thickness			
	AWG	No.	inches	mils	inches	AWG	No.	AWG	No.	mils.			
TBD	8	168	0.155	70	0.331	10	104	10	104	30	140	1.06	770
TBD	6	133	0.210	70	0.386	10	104	10	104	30	155	1.29	1,100
TBD	4	259	0.256	70	0.432	8	168	8	168	45	155	1.40	1,430
TBD	3	259	0.285	70	0.461	7	49	8	168	45	170	1.51	1,690
TBD	2	308	0.320	70	0.496	6	133	8	168	45	170	1.59	1,950
TBD	1	385	0.355	80	0.551	5	133	8	168	45	190	1.76	2,400
TBD	1/0	273	0.385	80	0.581	4	259	8	168	45	190	1.86	2,820
TBD	2/0	324	0.420	80	0.616	3	259	8	168	45	205	2.00	3,390
TBD	3/0	418	0.506	80	0.702	2	308	8	168	45	205	2.13	3,970
TBD	4/0	532	0.577	80	0.773	1	385	8	168	45	220	2.31	4,800
TBD	250	608	0.610	95	0.836	1/0	273	6	133	60	220	2.51	5,750
TBD	300	735	0.737	95	0.963	1/0	273	6	133	60	235	2.68	6,450
TBD	350	855	0.720	95	0.946	2/0	324	6	133	60	235	2.81	7,520
TBD	500	1221	0.900	95	1.126	4/0	532	6	133	60	265	3.19	10,160

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

Stock Code	Conductor Size	Resistance		Reactance		Working Tension	Minimum Bending Radius	Allowable Ampacities †
		DC @ 25°C	AC @ 90°C	X _c @ 60Hz	X _l @ 60Hz			
		Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT			
TBD	8	0.676	0.845	0.039	0.041	113	6.4	69 ††
TBD	6	0.421	0.526	0.033	0.036	179	7.7	93
TBD	4	0.267	0.334	0.028	0.034	285	8.4	122
TBD	3	0.212	0.265	0.026	0.033	360	9.1	140
TBD	2	0.168	0.210	0.024	0.032	454	9.5	159
TBD	1	0.133	0.166	0.024	0.032	572	10.6	184
TBD	1/0	0.111	0.139	0.022	0.031	722	11.2	211
TBD	2/0	0.085	0.106	0.021	0.031	910	12.0	243
TBD	3/0	0.067	0.084	0.018	0.029	1147	12.8	279
TBD	4/0	0.053	0.066	0.016	0.028	1446	13.9	321
TBD	250	0.045	0.056	0.017	0.029	1709	15.1	355
TBD	300	0.037	0.046	0.014	0.028	2051	16.1	398
TBD	350	0.032	0.040	0.015	0.028	2393	16.9	435
TBD	500	0.023	0.029	0.012	0.027	3418	19.1	536

† Ampacity based on ICEA S-75-381 Table H-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

†† Ampacity for #8 AWG is not present in the ICEA table. This value was calculated by Southwire Engineers.

