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5000V SHD-GC PORTABLE POWER CABLE EXTRA HEAVY DUTY EPR / NEO 90°C CSA MSHA MINING GRADE INSULATION: (EPR) ETHYLENE PROPYLENE RUBBER OUTER JACKET: REINFORCED NEOPRENE SIZES: 2 -1 AWG



ICEA S-75-381/NEMA WC58, ASTM B 172, ASTM B 33, CSA C22.2 No. 96-03

1.0 APPLICATIONS:

- For use as trailing mining cables.
 - Use on AC off track equipment such as longwall & continuous miners, loaders, blast hole drillers, conveyors, pumps and mobile equipment requiring grounding conductors and ground check and metallic shielding overall.
 For use in applications where ground check
 - conductor is required for added safety. • Maximum continuous conductor temperature 90°C.

2.0 FEATURES: 2.1

3.2

3.5

- Excellent Flexibility
 - High ozone, sun, weather and flame resistant
 - Rated and flexible at -40°C
 - Excellent impact and abrasion resistant
 - Oil and heat resistant
 - Indent printed for easy identification

3.0 CONSTRUCTION:

- 3.1 Conductors:
 - Flexible strand tinned copper, ASTM B 172 and ASTM B33, C22.2 No. 96-03 sec4.3.1 table 3.
 - Seperator:

Polyester tape between conductor and insulation. 4.0

3.3 Conductor Shield:

Extruded semi-conducting layer over conductor. C22.2 No. 96-03.

3.4 Insulation:

Ethylene-propylene rubber (EPR) C22.2 No. 96-03 see 4.3.3.

Insulation Shield:

Non-conducting bedding tape and composite tinned copper/polyamide braid 60% minimum coverage.

Color Code:

3.6

Polyamide braid color code - black, red, blue C22.2 No. 96-03 table 1.

3.7 Grounding Conductors: Tinned copper - C22.2 No. 96-03 see

4.3.5.

3.8 Ground Check:

Yellow polypropylene-insulated tinned copper conductor, C22.2 No. 96-03 see 4.3.3/4.3.7.

3.9 Cable Assembly:

Three power conductors, ground check and two non-insulated grounding conductors cabled together to form a round cable core.

3.10 Separator:

Single faced rubber-filled binder tape applied over core.

3.11 Jacket:

Black, extra heavy duty, high torsion-resistant, integral-filled, reinforced Neoprene thermoset jacket, C22.2 No. 96-03 see 4.3.9 table 2.

APPROVALS:

4.1 CSA:

1523058 (LR 103932) - FT1; FT5; -40°C +90°C

4.2 MSHA:

P-07-KA060012 (Neoprene)



5.0 Dimensions

Power Conductor Size	Power Conduc- tor Stranding	Ground Check Conductor Size		rounding onductor	Nominal Insulation Thickness	Nominal Jacket Thickness	Nominal O.D.		Approximate Weight	
AWG or MCM	No. of Stranding	AWG	AWG	Stranding	inches	inches	inches	mm	lbs/1000 ft	kgs/km
2	259 7 x 37	8	6	133 7x19	0.110	0.205	1.87	47.5	2370	3527
1/0	266 19 x 14	8	4	259 7x37	0.110	0.220	2.08	52.8	3200	4762
2/0	342 19 x 18	8	3	259 7x37	0.110	0.220	2.20	55.9	3615	5380

(1) Ampacity- Free air measured; Based on continuous duty at 90°C conductor temperature (2) Short-circuit current (1s) - Based on conductor temperature from 90°C up to 250'C

6.0 Electrical and Mechanical Parameters

Conductor Size		Power Conductor Resistance at	Grounding Conductor	Ground Check Resistance at	Inductance Per Unit	Operating Capacitance Per	Permissible Short Circuit	Maximum Permissible Tensile	
Power	Grounding	25°C	Resistance at 25°C	25°C	Length	Ùnit Length	Current ⁽²⁾ (1s)	Force	
AWG or MCM		Ω / 1000 FT	Ω / 1000 FT	Ω / 1000 FT	mH / 1000 FT	mH / 1000 FT	kA	N	
2	6	0.172	0.436	0.679	0.101	0.13	4.80	1500	
1/0	4	0.109	0.274	0.679	0.097	0.14	7.65	2400	
2/0	3	0.0868	0.227	0.679	0.092	0.16	9.64	3000	