

# SHD-GC 5000V

## Portable Power Cable Extra Heavy Duty EPR / NEO 90°C CSA MSHA Mining Grade



### SPECIFICATIONS & STANDARDS

ICEA S-75-381/NEMA WC58, ASTM B 172, ASTM B 33, CSA C22.2 No. 96-09

### CONSTRUCTION:

- Conductors:** Flexible strand tinned copper, ASTM B 172 and ASTM B33, C22.2 No. 96-09 sec 5.3.1 table 3
- Conductor Shield:** Extruded semi-conducting layer over conductor. C22.2 No. 96-09
- Insulation:** Ethylene-propylene rubber (EPR) C22.2 No. 96-09 sec 5.3.4 table 2 & 4
- Insulation Shield:** Non-conducting bedding tape and composite tinned copper/polyamide braid 60% minimum coverage
- Color Code:** Polyamide braid color code - black, red, blue C22.2 No. 96-09 table 1
- Grounding Cond:** Tinned copper - C22.2 No. 96-09 sec 5.3.2
- Ground Check:** Yellow polypropylene-insulated tinned copper conductor, C22.2 No. 96-09 sec 5.3.3 table 4A
- Cable Assembly:** Three power conductors, ground check and two non-insulated grounding conductors cabled together to form a round cable core
- Separator:** Single faced rubber-filled binder tape applied over core
- Jacket:** Black, extra heavy duty, high torsion-resistant, integral-filled, reinforced Neoprene thermoset jacket, C22.2 No. 96-09 sec 5.3.9 table 2 & 5

FEATURES	APPLICATION
<ul style="list-style-type: none"> <li>- Excellent flexibility</li> <li>- Highly ozone, sun, weather, water and flame resistant</li> <li>- Rated and flexible at -40°C</li> <li>- Excellent impact and abrasion resistant</li> <li>- Oil and heat resistant</li> <li>- Indent printed for easy identification</li> </ul>	<ul style="list-style-type: none"> <li>- For use as trailing mining cables.</li> <li>- Use on AC off track equipment such as longwall &amp; continuous miners, loaders, blast hole drillers, conveyors, pumps and mobile equipment requiring grounding conductors and ground check and metallic shielding overall.</li> <li>- For use in applications where ground check conductor is required for added safety.</li> <li>- Maximum continuous conductor temperature 90C</li> </ul>

### APPROVALS:

- CSA:** 1523058 (LR 103932) - FT1; FT5; -40°C +90°C
- MSHA:** P-07-KA060012

Part Number	Power Conductor Size	Power Conductor Stranding	Ground Check Conductor Size	Grounding Conductor		Nominal Insulation Thickness	Nominal Jacket Thickness	Nominal O.D.		Approx. Weight	
				Size	Stranding			inches	mm	lbs/1000 ft	kgs/km
	AWG or MCM	No. of Stranding	AWG	AWG	No. of Wires	inches	inches	inches	mm	lbs/1000 ft	kgs/km
SHDGC5KV6-3	6 AWG	133 7x19	8	10	49 7x7	0.110	0.185	1.56	39.6	1460	2173
SHDGC5KV4-3	4 AWG	259 7x37	8	9	133 7x19	0.110	0.185	1.68	42.7	1769	2633
SHDGC5KV2-3	2 AWG	259 7x37	8	7	133 7x19	0.110	0.205	1.87	47.5	2370	3527
SHDGC5KV1-3	1 AWG	259 7x37	8	6	133 7x19	0.110	0.205	1.95	49.5	2660	3959
SHDGC5KV1/0-3	1/0 AWG	266 19x14	8	5	259 7x37	0.110	0.220	2.08	52.8	3200	4762
SHDGC5KV2/0-3	2/0 AWG	342 19x18	8	4	259 7x37	0.110	0.220	2.20	55.9	3615	5380
SHDGC5KV3/0-3	3/0 AWG	418 19x22	8	3	259 7x37	0.110	0.235	2.36	59.9	4300	6398
SHDGC5KV4/0-3	4/0 AWG	532 19x28	8	2	259 7x37	0.110	0.235	2.50	63.5	5059	7529
SHDGC5KV250-3	250 MCM	627 19x33	6	1	266 19x14	0.120	0.250	2.69	68.3	6200	9227
SHDGC5KV350-3	350 MCM	888 37x24	6	1/0	342 19x18	0.120	0.265	2.95	74.9	7700	11458
SHDGC5KV500-3	500 MCM	1221 37x33	6	3/0	532 19x28	0.120	0.280	3.31	84.1	10200	15178

### ELECTRICAL AND MECHANICAL PARAMETERS

Power-Grounding Conductor Size	Power Conductor Resistance at 20°C	Grounding Conductor Resistance at 20°C	Ground Check Conductor Resistance at 20°C	Inductance per unit length	Operating Capacitance per unit length	Permissible Short-Circuit Current <sup>(2)</sup> (1s)	Ampacity <sup>(1)</sup> 40°C Ambient Temp.	Maximum Permissible Tensile Force
AWG or MCM	Ω/1000Ft	Ω/1000Ft	Ω/1000Ft	mH/1000Ft	μF/1000Ft	kA	A	N
6 AWG – 10 AWG	0.436	1.109	0.679	0.132	0.08	1.90	93	600
4 AWG – 8 AWG	0.274	0.697	0.679	0.119	0.09	3.03	122	950
2 AWG – 6 AWG	0.172	0.436	0.679	0.112	0.10	4.80	159	1500
1 AWG – 5 AWG	0.137	0.349	0.679	0.108	0.11	6.06	184	1900
1/0 AWG – 4 AWG	0.109	0.274	0.679	0.105	0.12	7.65	211	2400
2/0 AWG – 3 AWG	0.0868	0.227	0.679	0.099	0.14	9.64	243	3000
3/0 AWG – 2 AWG	0.0688	0.172	0.679	0.098	0.14	12.15	279	3800
4/0 AWG – 1 AWG	0.0546	0.137	0.679	0.094	0.16	15.30	321	4800
250 MCM – 1/0 AWG	0.0466	0.109	0.436	0.089	0.18	18.16	355	5800
350 MCM – 2/0 AWG	0.0333	0.0868	0.436	0.085	0.21	25.31	435	7900
500 MCM – 4/0 AWG	0.0233	0.0546	0.436	0.082	0.24	36.18	536	11400

(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

### STANDARD PRINT LEGEND:

TF CABLE (VOLTAGE) (SIZE) TYPE SHD-GC CSA  
LR 103932 FT1 FT5 (-40C) +90C P-07-KA060012-MSHA

### SPECIAL FACTORY OPTIONS:

- Jacket:** Red, yellow, green, orange, blue
- MSHA:** P-7K-268101 (CPE)
- Jacket:** TPU Red, yellow, green, orange, blue
- MSHA:** P-07-KA030001 (TPU)