

TYPE SHD-GC 3/c 5kV

Three conductor Round portable power cable Mining grade

SPECIFICATIONS & STANDARDS

ICEA S-75-381/NEMA WC58
ASTM B 172, ASTM B 33

CONSTRUCTION:

- Conductors:** Annealed flexible stranded tin coated copper in accordance with ASTM B 172 and ICEA S-75-381
- Conductors shield:** Semi-conducting layer over the conductor
- Insulation:** Ethylene-propylene rubber (EPR)
- Insulation shield:** Non conducting bedding tape + composite tinned copper/fiber braid covering minimum 60%
- Circuit identification:** The nylon in the shielding braid is colored black, white, red in accordance with ICEA S-75-381
- Grounding conductors:** Annealed tin coated copper as per Tab. 3-24 of ICEA S-75-381
- Ground check:** Annealed tin coated copper as per Tab. 3-21 of ICEA S-75-381
Color of insulation: yellow
- Assembly:** Three power conductor, ground check and two non-insulated grounding conductors cabled together; Single faced rubber filled binder tape applied overall; Integral filled jacket for higher torsion resistance
- Jacket:** Reinforced Neoprene® (optional CPE, TPU jacket available)
Type extra heavy duty in accordance with Par. 3.21 of ICEA S-75-381
- Color of jacket:** Black; Other colors available



FEATURES	APPLICATION
<ul style="list-style-type: none">- Excellent flexibility- Highly ozone, sun, weather, water and flame resistant- Rated and flexible at -40°C- Excellent impact and abrasion resistant- Oil and heat resistant- Indent printed for easy identification	<ul style="list-style-type: none">- These cables are used for heavy mobile equipment such as drag lines, shovels, dredges, drills, other track equipment and for power feeders in underground mines- Maximum continuous conductor temperature is 90°C

Standard length cable packing: 1000 ft reels; Other forms of packaging available

APPROVALS:

- MSHA:** P-07-KA060012 (Neoprene), P-7K-268101 (CPE), P-07-KA030001 (TPU)
- CSA:** 1523058 (LR 103932) - "FT1"; "FT5"; "90°C"; "(-40°C)" (Neoprene)



Neoprene is a registered trademark of DuPont



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12/08 v2.4

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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	No. of Wires	inches	inches	inches	mm	lbs/1000 ft	kgs/km
SHDGC5KV6-3 Mining	6 AWG	133 7x19	8	10	49 7x7	0.110	0.185	1.56	39.6	1460	2173
SHDGC5KV4-3 Mining	4 AWG	259 7x37	8	8	133 7x19	0.110	0.185	1.68	42.7	1769	2633
SHDGC5KV2-3 Mining	2 AWG	259 7x37	8	6	133 7x19	0.110	0.205	1.87	47.5	2370	3527
SHDGC5KV1-3 Mining	1 AWG	259 7x37	8	5	133 7x19	0.110	0.205	1.95	49.5	2660	3959
SHDGC5KV1/0-3 Mining	1/0 AWG	266 19x14	8	4	259 7x37	0.110	0.220	2.08	52.8	3200	4762
SHDGC5KV2/0-3 Mining	2/0 AWG	342 19x18	8	3	259 7x37	0.110	0.220	2.20	55.9	3615	5380
SHDGC5KV3/0-3 Mining	3/0 AWG	418 19x22	8	2	259 7x37	0.110	0.235	2.36	59.9	4300	6398
SHDGC5KV4/0-3 Mining	4/0 AWG	532 19x28	8	1	259 7x37	0.110	0.235	2.50	63.5	5059	7529
SHDGC5KV250-3 Mining	250 MCM	627 19x33	8	1/0	266 19x14	0.120	0.250	2.69	68.3	6200	9227
SHDGC5KV350-3 Mining	350 MCM	888 37x24	8	2/0	342 19x18	0.120	0.265	2.95	74.9	7700	11458
SHDGC5KV500-3 Mining	500 MCM	1221 37x33	8	4/0	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 ⁽²⁾ (1s)	Ampacity ⁽¹⁾ 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:

TELE-FONIKA 5000V (SIZE) TYPE SHD-GC P-07-KA060012-MSHA

