



SHD-GC

5kV

ICEA S-75-381/NEMA WC-58

Round portable power cable Mining grade

APPLICATIONS

Use on AC off track equipment such as long wall miners loaders, drills, shovels, conveyors, pumps and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall. Other industrial, mining applications

CONSTRUCTION

Conductors	Soft drawn flexible stranded tinned copper wires
Conductor shield	Semi-conducting layer over the conductor
Insulation	Ethylene-propylene rubber (EPR)
Insulation shield	Non-conducting bedding tape + composite tinned copper/polyamide braid. Covering minimum 60%
Circuit identification	The polyamide in the shielding braid is colored black, white, red
Grounding	Soft drawn flexible stranded tinned copper wires
Ground check	Yellow PP insulated soft drawn flexible stranded tinned copper wires
Assembly	Three power, ground check and two non-insulated grounding conductors cabled together to form a round cable core
Separator	A single faced rubber filled binder tape applied over core
Outer jacket	Extra heavy duty, high torsion resistant, integral-filled, reinforced poly-chloroprene (CR) thermosetting jacket
Color of outer jacket	Black
Minimum bending radius	Six times overall diameter of the cable



Features

Excellent flexibility. Highly 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.

Approvals

MSHA: P-07-KA060012

Selection Data

	Cond. Size	Cond. Strand	Cond. Size		Nominal Insulation Thickness		Nominal Jacket Thickness		Outside Diameter		Approx. Weight		Max. Tensile Force
			GRD	GC	Inches	mm	Inches	mm	Inches	mm	Lbs./1000ft.	kg/km	N
	AWG/MCM	No. of wires	AWG										
SHDGC5KV6-3	6	133	10	8	0.110	2.79	0.185	4.70	1.51	38.3	1383	2058	600
SHDGC5KV4-3	4	259	8	8	0.110	2.79	0.185	4.70	1.62	41.2	1733	2579	950
SHDGC5KV2-3	2	259	6	8	0.110	2.79	0.205	5.21	1.81	45.9	2271	3379	1500
SHDGC5KV1-3	1	259	5	8	0.110	2.79	0.205	5.21	1.88	47.8	2536	3774	1900
SHDGC5KV1/0-3	1/0	266	4	8	0.110	2.79	0.220	5.59	2.00	50.7	2974	4425	2400
SHDGC5KV2/0-3	2/0	342	3	8	0.110	2.79	0.220	5.59	2.12	53.9	3504	5215	3000
SHDGC5KV3/0-3	3/0	418	2	8	0.110	2.79	0.235	5.97	2.27	57.6	4117	6127	3800
SHDGC5KV4/0-3	4/0	532	1	8	0.110	2.79	0.235	5.97	2.40	61.0	4844	7209	4800
SHDGC5KV250-3	250	627	1/0	8	0.120	3.05	0.250	6.35	2.59	65.7	5602	8336	5800
SHDGC5KV350-3	350	888	2/0	8	0.120	3.05	0.265	6.73	2.83	71.9	7152	10643	7900
SHDGC5KV500-3	500	1221	4/0	8	0.120	3.05	0.280	7.11	3.18	80.7	9508	14149	11400

* Based on ICEA S-75-381 NEMA WC 58

Electrical parameters

Power-Grounding Conductor Size	Power Conductor Resistance at 25°C	Grounding Conductor Resistance at 25°C	Ground-check Conductor Resistance at 25°C	Inductance per unit length	Operating Capacitance per unit length	Permissible short-circuit Current (1s) (2)	Ampacity(1) 40°C Ambient Temp
AWG or MCM	Ω/1000Ft	Ω/1000Ft	Ω/1000Ft	mH/1000Ft	µF/1000Ft	kA	A
6 AWG	0,436	1,08	0,679	0,132	0,08	1,90	93
4 AWG	0,274	0,679	0,679	0,119	0,09	3,03	122
2 AWG	0,172	0,436	0,679	0,112	0,10	4,80	159
1 AWG	0,137	0,346	0,679	0,108	0,11	6,06	184
1/0 AWG	0,109	0,274	0,679	0,105	0,12	7,65	211
2/0 AWG	0,0868	0,217	0,679	0,099	0,14	9,64	243
3/0 AWG	0,0688	0,172	0,679	0,098	0,14	12,15	279
4/0 AWG	0,0546	0,137	0,679	0,094	0,16	15,30	321

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AWG or MCM	$\Omega/1000\text{Ft}$	$\Omega/1000\text{Ft}$	$\Omega/1000\text{Ft}$	mH/1000Ft	$\mu\text{F}/1000\text{Ft}$	kA	A
250 MCM	0,0466	0,109	0,679	0,089	0,18	18,16	355
350 MCM	0,0333	0,0868	0,679	0,085	0,21	25,31	435
500 MCM	0,0233	0,0546	0,679	0,082	0,24	36,18	536

(1) Ampacity –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 5000V 3/C (SIZE) TYPE SHD-GC FT1 FT5 (-40C) +90C P-07-KA060012-MSHA

Special factory option

Jacket:	Other colors available
Jacket:	TPU jacket available
MSHA:	P-07-KA120001 (TPU)

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