

SHD-GC 25000V

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



SPECIFICATIONS & STANDARDS

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

CONSTRUCTION:

- Conductors:** Flexible strand tinned copper conductor, ASTM B-172 and ICEA S-75-381, table 3-22
- Separator:** Polyester tape between conductor and insulation. ICEA S-75-381
- Conductor Shield:** Extruded semi-conducting layer over conductor. ICEA S-75-381 sec. 3.14
- Insulation:** Ethylene-propylene rubber (EPR) ICEA S-75-381, table 3-22
- Insulation Shield:** Semi-conducting bedding tape and composite tinned copper/polyamide braid 60% minimum coverage
- Color Code:** Polyamide braid color code - black, white, red, ICEA S-75-381
- Grounding Cond:** Tinned copper - ICEA S-75-381 Tab. 3-22
- Ground Check:** Yellow polypropylene-insulated tinned copper conductor, ICEA S-75-381 Tab. 3-22
- 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, ICEA S-75-381 Tab. 3-3, 3-22, Sec. 3.21

FEATURES	APPLICATION
<ul style="list-style-type: none"> - Excellent flexibility - Highly ozone, sun, weather, water and flame resistant - Rated and flexible at -50°C - Excellent impact and abrasion resistant - Oil and heat resistant - Indent printed for easy identification 	<ul style="list-style-type: none"> - Use on AC off track equipment such as longwall miners loaders, drills, conveyors, pumps and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall - Maximum continuous conductor temperature is 90°C

APPROVALS:

MSHA: P-07-KA060012-1

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)

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	kg/km
	AWG	No. of Stranding		AWG	No. of Stranding	inches	inches	inches	mm	lbs/1000 ft	kg/km
SHDGC25KV2-3	2 AWG	259 7x37	8	6	133 7x19	0.295	0.235	2.95	74.9	5325	7925
SHDGC25KV1-3	1 AWG	259 7x37	8	5	133 7x19	0.295	0.265	3.05	77.5	5841	8691
SHDGC25KV1/0-3	1/0 AWG	266 19x14	8	4	259 7x37	0.295	0.265	3.20	81.3	6553	9747
SHDGC25KV2/0-3	2/0 AWG	342 19x18	8	3	259 7x37	0.295	0.280	3.33	84.6	7255	10797
SHDGC25KV3/0-3	3/0 AWG	418 19x22	8	2	259 7x37	0.295	0.280	3.40	86.4	7400	11011
SHDGC25KV4/0-3	4/0 AWG	532 19x28	8	1	259 7x37	0.295	0.295	3.50	88.9	8355	12434

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
2 AWG – 6 AWG	0.172	0.436	0.679	0.142	0.05	4.80	178	1500
1 AWG – 5 AWG	0.137	0.349	0.679	0.137	0.06	6.06	191	1900
1/0 AWG – 4 AWG	0.109	0.274	0.679	0.132	0.06	7.65	218	2400
2/0 AWG – 3 AWG	0.0868	0.227	0.679	0.125	0.07	9.64	249	3000
3/0 AWG – 2 AWG	0.0688	0.172	0.679	0.124	0.07	12.15	286	3800
4/0 AWG – 1 AWG	0.0546	0.137	0.679	0.118	0.08	15.30	327	4800

(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 25000V (SIZE) TYPE SHD-GC FT1 FT5 (-50C) +90C P-07-KA060012-1-MSHA

