



Paige SPEC

P7341M-SHD-GC 5kV
Rev 1

PORTABLE POWER CABLE
EXTRA HEAVY DUTY **pumpwire**
EPR/NEO 90°C
MSHA MINING GRADE
3 CONDUCTOR SHIELDED-GC 5000V
INSULATION: (EPR) ETHYLENE PROPYLENE RUBBER
OUTER JACKET: NEOPRENE
SIZES: 6 AWG – 500 MCM
90°C Wet/Dry, MSHA

WE SPECIALIZE IN SUBMERSIBLES



1.0 APPLICATIONS:

1.1 Shielded, Flexible Portable Power Pump Cable designed 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**
 - Excellent Flexibility
 - High ozone, sun, weather and flame resistant
 - Rated and flexible at -50°C
 - Excellent impact and abrasion resistant
 - Oil and heat resistant
 - Indent printed for easy identification

3.0 CONSTRUCTION:

- 3.1 Conductors:**
Flexible stranded tinned copper in accordance with ASTM B 172 and ICEA S-75-381 table 3-22.
- 3.2 Conductor Shielding:**
Extruded semi-conducting layer over the conductor. ICEA S-75-381 sec 3.14
- 3.3 Insulation:**
Ethylene-propylene rubber (EPR). ICEA S-75-381 table 3-22.
- 3.4 Insulation Shield:**
Non-conducting bedding tape and composite tinned copper/polyamide braid. Coverage minimum 60%.

3.5 Color Code:

Polyamide braid color code – black, white, red ICEA S-75-381.

3.6 Grounding Conductors:

Tinned copper as per Tab. 3-22 of ICEA S-75-381.

3.7 Ground Check:

Yellow polypropylene-insulated tinned copper conductor ICEA S-75-381 Tab. 3-22.

3.8 Assembly:

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

3.9 Separator:

Single faced rubber filled binder tape applied over core.

3.10 Color of 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.

4.0 APPROVALS:

4.1 MSHA:

- 4.1.1 P-07-KA060012 (Neoprene)
- 4.1.2 P-7K-268101 (CPE)
- 4.1.3 P-07-KA030001 (TPU)

4.2 CSA:

available on request.

5.0 Dimensions

Paige Part #	Power Conductor Size	Power Conductor Stranding	Ground Check Conductor Size	Grounding Conductor Size	Power Conductor Stranding	Insulation Thickness	Jacket Thickness	Cable O.D.		Approximate Weight		Ampacity (1) 40°C Ambient Temp.
	AWG or MCM	No. of Stranding	AWG	AWG	No. of Wires	inches	inches	inches	mm	lbs/1000 ft	kgs/km	
SHDGC5KV6-3	6	133 7 x 19	8	10	49 7x7	0.110	0.185	1.56	39.6	1460	2173	93
SHDGC5KV4-3	4	259 7 x 37	8	8	133 7x19	0.110	0.185	1.68	42.7	1769	2633	122
SHDGC5KV2-3	2	259 7 x 37	8	6	133 7x19	0.110	0.205	1.87	47.5	2370	3527	159
SHDGC5KV1-3	1	259 7 x 37	8	5	133 7x19	0.110	0.205	1.95	49.5	2660	3959	184
SHDGC5KV1/0-3	1/0	266 19 x 14	8	4	259 7x37	0.110	0.220	2.08	52.8	3200	4762	211
SHDGC5KV2/0-3	2/0	342 19 x 18	8	3	259 7x37	0.110	0.220	2.20	55.9	3615	5380	243
SHDGC5KV3/0-3	3/0	418 19 x 22	8	2	259 7x37	0.110	0.235	2.36	59.9	4300	6398	279
SHDGC5KV4/0-3	4/0	532 19 x 28	8	1	259 7x37	0.110	0.235	2.50	63.5	5059	7529	321
SHDGC5KV4/0-3	250 MCM	627 19 x 33	8	1/0	266 19x14	0.120	0.250	2.69	68.3	6200	9227	355
SHDGC5KV4/0-3	350 MCM	888 37 x 24	8	2/0	342 19x18	0.120	0.265	2.95	74.9	7700	11458	435
SHDGC5KV500-3	500 MCM	1221 37 x 33	8	4/0	532 19x28	0.120	0.280	3.31	84.1	10200	15178	536

(1) Ampacity – Free air measured based on continuous duty at 90°C conductor temperature (2) Short Circuit current (1s) –Based on conductor temperature form 90°C up to 250°C

6.0 Electrical and Mechanical Parameters

Power Grounding Conductor Size	Power Conductor Resistance at 20°C	Grounding Conductor Resistance at 20°C	Ground Check Resistance at 20°C	Inductance Per Unit Length	Operating Capacitance Per Unit Length	Permissible Short Circuit Current (1s)	Maximum Permissible Tensile Force
AWG	Ω / 1000 FT	Ω / 1000 FT	Ω / 1000 FT	mH / 1000 FT	mH / 1000 FT	kA	N
6 - 10	0.436	1.109	0.679	0.132	0.08	190	600
4 - 8	0.274	0.697	0.679	0.119	0.09	3.03	950
2 - 6	0.172	0.436	0.679	0.112	0.10	4.80	1500
1 - 5	0.137	0.349	0.679	0.108	0.11	6.06	1900
1/0 - 4	0.109	0.274	0.679	0.105	0.12	7.65	2400
2/0 - 3	0.0868	0.227	0.679	0.099	0.14	9.64	3000
3/0 - 1	0.0688	0.172	0.679	0.098	0.14	12.15	3800
4/0 - 1	0.0546	0.137	0.679	0.094	0.16	15.30	4800
250 MCM - 1/0	0.0466	0.109	0.436	0.089	0.18	18.16	5800
350 MCM - 2/0	0.0333	0.0868	0.436	0.085	0.21	25.31	7900
500 MCM - 4/0	0.0233	0.0546	0.436	0.082	0.24	36.18	11400

