

# MP-GC 5000V EPR/CPE

## Mine Power Feeder Cable Extra Heavy Duty EPR / CPE 90°C MSHA Mining Grade



### SPECIFICATIONS & STANDARDS

ICEA S-75-381/NEMA WC58, ASTM B 8

### CONSTRUCTION:

- Conductor:** Bare copper, concentric strand ASTM B 8
- Conductor shield:** Semi-conducting tape and compound, ICEA S-75-381 sec 3.14
- Insulation:** Ethylene-propylene rubber (EPR), ICEA S-75-381, table 4-3/4-4
- Insulation shield:** Semi-conducting compound, ICEA S-75-381 and 0.005 copper tape
- Grounding cond:** Tin copper Class B, ICEA S-75-381, table 4-1
- Ground check:** Bare copper, ICEA S-75-381 table 4-1; insulation color: yellow
- Assembly:** Three power conductor, ground check and two non-insulated grounding conductors cabled with rubber fillers to make a round core; Single faced rubber filled binder tape applied overall
- Jacket:** Black extra heavy duty CPE thermoset compound, ICEA S-75-381, table 3-3, 3-22, sec. 3.21
- Color code:** Color code tape: black, white, red applied under metallic shielding tape provides circuit identification, ICEA S-75-381 sec 4.6

FEATURES	APPLICATION
<ul style="list-style-type: none"> <li>- Ozone, sun, weather and flame resistant</li> <li>- Oil and heat resistant</li> <li>- Maximum continuous conductor temperature 90°C</li> <li>- Indent printed for easy identification</li> </ul>	<ul style="list-style-type: none"> <li>- For use as trailing mining cables</li> <li>- For use up to 8000 volts when installed in ducts, conduits, open air and for direct burial in wet and dry locations</li> </ul>

### APPROVALS:

MSHA: P-07-KA050003-1

### SPECIAL FACTORY OPTIONS:

Jacket: Other colors available  
Neoprene®

### UL TYPE MP-GC – 5000 VOLTS – 100% INSULATION LEVEL

Part Number	Power Conductor Size	Power Conductor Stranding	Size		Nominal Insulation Thickness	Nominal Jacket Thickness	Nominal O.D.		Approx. Weight	
			Ground	Ground Check			inches	mm	lbs/1000 ft	kgs/km
	AWG or MCM	No. of Wires	AWG	AWG	inches	inches	inches	mm	lbs/1000 ft	kgs/km
MPGC5KV4-3-CPE	4 AWG	7	8	8	0.090	0.110	1.32	33.5	1210	1800
MPGC5KV2-3-CPE	2 AWG	7	6	8	0.090	0.110	1.45	36.8	1650	2455
MPGC5KV1-3-CPE	1 AWG	19	5	8	0.090	0.110	1.53	38.9	1920	2857
MPGC5KV1/0-3-CPE	1/0 AWG	19	4	8	0.090	0.110	1.63	41.4	2280	3393
MPGC5KV2/0-3-CPE	2/0 AWG	19	3	8	0.090	0.110	1.74	44.2	2700	4018
MPGC5KV4/0-3-CPE	4/0 AWG	37	1	8	0.090	0.140	2.00	50.8	3900	5803
MPGC5KV250-3-CPE	250 MCM	37	1/0	8	0.090	0.140	2.13	54.1	4600	6840
MPGC5KV350-3-CPE	350 MCM	37	2/0	8	0.090	0.140	2.35	59.7	5900	8780
MPGC5KV500-3-CPE	500 MCM	37	4/0	8	0.090	0.140	2.64	67.1	8150	12100

### 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
4 AWG – 8 AWG	0.258	0.678	0.652	0.112	0.11	3.03	122	1270
2 AWG – 6 AWG	0.162	0.427	0.652	0.106	0.13	4.80	159	1600
1 AWG – 5 AWG	0.129	0.338	0.652	0.102	0.14	6.06	184	2500
1/0 AWG – 4 AWG	0.102	0.269	0.652	0.099	0.15	7.65	211	3200
2/0 AWG – 3 AWG	0.081	0.213	0.652	0.094	0.17	9.64	243	4000
4/0 AWG – 1 AWG	0.051	0.134	0.652	0.089	0.20	15.30	321	6400
250 MCM – 1/0 AWG	0.043	0.102	0.652	0.084	0.24	18.16	355	7700
350 MCM – 2/0 AWG	0.031	0.081	0.652	0.081	0.28	25.31	435	9100
500 MCM – 4/0 AWG	0.022	0.051	0.652	0.077	0.33	36.18	536	15100

(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 5000V (SIZE) GROUNDED MP-GC P-07-KA050003-1-MSHA



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