



MP-GC EPR/CPE

5000–25000 V

ICEA S-75-381/NEMA WC-58

Mine Power Feeder Cable Extra Heavy Duty EPR/CPE 90°C. Mining grade

APPLICATIONS

- For use as trailing mining cables
- For use from 5 kV up to 25 kV when installed in ducts, conduit, open air and direct burial in wet and dry locations
- Other industrial, mining applications

CONSTRUCTION

Conductors	Annealed bare copper conductor Class B in accordance with ASTM B8
Conductor shield	Semi-conductive tape and layer over the conductor
Insulation	Ethylene-propylene rubber (EPR)
Insulation shield	Copper tape
Circuit identification	Color thread: black, red white applied under metallic shielding tape
Grounding	Annealed tin coated copper Class B in accordance with ASTM B8
Ground check	Annealed bare copper conductor Class B in accordance with ASTM B8 Insulation color: yellow
Assembly	Three power, one ground check, two tinned copper grounding conductors cabled with cured rubber fillers as required to make an essentially round core
Separator	A single faced rubber filled binder tape applied over core
Outer jacket	Extra heavy duty, CPE thermosetting compound
Color of outer jacket	Black or other colors can be provided



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Features

Ozone, sun, weather and flame resistant	Maximum continuous conductor temperature 90°C
Oil and heat resistant	Indent printed for easy identification

Approvals

MSHA:	P-07-KA050003-1 (for sizes 6AWG-500MCM 5, 8 kV, 4AWG-500MCM 15 kV, 6AWG-350MCM 25 kV) black
Standard length cable packing	1000ft on drums. Other forms of packing and delivery are available on request

Selection Data

Part Number	Cond. Size	Cond. Strand	Cond. Size		Nominal Insulation Thickness	Nominal Jacket Thickness	Approx. O.D.		Approx. weight		Maximum Permissible Tensile Force
			GRD	GC			Inches	mm	Lbs./1000ft.	kg/km	
	AWG/MCM	No. of wires	AWG		Inches	Inches	Inches	mm	Lbs./1000ft.	kg/km	N
TYPE MP-GC - 5000 VOLTS - 100% INSULATION LEVEL											
MPGC5KV 6-3-CPE	6	7	10	10	0.09	0.110	1.31	33.3	1 146	1 705	600
MPGC5KV 4-3-CPE	4	7	8	8	0.09	0.110	1.41	35.8	1 435	2 135	950
MPGC5KV 2-3-CPE	2	7	6	8	0.09	0.110	1.54	39.0	1 851	2 755	1500
MPGC5KV 1-3-CPE	1	19	5	8	0.09	0.110	1.62	41.1	2 137	3 180	1900
MPGC5KV 1/0-3-CPE	1/0	19	4	8	0.09	0.110	1.70	43.3	2 490	3 705	2400
MPGC5KV 2/0-3-CPE	2/0	19	3	8	0.09	0.140	1.86	47.2	3 007	4 475	3000
MPGC5KV 3/0-3-CPE	3/0	19	2	8	0.09	0.140	1.97	50.0	3 528	5 250	3800
MPGC5KV 4/0-3-CPE	4/0	37	1	8	0.09	0.140	2.09	53.1	4 176	6 215	4800
MPGC5KV 250-3-CPE	250	37	1/0	8	0.09	0.140	2.19	55.6	4 785	7 120	5800
MPGC5KV 350-3-CPE	350	37	2/0	8	0.09	0.140	2.41	61.2	6 156	9 160	7900
MPGC5KV 500-3-CPE	500	37	4/0	8	0.09	0.140	2.69	68.2	8 410	12 515	11400
TYPE MP-GC - 8000 VOLTS - 100% INSULATION LEVEL											
MPGC8KV 6-3-CPE	6	7	10	10	0.115	0.110	1.42	36.0	1 290	1 920	600
MPGC8KV 4-3-CPE	4	7	8	8	0.115	0.110	1.52	38.6	1 589	2 365	950

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Part Number	Cond. Size	Cond. Strand	Cond. Size		Nominal Insulation Thickness	Nominal Jacket Thickness	Approx. O.D.		Approx. weight		Maximum Permissible Tensile Force
	AWG/MCM	No. of wires	GRD	GC	Inches	Inches	Inches	mm	Lbs./1000ft.	kg/km	N
MPGC8KV 2-3-CPE	2	7	6	8	0.115	0.110	1.65	41.8	2 016	3 000	1500
MPGC8KV 1-3-CPE	1	19	5	8	0.115	0.140	1.79	45.4	2 409	3 585	1900
MPGC8KV1/0-3-CPE	1/0	19	4	8	0.115	0.140	1.87	47.5	2 772	4 125	2400
MPGC8KV2/0-3-CPE	2/0	19	3	8	0.115	0.140	1.96	49.9	3 202	4 765	3000
MPGC8KV3/0-3-CPE	3/0	19	2	8	0.115	0.140	2.07	52.7	3 733	5 555	3800
MPGC8KV4/0-3-CPE	4/0	37	1	8	0.115	0.140	2.20	55.8	4 395	6 540	4800
MPGC8KV250-3-CPE	250	37	1/0	8	0.115	0.140	2.30	58.3	5 010	7 455	5800
MPGC8KV350-3-CPE	350	37	2/0	8	0.115	0.140	2.52	64.0	6 404	9 530	7900
MPGC8KV500-3-CPE	500	37	4/0	8	0.115	0.170	2.85	72.5	8 840	13 155	11400

TYPE MP-GC - 15000 VOLTS - 100% INSULATION LEVEL

MPGC15KV4-3-CPE	4 ⁽¹⁾	7	8	8	0.175	0.140	1.84	46.7	2 100	3 125	950
MPGC15KV2-3-CPE	2	7	6	8	0.175	0.140	1.96	49.9	2 564	3 815	1500
MPGC15KV1-3-CPE	1	19	5	8	0.175	0.140	2.05	52.0	2 883	4 290	1900
MPGC15KV1/0-3-CPE	1/0	19	4	8	0.175	0.140	2.13	54.1	3 266	4 860	2400
MPGC15KV2/0-3-CPE	2/0	19	3	8	0.175	0.140	2.22	56.5	3 720	5 535	3000
MPGC15KV3/0-3-CPE	3/0	19	2	8	0.175	0.140	2.33	59.3	4 277	6 365	3800
MPGC15KV4/0-3-CPE	4/0	37	1	8	0.175	0.140	2.46	62.4	4 963	7 385	4800
MPGC15KV250-3-CPE	250	37	1/0	8	0.175	0.140	2.56	64.9	5 604	8 340	5800
MPGC15KV350-3-CPE	350	37	2/0	8	0.175	0.140	2.78	70.6	7 053	10 495	7900
MPGC15KV500-3-CPE	500	37	4/0	8	0.175	0.170	3.11	79.1	9 566	14 235	11400

TYPE MP-GC - 25000 VOLTS - 100% INSULATION LEVEL

MPGC25KV2-3-CPE	2	7	6	8	0.260	0.140	2.31	58.6	3 283	4 885	1500
MPGC25KV1-3-CPE	1	19	5	8	0.260	0.140	2.39	60.7	3 629	5 400	1900
MPGC25KV1/0-3-CPE	1/0	19	4	8	0.260	0.140	2.47	62.8	4 039	6 010	2400
MPGC25KV2/0-3-CPE	2/0	19	3	8	0.260	0.140	2.57	65.2	4 523	6 730	3000
MPGC25KV3/0-3-CPE	3/0	19	2	8	0.260	0.140	2.68	68.0	5 114	7 610	3800

MP-GC EPR/CPE

Part Number	Cond. Size	Cond. Strand	Cond. Size		Nominal Insulation Thickness	Nominal Jacket Thickness	Approx. O.D.		Approx. weight	Maximum Permissible Tensile Force	
			GRD	GC			Inches	mm		Lbs./1000ft.	kg/km
MPGC25KV4/0-3-CPE	4/0	19	1	8	0.260	0.170	2.86	72.6	5 998	8 925	4800
MPGC25KV250-3-CPE	250	19	1/0	8	0.260	0.170	2.96	75.1	6 676	9 935	5800
MPGC25KV350-3-CPE	350	37	2/0	8	0.260	0.170	3.18	80.8	8 205	12 210	7900

(1)Based on standard

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	$\Omega/1000\text{Ft}$	$\Omega/1000\text{Ft}$	$\Omega/1000\text{Ft}$	mH/1000Ft	$\mu\text{F}/1000\text{Ft}$	kA	A
MP-GC 5000 VOLTS - 100% INSULATION LEVEL							
4 AWG	0.258	0.678	0.652	0.117	0.09	3.03	122
2 AWG	0.162	0.427	0.652	0.111	0.10	4.80	159
1 AWG	0.129	0.338	0.652	0.107	0.11	6.06	184
1/0 AWG	0.102	0.269	0.652	0.104	0.12	7.65	211
2/0 AWG	0.081	0.213	0.652	0.098	0.14	9.64	243
4/0 AWG	0.051	0.134	0.652	0.093	0.16	15.30	321
250 MCM	0.043	0.102	0.652	0.087	0.20	18.16	355
350 MCM	0.031	0.081	0.652	0.083	0.22	25.31	435
500 MCM	0.022	0.051	0.652	0.080	0.26	36.18	536
TYPE MP-GC - 8000 VOLTS - 100% INSULATION LEVEL							
4 AWG	0.258	0.678	0.652	0.117	0.09	3.03	122
2 AWG	0.162	0.427	0.652	0.111	0.10	4.80	159
1 AWG	0.129	0.338	0.652	0.107	0.11	6.06	184
1/0 AWG	0.102	0.269	0.652	0.104	0.12	7.65	211
2/0 AWG	0.081	0.213	0.652	0.098	0.14	9.64	243
4/0 AWG	0.051	0.134	0.652	0.093	0.16	15.30	321

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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
250 MCM	0.043	0.102	0.652	0.087	0.20	18.16	355
350 MCM	0.031	0.081	0.652	0.083	0.22	25.31	435
500 MCM	0.022	0.051	0.652	0.080	0.26	36.18	536
TYPE MP-GC -15000, 25000 VOLTS - 100% INSULATION LEVEL							
4 AWG	0.258	0.678	0.652	0.129	0.07	3.03	122
2 AWG	0.162	0.427	0.652	0.122	0.08	4.80	164
1 AWG	0.129	0.338	0.652	0.118	0.08	6.06	187
1/0 AWG	0.102	0.269	0.652	0.114	0.09	7.65	215
2/0 AWG	0.081	0.213	0.652	0.107	0.10	9.64	246
4/0 AWG	0.051	0.134	0.652	0.102	0.11	15.30	325
250 MCM	0.043	0.102	0.652	0.094	0.14	18.16	355
350 MCM	0.031	0.081	0.652	0.090	0.16	25.31	435
500 MCM	0.022	0.051	0.652	0.086	0.18	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 Voltage (SIZE) GROUNDED MP-GC P-07KA050003-1-MSHA

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