

TYPE MP-GC 3/c 5kV EPR/CPE

Three conductor Mine power feeder cable Mining grade

SPECIFICATIONS & STANDARDS

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

CONSTRUCTION:

Conductors:	Uncoated annealed copper, rope stranded per ASTM B 172
Conductors shield:	Semi-conducting tape and compound, in accordance with Par. 3.14 of ICEA S-75-381
Insulation:	Ethylene-propylene rubber (EPR)
Insulation shield:	Semi-conducting compound as per Par 3.14, 4.5 of ICEA S-75-381 and 0.005" copper tape
Grounding conductors:	Annealed tin coated copper Class B as per Tab. 4-1 of ICEA S-75-381
Ground check:	Annealed copper as per Tab. 4-1 of ICEA S-75-381 Color of EVA insulation: yellow
Assembly:	Three power conductor, ground check and two non-insulated grounding conductors cabled with cured rubber fillers as required to make round core; Single faced rubber filled binder tape applied overall
Jacket:	CPE thermosetting compound, extra heavy duty in accordance with Par. 4.8 and Tab. 3-3 of ICEA S-75-381 Optional Neoprene® jacket available
Color of jacket:	Black; Other colors available



FEATURES	APPLICATION
<ul style="list-style-type: none">- Ozone, sun, weather and flame resistant- Oil and heat resistant- Maximum continuous conductor temperature 90°C- Indent printed for easy identification	<ul style="list-style-type: none">- For use as trailing mining cables- For use up to 5000 volts when installed in ducts, conduits, open air and for direct burial in wet and dry locations

Standard length cable packing: 1000 ft reels; Other forms of packaging available

APPROVALS:

MSHA: P-07-KA050003-1

Neoprene is a registered trademark of DuPont



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12/08 v2.4

TYPE MP-GC 3/c 5kV EPR/CPE

UL TYPE MP-GC – 5000 VOLTS – 100% and 133% 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
MPGC4-5KVCPE	4 AWG	7	8	8	0.090	0.110	1.32	33.5	1210	1800
MPGC2-5KVCPE	2 AWG	7	6	8	0.090	0.110	1.45	36.8	1650	2455
MPGC1-5KVCPE	1 AWG	19	5	8	0.090	0.110	1.53	38.9	1920	2857
MPGC1/0-5KVCPE	1/0 AWG	19	4	8	0.090	0.110	1.63	41.4	2280	3393
MPGC2/0-5KVCPE	2/0 AWG	19	3	8	0.090	0.110	1.74	44.2	2700	4018
MPGC4/0-5KVCPE	4/0 AWG	37	1	8	0.090	0.140	2.00	50.8	3900	5803
MPGC250-5KVCPE	250 MCM	37	1/0	8	0.090	0.140	2.13	54.1	4600	6840
MPGC350-5KVCPE	350 MCM	37	2/0	8	0.090	0.140	2.35	59.7	5900	8780
MPGC500-5KVCPE	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 ⁽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
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:

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

