

Ampacity Data

Portable Power Cables Types W, G-GC, SHD-GC - Copper

Table H-1 from ICEA S-75-381-2008

Ampacities For Portable Power Cables, Amperes Per Power Conductor (Types W, G-GC, SHD-GC)

Power Conductor Size	Single Conductor				Two Conductors	Three Conductors				Four Conductors	Five Conductors	Six Conductors
	2 kV or less	8 kV	15 kV	25 kV	2 kV or less	5 kV or less	8 kV	15 kV	25 kV	2 kV or less	2 kV or less	2 kV or less
	Non-Shielded	Shielded	Shielded	Shielded		Non-Shielded	Shielded	Shielded	Shielded			
8	83	—	—	—	72	59	—	—	—	54	50	48
6	109	112	—	—	95	79	93	—	—	72	68	64
4	145	148	—	—	127	104	122	—	—	93	88	83
3	167	171	—	—	145	120	140	—	—	106	100	95
2	192	195	195	—	167	138	159	164	178	122	116	110
1	223	225	225	222	191	161	184	187	191	143	136	129
1/0	258	260	259	255	217	186	211	215	218	165	—	—
2/0	298	299	298	293	250	215	243	246	249	192	—	—
3/0	345	345	343	337	286	249	279	283	286	221	—	—
4/0	400	400	397	389	328	287	321	325	327	255	—	—
250	445	444	440	430	363	320	355	359	360	280	—	—
300	500	496	491	480	400	357	398	—	—	310	—	—
350	552	549	543	529	436	394	435	—	—	335	—	—
400	600	596	590	572	470	430	470	—	—	356	—	—
450	650	640	633	615	497	460	503	—	—	377	—	—
500	695	688	678	659	524	487	536	—	—	395	—	—
550	737	732	—	—	—	—	—	—	—	—	—	—
600	780	779	—	—	—	—	—	—	—	—	—	—
650	820	817	—	—	—	—	—	—	—	—	—	—
700	855	845	—	—	—	—	—	—	—	—	—	—
750	898	889	—	—	—	—	—	—	—	—	—	—
800	925	925	—	—	—	—	—	—	—	—	—	—
900	1010	998	—	—	—	—	—	—	—	—	—	—
1000	1076	1061	—	—	—	—	—	—	—	—	—	—

Ampacities are based on single isolated cable in air operated with open-circuited shield.
NOTE: Ampacities are based on a conductor temperature of 90 °C and an ambient air temperature of 40 °C.

Table I-1 per ICEA S-75-381-2008

Ampacities For Three-Conductor Mine Power Cables (Types MP & MP-GC)

Conductor Size AWG/kcmil		2001 - 8000 volts		8001 - 15000 volts		15001 - 25000 volts	
Copper	Aluminum	Copper	Aluminum	Copper	Aluminum	Copper	Aluminum
6	4	93	95	—	—	—	—
4	2	122	124	—	—	—	—
2	1/0	159	165	164	168	168	170
1	2/0	184	189	187	192	191	194
1/0	3/0	211	218	215	221	218	223
2/0	4/0	243	251	246	254	249	256
3/0	250	279	278	283	281	286	283
4/0	350	321	342	325	344	326	346
250	400	355	360	359	367	360	369
300	450	398	395	401	393	402	404
350	500	435	425	438	424	439	426
400	—	470	—	473	—	473	—
450	—	502	—	504	—	—	—
500	—	536	—	536	—	536	—

Ampacities are based on an ambient temperature of 40 °C and a conductor temperature of 90 °C taken from "PolNer Cable Ampacities", IPCEA Publication No. P-46-426 (IEEE Publication No. 5-135). Vol. 1 for Copper Conductors and Vol. 2 for aluminum conductors page 309.

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