



Minimum Breakdown Voltages / Dielectric Strengths

This information is to be used as a guide only. The data listed herein fall within a normal range but should not be used to establish a specification limits or used alone as the basis of design.

AWG Sizes	Nominal Conductor Diameter mm	Minimum breakdown voltage (r.m.s. value)					
		Grade 1 and Grade 1B		Grade 2 and Grade 2B		Grade 3	
		Room Temperature	Elevated Temperature	Room Temperature	Elevated Temperature	Room Temperature	Elevated Temperature
53	0.018	110		225			
52	0.020	120		250			
51	0.022	130		275			
50	0.025	150		300			
49	0.028	170		325			
48	0.032	190		375			
47	0.036	225		425			
46	0.040	250		475			
45	0.045	275		550			
44	0.050	300		600			
43	0.056	325		650			
42	0.063	375		700			
41	0.071	425		800		1100	
40	0.080	425		850		1200	
39	0.09	500		900		1300	
38	0.100	500		950		1400	
37	0.112	1300	1000	2700	2000	3900	2900
36	0.125	1500	1100	2800	2100	4100	3100
35	0.14	1600	1200	3000	2300	4200	3200
34	0.160	1700	1300	3200	2400	4400	3300
33	0.18	1700	1300	3300	2500	4700	3500
32	0.200	1800	1400	3500	2600	5100	3800
31	0.224	1900	1400	3700	2800	5200	3900
30	0.250	2100	1600	3900	2900	5500	4100
29	0.28	2200	1700	4000	3000	5800	4400
28	0.315	2200	1700	4100	3100	6100	4600
27	0.355	2300	1700	4300	3200	6400	4800
26	0.400	2300	1700	4400	3300	6600	5000
25	0.45	2300	1700	4400	3500	6800	5100
24	0.500	2400	1800	4600	3500	7000	5300
23	0.56	2500	1900	4600	3600	7100	5300
22	0.630	2600	2000	4800	3600	7100	5300
21	0.71	2600	2000	4800	3700	7200	5400
20	0.800	2600	2000	4900	3800	7400	5600
19	0.9	2700	2000	5000	3800	7600	5700
18	1.000						
up to and including 10	up to and including 2.5	2700	2000	5000	3800	7600	5700
Over 10	Over 2,500	1300	1000	2500	1900	3800	2900