AWG Wire Current Rating

Wire Gauge (AWG)	Conductor Diameter (mm)	Conductor Area (sq mm)	Operating Current (A)	Resistance* (mΩ/m)
8	3.264	8.367	16.730	2
9	2.906	6.631	13.270	3
10	2.588	5.261	10.520	4
11	2.305	4.172	8.345	4
12	2.053	3.309	6.618	6
13	1.828	2.624	5.248	7
14	1.628	2.081	4.162	9
15	1.450	1.650	3.301	11
16	1.291	1.309	2.618	14
17	1.150	1.038	2.076	18
18	1.024	0.823	1.646	23
19	0.912	0.653	1.306	29
20	0.812	0.518	1.035	36
21	0.723	0.410	0.821	46
22	0.644	0.326	0.651	57
23	0.573	0.258	0.516	72
24	0.511	0.205	0.410	91
25	0.455	0.162	0.325	115
26	0.405	0.129	0.258	145
27	0.361	0.102	0.204	183
28	0.321	0.081	0.162	231
29	0.286	0.064	0.128	291
30	0.255	0.051	0.102	368
31	0.227	0.040	0.081	463
32	0.202	0.032	0.064	584
33	0.180	0.025	0.051	736
34	0.160	0.020	0.040	928
35	0.143	0.016	0.032	1,171
36	0.127	0.013	0.025	1,476
37	0.113	0.010	0.020	1,861
38	0.101	0.008	0.016	2,347

Current Carrying Capacity of an Insulated Cable = Current Capacity of a Strand x Number of Strands
If there are more than 10 insulated cables bundled together, then the current capacity is reduced to 50%
Current Capacity is furthur limited by the temperature rating of the insulation material
Resistance of a Conductor = (Material Resistivity x Conductor Length) / Crossectional Area
*Resistivity of Copper = 18.7 nΩm