

# AWG Wire Gauge Chart

AWG 0000–40 · solid copper at 20 °C

$d = 0.005 \text{ in} \times 92^{\frac{1}{36 - \text{AWG}}}$  (36 - AWG)/39). Resistance from IACS copper, 1.7241  $\mu\text{ohm}\cdot\text{cm}$  at 20 °C. No ampacity: use NFPA 70 (NEC) or your local code.

| AWG        | Diameter (in) | Diameter (mm) | Area (kcmil) | Area (mm²) | ohm per 1000 ft | ohm per km |
|------------|---------------|---------------|--------------|------------|-----------------|------------|
| 0000 (4/0) | 0.4600        | 11.684        | 211.6        | 107.2      | 0.04901         | 0.1608     |
| 000 (3/0)  | 0.4096        | 10.405        | 167.8        | 85.03      | 0.06180         | 0.2028     |
| 00 (2/0)   | 0.3648        | 9.266         | 133.1        | 67.43      | 0.07793         | 0.2557     |
| 0 (1/0)    | 0.3249        | 8.251         | 105.5        | 53.48      | 0.09827         | 0.3224     |
| 1          | 0.2893        | 7.348         | 83.69        | 42.41      | 0.1239          | 0.4066     |
| 2          | 0.2576        | 6.544         | 66.37        | 33.63      | 0.1563          | 0.5127     |
| 3          | 0.2294        | 5.827         | 52.63        | 26.67      | 0.1970          | 0.6464     |
| 4          | 0.2043        | 5.189         | 41.74        | 21.15      | 0.2485          | 0.8152     |
| 5          | 0.1819        | 4.621         | 33.10        | 16.77      | 0.3133          | 1.028      |
| 6          | 0.1620        | 4.115         | 26.25        | 13.30      | 0.3951          | 1.296      |
| 7          | 0.1443        | 3.665         | 20.82        | 10.55      | 0.4982          | 1.634      |
| 8          | 0.1285        | 3.264         | 16.51        | 8.366      | 0.6282          | 2.061      |
| 9          | 0.1144        | 2.906         | 13.09        | 6.634      | 0.7921          | 2.599      |
| 10         | 0.1019        | 2.588         | 10.38        | 5.261      | 0.9988          | 3.277      |
| 11         | 0.0907        | 2.305         | 8.234        | 4.172      | 1.260           | 4.132      |
| 12         | 0.0808        | 2.053         | 6.530        | 3.309      | 1.588           | 5.211      |
| 13         | 0.0720        | 1.828         | 5.178        | 2.624      | 2.003           | 6.571      |
| 14         | 0.0641        | 1.628         | 4.107        | 2.081      | 2.525           | 8.285      |
| 15         | 0.0571        | 1.450         | 3.257        | 1.650      | 3.184           | 10.45      |
| 16         | 0.0508        | 1.291         | 2.583        | 1.309      | 4.015           | 13.17      |
| 17         | 0.0453        | 1.150         | 2.048        | 1.038      | 5.063           | 16.61      |
| 18         | 0.0403        | 1.024         | 1.624        | 0.8230     | 6.385           | 20.95      |
| 19         | 0.0359        | 0.912         | 1.288        | 0.6527     | 8.051           | 26.41      |
| 20         | 0.0320        | 0.812         | 1.022        | 0.5176     | 10.15           | 33.31      |
| 21         | 0.0285        | 0.723         | 0.8101       | 0.4105     | 12.80           | 42.00      |
| 22         | 0.0253        | 0.644         | 0.6424       | 0.3255     | 16.14           | 52.96      |
| 23         | 0.0226        | 0.573         | 0.5095       | 0.2582     | 20.36           | 66.78      |
| 24         | 0.0201        | 0.511         | 0.4040       | 0.2047     | 25.67           | 84.21      |
| 25         | 0.0179        | 0.455         | 0.3204       | 0.1624     | 32.37           | 106.2      |
| 26         | 0.0159        | 0.405         | 0.2541       | 0.1288     | 40.81           | 133.9      |
| 27         | 0.0142        | 0.361         | 0.2015       | 0.1021     | 51.47           | 168.9      |
| 28         | 0.0126        | 0.321         | 0.1598       | 0.08098    | 64.90           | 212.9      |
| 29         | 0.0113        | 0.286         | 0.1267       | 0.06422    | 81.83           | 268.5      |
| 30         | 0.0100        | 0.255         | 0.1005       | 0.05093    | 103.2           | 338.5      |
| 31         | 0.0089        | 0.227         | 0.07970      | 0.04039    | 130.1           | 426.9      |
| 32         | 0.0080        | 0.202         | 0.06321      | 0.03203    | 164.1           | 538.3      |
| 33         | 0.0071        | 0.180         | 0.05013      | 0.02540    | 206.9           | 678.8      |
| 34         | 0.0063        | 0.160         | 0.03975      | 0.02014    | 260.9           | 856.0      |
| 35         | 0.0056        | 0.143         | 0.03152      | 0.01597    | 329.0           | 1079       |
| 36         | 0.0050        | 0.127         | 0.02500      | 0.01267    | 414.8           | 1361       |
| 37         | 0.0045        | 0.113         | 0.01983      | 0.01005    | 523.1           | 1716       |
| 38         | 0.0040        | 0.101         | 0.01572      | 0.007967   | 659.6           | 2164       |
| 39         | 0.0035        | 0.090         | 0.01247      | 0.006318   | 831.8           | 2729       |
| 40         | 0.0031        | 0.080         | 0.009888     | 0.005010   | 1049            | 3441       |