Conductor Ampacity Based on the 2011 National Electrical Code®
Amplcity based on NEC Table 310.15(B)(16) (Formerly Table 310.16) –
Allowable Ampacities of Insulated Conductors Rated Up to and Including
2000 Volts, 60° Through 90° C (140° Through 194° F). Not More Than Three
Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried),
Based on Ambient Temperature of 30°C (86°F)*

For conduit fill see 2011 NEC Annex C.

For Information on Temperature Ratings of Terminations to Equipment
See NEC 110.14(C).

Adjustment Factors – See NEC Table 310.15 (B)(3)(a)
Where the number of current-carrying conductors in a
raceway or cable exceeds three, the allowable ampacities
shall be reduced as shown in the following table:

<table>
<thead>
<tr>
<th>Number of Conductors***</th>
<th>Percent of Values in Table 310.15(B)(16) through Table 310.15(B)(19) as Adjusted for Ambient Temperature if Necessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 through 6</td>
<td>80</td>
</tr>
<tr>
<td>7 through 9</td>
<td>70</td>
</tr>
<tr>
<td>10 through 20</td>
<td>50</td>
</tr>
<tr>
<td>21 through 30</td>
<td>45</td>
</tr>
<tr>
<td>31 through 40</td>
<td>40</td>
</tr>
<tr>
<td>41 and Above</td>
<td>35</td>
</tr>
</tbody>
</table>

*** Number of conductors is the total number of conductor in the raceway or cable adjusted in accordance with 310.15 (B)(5) and (6).

NEC 210.20(A) Continuous and Noncontinuous Loads
Where a branch-circuit supplies continuous loads or any combination of continuous and noncontinuous loads, the rating of the overcurrent device shall not be less than the noncontinuous load plus 125 percent of the continuous load.

NEC 240.4 Protection of Conductors
Conductors, other than flexible cords, flexible cables, and fixture wires, shall be protected against overcurrent in accordance with their ampacities specified in 310.15, unless otherwise permitted or required in 240.4(A) through (G).

NEC 430.22(A) Direct-Current Motor-Rectifier Supplied.
For dc motors operating from a rectified power supply, the conductors between the field wiring output terminals of the rectifier and the motor shall have an ampacity of not less than the following percentages of the motor full-load current rating:

1. Where a rectifier bridge of the single-phase, half-wave type is used, 190 percent.
2. Where a rectifier bridge of the single-phase, full-wave type is used, 200 percent.
3. Where a rectifier bridge of the single-phase, half-wave type is used with power factor improvement, 180 percent.

** See Section 240.4 (D) for conductor overcurrent protection limitations.

** Refer to 310.15(B)(2)(a) for the ampacity correction factors where the ambient temperature is other than 30°C (86°F).

Ratings for 120/240 volts, 3-Wire, Single-Phase Dwelling Services— See NEC Table 310.15 (B)(7)
These are permitted ratings for Dwelling Unit service and feeder conductors which carry the total load of the dwelling.

NEC 210.19 Conductors — Minimum Ampacity and Size
(A) Branch Circuit Not More Than 600 Volts.
1. General. Branch-circuit conductors shall have an ampacity not less than the maximum load to be served. Where a branch circuit supplies continuous loads or any combination of continuous and noncontinuous loads, the minimum branch-circuit conductor size, before the application of any adjustment or correction factors, shall have an allowable ampacity not less than the noncontinuous load plus 125 percent of the continuous load.

NEC 240.4 (D) Small Conductors
Unless specifically permitted in 240.4(E) or (G), the overcurrent protection shall not exceed that required by (D)(1) through (D)(7) after any correction factors for ambient temperature and number of conductors have been applied.

NEC 430.22(A) Direct-Current Motor-Rectifier Supplied.
For dc motors operating from a rectified power supply, the conductors between the field wiring output terminals of the rectifier and the motor shall have an ampacity of not less than the following percentages of the motor full-load current rating:

1. Where a rectifier bridge of the single-phase, half-wave type is used, 190 percent.
2. Where a rectifier bridge of the single-phase, full-wave type is used, 200 percent.

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