

Conductor Selection and Calculations Worksheet

1. What's the circular mil area of a buss bar that has a square mil area of 25,000?
2. What's the circular mil area of a $\frac{1}{4}$ " x $\frac{1}{2}$ " buss bar?
3. What's the circular mil area of a solid conductor that has a diameter of $\frac{1}{3}$ "?
4. Which of the following is not a standard fuse rating?
 - a. 3A
 - b. 15A
 - c. 50A
 - d. 75A
5. What the total loop resistance of a 350' run of 18 AWG on a 4-20mA loop?
6. What's the minimum circuit ampacity of a 60C conductor, in a conduit with 8 other conductors, carrying 40A, that runs through an area that is 106F?
7. What's the minimum circuit ampacity of a 90C conductor, in a conduit with a total of 11 conductors, that runs through an area that is always 45F or less?
8. What's the minimum conductor size for a 225A load?

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9. What's the minimum temperature rating on a conductor with a 225A load?

10. What's the minimum circular mils required to keep the voltage drop on that 225A load under 3% at 1500'? The circuit voltage is 480VAC.