

# Cable sizing and over current protection

1. Continuous current =  $3.8A * 4 * 1.25 = 19A$
2. Over current device rating =  $19A * 1.25 = 23.75A$   
Fuse = 30A
3. Cable ampacity =  $19A * 1.25 = 23.75A$   
USE-2, 10AWG
4. Derated ampacity =  $55A * .58 = 32A$   
 $32A > 19$  so OK
5. Ampacity vs over current rating?  $32A > 30A$   
Acceptable size, 10AWG
6. Over current device compatibility? 10AWG USE-2 at 60C = 40A
7. Over current device adjustment required? No