

Verification of Wire Sizes for PV System Calculation Form

Checking the wire size from the modules to the inverter (D/C):

Total PV System Rating: = (module wattage off cut sheet)x(# of modules in array) = x = Watts

Max. PV System Voltage: = (Voc(V) off cut sheet) x (# of modules) x CEC factor = x x 1.13 = Volts

Max. Circuit Current: = CEC factor x (total system wattage / total system voltage) = 1.25 x

 = Amps

Using CEC Table 310.15(B)(16): In temperature column copper, 75 ° C, find the amperage allowed, then read over to the size column for the minimum wire size

Min. wire size from Table 310.15(B)(16) #

Checking the wire size from the inverter to the service panel (A/C):

Max Inverter AC Power Output: = (Max AC power output off cut sheet) = Watts

Max. Service Voltage: = 110/240 V = 240 Volts

Max. Circuit Current: = CEC factor x (max inverter AC power output /240) = 1.25 x

240

 = Amps

Using CEC Table 310.15(B)(16): In temperature column copper, 75 ° C, find the amperage allowed, then read over to the size column for the minimum wire size

Min. wire size from Table 310.15(B)(16) #

Note: The smaller the wire size number the larger the wire thickness.