

Project Address: _____

This is a standard electrical plan for the installation of a solar PV system utilizing 2-wire multiple string central inverters not exceeding a total AC output of 10kW, in single-family and duplex dwellings having a 3-wire electrical service not larger than 225 amps at a voltage of 120/240. This plan covers Crystalline- and Multi-Crystalline-type modules where all the modules are mounted on the roof of the dwelling. This plan addresses only the requirements of the 2010 California Electrical Code (CEC).¹

DC WIRING INFORMATION

1. Total number of solar modules being installed: _____	
2. Number of modules per string: _____	3. Total strings: _____
4. Are any strings wired in parallel? _____ Yes _____ No If "Yes", how many are paralleled together? _____ Two _____ Other (specify) _____	
5. Module Voc (from module nameplate): _____	
6. Module Isc (from module nameplate): _____	
7. Maximum DC system voltage _____ X _____ = _____ volts <i>max. no. of modules/string Voc</i> (Must be Ground Fault Protected & must provide a disconnect)	
8. Maximum DC current per string: _____ X 1.56 = _____ maximum amps carried by conductor <i>module Isc</i>	
9. Source circuit conductor size: # _____ AWG	
10. Is a combiner box with fuses going to be installed? _____ Yes _____ No Size of output circuit conductors from combiner to inverter _____ X _____ = _____ amps Output circuit conductor size: # _____ AWG <i>no. of strings max. amps</i>	
11. Module maximum fuse or circuit breaker size (from module nameplate): _____ Size installed: _____	

AC WIRING INFORMATION

12. Inverter: Make _____ Model # _____ Elec. rating _____ kW (Micro Inverters acceptable & provide greater efficiency)	
13. Maximum AC output current _____ X 1.25 = _____ total amps	
14. a. Rated maximum power-point current (mppA) _____ X _____ = _____ amps <i>I_{max} value from module nameplate no. of strings</i>	
b. Rated maximum power-point voltage _____ X _____ = _____ volts <i>V_{max} value from module nameplate no. of modules in largest string</i>	
c. Short circuit current of the PV System _____ X 1.25 = _____ amps <i>module Isc</i>	
15. Does the roof have a single roof covering? _____ Yes _____ No <i>If No, submit plan from structural engineer</i> <i>Roof Top Mounting Requires a 3-foot space @ the array perimeter to meet fire requirements</i>	

¹ NOTE: This plan is intended for use with standard DC to AC inverters containing an isolation transformer. Identify non PV Conductors from PV Conductors. This plan is not intended for systems containing batteries or power optimizer.



SOLAR PV STANDARD ELECTRICAL PLAN

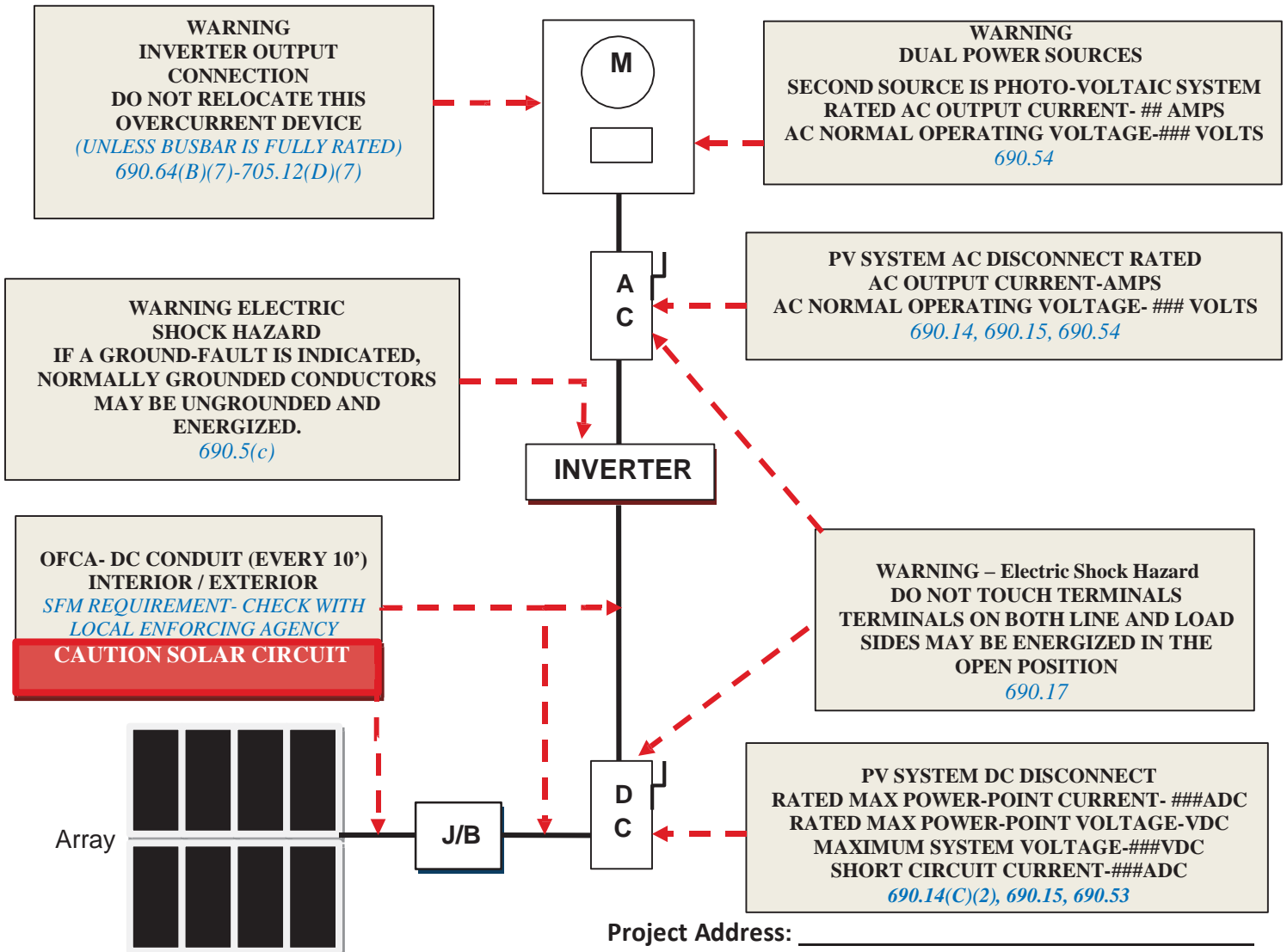
Central Inverter Systems for Single-Family and Duplex Dwellings

Required Signage

- Per 2010 CEC Section 690.17, where both the line and load side terminals of any disconnect may be live in the "OFF" position, the following warning shall be placed on the front of the disconnect:

"WARNING LINE AND LOAD TERMINALS MAY BE ENERGIZED IN THE OPEN POSITION".

- Install following signage. Note: Italicized text shown inside the boxes is not required; it is only for reference.



SOLAR PV ROOF PLAN

SHOW LOCATION OF ALL EQUIPMENT, DISCONNECTING MEANS AND REQUIRED CLEARANCES

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