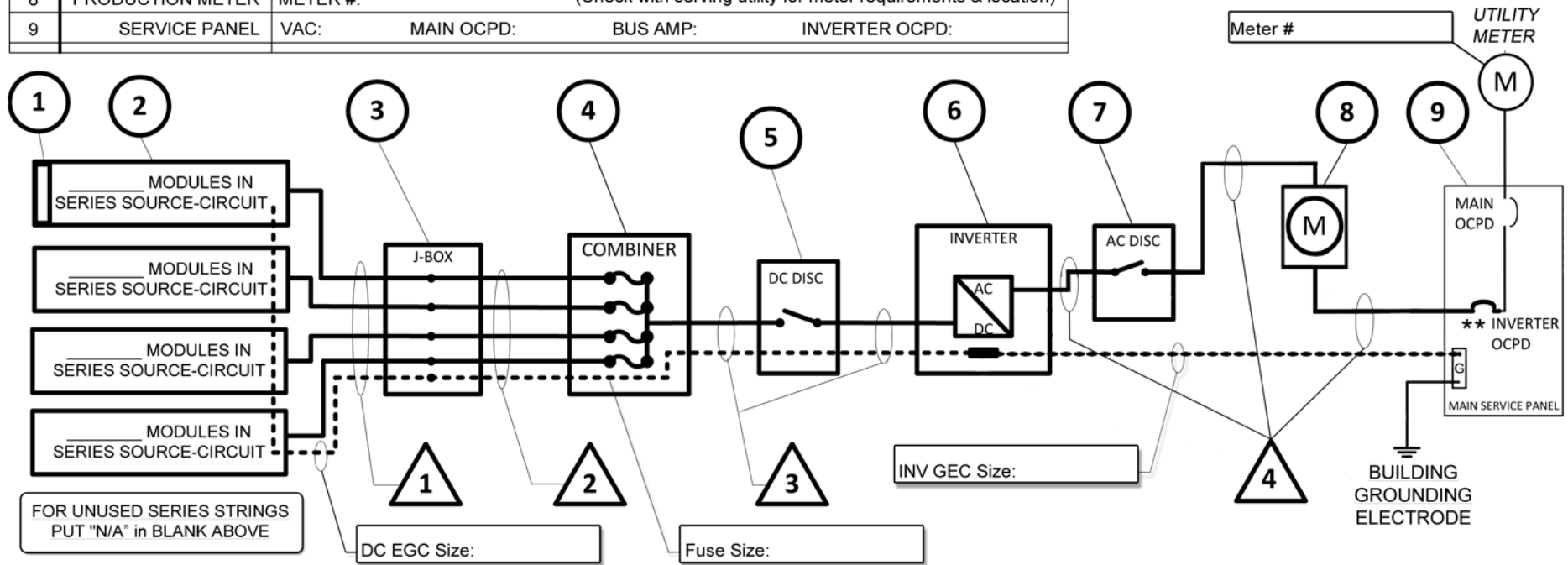


TAG		EQUIPMENT SCHEDULE			
1	SOLAR PV MODULE	MAKE:	MODEL:	(Attach Cut Sheet - See notes for ratings)	
2	PV ARRAY	WEIGHT:	HEIGHT FROM ROOF:	(Attach cut sheet of mounting system)	
3	J-BOX	LENGTH:	WIDTH:	HEIGHT:	NEMA RATING:
4	COMBINER	MAKE:	MODEL:	(Attach cut sheet)	
5	DC DISCONNECT	VDC:	DC AMP:	MAKE:	
6	DC/AC INVERTER	MAKE:	(Attach cut sheet - See notes for ratings)		
7	AC DISCONNECT	VAC:	AMPS:	MODEL:	
8	PRODUCTION METER	METER #:	(Check with serving utility for meter requirements & location)		
9	SERVICE PANEL	VAC:	MAIN OCPD:	BUS AMP:	INVERTER OCPD:

Contractor - Installer Information	
Permit #:	Date:
Name:	
Address:	
Contact Name:	
Contact Phone:	
Email:	



TAG	Conductor Insulation Type	CU/AL	Conductors			*Derated Amps	Raceway		Ambient Temp		Distance off Roof
			Size	Amps	Num		Size	Type	Roof	Attic	
1											
2											
3											
4											

\* Note: Derating of conductors based on number of conductors in raceway, ambient temp and distance off roof where applicable. (NEC 310.15)  
 \*\* Note: Conductors and overcurrent devices shall be sized to carry not less than 125 percent of the maximum currents. (NEC 690.8(B))

**Standard Electrical Diagram - Residential Small Scale PV System  
Central Inverter Systems**

THIS PLAN MUST BE PROVIDED TO THE INSPECTOR AT THE JOB SITE

Site Name: \_\_\_\_\_

Site Address: \_\_\_\_\_

*This plan is NOT intended to be used with micro inverters or transformer-less inverters. Conductors, where installed outdoors in raceways shall be "W" rated and have an insulation rating of 90 deg C.*

Rev - 02/21/2013

NOTES for Residential Small Scale PV System Electrical Diagram

Permit #:	Date:
Contractor:	
Job Address:	
Contact Name:	
Contact Phone:	

SIGNS

SIGN FOR DC DISCONNECT	
PHOTOVOLTAIC POWER SOURCE	
RATED MPP CURRENT	A
RATED MPP VOLTAGE	V
MAX SYSTEM VOLTAGE	V
MAX CIRCUIT CURRENT	A
WARNING: ELECTRICAL SHOCK HAZARD—LINE AND LOAD MAY BE ENERGIZED IN OPEN POSITION	
SIGN FOR INVERTER OCPD AND AC DISCONNECT (IF USED)	
SOLAR PV SYSTEM AC POINT OF CONNECTION	
AC OUTPUT CURRENT	A
NOMINAL AC VOLTAGE	V
THIS PANEL FED BY MULTIPLE SOURCES (UTILITY AND SOLAR)	

PV MODULE RATINGS

MODULE MAKE	
MODULE MODEL	
MAX POWER-POINT CURRENT ( $I_{MP}$ )	A
MAX POWER-POINT VOLTAGE ( $V_{MP}$ )	V
OPEN-CIRCUIT VOLTAGE ( $V_{OC}$ )	V
SHORT-CIRCUIT CURRENT ( $I_{SC}$ )	A
MAX SERIES FUSE (OCPD)	A
MAXIMUM POWER ( $P_{MAX}$ )	W
MAX VOLTAGE (TYP 600V <sub>DC</sub> )	V
VOC TEMP COEFF (mV/°C <input type="checkbox"/> or %/°C <input type="checkbox"/> )	
IF COEFF SUPPLIED, CIRCLE UNITS	

INVERTER RATINGS

INVERTER MAKE	
INVERTER MODEL	
MAX DC VOLT RATING	V
MAX POWER @ 40°C	W
NOMINAL AC VOLTAGE	V
MAX AC CURRENT	A
MAX OCPD RATING	A

LOWEST EXPECTED AMBIENT TEMP:	°C
HIGHEST CONTINUOUS TEMPERATURE:	°C

NEC 690.8(B) Photovoltaic system currents shall be considered continuous.

NEC 690.8(B)(1) The circuit conductors and overcurrent devices shall be sized to carry not less than 125 percent of the maximum currents calculated in 690.8(A).

*Exception: Circuits containing an assembly, together with its overcurrent device(s), that is listed for continuous operation at 100 percent of its rating shall be permitted to be utilized at 100 percent of its rating.*

All signage and markings shall be a phenolic or metallic plate or other similar material in block letters 1/4 inch or greater in height, and suitable for the environment. Letters and background shall be in contrasting colors. Screws, rivets or other approved means shall be used to affix plates to equipment.

INVERTER		PANELBOARD	
Maximum Current	OCPD Size	Main Bus	Main OCPD
56 amps	70 amps	225 amps	200 amps
36 amps	45 amps	225 amps	225 amps
33 amps	40 amps	200 amps	200 amps
24 amps	30 amps	150 amps	150 amps
20 amps	25 amps	125 amps	125 amps
16 amps	20 amps	100 amps	100 amps