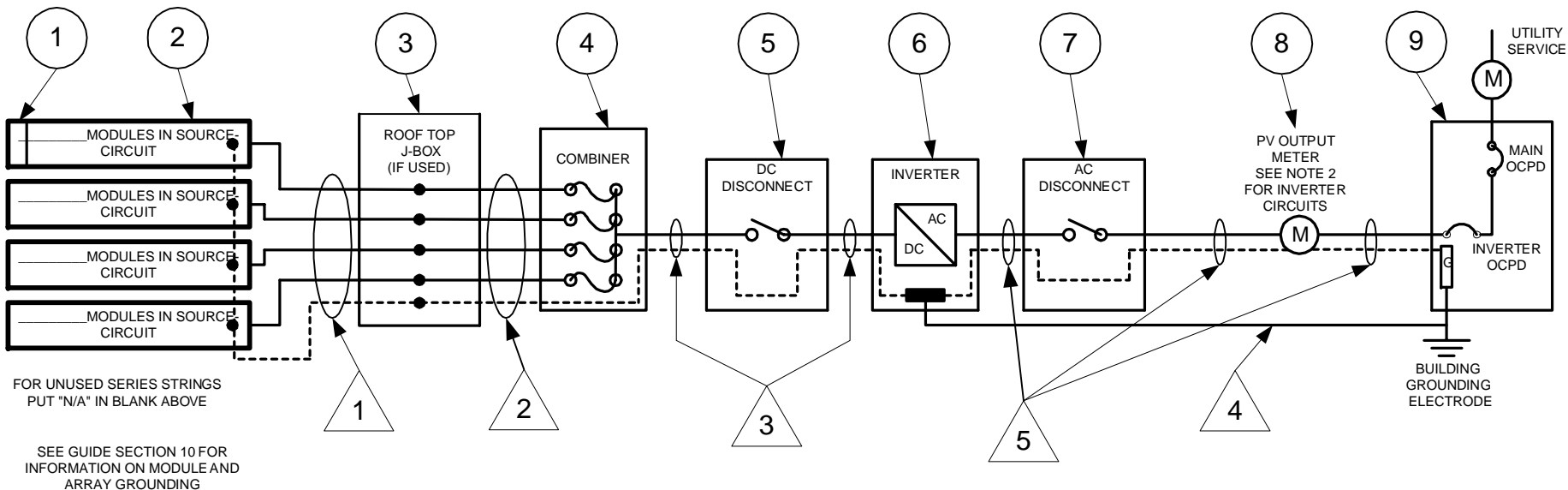


EQUIPMENT SCHEDULE			
TAG	DESCRIPTION	PART NUMBER	NOTES
1	SOLAR PV MODULE		
2	PV ARRAY		
3	J-BOX (IF USED)		
4	COMBINER (IF USED)		
5	DC DISCONNECT		
6	DC/AC INVERTER		
7	AC DISCONNECT (IF USED)		
8	GEN METER (IF USED)		
9	SERVICE PANEL		



STANDARD ELECTRICAL DIAGRAM FOR SMALL-SCALE, SINGLE-PHASE PV SYSTEMS

SITE NAME:

SITE ADDRESS:

SYSTEM AC SIZE:

CONTRACTOR / ENG. NAME:

CONTRACTOR / ENG. ADDRESS:

CONTRACTOR / ENG. LIC # : **EXPIRATION DATE:**

DRAWN BY: **DATE:** **DRAWING NO:**

CONDUIT AND CONDUCTOR SCHEDULE					
Δ TAG	DESCRIPTION OF CONDUCTOR TYPE	Cond. Gauge	# of Conductors	Conduit Type	Conduit Size
1	USE-2 OR PV WIRE(UF, SE, USE)				
	BARE COPPER EQ. GND. COND.(EGC)				
2	THWN-2 OR XHHW-2 (circle one)				
3	THWN-2 OR XHHW-2 (circle one)				
	INSULATED EGC				
4	DC GROUNDING ELECTRODE COND.				
5	THWN-2 OR XHHW-2 (circle one)				
	INSULATED EGC				

PV MODULE RATINGS	
MODULE MAKE	
MODULE MODEL	
MAX. POWER POINT CURRENT (Imp)	
MAX. POWER POINT VOLTAGE (Vmp)	
OPEN-CIRCUIT VOLTAGE (Voc)	
SHORT-CIRCUIT CURRENT (Isc)	
MAX. SERIES FUSE (OCPD)	
MAX. POWER (Pmax)	
MAX. VOLTAGE (TYP 600 VDC)	

NOTES FOR ALL DRAWINGS

OCPD=OVERCURRENT PROTECTION DEVICE

NATIONAL ELECTRICAL CODE REFERENCES SHOWN AS (NEC XXX.XX)

INVERTER RATINGS

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

SIGNS

SIGN FOR DC DISCONNECT	
PHOTOVOLTAIC POWER SOURCE	
RATED MPP CURRENT	
RATED MPP VOLTAGE	
MAX. SYSTEM VOLTAGE	
MAX CIRCUIT CURRENT	
WARNING ELECTRICAL SHOCK HAZARD-LINE AND LOAD MAY BE ENERGIZED IN OPEN POSITION	
SIGN FOR INVERTER OCPD AND AC DISCONNECT (IF USED)	
AC POINT OF CONNECTION	
AC OUTPUT CURRENT	
NOMINAL AC VOLTAGE	

NOTES FOR ARRAY CIRCUIT WIRING

1) LOWEST EXPECT AMBIENT TEMPERATURE BASED ON ASHRAE MINIMUM MEAN EXTREME DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION. LOWEST EXPECTED AMBIENT TEMP 0 °C

2) HIGHEST CONTINUOUS AMBIENT TEMPERATURE BASED ON ASHRAE HIGHEST MONTH 2% DRY BULB TEMPERATURE FOR ASHRAE LOCATION MOST SIMILAR TO INSTALLATION LOCATION. HIGHEST CONTINUOUS TEMPERATURE 34 °C

3) 2005 ASHRAE FUNDAMENTALS 2% DESIGN TEMPERATURES DO NOT EXCEED 47°C IN THE UNITED STATES (PALM SPRINGS, CA IS 44.1°C). FOR LESS THAN 9 CURRENT-CARRYING CONDUCTORS IN ROOF-MOUNTED SUNLIT CONDUIT AT LEAST 1/2" ABOVE ROOF AND USING THE OUTDOOR DESIGN TEMPERATURE OF 47°C OR LESS (ALL OF UNITED STATES),

a) 12 AWG 90°C CONDUCTORS ARE GENERALLY ACCEPTABLE FOR MODULES WITH Isc OF 7.68 AMPS OR LESS WHEN PROTECTED BY A 12 AMP OR SMALLER FUSE

b) 10 AWG 90°C CONDUCTORS ARE GENERALLY ACCEPTABLE FOR MODULES WITH Isc OF 9.6 AMPS OR LESS WHEN PROTECTED BY A 15 AMP OR SMALLER FUSE

NOTES FOR INVERTER CIRCUITS

1) IF UTILITY REQUIRES A VISIBLE-BREAK SWITCH, DOES THIS SWITCH MEET THE REQUIREMENT? YES / NO (CIRCLE ONE)

2) IF GENERATION METER REQUIRED, DOES THIS METER SOCKET MEET THE REQUIREMENT? YES / NO (CIRCLE ONE)

3) SIZE PHOTOVOLTAIC POWER SOURCE (DC) CONDUCTORS BASED ON MAX CURRENT ON 690.53 SIGN OR OCPD RATING AT DISCONNECT (IF SUPPLIED)

4) SIZE INVERTER OUTPUT CIRCUIT (AC) CONDUCTORS ACCORDING TO INVERTER OCPD AMP RATING

5) TOTAL OF ___ INVERTER OCPD(S), ONE FOR EACH INVERTER. DOES TOTAL SUPPLY BREAKERS COMPLY WITH 120% BUSBAR EXCEPTION IN 690.64(B)(2)(a)? YES / NO (CIRCLE ONE)

STANDARD ELECTRICAL DIAGRAM FOR SMALL-SCALE, SINGLE-PHASE PV SYSTEMS

SITE NAME:

SITE ADDRESS:

SYSTEM AC SIZE:

CONTRACTOR / ENG. NAME:

CONTRACTOR / ENG. ADDRESS:

CONTRACTOR / ENG. LIC # :

EXPIRATION DATE:

DRAWN BY:

DATE:

DRAWING NO: