

PNAX	-1.10	W/°C
VOC	-0.133	V/°C
EC	0.00515	A/°C

STRING FUSE	13.42ADC → 15ADC
WIRE	#10 USE-2

INV FUSE	242ADC → 250ADC
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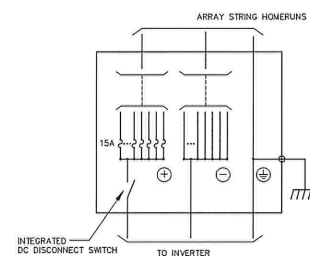
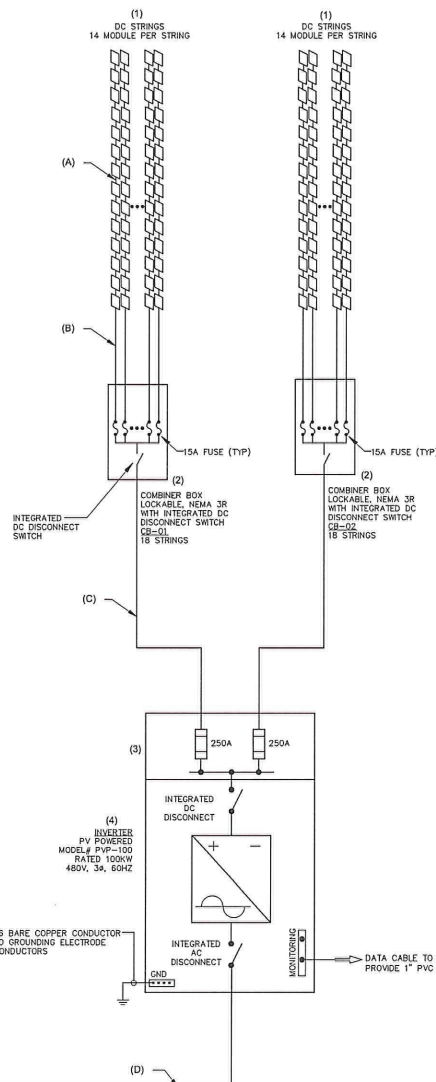
OCPD	150A
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ARRAY TOTALS	
WITH NEC 690.7 & 690.8	
VOC	594 VDC
VHOM	413 VDC
ISC	384 ADC
IHOM	359 ADC
# OF PANELS	518
# OF STRINGS	36
# OF COMBINERS	2

CONDUCTOR AND CONDUIT SCHEDULE				
ITEM	DESCRIPTION	CONDUCTOR	CONDUIT	PATH
(A)	PV SOURCE CIRCUIT	2 x #12, CU, USE-2 @ #10, CU, GND	N/A - BACK OF MODULE WIRING	N/A
(B)	PV SOURCE CIRCUITS	2 x #10, CU, USE-2 @ #10, CU, GND	N/A - IN/OUT RUN WIRING	CAR PORT
(C)	PV OUTPUT CIRCUIT	REFER TO WIRING SCHEDULE FOR CONDUITS		CAR PORT
(D)	INVERTER OUTPUT CIRCUIT	1 SET OF #10, CU, THHN-2 @ #10, CU, GND AND #10, CU, THHN-2 @ #10, CU, GND	2" EMT ABOVE GROUND AND 1/2" SCH 40 EMT (UNDERGROUND)	UNDERGROUND TRENCH

WIRING SCHEDULE FOR COMBINERS					
COMBINDER (ITEM 2)	# OF FUSES	GRD CON.	OUTPUT CONDUCTOR (ITEM C)	INV DC FUSING (ITEM 3)	CONDUIT (ITEM C)
CB1	18	NEG	2 x 250 MCM THHN-2, CU WITH #4, CU	250AAC	MIN 2" EMT ABOVE GROUND OR 2" PVC SCH 80 UNDERGROUND
CB2	18	NEG	2 x 250 MCM THHN-2, CU WITH #4, CU	250AAC	MIN 2" EMT ABOVE GROUND OR 2" PVC SCH 80 UNDERGROUND

EQUIPMENT SCHEDULE			
ITEM	DESCRIPTION	DETAIL	REMARKS
(1)	PV SOURCE CIRCUIT / STRINGS	14 KYOCERA KHZ400-LP6, 240W MODULES IN EACH STRING	TYPICAL OF ALL STRINGS
(2)	PV SOURCE CIRCUIT COMBINER	600VDC, UL LISTED, 50% NEMA 4, 15A FUSES	REFER TO WIRING SCHEDULE
(3)	INVERTER DC CDP FUSES	600VDC, UL LISTED SUB-COMBINER OPTION	
(4)	INVERTER	PV POWERED 1000W	
(5)	INTERCONNECTION	REFER TO AC INTERCONNECTION DRAWING	AT 480V V, 3PH, 3W+GND



COMBINER BOX WIRING

SCALE: NTS

ELECTRICAL GENERAL NOTES

1. REFER TO DRAWING E-100 FOR SYMBOLS AND ABBREVIATIONS
2. ALL EQUIPMENT IS NEW UNLESS OTHERWISE NOTED.
3. UNLESS OTHERWISE NOTED, ALL ELECTRICAL EQUIPMENT AND WIRING IN LIGHT LINE HEIGHT ARE EXISTING TO REMAIN.
4. ALL DC COMPONENTS SHALL BE LISTED FOR 600VDC.
5. ALL CONDUCTORS ARE COPPER UNLESS OTHERWISE INDICATED.
6. ALL NEW EQUIPMENT TO HAVE AN ARC RATING GREATER THAN OR EQUAL TO THAT OF THE EXISTING EQUIPMENT UNLESS OTHERWISE NOTED.
7. CONSULT INVERTER INSTALLATION GUIDE FOR WIRING METHODS AND OPERATING PROCEDURES.
8. INVERTER-INTEGRATED PROTECTION INCORPORATES THE FOLLOWING PROTECTIVE FUNCTIONS (PER UL-1741):
 - 810 PHASE OVERCURRENT
 - 810 OVERCURRENT
 - 29 OVERVOLTAGE
 - 29 UNDERFREQUENCY
 - 29 UNDERVOLTAGE
 - 51N AND FAULT DETECTION & INTERRUPT
 - ANTI-ISLANDING PROTECTION
9. ALL SHUT DOWN MUST BE COORDINATED WITH THE OWNER AT LEAST 5 DAYS PRIOR TO ANY SUCH SHUTDOWN.
10. STRING SIZE CALCULATION BASED ON LOWEST AMOUNT OF PV LOSS AND THE HIGHEST TEMPERATURE.

ONE LINE DIAGRAM

SCALE: NTS

3	DRAFT#3	08/26/11	GS	AG
2	DRAFT#2	08/25/11	GS	AG
1	DRAFT#1	08/19/11	GS	AG
No. Revision/Issue		Date	Dwn	Chk

ENGINEER SEAL AND SIGN



DATE: _____
AMIN H. GOMAA, P.E.
 PROFESSIONAL ENGINEER, N.J. LIC. No. 24GE04842100

SYSTEM DESIGNER

SYSTEM OWNER

NEW JERSEY
MEADOWLANDS
COMMISSION
(NJMC)

SOLAR INTEGRATOR

SUNDURANCE
ENERGY

2045 LINCOLN HWY
EDISON, NJ 08817

2045 LINCOLN HWY
EDISON, NJ 08817

PROJECT NAME AND ADDRESS

NJMC PARKING LOT
ONE DEKORTE PARK
LYNDHURST, NJ 07071

SHEET TITLE

ONE LINE DIAGRAM

DRAWN BY: K.C.	CHECKED BY: A.G.
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DRAWN BY: K.C.	CHECKED BY: A.G.
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PROJECT NO. 0913200	SHEET NUMBER 5
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CREATION DATE
08/19/2011

CREATION DATE
08/19/2011

SCALE
AS SHOWN