

AC-385MH/144S
QTY: NINETY-FIVE (95)
36.575kW DC / 32kW AC
ROOF MOUNT ARRAY

DR. DAVID KNOWLES
4109/4111 S WATER TOWER PLAZA
MT. VERNON, IL 62864
618-214-7822

TICK TACK ENERGY
800 E. FAYETTE AVE
EFFINGHAM, IL 62401
217-994-9020

DESIGNER
LSD
REV1

PV
01
SITE
PLAN

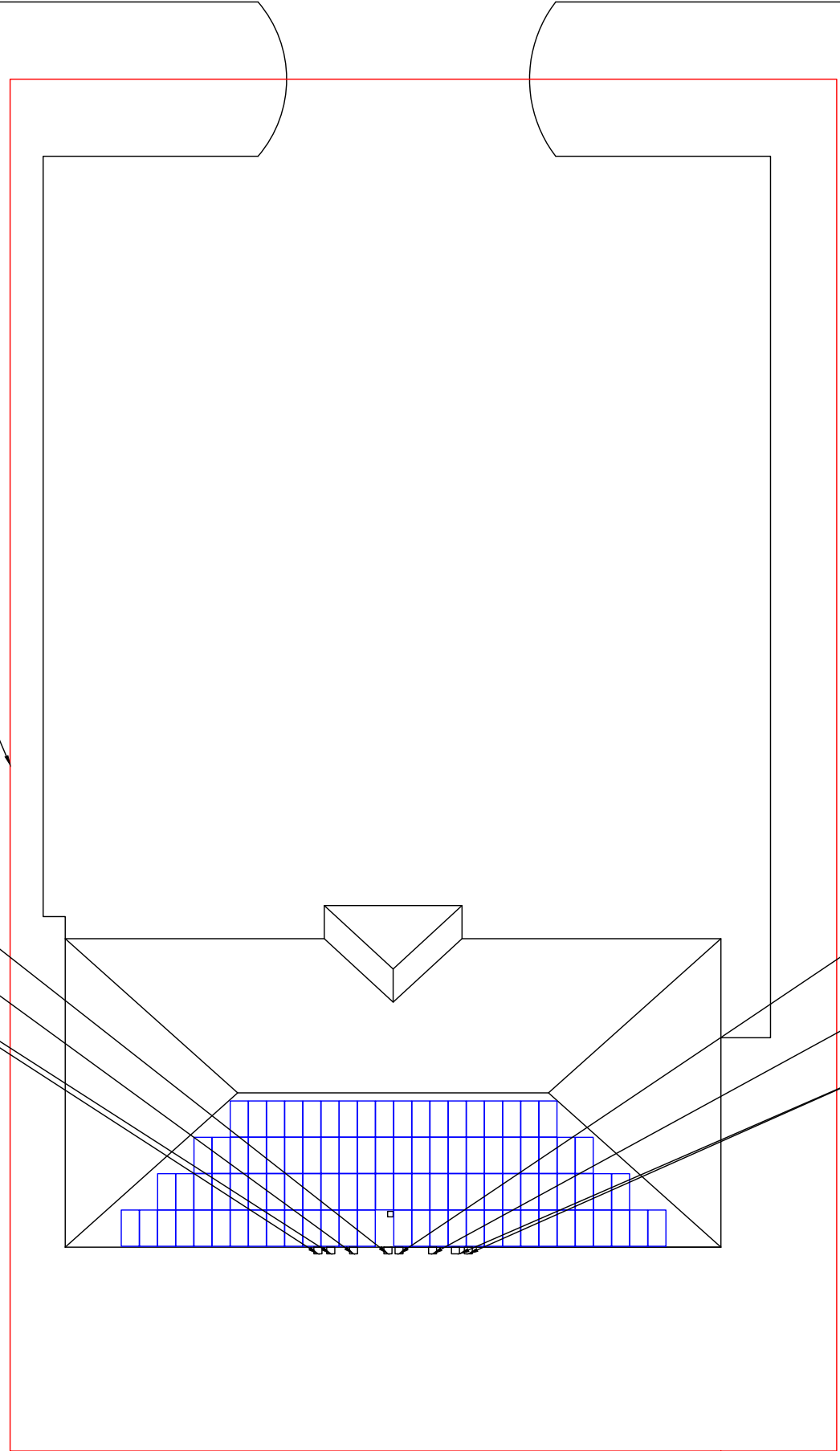


PARCEL #:0636301011
4109/4111 S WATER TOWER
MT VERNON, IL 62864

PARCEL LINES

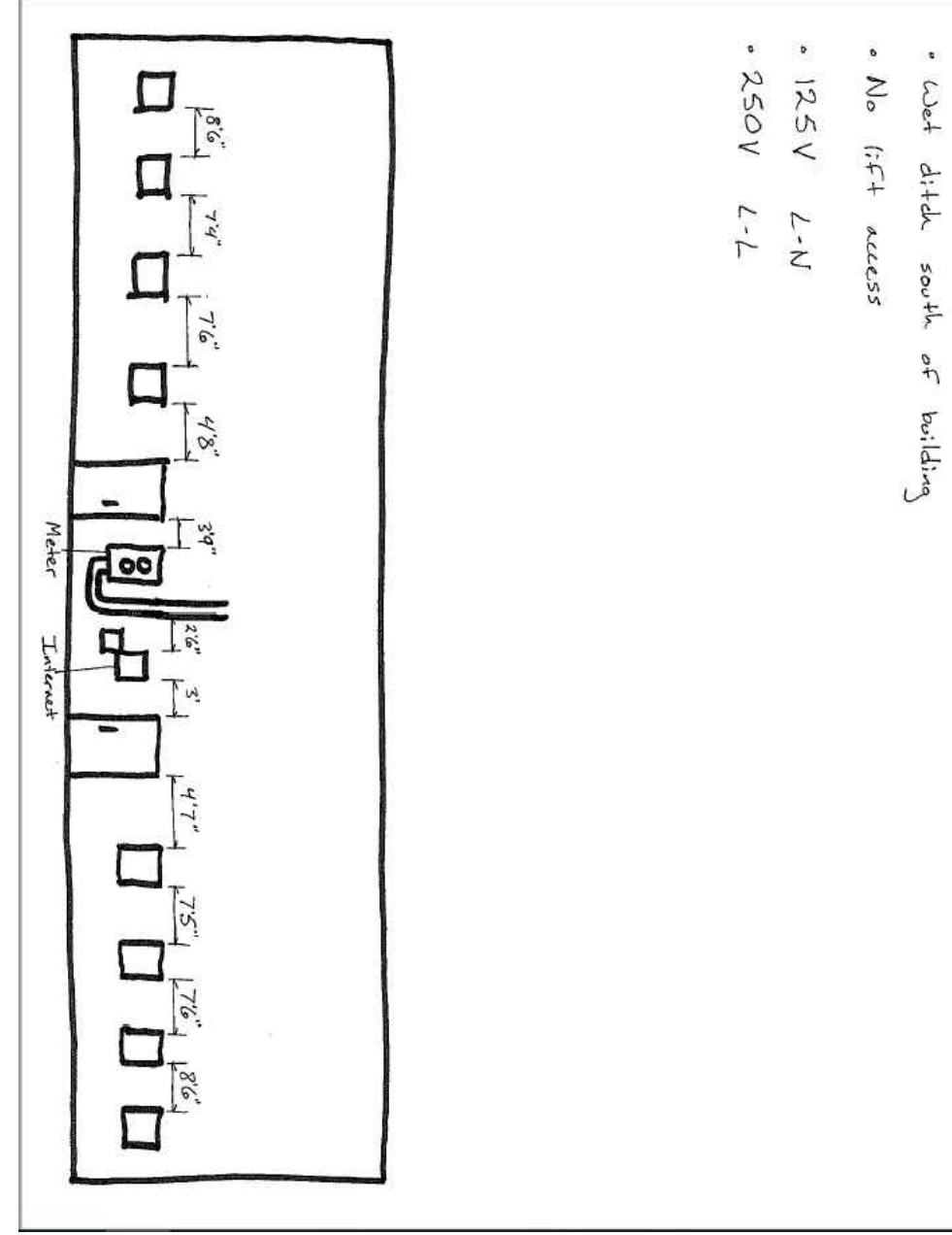
UTILITY METER
SOLAR DISCONNECT
COMBINER PANEL
INVERTERS

UTILITY METER
SOLAR DISCONNECT
COMBINER PANEL
INVERTERS





INVERTERS AND THE COMBINER PANEL WILL MOST LIKELY NEED TO BE SEPARATED BETWEEN THE WINDOWS, IT IS PREFERRED TO RUN THE CONDUIT STRAIGHT DOWN AND TRENCH OVER BELOW THE WINDOW. AVOID RUNNING CONDUIT UNDER OR OVER WINDOWS



MEASUREMENTS OF WINDOWS AND WALL SPACING ON THE SOUTH WALL WHERE INVERTERS WILL GO

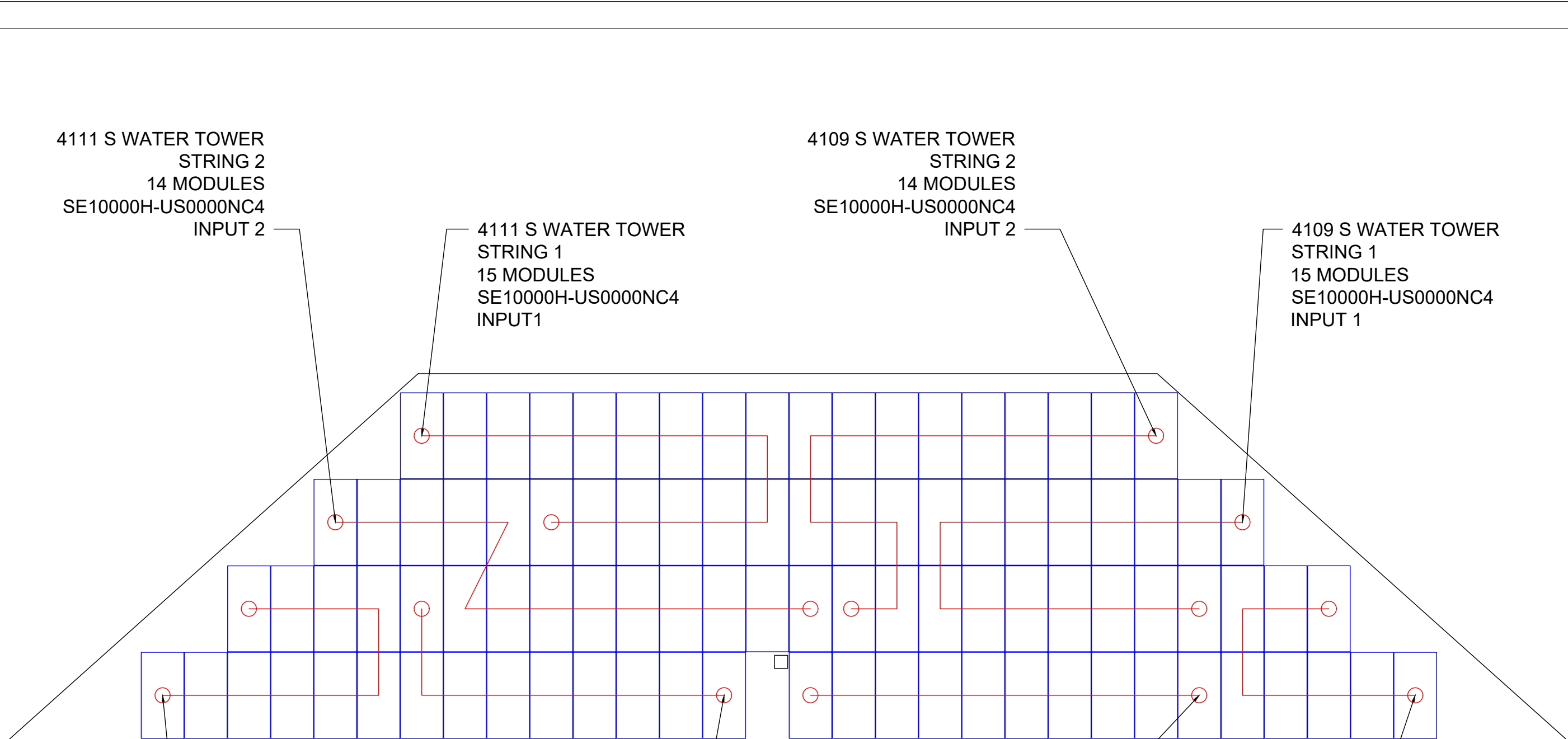
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 LSD
 REV1

PV
 02
 HELPFUL
 PHOTOS



4111 S WATER TOWER
STRING 2
14 MODULES
SE10000H-US0000NC4
INPUT 2

4111 S WATER TOWER
STRING 1
15 MODULES
SE10000H-US0000NC4
INPUT 1

4109 S WATER TOWER
STRING 2
14 MODULES
SE10000H-US0000NC4
INPUT 2

4109 S WATER TOWER
STRING 1
15 MODULES
SE10000H-US0000NC4
INPUT 1

4111 S WATER TOWER
STRING 3
10 MODULES
SE6000H-US0000NC4
INPUT 1

4111 S WATER TOWER
STRING 4
9 MODULES
SE6000H-US0000NC4
INPUT 2

4109 S WATER TOWER
STRING 3
8 MODULES
SE6000H-US0000NC4
INPUT 1

4109 S WATER TOWER
STRING 4
8 MODULES
SE6000H-US0000NC4
INPUT 2

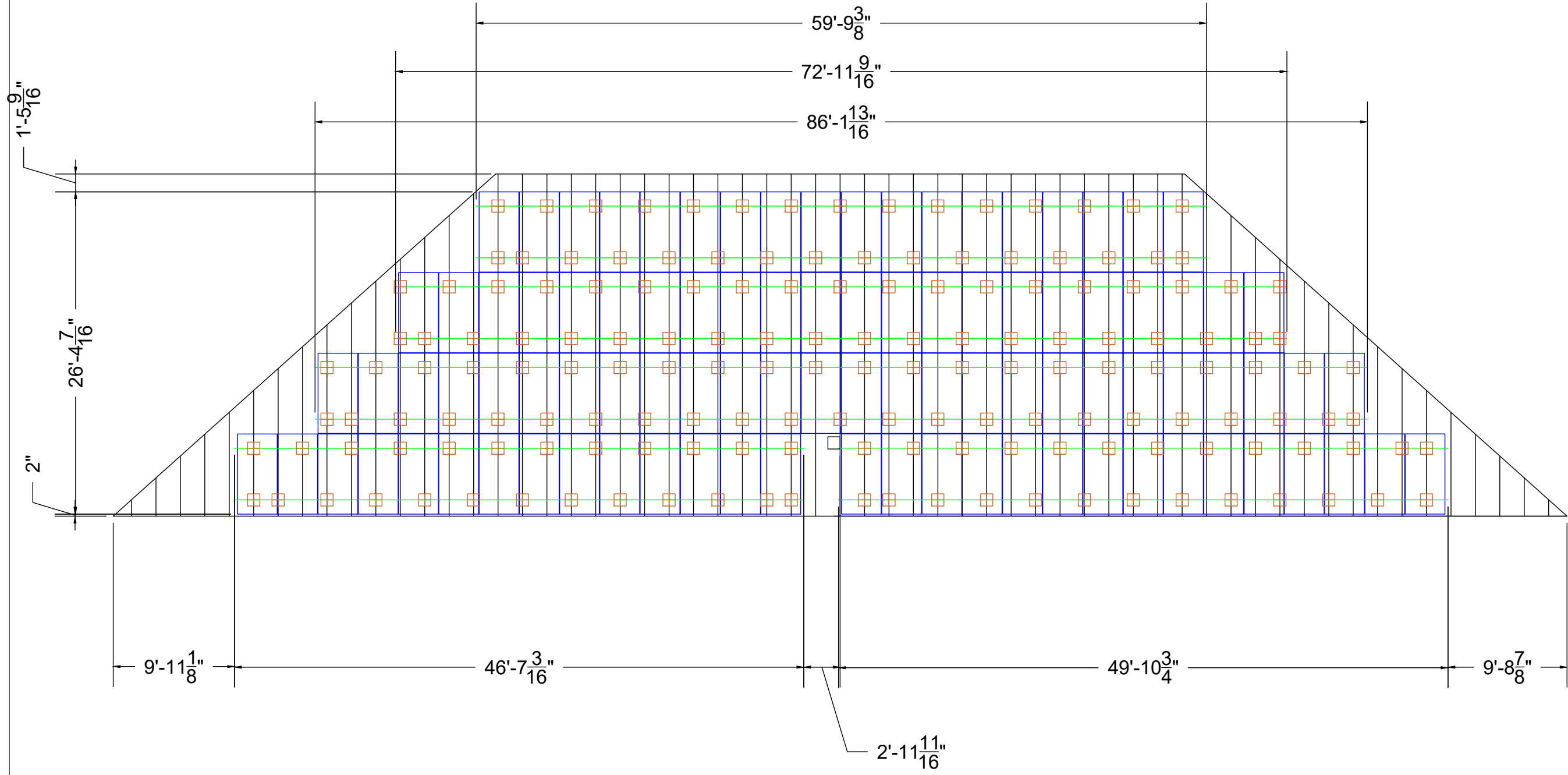
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PV
03
STRING
LAYOUT



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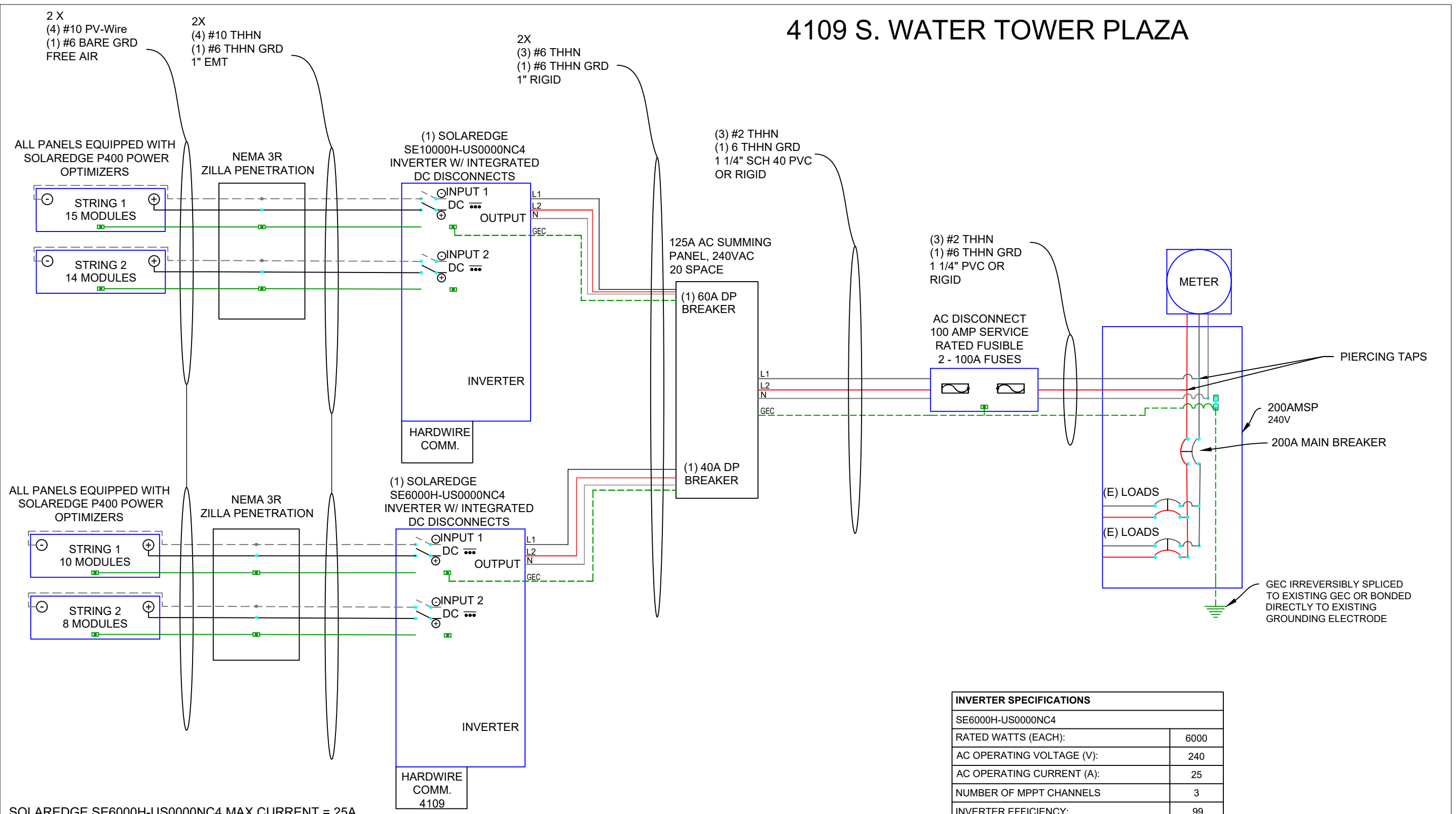
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DESIGNER
 LSD
 REV1

PV
 04
 MOUNTING
 LAYOUT

4109 S. WATER TOWER PLAZA



SOLAREDGE SE6000H-US0000NC4 MAX CURRENT = 25A
 MAX DESIGN CURRENT = 25A X 1.25 = 31.25A = 40A BREAKER/FUSES

SOLAREDGE SE10000H-US0000NC4 MAX CURRENT = 42A
 MAX DESIGN CURRENT = 42A X 1.25 = 52.25A = 60A BREAKER/FUSES

200 x 1.2 = 240
 240 - 200(MCB) = 40A
 MAX ALLOWABLE AC PV BREAKER = 40A

PHOTOVOLTAIC AC DISCONNECT		MODULE SPECIFICATION		INVERTER SPECIFICATIONS	
MAXIMUM AC OPERATING CURRENT	67A	AC-385MH/144S		SE10000H-US0000NC4	
NOMINAL OPERATING AC VOLTAGE	240V	RATED WATTS (EACH):	385	RATED WATTS (EACH):	10000
		SHORT-CIRCUIT CURRENT (Isc)	10.10	AC OPERATING VOLTAGE (V):	240
		OPEN CIRCUIT VOLTAGE (Voc)	48.11	AC OPERATING CURRENT (A):	42
		OPERATING CURRENT (Imp)	9.50	NUMBER OF MPPT CHANNELS	3
		OPERATING VOLTAGE (Vmp)	40.24	INVERTER EFFICIENCY:	.99
		MAX SERIES FUSE RATING	20	INTEGRATED DC DISCONNECT	

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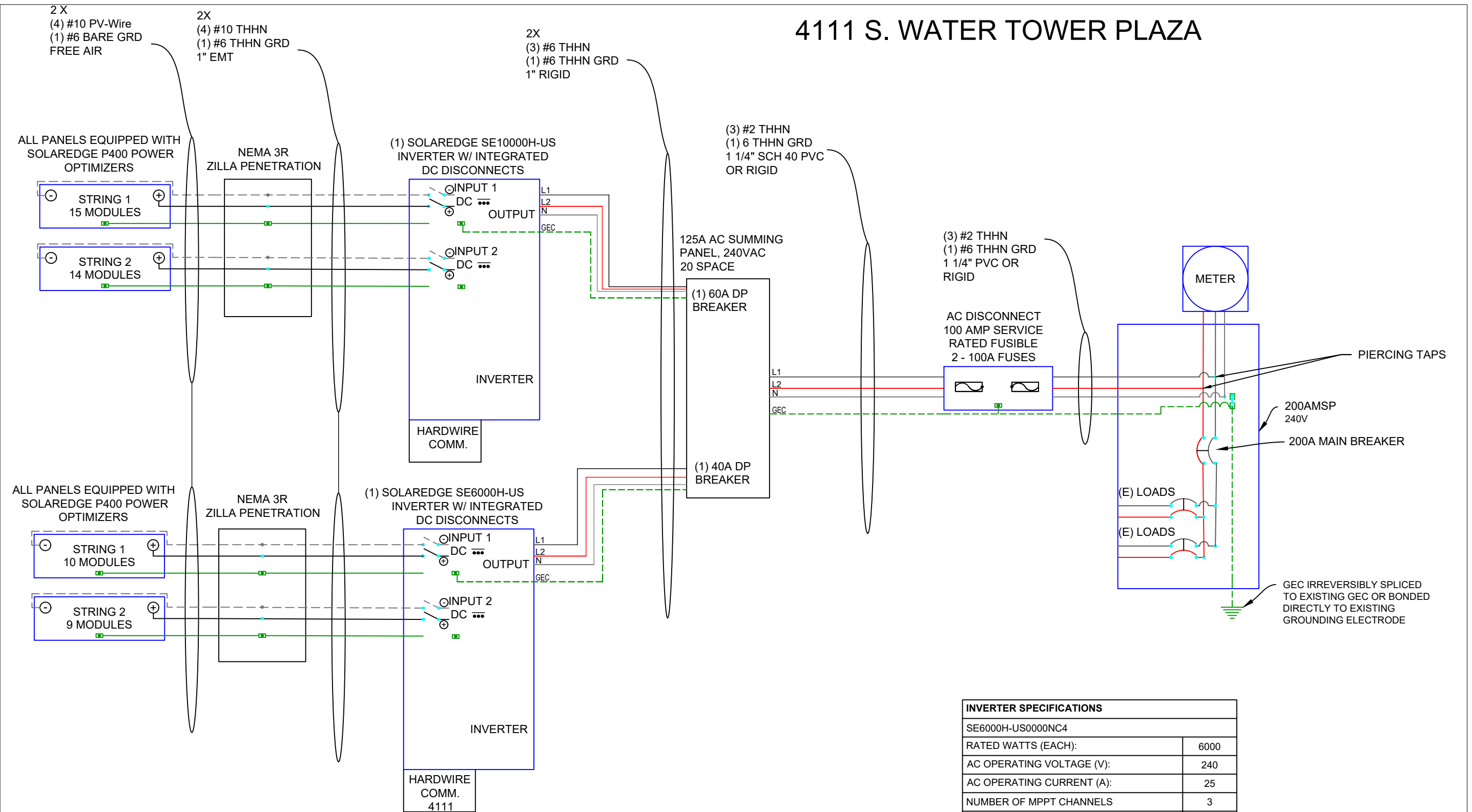
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DESIGNER
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PV
 05
 LINE
 DIAGRAM

4111 S. WATER TOWER PLAZA



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		OPERATING CURRENT (Imp)	9.50	NUMBER OF MPPT CHANNELS	3
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 DIAGRAM

AXIpremium HC 370 - 385 Wp

Electrical data (at standard conditions (STC) irradiance 1000 W/m², spectrum AM 1.5 at a cell temperature of 25°C)

Type	Nominal output P _{mp}	Nominal voltage U _{mp}	Nominal current I _{mp}	Short circuit current I _{sc}	Open circuit voltage U _{oc}	Module conversion efficiency
AC-370MH/144S	370 Wp	38.90 V	9.53 A	9.85 A	47.40 V	18.95 %
AC-375MH/144S	375 Wp	39.81 V	9.43 A	9.85 A	47.61 V	18.90 %
AC-380MH/144S	380 Wp	40.00 V	9.50 A	10.01 A	47.80 V	19.15 %
AC-385MH/144S	385 Wp	40.24 V	9.58 A	10.01 A	48.11 V	19.41 %

Design

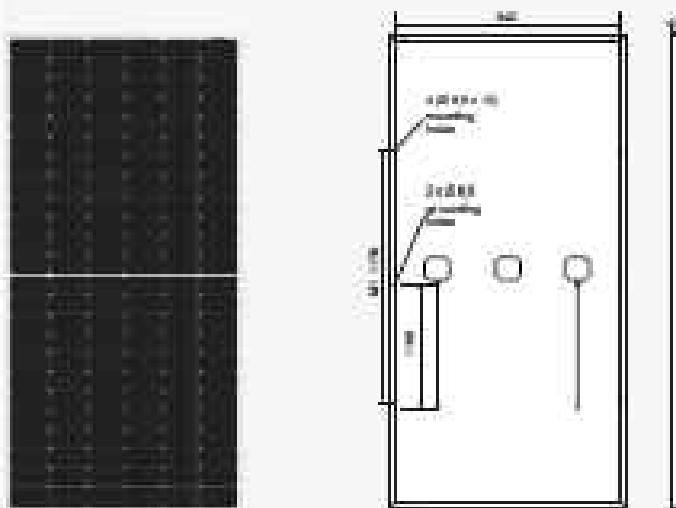
Frontside	0.15 inch (3.2 mm) hardened low-reflection white glass
Cells	144 monocrystalline high-efficiency cells
Backside	Composite film
Frame	1.07 inch (40 mm) silver aluminum frame

Mechanical data

L x W x H	78.74 x 58.00 x 1.07 inch (2000 x 1462 x 40 mm)
Weight	49.62 lbs (22.5 kg) with frame

Power connection

Socket	Protection Class IP67
Wire	43.0 inch, AWG 11
Plug-in system	Plug/socket IP67, MC4



All dimensions in inch

Limit values

System voltage	1000 VDC (UL) / 1000 VDC (IEC)
Module Fire Performance	TYPE 1 (UL 1709) or CLASS C (IEC 61730)
NOCT (nominal operating cell temperature) ¹	45°C ±2K
Max. wind-carrying capacity	30 PSF
Reverse current (test P)	20.0 A
Permissible operating temperature	-40°C to 85°C / -40°F to 182°F

(No external voltage greater than 1mV may be applied to the module)

¹ NOCT: irradiance 800 W/m², AM 1.5, wind speed 1 m/s, Temperature 20°C

Temperature coefficients

Voltage U _{oc}	-0.29 %/K
Current I _{sc}	0.04 %/K
Output P _{mp}	-0.34 %/K

Low-light performance (Example for AC-370MH/144S)

Irradiance	Current I _{mp}	Voltage U _{mp}
200 W/m ²	1.66 A	47.45 V
400 W/m ²	3.32 A	48.50 V
600 W/m ²	4.98 A	49.45 V
800 W/m ²	6.64 A	50.30 V
1000 W/m ²	8.30 A	51.00 V

Packaging

Module pieces per pallet	20
Module pieces per PTC-container	500

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DESIGNER
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PV
06
MODULE
CUTSHEET

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ^①							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, adjustable -0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V ^②	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V ^②	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600ka Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

^① For other regional settings please contact SolarEdge support.

^② A higher current source may be used; the inverter will limit its input current to the values stated.

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07
INVERTER
CUTSHEET

**DIRECT CURRENT
PHOTOVOLTAIC POWER SOURCE**

MAXIMUM VOLTAGE **480** VDC
MAX CIRCUIT CURRENT **15** AMPS

4" X 2"

PHOTOVOLTAIC POWER SOURCE

OPERATING AC VOLTAGE
240 V
MAX OPERATING AC OUTPUT CURRENT
42 A

PHOTOVOLTAIC POWER SOURCE

OPERATING AC VOLTAGE
240 V
MAX OPERATING AC OUTPUT CURRENT
25 A

4" X 2"

AC DISCONNECT

4" X 3/4"

DC DISCONNECT

4" X 3/4"

**PV SYSTEM
DISCONNECT**

4" X 1"

**WARNING: PHOTOVOLTAIC
POWER SOURCE**

5 3/4" X 1 1/8"

WARNING
DC JUNCTION BOX

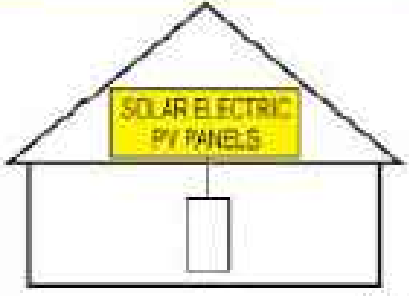
4" X 1"

WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID
AND PV SOLAR
ELECTRIC SYSTEM

2 3/4" X 1 5/8"

**SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN**

TURN RAPID SHUTDOWN
SWITCH TO THE
"OFF" POSITION TO
SHUT DOWN PV SYSTEM
AND REDUCE
SHOCK HAZARD
IN THE ARRAY



6" X 3 1/2"

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08
SAFETY
LABELS