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DISCLAIMER: FOR REFERENCE ONLY UNLESS SIGNED AND SEALED

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GOLDIN SOLAR

CONTRACTOR

GOLDIN SOLAR. LLC

109 US HWY No. 1 VERO BEACH, FLORIDA 32960

> 1382 NW 78TH AVE DORAL, FL 33126 (305) 469-9790

ermitting@goldinsolar.cor www.GoldinSolar.com

SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13008547 ROOFING LICENSE: CCC1331878

AHJ: CITY OF CORAL GABLES UTILITY: FPL

SCOPE **GRID-TIED** (TIER 1) 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI FRIENDS, INC

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD YCE HOOL



G-001 (SHEET 1 OF 8)

ZONE	COEFFICIENT	PSF
1	0.9 / -0.9	32 / -32
2	0.9 / -1.5	32 / -54
3	0.9 / -2.4	32 / -86
z / K _{zt} / K _D	0.9 / 1.0 / 0.	85
WABLE MODU	75 / 56	
ILE TEST / DES	84 / 56	

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ALFONSO AVE

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SW 73RD TER

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SW 74TH ST

SW 74TH









LEGEND

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MAIN PANEL RAIL W/ ATTACHMENT TRUSS SOLAR ROOF JACK OVERHEAD WEATHERHEAD PLUMBING VENT

ATTEMPT TO LOCATE STANDS UNDER MODULES AS POSSIBLE.

NSTRUCTION			
	GABLE		
	3:12		
F HT (± FT)	12'-0"		
	RAFTER 22" OC		
;	PLYWOOD/OSB		
	FLAT CONC. TILE		
G	A		
SOURCE	FIELD-VERIFIED		

ES	
	Q.PEAK DUO G5-G7 330W
	20
	66.3" x 39.4" x 1.3"
	18
	41
	360
	1190
	SNAPnRACK UR-60 (BIN 8)
	80
	STANDOFF
	92" (Z1) 68" (Z2), SEE: S-002
	SEE: MATERIAL SCHEDULE, S-003
	5/16" Ø x 4" LAG SCREWS
	RX-100 FLASHING CEMENT

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(SHEET 2 OF 8)

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HD STANDS	80	LAG SCREWS	160	DIAMETER (D) (IN)	<u>5</u> 16	LENGTH L (IN)	4
PULLOUT TRIBUTARY AREA (SF) =	2.3	SHEAR TRIBUTARY AREA (SF) =	0.5	DISTRIBUTED LOAD (PSF) < 5 LB =	3.5	POINT LOAD (LB) < 45 LB =	7.9
WITHDRAWAL CAPACITY = $1800 \times G^{\frac{3}{2}}$	∝ D^ <u>3</u> x L	(LB) =	1227	G	0.55	SHORT DURATION FACTOR	1.6
CAPACITY / SCREW (LB) =	767	UPLIFT / SCREW (LB) =	132	NET TENSION / SCREW (LB) =	636	SAFETY FACTOR =	5.8
LATERAL RESISTANCE / SCREW (LB)	220	Z 1-3/4" 140LB	0.98	NET RESISTANCE / SCREW (LB) =	30	SAFETY FACTOR =	7.3

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	1	60 mp	h	170 mph			18	180 mph		
3	1	2	3	1	2	3	1	2	3	
74	107	87	69	103	81	65	98	77	61	
76	111	88	71	106	84	67	102	79	63	
100	95	95	95	90	90	90	85	85	85	
98	92	92	92	87	87	87	82	82	82	
62	95	73	55	91	68	49	87	64	43	
64	98	75	60	94	70	53	90	66	47	
86	81	81	81	77	77	77	73	73	73	
83	78	78	78	74	74	74	70	70	70	

MIAMI-DADE: 175 MPH

- (1) 5/16"-18 X 1-1/4" SS HCS BOLT
- (1) 5/16"-18 X 1" SS HCS BOLT
- 6 (1) 5/16"-18 SELF-RETAIN WASHER

GASKET: PROVIDED INNER BOX: 5.5"x4.5"x3.2" RATING: NEMA 4X/UL50 TEMP. RANGE: -40°F-185°F

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1185 SUNSET ROAD CORAL GABLES 33143

PN: P2008-126-MIA-MHD-PVO

3. APPLY ¹/₄" BEAD AROUND BTM OF HD BASE PLATE, IN 3" Ø SEMI-CIRCLE ON BTM OF FLASHING AND OATEY PLATES, TO HOLES & TO LAG SCREW TOPS WORK CAREFULLY & QUICKLY; FAST SET-UP.

COMPLIANCE: ASTM D3409, ASTM D6511, ASTM D4586. MIAMI-DADE COUNTY PRODUCT CONTROL NOA NO.: 18-0411.03. EXPIRATION DATE: 02/01/21. APPROVAL DATE: 01/03/19. PAGE 9 OF 13

OPTIONAL: SOLAR ROOF JACK NOTES (IGC 339-2016 IAPMO STANDARD-COMPLIANT)

- 1. CUT DOWN VENT PIPE SO EXTENDS BEYOND GASKET APPROX. 1.5". TO ENSURE AIR FLOW.
- 2. CAP SHALL REMAIN REMOVABLE; NO SOLVENT WELDING.
- 3. PIPE SUPPORTS AND CLAMPS SHALL BE SECURELY ATTACHED TO RAILS WITH GALVANIZED RING CLAMPS OR TO TRUSS BY GALVANIZED OR SS BRACKETS WITH 5/16" X 4" LAG SCREWS. INSURE SUPPORTS ALLOW ROOF SHEET FLOW.
- 4. PIPE TERMINAL ELEVATION (HT ABOVE SURFACE) SHALL BE AT OR ABOVE EXISTING TERMINUS.

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INSTALLATION STEPS

1. CUT/CORE TILE TO DECK TO LOCATE FIRST STAND POSITION. 2. CLEAN DUST AND DEBRIS FROM AREA.

3. DRILL PILOT HOLES ALIGNED TO BASE THROUGH DECK INTO TRUSS. 4. RUN BEAD OF LIQUID FLASHING INTO PILOT HOLE AND AROUND OUTER EDGE OF BASE.

6. COVER SCREW TOPS WITH LIQUID FLASHING.

7. REPAIR ANY TEARS OR GAPS IN UNDERLAYMENT LESS THAN ¹/₄" WITH LIQUID FLASHING. (FOR LARGER RIPS OR GAPS, USE TARGET OR TAPE PURSUANT TO MANUFACTURER'S REPAIR INSTRUCTIONS.)

8. BACKFULL CAVITY WITH FOAM.

9. RUN ¹/₄ BEAD LIQUID FLASHING AROUND TOP AND SIDES OF BOTTOM OF SOFT-ROLLED FLASHING. 10. PLACE SOFT-ROLLED FLASHING OVER POST.

11. FINISH WITH SNAPNRACK FLANGED GASKET.

MATERIALS SCHEDULE							
ITEM	MANUFACTURER	Part #:	UNITS				
UR-60 RAIL, 168"	SNAPnRACK	232-02482	10				
UR-60 RAIL SPLICE, SILVER	SNAPnRACK	242-01271	2				
BONDING MID CLAMP, BONDING CHANNEL NUT*	SNAPnRACK	242-02054	30				
GROUNDING LUG ASSEMBLY (3-PIECES)	SNAPnRACK	242-02101	4				
UR-60 END CAP	SNAPnRACK	232-02484	16				
UNIV END CLAMP ASSEMBLY	SNAPnRACK	242-02215	16				
WIRE RETENTION CLIP, COMPOSITE, BLACK (20/PK)	SNAPnRACK	232-01106	1				
OPTIMIZER KIT: CHANNEL NUT, BOLT WASHER	SNAPnRACK	242-92093	20				
ULTRA RAIL HD STANDOFF KIT, 7" BASE & SPACERS	SNAPnRACK	242-01265	80				
5/16" Ø X 4" STAINLESS STEEL LAG	SNAPnRACK	516401	160				
FLASHING - SOFT WITH ROLLED EDGES	SNAPnRACK	175-0500	80				
RX100 LIQUID FLASHING, NOA #18-0411.03 (12-PK)	TRI-BUILT		1				
SOLAR ROOF JACK*	SOLAR ROOF JACK	SLAR15	1				

32 BONDING MC IF USE OPTIONAL SOLAR ROOF JACK

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5. FASTEN BASE WITH 2 LAG SCREWS @ 2-1/2" MIN. EMBEDMENT INTO TRUSS. TORQUE SCREWS ACCORDING TO MANUAL.

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MIAMI FRIENDS, INC

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD CF HOO WILLYCE HOOV CENS 11111 No. 52666 1111111 STATE OF LORID SS/ONAL ENG MILITIAN MILITIAN PLAN FORMAT: ANSI B / TABLOID DESIGN: DJB CHECK: HLH DATE: 23 NOV 2020 REVISED: **ATTACHMENT DETAILS** S-003

(SHEET 4 OF 8)

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ENGINEER OF RECORD

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 23 NOV 2020 REVISED:

> **ARRAY PLAN** S-001 (SHEET 2 OF 8)

LEGEND

MAIN PANEL SOLAR ROOF JACK SERVICE WEATHERHEAD PLUMBING VENT

NSTRUCTION				
	GABLE			
	3:12			
F HT (± FT)	12'-0"			
	RAFTER 22" OC			
i	PLYWOOD/OSB			
	FLAT CONC. TILE			
3	A			
SOURCE	FIELD-VERIFIED			

Q.PEAK DUO G5-G7 330W

66.3" x 39.4" x 1.3"

SNAPnRACK UR-60 (BIN 8)

STANDOFF

92" (Z1) 68" (Z2), SEE: S-002

SEE: MATERIAL SCHEDULE, S-003

5/16" Ø x 4" LAG SCREWS

RX-100 FLASHING CEMENT

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GROUNDING & BONDING:

GROUNDING CONDUCTORS SHALL BE COPPER (NEC 250.122-COMPLIANT). MODULES SHALL BE BONDED USING "BONDING MID-CLAMPS" AND SPLICES" ACCORDING TO INSTALLATION MANUAL. MODULES WHICH CAN NOT BE FULLY BONDED SHALL BE GROUNDED USING GROUNDING LUG DIRECTLY WIRED TO SYSTEM GROUND WIRE.

EQUIPMENT NOTES:

1) NEW EQUIPMENT AND COMPONENTS SHALL BE NATIONAL LABORATORY-CERTIFIED AND RATED FOR OUTDOOR USE IF SO-INSTALLED.

2) REQUIRED CLEARANCES, FRONT: 36" WORK-AROUND: 36" OVERHEAD: 6 FT

3) LABEL READING. "WARNING: THIS EQUIPMENT FED BY MULTIPLE SOURCES" SHALL BE PROPERLY AFFIXED

4) LISTED OR LABELED EQUIPMENT SHALL BE INSTALLED AND USED ACCORDING TO INSTALLATION MANUAL AND SPECIFICATIONS.

GENERAL NOTES:

1) INSTALLATION OF THE ELECTRICAL SYSTEM SHALL BE IN ACCORDANCE WITH APPLICABLE CODES INCLUDING FLORIDA BUILDING CODE. NEC. FHPA. OSHA AND OTHERS. 2) MATERIALS SHALL BE OBTAINED THROUGH APPROVED VENDORS AND CONFORM TO CODE TABLES. INDUSTRY STANDARDS & PROMULGATED POLICIES.

3) CONTRACTORS AND SUB-CONTRACTORS SHALL BE STATE-LICENSED OR LICENSED BY AHJ.

4) CONTRACTORS AND SUB-CONTRACTORS SHALL INSPECT SITE AND STRUCTURES IMMEDIATELY BEFORE PREPARING BIDS AND ORDERING MATERIALS; 5) GOLDIN SOLAR SHALL BE PROVIDED WRITTEN NOTICE OF ANY FIELD DISCREPANCY.

6) MATERIALS SPECIFIED IN THE PLANS SHALL BE NECESSARY EQUIVALENT SUBSTITUTIONS SHALL BE APPROVED BY THE EOR

7) CONDUCTORS SHALL BE COPPER OF 98% CONDUCTIVITY, CABLE 600V-RATED, SINGLE-CONDUCTOR IN THERMOPLASTIC INSULATION SUITABLE FOR CONTINUOUS OPERATION AT 75° C. CONDUCTORS/CABLE SHALL BE NEC-CLASS TYPE THW OR THWN, EXCEPT 10 AWG AND SMALLER MAY BE TW. INSULATION SHALL BE COLOR-CODED 6 AWG AND SMALLER. COLOR-CODED TAPE SHALL BE USED ON LARGER CONDUCTOR.

8) CONDUCTORS SHALL BE RUN IN CONDUIT WHEN NOT BENEATH MODULES. EXPOSED CONDUIT IS PERMITTED IN GARAGES OR OTHER AREAS ACCEPTABLE TO OWNER AND AS APPROVED BY EOR AND AHJ. CONDUIT/WALL SURFACES SHALL BE PAINT-MATCHED AS REQUIRED BY OWNER

9) FLEXIBLE CONDUIT SHALL BE USED FOR RECESSED, MOUNTED FIXTURES AND SEALED WITH LIQUID TIGHT IF EXPOSED TO WEATHER & WITH GREEN BOND CONDUCTOR AT CIRCUIT CONDUCTORS. GALVANIZED EMT WITH SET-SCREW MAY BE USED IN INTERIOR LOCATIONS. PVC WITH GREEN BOND CONDUCTOR MAY BE USED IN UG LOCATIONS. 10) PV OUTPUT CIRCUITS ENTERING BLDG. PRIOR TO INVERTER DISCONNECT SHALL BE INSTALLED IN METAL RACEWAY.

11) EXISTING AND CONNECTED ELECTRICAL PANELS, CIRCUIT BREAKERS AND SAFETY SWITCH SHALL BE SQUARE D OR EQUIV. LOAD SIDE SOLAR PV-SYSTEM CIRCUIT BREAKERS SHALL BE INSTALLED AT OPPOSITE END OF BUSBAR. CIRCUIT BREAKER DIRECTORY SHALL BE AFFIXED TO PANEL

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12) CONDUCTORS, CIRCUIT BREAKERS AND FUSES IN NEW AND MODIFIED PANELS SHALL BE REPLACED TO COMPLY W/ MANUF. NAMEPLATE AND REQUIRED OVER-CURRENT PROTECTION. REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE OWNER

13) DETAILS OR SPECIFICATIONS ARE CALLED OUT BY LOCATION, ARRAY, ELEMENT OR AS OTHERWISE APPLIES.

	CONDUCTOR SCHEDULE								
TAC	(CONDU	CTOR		GRO	GROUND		CONDUIT	
TAG	WIRE	#	SIZE	AMPS	WIRE	OCPD (A)	SIZE	MATERIAL	
1	PV WIRE-CU	2	10 AWG	12					
2	PV WIRE-CU	2	10 AWG	15	10 AWG		3/4"	EMT/PVC	
3	THWN-2-CU	2-2	10 AWG	15	10 AWG	25	3/4"	EMT/PVC	
4	THWN-2-CU	3	6 AWG	23	8 AWG	35	3/4"	EMT	
5	THWN-2-CU	3	14 AWG	< 1	14 AWG	15	3/4"	EMT	

NOTES

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1) CONDUCTOR TEMPERATURE ADJUSTMENT FOR NEC 310.15(B) 12-21A.10-28A, 8-39A, 6-53A, 4-67A, 2-92A, 1-103A, 1/0-120A 2) CONDUIT FITTINGS SHALL BE INSTALLED BETWEEN SECURELY-MOUNTED ELBOWS AND TERMINATION POINTS (NOT WYES). IF JOINT IS VERTICAL, OPEN-END SHALL BE FASTENED DOWN POSITION W/ COUPLING CLOSE TO TOP OF RUN, BARREL DOWN SECURED AT BOTTOM, TO ALLOW UPWARD MOVEMENT. 352.44 NEC) EXPANSION JOINT: RUN <=75 FT, USE 4"; > 75 FT, USE

EQUIPMENT SCHEDULE					
TAG	ITEM	MODEL	QTY.		
1	MODULE	QCELL 330W G7	20		
2	DC OPTIMIZER	SE P340	20		
3	INVERTER W / INTEGRATED DISCONNECT	SE6000H-US	1		
4	15A-2P BREAKER	BY ELECTRICIAN	1		
5	60A FUSIBLE DISCONNECT W/ HANDLE, 35A FUSES	BY ELECTRICIAN	1		
6	CONSUMPTION METER	SE-MTR-240-2-200-S1	1		
7	CDMA WIFI DEVICE OR HARDWIRE TO MODEM	SOLAREDGE KIT OPTIONS	1		
8	JUNCTION BOX	SNAPNRACK (NEMA 4X)	2		
9	JUNCTION BOX - 12x12x6 (NEMA 3R)	BY ELECTRICIAN	1		

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LEGEND/ABBREVIATIONS

NEW	EXIST
\rightarrow	
CM	CM
DCF	DCF
F/F'	F/F'
-~	-0_0-
IP	IP
JB	JB
LP	LP
LV	LV
MDC	MDC
N	N
PT	PT
S/S'	S/S'

BREAKER CONSUMPTION METER DISCONNECT/FUSED EQUIPMENT FEEDER/EXTENSION FUSE INSULATION PIERCING TAP JUNCTION BOX LUG POINT LOW VOLT. ELECTRONICS MAIN DISCONNECT MODULE W/ OPTIMIZER POLARIS TAP SERVICE/EXTENSION

SITE CONDITIONS

14°C MIN/ 35°C MAX ANNUAL TEMPERATURE

THRU WALL

IGS (W	ac)	(/	A ac)	
2	NET	NET	125%	OCP
2805	5610	23	29	30

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PN: P2008-126-MIA-MHD-PVO ENGINEER OF RECORD WILL YCE HOOLING HULLYCE HOOV CENS No. 52666 Inninnin STATE OF CORIDA SSIONAL ENG MININAL IN

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 23 NOV 2020 REVISED:

RISER & SCHEDULES E-001 (SHEET 5 OF 8)

PURSUANT TO FLORIDA STATUE 377.705 (REVISED 7/1/2017)

I, HOLLYCE HOOVER, PE (FL52666), AN ENGINEER LICENSED PURSUANT TO CHAPTER 471, CERTIFY THAT THE SOLAR PHOTO ELECTRICAL SYSTEM AND COMPONENTS ARE DESIGNED AND APPROVED USING THE CODE REQUIREMENTS AND STANDARDS CO THE MOST RECENT VERSION OF THE FLORIDA BUILDING CODE.

GOLDIN SOLAR RECOGNIZES **FLORIDA SOLAR ENERGY CENTER (FSEC)** AS DEVELOPING STANDARDS FOR SOLAR ENERGY MANUFACTURED OR SOLD IN FLORIDA BASED ON CURRENTLY AVAILABLE INFORMATION IN CONSULTATION WITH ENGINEERS AND RESEARCHERS AND DEVELOPING CRITERIA FOR TESTING THE PERFORMANCE OF SOLAR ENERGY SYS

LABEL POSTING REQUIREMENTS:

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1. ELECTRICIAN SHALL CONFIRM AND INSURE PROPER PLACEMENT OF WARNING LABELS THRU-OUT PV AND ENERGY STORAGE SYSTEM.

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- 2. ELECTRICIAN SHALL POST A COMPLETE CIRCUIT DIRECTORY LABEL IN NEW OR MODIFIED PANELS.
- 3. ELECTRICIAN SHALL POST A WEATHER-RESISTANT LABEL WITH CONTRACTOR NAME AND PHONE NUMBER MONITORED 24/7/365 NEXT TO DISCONNECT.

1-305-8 GoldinS

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	GOLDIN SOLAR
ELECTRICAL SHOCK HAZARD THE DC CONDUCTORS OF THIS HOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERCIZED	
NEC 690.35(F) Part No. 596-00588	CONTRACTOR
A WARNING	GOLDIN SOLAR. LLC
SINGLE 120-VOLT SUPPLY DO NOT CONNECT MULTIWIRE BRANCH CIRCUITS	109 US HWY No. 1 VERO BEACH, FLORIDA 32960
NEC 690.10(C) Part No. 596-00591	1382 NW 78TH AVE DORAL, FL 33126 (305) 469-9790
NEC 690.33(E)(2) Part No. 596-00244	permitting@goldinsolar.com www.GoldinSolar.com
NEC 705.12(D)(3-4) & NEC 690.64 Part No. 596-00587	SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13008547 ROOFING LICENSE: CCC1331878
COND SOURCE IS PHOTOVOLTAIC SYSTEM 705.12(D)(3) & NEC 690.64 Part No. 596-00495	AHJ: CITY OF CORAL GABLES UTILITY: FPL
WARNING INVERTER OUTPUT CONNECTION, DO NOT RELOCATE THIS OVERCURRENT DEVICE. NEC 705.12 (D)(2)(3b) Part No. 596-00589	SCOPE GRID-TIED (TIER 1) 6.6 kW SOLAR PHOTOVOLTAIC
MAIN PHOTOVOLTAIC	MIAMI
CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED	FRIENDS, INC
ec 690.15 & NEC 690.13(8) Part No. 596-00613) Main Service Disconnect / Utility Meter	1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO
MAIN PHOTOVOLTAIC	ENGINEER OF RECORD
SYSTEM DISCONNECT NEC 690, 15 & NEC 690, 13(B) Part No, 596-00243	WITH YCE HOOV
	No. 52666
OTOVOLTAIC S CONTAINED IN	P STATE OF
NERGY SYSTEMS /ITH SCIENTISTS, SYSTEMS	SS/ONAL EN MUNIT
	PLAN FORMAT: ANSI B / TABLOID
DIN SOLAR	DESIGN: DJB CHECK: HLH
	DATE: 23 NOV 2020 REVISED:
5-882-9044 inSolar.com	WARNING LABELS

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Power Optimizer For North America

P320 / P340 / P370 / P400 / P405 / P505

Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high- power 60-cell modules)	P370 (for higher- power 60 and 72-cell modules)	P400 (for 72 & 96- cell modules)	P405 (for thin film modules)	P505 (for higher current modules)	
INPUT		\bigcirc					
Rated Input DC Power(1)	320	340	370	400	405	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	2	48	60	80	125(2)	83(2)	Vdc
MPPT Operating Range	8 -	- 48	8 - 60	8 - 80	12.5 - 105	12.5 - 83	Vdc
Max. Short Circuit Current (Isc)		11		10	0.1	14	Adc
Max. DC Input Current		13.75		12	.63	17.5	Adc
Max. Efficiency			99	9.5			%
Weighted Efficiency			98.8			98.6	%
Overvoltage Category	II						
OUTPUT DURING OPE	RATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current	15					Adc	
Maximum Output Voltage	60 85					Vdc	
OUTPUT DURING STA INVERTER OFF)	NDBY (POWE	R OPTIMIZER I	DISCONNECTE	D FROM SOLA	REDGE INVER	TER OR SOLAF	REDGE
Safety Output Voltage per Power Optimizer	1 ± 0.1 V						
STANDARD COMPLIA	NCE						
EMC		FC	C Part15 Class B, IE	EC61000-6-2, IEC61	000-6-3		
Safety			IEC62109-1 (cla	ss II safety), UL174	1		
RoHS			Y	es			
INSTALLATION SPECI	FICATIONS						
Maximum Allowed System Voltage			10	00			Vdc
Compatible inverters		All S	olarEdge Single Pha	se and Three Phase	e inverters		
Dimensions (W x L x H)	128	x 152 x 28 / 5 x 5.97	7 x 1.1	128 x 152 x 36 / 5 x 5.97 x 1.42	128 x 152 x 50 / 5 x 5.97 x 1.96	128 x 152 x 59 / 5 x 5.97 x 2.32	mm / in
Weight (including cables)		630 / 1.4		750 / 1.7	845 / 1.9	1064 / 2.3	gr / lb
Input Connector			MC4	(3)			
Output Wire Type / Connector			Double Ins	ulated; MC4			
Output Wire Length	0.95	5/3.0		1.2	/ 3.9		m / ft
Input Wire Length			0.16	/ 0.52			m / ft
Operating Temperature Range			-40 - +85 /	-40 - +185			°C / °F
Protection Rating			IP68 / N	NEMA6P			
Relative Humidity			0 -	100			%
 (1) Rated STC power of the module (2) NEC 2017 requires max input v (3) For other connector types please 	e. Module of up to +5% oltage be not more that e contact SolarEdge	power tolerance allower n 80V	1				_

PV System D a SolarEdge	esign Using Inverter(4)(5)	Single Phase HD-Wave	Single phase	Three Phase 208V	Three Phase 480V	,
Minimum String Length	P320, P340, P370, P400	8	8 10		18	
(Power Optimizers) P405 / P505		6		8	14	
Maximum String Length (Power Optimizers)		25	5	25	50(6)	
Maximum Power per Str	ing	5700 (6000 with SE7600-US - SE11400- US)	5250	6000(7)	12750(8)	w
Parallel Strings of Differe or Orientations	ent Lengths		Ŷ	/es	c	RoHS

or Orientations

(4) For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
 (5) It is not allowed to mix IP405/P505 with P320/P340/P370/P400 in one string
 (6) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement
 (7) For SE14.4KUS/SE43.2KUS: It is allowed to install up to 6,500W per string when 3 strings are connected to the inverter (3 strings per unit for SE43.2KUS) and when the maximum power difference between the strings is up to 1,000W For SE30KUS/SE33.3KUS/SE66.6KUS/SE100KUS:
 (8) It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter (3 strings per unit for SE66.6KUS/SE100KUS) and when the maximum power difference betwee the strings is up to 2,000W

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Single Phase Inverter with HD-Wave Technology for North America

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

				$\langle \rangle$				
	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US) SE7600H-US	SE10000H-US	SE11400H-US	
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
AC Output Voltage MinNomMax. (183 - 208 - 229)	-	3	-	3	-	-	-	Vac
AC Output Voltage MinNomMax. (211 - 240 - 264)	3	3	3	3	3	3	3	Vac
AC Frequency (Nominal)		59.3 - 60 - 60.5(1) Hz						Hz
Maximum Continuous Output Current 208V	-	16	-	24	-	-	-	A
Maximum Continuous Output Cur- rent @240V	12.5	16	21	25	32	42	47.5	A
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	-	-	-	
Transformer-less, Ungrounded		1	1	Yes		1		
Maximum Input Voltage				480				Vdc
Nominal DC Input Voltage	380 400						Vdc	
Maximum Input Current 208V(2)	-	9	-	13.5	-	-	-	
Maximum Input Current @240V(2)	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Max. Input Short Circuit Current	45 Adc							
Reverse-Polarity Protection				Yes				
Ground-Fault Isolation Detection				600k o Sensitivity				
Maximum Inverter Efficiency	99			9	9.2			%
CEC Weighted Efficiency				99				%
Nighttime Power Consumption				< 2.5				w
ADDITIONAL FEATURES								
Supported Communication Interfaces			RS485, Ether	net. ZigBee (optiona	I). Cellular (optional)			
Revenue Grade Data, ANSI C12.20				Optional(3)	,, -			
Rapid Shutdown - NEC 2014 and 2017 690 12			Automatic Ra	pid Shutdown upon /	AC Grid Disconnect			
STANDARD COMPLIANCE								
Safety		UL174	1, UL1741 SA, UL1	699B, CSA C22.2, C	Canadian AFCI accor	ding to T.I.L. M-07		
Grid Connection Standards			IEE	EE1547, Rule 21, Ru	le 14 (HI)			
Emissions				FCC Part 15 Class	s B			
INSTALLATION SPECIFICA	TIONS							
AC Output Conduit Size / AWG Range		3/-	4" minimum / 14-6 A	WG		3/4" minimu	m /14-4 AWG	
DC Input Conduit Size / # of Strings / AWG Range		3/4" min	imum / 1-2 strings / [,]	14-6 AWG		3/4" minimum / 1-3	3 strings / 14-6 AWG	
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174 21.3 x 14.6 x 7.3 / 540 x 370 x 185					in / mm		
Weight with Safety Switch	22	/ 10	25.1 / 11.4	26.2	2 / 11.9	38.8	/ 17.6	lb / kg
Noise		<	25			<50		dBA
Cooling		Natural (Convection			Natural convection		
Operating Temperature Range			-13 to +140	/ -25 to +60(4) (-40°F	F / -40°C option)(5)			°F / °C
Protection Rating			NEMA	4X (Inverter with Sat	fety Switch)			
 For other regional settings please contact (2) A higher current source may be used; the (3) Revenue grade inverter P/N: SExxxxH-US (4) For power de-rating information refer to: 1: (5) -40 version P/N: SExxxxH-US000NNU4 	: SolarEdge support inverter will limit its inpu 5000NNC2 https://www.solaredge.co	ut current to the values a com/sites/default/files/se	stated -temperature-derating-n	iote-na.pdf	C	CE RoHS		

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NOTE: PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SYSTEM SHUTDOWN - NEC 2014 Code Article 690.56 (C)

В

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CONTRACTOR

GOLDIN SOLAR. LLC

109 US HWY No. 1 VERO BEACH, FLORIDA 32960

> 1382 NW 78TH AVE DORAL, FL 33126 (305) 469-9790

permitting@goldinsolar.com www.GoldinSolar.com

SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13008547 ROOFING LICENSE: CCC1331878

AHJ: CITY OF CORAL GABLES UTILITY: FPL

SCOPE **GRID-TIED** (TIER 1) 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI **FRIENDS, INC**

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD WILLYCE HOOLING WILLYCE HOOV CENS Thunnun thun No. 52666 * STATE OF SIONAL PLAN FORMAT: ANSI B / TABLOID DESIGN: DJB CHECK: HLH DATE: 23 NOV 2020 REVISED:

OPTIMIZER & INVERTER E-004 (SHEET 8 OF 8)

G

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ROOF SLOPE 3.5						
175	CAT / T	/II-ENC	L			
0% LEAST	FT)	5				
PSF+	%	NET	PSF-	%	NET	
34	33	11	-34	33	-11	
34	67	23	-68	67	-46	
PROJECT (+) 34 UPLIFT (+)						

GOLDIN SOLAR

CONTRACTOR

GOLDIN SOLAR. LLC

1115 US HWY No. 1 VERO BEACH, FLORIDA 32960

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SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13010538 ROOFING LICENSE: CCC1331878

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SCOPE **GRID-TIED (TIER 1)** 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI FRIENDS, INC

1185 SUNSET ROAD **CORAL GABLES 33143**

PN: P2008-126-MIA-MHD-PVO ENGINEER OF RECORD

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 11/23/20 REVISED: 1/22/20, 3/9/21, 5/25/21

> **COVER &** SITE DATA G-001

> > © HLHPE 202

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LEGEND

ИР	MAIN PANEL
0	RAIL W/ ATTACHMENT
	TRUSS
2	SOLAR ROOF JACK
2	OVERHEAD WEATHERHEAD
D	PLUMBING VENT

ATTEMPT TO LOCATE STANDS UNDER

NSTRUCTION						
\sim	GABLE					
	3.5:12					
FT)	8'-0"					
HT (± FT)	14'-6"					
HT (± FT)	11'-3"					
	RAFTER 22" OC					
	PLYWOOD/OSB					
	FLAT CONC. TILE					
6	A					
SOURCE	FIELD-VERIFIED					

_	
	REC TP3 330W
	20
	66.3" x 39.3" x 1.5"
	18.1
	41.7
	362
	1150
	SNAPnRACK UR-60 (BIN 8)
	82
	STANDOFF
	92" (Z1) 68" (Z2), SEE: S-002
	SEE: MATERIAL SCHEDULE, S-003
	5/16" Ø x 4" LAG SCREWS
	RX-100 FLASHING CEMENT

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GOLDIN SOLAR

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SCOPE **GRID-TIED (TIER 1)** 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI **FRIENDS, INC**

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD ALL OF HORING YCE HOOL

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 11/23/20 REVISED: 1/22/21, 5/25/21

ARRAY PLAN S-001

SAFETY FACTOR =

SAFETY FACTOR =

1132

29

12.8

7.7

Е

NET TENSION / SCREW (LB) =

NET RESISTANCE / SCREW (LB) =

96

0.98

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LATERAL RESISTANCE / SCREW (LB)

1227 UPLIFT / SCREW (LB) =

220 Z 1-3/4" 140LB

CAPACITY / SCREW (LB) =

	160 mph		160 mph 170 mph			1	80 mp	h	
3	1	2	3	1	2	3	1	2	3
74	107	87	69	103	81	65	98	77	61
76	111	88	71	106	84	67	102	79	63
100	95	95	95	90	90	90	85	85	85
98	92	92	92	87	87	87	82	82	82
62	95	73	55	91	68	49	87	64	43
64	98	75	60	94	70	53	90	66	47
86	81	81	81	77	77	77	73	73	73
83	78	78	78	74	74	74	70	70	70

۸ MIAMI-DADE: 175 MPH

(1) JUNCTION BOX BODY

2 (1) LID W/GASKET

- (1) 5/16"-18 X 1-1/4" SS HCS BOLT
- (1) SCHANNEL NUT
- (1) 5/16"-18 X 1" SS HCS BOLT
- (1) 5/16"-18 SELF-RETAIN WASHER

GASKET: PROVIDED INNER BOX: 5.5"x4.5"x3.2" RATING: NEMA 4X/UL50 TEMP. RANGE: -40°F-185°F **GOLDIN SOLAR**

CONTRACTOR

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MIAMI FRIENDS, INC

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD YCE HOOV 52666

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PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 11/23/20 REVISED: 1/22/21. 3/9/21

RAIL DETAILS S-002

ROOF XTENDER® RX-100 FLASHING CEMENT (SEE TDS FOR APPLICATION TEMP RANGE)

INSTALLATION INSTRUCTIONS

- 1. LOCATE TOP CHORD OF TRUSS/RAFTER; SNAP HORIZ/VERT LINES TO MARK ATTACHMENT POINTS.
- 2. PREP SURFACES; REMOVE DIRT, OIL, GREASE, FOREIGN MATERIALS PRIOR TO APPLICATION.
- 3. APPLY ¹/₄" BEAD AROUND BTM OF HD BASE PLATE, IN 3" Ø SEMI-CIRCLE ON BTM OF FLASHING AND OATEY PLATES, TO HOLES & TO LAG SCREW TOPS WORK CAREFULLY & QUICKLY; FAST SET-UP.

COMPLIANCE: ASTM D3409, ASTM D6511, ASTM D4586. MIAMI-DADE COUNTY PRODUCT CONTROL NOA NO.: 18-0411.03, EXPIRATION DATE: 02/01/21, APPROVAL DATE: 01/03/19, PAGE 9 OF 13

OPTIONAL: SOLAR ROOF JACK NOTES (IGC 339-2016 IAPMO STANDARD-COMPLIANT)

- 1. CUT DOWN VENT PIPE SO EXTENDS BEYOND GASKET APPROX. 1.5", TO ENSURE AIR FLOW.
- CAP SHALL REMAIN REMOVABLE; NO SOLVENT WELDING. 2
- 3. PIPE SUPPORTS AND CLAMPS SHALL BE SECURELY ATTACHED TO RAILS WITH GALVANIZED RING CLAMPS OR TO TRUSS BY GALVANIZED OR SS BRACKETS WITH 5/16" X 4" LAG SCREWS. INSURE
- SUPPORTS ALLOW ROOF SHEET FLOW. 4. PIPE TERMINAL ELEVATION (HT ABOVE SURFACE) SHALL BE AT OR ABOVE EXISTING TERMINUS.

C

INSTALLATION STEPS

- 1. CUT/CORE TILE TO DECK TO LOCATE FIRST STAND POSITION. 2. CLEAN DUST AND DEBRIS FROM AREA.
- 3. DRILL PILOT HOLES ALIGNED TO BASE THROUGH DECK INTO TRUSS.
- 4. RUN BEAD OF LIQUID FLASHING INTO PILOT HOLE AND AROUND OUTER EDGE OF BASE.
- 6. COVER SCREW TOPS WITH LIQUID FLASHING.
- 7. REPAIR ANY TEARS OR GAPS IN UNDERLAYMENT LESS THAN ¹/₄" WITH LIQUID FLASHING. (FOR LARGER RIPS OR GAPS, USE TARGET OR TAPE PURSUANT TO MANUFACTURER'S REPAIR INSTRUCTIONS.)
- 8. BACKFULL CAVITY WITH FOAM. 9. RUN $\frac{1}{4}$ BEAD LIQUID FLASHING AROUND TOP AND SIDES OF BOTTOM OF SOFT-ROLLED FLASHING.
- 10. PLACE SOFT-ROLLED FLASHING OVER POST.
- 11. FINISH WITH SNAPNRACK FLANGED GASKET.

MATERIAI	LS SCHEDUL
ITEM	MANUF
JR-60 RAIL, 168"	SNA
JR-60 RAIL SPLICE, SILVER	SNA
SONDING MID CLAMP, BONDING CHANNEL NUT*	SNA
GROUNDING LUG ASSEMBLY (3-PIECES)	SNA
JR-60 END CAP	SNA
JNIV END CLAMP ASSEMBLY	SNA
VIRE RETENTION CLIP, COMPOSITE, BLACK (20/PK)	SNA
OPTIMIZER KIT: CHANNEL NUT, BOLT WASHER	SNA
JLTRA RAIL HD STANDOFF KIT, 7" BASE & SPACERS	SNA
5/16" Ø X 4" STAINLESS STEEL LAG	SNA
LASHING - SOFT WITH ROLLED EDGES	SNAF
X100 LIQUID FLASHING, NOA #18-0411.03 (12-PK)	TRI
SOLAR ROOF JACK*	SOLAR F

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LEGEND/ABBREVIATIONS

NEW	EXIST
-	\rightarrow
СМ	CM
DCF	DCF
F/F'	F/F'
\rightarrow	-1
IP	IP
JB	JB
LP	LP
LV	LV
MDC	MDC
N	
PT	PT
S/S'	S/S'

BREAKER CONSUMPTION METER DISCONNECT/FUSED EQUIPMENT FEEDER/EXTENSION FUSE INSULATION PIERCING TAP JUNCTION BOX LUG POINT LOW VOLT. ELECTRONICS MAIN DISCONNECT MODULE W/ OPTIMIZER POLARIS TAP

SERVICE/EXTENSION

THRU WALL

SITE CONDITIONS 14°C MIN/ 35°C MAX ANNUAL TEMPERATURE

GS (W	ac)	(/	A ac)	
2	NET	NET	OCP	
805	5610	23	29	30

GROU	GROUND		ONDUIT
NIRE	OCPD (A)	SIZE	MATERIAL
) AWG		3/4"	EMT/PVC
) AWG	25	3/4"	EMT/PVC
AWG	35	3/4"	EMT

DEL	QTY
C TP3 330W	20
P340	20
6000H-US	1
ELECTRICIAN	1
ELECTRICIAN	1
LAREDGE KIT OPTIONS	1
APNRACK (NEMA 4X)	2
ELECTRICIAN	1
~ ~ ~ ~ ~ ~ ~	· · ·

GOLDIN SOLAR CONTRACTOR **GOLDIN SOLAR. LLC** 1115 US HWY No. 1 VERO BEACH, FLORIDA 32960 2937 SW 27TH AVE-100A MIAMI, FL 33133 (305) 469-9790

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SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13010538 ROOFING LICENSE: CCC1331878

AHJ: CITY OF CORAL GABLES UTILITY: FPL

SCOPE **GRID-TIED (TIER 1)** 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI FRIENDS, INC

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 11/23/20 REVISED: 5/25/21

RISER & SCHEDULES E-001

D

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WINPEAK 3 MOND BLACK SFRIES

ELECTRICAL DATA @ STC		Product code	*: RECxxxTP3	M Black	
Power Output - P _{MAX} (Wp)	315	320	325	330	335
Watt Class Sorting-(W)	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Nominal Power Voltage - $V_{MPP}(V)$	33.6	33.8	34.1	34.3	34.6
Nominal Power Current - I _{MPP} (A)	9.40	9.50	9.54	9.62	9.69
Open Circuit Voltage - V _{oc} (V)	38.7	39.1	39.5	39.9	40.2
Short Circuit Current - I _{sc} (A)	10.30	10.30	10.36	10.39	10.42
Panel Efficiency (%)	18.8	19.1	19.4	19.7	20.0

Values at standard test conditions (STC: air mass AM 1.5, irradiance 1000 W/m², temperature 25°C), based on a production spread with a tolerance of $P_{MNV} V_{cc} \& I_{Lc} + 3\%$ within one watt class. At a low irradiance of 200 W/m² at least 95% of the STC module efficiency will be achieved. "Where xxx indicates the nominal power class (P_{MNV}) at STC indicated above.

ELECTRICAL DATA @ NMOT		Product code*	RECXXXTP3N	l Black	
Power Output - P _{MAX} (Wp)	235	238	242	246	250
Nominal Power Voltage - $V_{MPP}(V)$	31.3	31.5	31.7	31.9	32.2
Nominal Power Current - I _{MPP} (A)	7.51	7.57	7.63	7.70	7.75
Open Circuit Voltage - V _{GC} (V)	36.1	36.4	36.8	37.1	37.5
Short Circuit Current - I _{SC} (A)	8.23	8.26	8.29	8.31	8.34

Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m², temperature 20°C, windspeed 1 m/s). "Where xxx indicates the nominal power class (P____) at STC indicated above.

CERTIFICATIONS	WARRANTY	1.1		26-24	MECHANICA
		Standard	REC ProTrust		Dimensions:
UL 1703, Fire classification: Type 2; IEC 61215, IEC 61730, ISO 9001; 2015, ISO 14001; 2004, OH5AS 18001; 2007	Installed by an REC Certified Solar Professional	No	Yes	Yes	Area: Weight:
	System Size	Any	≤25kW 25-500kW		
	Product Warranty (yrs)	20	25	25	Notel Specif
	Power Warranty (yrs)	25	25	25	
	Labor Warranty (yrs)	0	25	10	
	Power in Year 1	97.5%	97.5%	97.5%	
	Annual Degradation	0.7%	0.7%	0.7%	
	Power in Year 25 See warranty documen	80.7% ts for details	80.7% . Some cor	80.7% aditions apply.	
	REC con Cor qua Nor Wit	Group is an sumers with nmitted to q lity, backed t way in 1996, hover 10 GWi	internatic clean, affo uality and oy an excep REC emplo nstalled wo	nal pioneering s rdable solar pow innovation, REC otional low warra ys 2,000 people orldwide, REC is 6	solar energy compa er in order to facilit Offers photovolta anty claims rate of i and has an annual s empowering more t

20.0%	EFFICIENCY	
	YEAR PRODUCT V	WARRANTY
25	YEAR LINEAR PO' WARRANTY	WER OUTPUT
TEMPERATURE R	ATINGS	
Nominal Module	Operating Temperature:	44.6°C (±2°C)
Temperature coe	efficient of P _{MAX} :	-0.37 %/°C
Temperature coe	efficient of V _{oc} :	-0.28 %/°C
Temperature coe	efficient of I _{sc} :	0.04 %/°C
		AS AND A
GENERAL DATA		
Cells:	120 half-cut mono-Si	p-type PERC cells
Glass	0.13" (3.2 mr	n) solar glass with
0.055.	anti-reflective s	urface treatment
Back sheet:	Highly re polyolefin co	esistant polyester nstruction (black)
Frame:	Anodized	l aluminum (black)
Junction box: 1.	3-part with 3 bypass 2 AWG (4 mm²) PV wire, 39'	diodes, IP67 rated '+47" (1.0 m + 1.2 m)
Connectors:	Stäubli MC4 P\	/-KBT4/PV-KST4, 12 AWG (4 mm²)
MAXIMUMRATIN	GS	ALC: NOT THE OWNER
Operational tem	perature: -40+18	5°F (-40 +85°C)
Maximum syster	n voltage:	1000 V
Design load (+): si	now 3600) Pa (75.2 lbs/ft ²)*
Maximum test lo	ad (+): 5400	Pa (112.8 lbs/ft ²)*
Design load (-): w Maximum test lo	ind 1600 ad (-): 240) Pa (33.4 lbs/ft²)* 00 Pa (50 lbs/ft²)*
Max series fuse r	ating:	20 A
Max reverse curr	ent:	20 A
	⁺ Calculated using See installation manual for r	ga safety factor of 1.5 nounting instructions
MECHANICAL DAT	ГА	
Dimensions:	66.3 x 39.25 x 1.5 (168	33 x 997 x 38 mm)

ications subject to change without notice.

REC 🔊

REC Americas LLC 1820 Gateway Drive Suite 170 San Mateo, CA 94404

RE: REC Modules Max Wind Load

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To Whom it May Concern;

REC Americas LLC confirms that the REC Twin Peak 3M series (RECXXXTP3M) and REC Alpha Series (RECXXXAA) modules have passed UL2703 Mechanical Load testing at a test load of +/-113 PSF utilizing four-point attachments on the long side of the module.

Please be in touch with the REC Technical Department if you have any questions.

Sincerely,

Cent Clellon

George McClellan **REC** Americas LLC Senior Technical Sales Manager

any dedicated to empowering tate global energy transitions. aic modules with leading high less than 100ppm. Founded in solar panel capacity of 1.8 GW. than 16 million people with clean solar energy, REC Group is a Bluest ar Elkem company with headquar ters in Nor way, operationa headquar ters in Singapore, and regional bases in Nor th America, Europe, and Asia-Pacific.

С

17.98 ft² (1.68 m²)

41.7 lbs (18.9 kg)

www.recgroup.com

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2			
1	,		

REC Americas LLC 1420 Gateway Dr, Suite 170 San Mateo, CA 94404 Dir 805 704 3226 Fax 805 457 6104 www.recgroup.com

San Luis Obispo, 19 February 2021

GOLDIN SOLAR CONTRACTOR GOLDIN SOLAR. LLC 1115 US HWY No. 1 VERO BEACH, FLORIDA 32960 2937 SW 27TH AVE-100A MIAMI, FL 33133 (305) 469-9790 permitting@goldinsolar.com www.GoldinSolar.com SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13010538 ROOFING LICENSE: CCC1331878 AHJ: CITY OF CORAL GABLES UTILITY: FPL SCOPE **GRID-TIED (TIER 1)** 6.6 kW SOLAR PHOTOVOLTAIC MIAMI **FRIENDS, INC** 1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO ENGINEER OF RECORD WE HOOM OLLYCE HOOV CENSA No. 52666 STATE O LORID SSIONALE MINING MAL PLAN FORMAT: ANSI B / TABLOID DESIGN: DJB CHECK: HLH DATE: 11/23/20 REVISED: 5/25/21 MODULE SPECIFICATION E-003

/ Power Optimizer For North America

P320 / P340 / P370 / P400 / P405 / P505

Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high- power 60-cell modules)	P370 (for higher- power 60 and 72-cell modules)	P400 (for 72 & 96- cell modules)	P405 (for thin film modules)	P505 (for higher current modules)				
INPUT	Sec. and a					S				
Rated Input DC Power®	320	340	370	400	405	505	W			
Absolute Maximum Input Voltage (Voc at lowest temperature)		48	60	80	125%	83'2	Vdc			
MPPT Operating Range	8	- 48	8 - 60	8 - 80	12.5 - 105	12.5 - 83	Vdc			
Maximum Short Circuit Current (Isc)		11			0,1	14	Adc			
Maximum DC Input Current		13,75		12	63	17.5	Adc			
Maximum Efficiency			99	5			92			
Weighted Efficiency			98.8			98.6	%			
Overvoltage Category			1							
OUTPUT DURING OPER	ATION (POWE	R OPTIMIZER C	ONNECTED TO	OPERATING SO	LAREDGE INVER	RTER)				
Maximum Output Current			1	5			Adc			
Maximum Output Voltage		6	0		8	5	Vdc			
Safety Output Voltage per Power Optimizer	<u>ini ka</u>) ±	0.1			Vdc			
STANDARD COMPLIAN	CE									
EMC		. FC	C Part15 Class B. IEC6	1000-6-2. IEC61000-6	5-3					
Safety			IEC62109-1 (class	Il safety) UL1741						
RoHS			Ye	15						
INSTALLATION SPECIFIC	CATIONS									
Maximum Allowed System Voltage			100	00			Vde			
Compatible inverters		All Sc	plarEdge Single Phase	and Three Phase invi	erters					
Dimensions (W × L × H)	129	x 153 x 27 5 / 5 1 x 6	x 11	129 x 153 x 33 5 / 5 1 x 6 x 1.3	129 × 159 × 49 5 / 5.1 × 6.3 × 1.9	129 × 162 × 59 / 5.1 x 6 4 × 2.3	mm/in			
Weight (including cables)		630 / 1.4		750 / 1.7	845 / 1.9	1064 / 2.3	gr / la			
Input Connector			MC	413						
Output Wire Type / Connector			Double Insu	lated, MC4						
Output Wire Length	0.95	0.95 / 3.0 1.2 / 3.9								
Input Wire Length	0.16 / 0.52									
Operating Temperature Range			-40 - +85 /	-40 - +185			"C / "F			
Protection Rating			IP68 / N	EMA6P						
Relative Humidity		0 - 100								

¹⁰ Rated STC power of the module. Module of up to +5% power tolerance allowed ²⁴ NEC 2017 requires max input voltage be not more than 80V ³⁴ For other connector types please contact Solar2dge

PV System D a SolarEdge	esign Using Inverter ⁽⁴⁾⁽⁵⁾	Single Phase HD-Wave	Single phase	Three Phase 208V	Three Phase 480V	
Minimum String Length	P320, P340, P370 P400	8		10	18	
(Power Optimizers)	P405 / P505	6		8	14	
Maximum String Length (Power Optimizers)	ngth 25		25	50°		
Maximum Power per Stri	ng	5700 (6000 with SE7600-US - SE11400- US)	5250	60007	12750#	W
Parallel Strings of Different Lengths or Orientations		Yes				

A For detailed string sizing information refer to http://www.splaredge.com/sites/default/files/string_sizing_na.odf
 A for detailed string sizing information refer to http://www.splaredge.com/sites/default/files/string_sizing_na.odf
 It is not allowed to mix P405/P505 with P520/P340/P370/P400 in one string
 A string with more than 30 optimizers does not meet NEC rapid shutdown requirements, safety voltage will be adove the 30% requirement.
 For SE14.4KUS/SE43.2KUS it is allowed to install up to 6,500% per string when 3 strings are connected to the inverter (3 strings per unit for SE43.2KUS) and when the maximum power difference between the strings to to 1000V.
 For SE30KUS/SE33.3KUS/SE33.3KUS/SE30.5KUS/SE100KUS it is allowed to install up to 15,000W per string when 3 strings are connected to the inverter (3 strings per unit for SE65.6KUS/SE100KUS) and when the maximum power difference between the strings is up to 1000W.

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CE RoHS

GOLDIN SOLAR

CONTRACTOR

GOLDIN SOLAR. LLC

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2937 SW 27TH AVE-100A MIAMI, FL 33133 (305) 469-9790

permitting@goldinsolar.com www.GoldinSolar.com

SOLAR LICENSE: CVC56965 ELECTRICAL LICENSE: EC13010538 ROOFING LICENSE: CCC1331878

AHJ: CITY OF CORAL GABLES UTILITY: FPL

SCOPE **GRID-TIED (TIER 1)** 6.6 kW SOLAR PHOTOVOLTAIC

MIAMI **FRIENDS, INC**

1185 SUNSET ROAD CORAL GABLES 33143 PN: P2008-126-MIA-MHD-PVO

ENGINEER OF RECORD

PLAN FORMAT: ANSI B / TABLOID

DESIGN: DJB CHECK: HLH

DATE: 11/23/20 REVISED: 5/25/21

OPTIMIZER SPECIFICATION E-004

Single Phase Inverter with HD-Wave Technology for North America

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

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXBXX4							
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 @ 240∨ 5000 @ 208∨	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage MinNomMax. (211 - 240 - 264)	~	~	~	~	~	~	~	Vac
AC Output Voltage MinNomMax. (183 - 208 - 229)	-	~	-	1	-	-	~	Vac
AC Frequency (Nominal)				59.3 - 60 - 60.5				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	А
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®	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current				45				Adc
Reverse-Polarity Protection				Yes				
Ground-Fault Isolation Detection				600ko Sensitivity				
Maximum Inverter Efficiency	99			ç	9.2			%
CEC Weighted Efficiency				99			99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption				< 2.5				W

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(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

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

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

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US			
ADDITIONAL FEATURES										
Supported Communication Interfaces		RS485, Ethernet, ZigBee (optional), Cellular (optional)								
Revenue Grade Metering, ANSI C12.20										
Consumption metering	1	Optional ⁽³⁾						-		
Inverter Commissioning		With the SetA	pp mobile applicatio	n using Built-in Wi-Fi	Access Point for Lo	cal Connection				
Rapid Shutdown - NEC 2014, NEC 2017 and NEC 2020, 690.12		Automatic Rapid Shutdown upon AC Grid Disconnect								
STANDARD COMPLIANCE										
Safety		UL1741, U	L1741 SA, UL1699B,	CSA C22.2, Canadiar	AFCI according to	T.I.L. M-07				
Grid Connection Standards			IEEE	1547, Rule 21, Rule 14	I (HI)					
Emissions				FCC Part 15 Class B						
INSTALLATION SPECIFICAT	TIONS									
AC Output Conduit Size / AWG Range		1"	Maximum / 14-6 AV	VG		1" Maximum	/14-4 AWG			
DC Input Conduit Size / # of Strings / AWG Range		1'' Maxir	mum / 1-2 strings / 14	4-6 AWG		1'' Maximum / 1-3 s	trings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)		17.7 x	14.6 x 6.8 / 450 x 37	0 x 174		21.3 x 14.6 x 7.3 /	540 x 370 x 185	in / mr		
Weight with Safety Switch	22	/ 10	25.1 / 11.4	26.2	/ 11.9	38.8 /	17.6	lb / kg		
Noise		<	25			<50		dBA		
Cooling				Natural Convection			-			
Operating Temperature Range			-40) to +140 / -40 to +6	0(4)			°F/°C		
Protection Rating		NEMA 4X (Inverter with Safety Switch)								
(3) Inverter with Revenue Grade Meter P/N: S	ExxxxH-US000BNC4 Inv	erter with Revenue Gra	de Production and Con	sumption Motor P/ML SE	WWWH-LICOOORNIA For	concumption motoring	current transformers			

should be ordered separately: SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box

(4) Full power up to at least 50°C / 122°F; for power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pd

How to Enable Consumption Monitoring

By simply wiring current transformers through the inverter's existing AC conduits and connecting them to the service panel, homeowners will gain full insight into their household energy usage helping them to avoid high electricity bills

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INVERTER SPECIFICATION E-005