

### Innovation for a Better Life





## 60 cell

LG's new module, LG NeON™ 2, adopts Cello technology. Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. LG NeON™ 2 demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.











#### **Enhanced Performance Warranty**

LG NeON™ 2 has an enhanced performance warranty. The annual degradation has fallen from -0.6%/yr to -0.55%/yr. Even after 25 years, the cell guarantees 1.2%p more output than the previous LG NeON™ 2 modules.



#### **High Power Output**

Compared with previous models, the LG  $NeON^{TM}$  2 has been designed to significantly enhance its output efficiency, thereby making it efficient even in limited space.



#### **Aesthetic Roof**

LG NeON™ 2 has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product may help increase the value of a property with its modern design.



## **Outstanding Durability**

With its newly reinforced frame design, LG has extended the warranty of the LG  $NeON^{TM}$  2 for an additional 2 years. Additionally, LG NeON™ 2 can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.



#### **Better Performance on a Sunny Day**

LG NeON™ 2 now performs better on sunny days thanks to its improved temperature coefficiency.



#### **Double-Sided Cell Structure**

The rear of the cell used in LG NeON™ 2 will contribute to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.

#### About LG Electronics

#### **Mechanical Properties**

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1686 x 1016 x 40 mm
	66.38 x 40 x 1.57 inch
Front Load	6000Pa
Rear Load	5400Pa
Weight	18 kg
Connector Type	MC4
Junction Box	IP68 with 3 Bypass Diodes
Cables	1000 mm x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

#### **Certifications and Warranty**

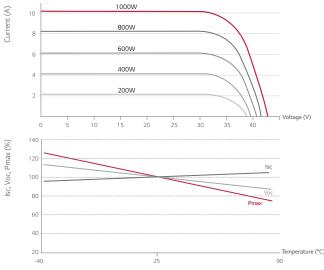
Certifications	IEC 61215, IEC 61730-1/-2				
	UL 1703				
	IEC 61701 (Salt mist corrosion test)				
	IEC 62716 (Ammonia corrosion test)				
	ISO 9001				
Module Fire Performance (USA)	Type 1				
Fire Rating (CANADA)	Class C (ULC / ORD C1703)				
Product Warranty	12 years				
Output Warranty of Pmax	Linear warranty**				

<sup>\*\* 1) 1</sup>st year : 98%, 2) After 2nd year : 0.55% annual degradation, 3) 25 years : 84.8%

#### **Temperature Characteristics**

NOCT	45 ± 3 ℃	
Pmpp	-0.37%/°C	
Voc	-0.27%/°C	
Isc	0.03 %/°C	

#### **Characteristic Curves**



#### **Electrical Properties (STC\*)**

Module	LG330N1C-A5	
Maximum Power (Pmax)	330	
MPP Voltage (Vmpp)	33.7	
MPP Current (Impp)	9.8	
Open Circuit Voltage (Voc)	40.9	
Short Circuit Current (Isc)	10.45	
Module Efficiency	19.3	
Operating Temperature	-40 ~ +90	
Maximum System Voltage	1,000	
Maximum Series Fuse Rating	20	
Power Tolerance (%)	0~+3	

- \* STC (Standard Test Condition): Irradiance 1,000 W/m², Ambient Temperature 25 °C, AM 1.5
- \* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

  \* The Typical change in module efficiency at 200W/m² in relation to 1000W/m² is -2.0%.

#### **Electrical Properties (NOCT\*)**

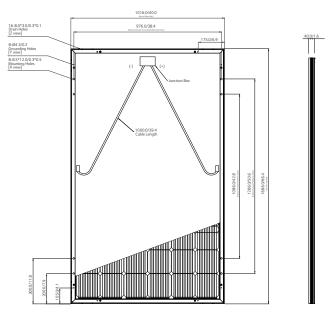
Module	LG330N1C-A5
Maximum Power (Pmax)	243
MPP Voltage (Vmpp)	31.2
MPP Current (Impp)	7.81
Open Circuit Voltage (Voc)	38.1
Short Circuit Current (Isc)	8.41

<sup>\*</sup> NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², ambient temperature 20 °C, wind speed 1m/s

#### Dimensions (mm/in)









North America Solar Business Team LG Electronics U.S.A. Inc 1000 Sylvan Ave, Englewood Cliffs, NJ 07632

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Product specifications are subject to change without notice.



DESCRIPTION:
SNAPNRACK, COMP FLASH TRACK KIT

mwatkins REVISION:

В

DRAWN BY:

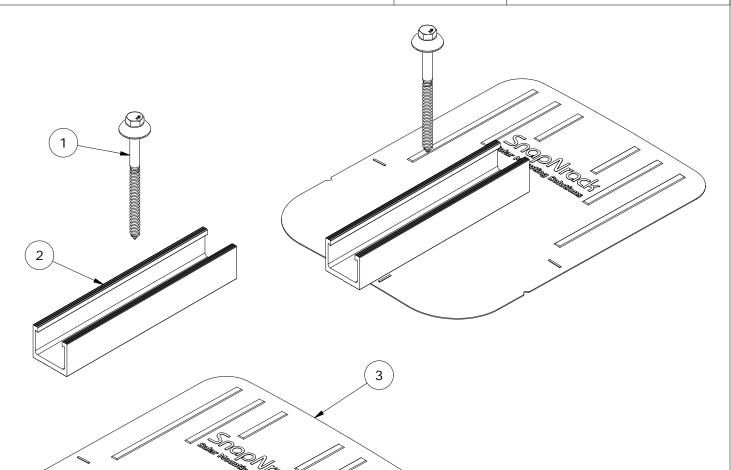
Solar Mounting Solutions

PART NUMBER(S):

**SEE BELOW** 

595 MARKET STREET, 29TH FLOOR • SAN FRANCISCO, CA 94105 USA PHONE (415) 580-6900 • FAX (415) 580-6902

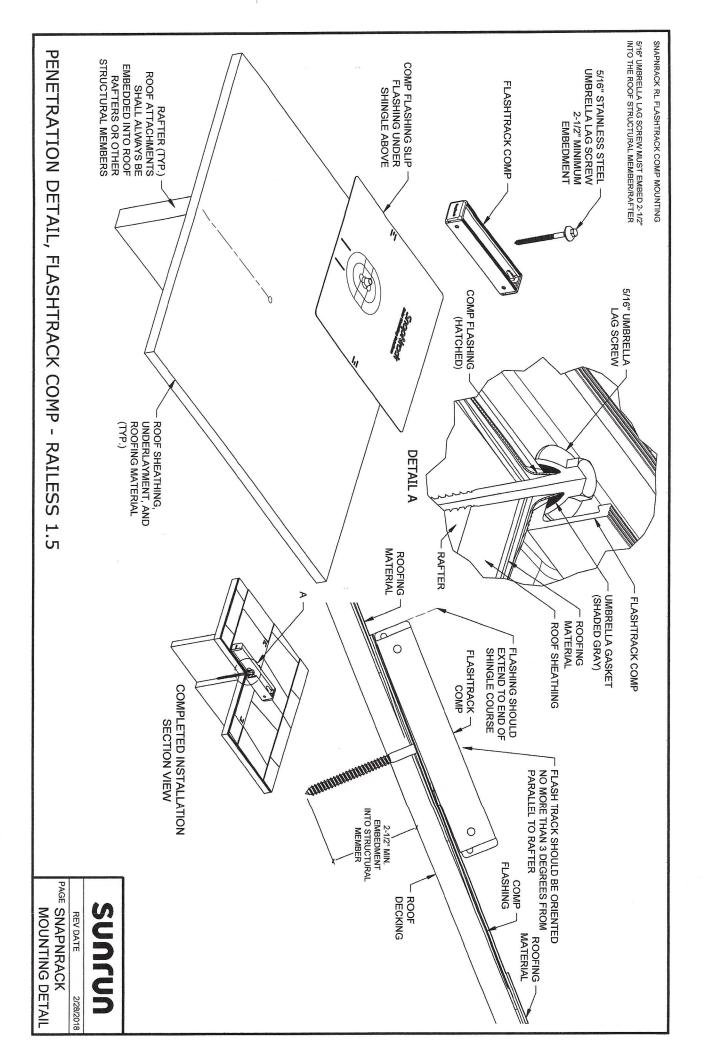
THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF SUNRUN SOUTH LLC.

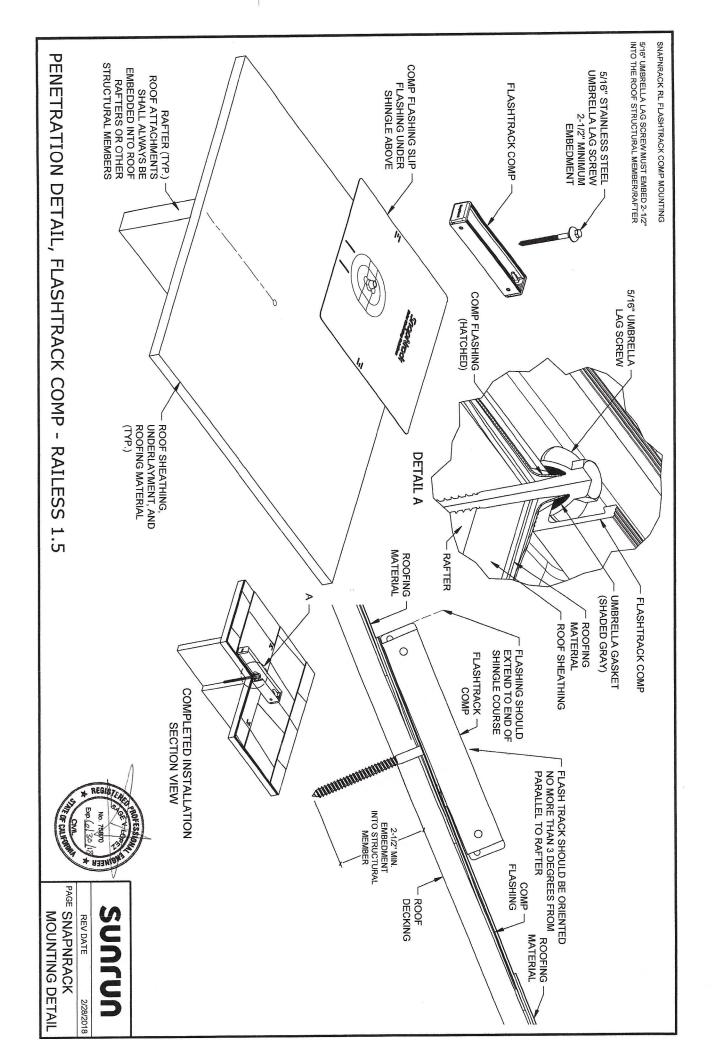


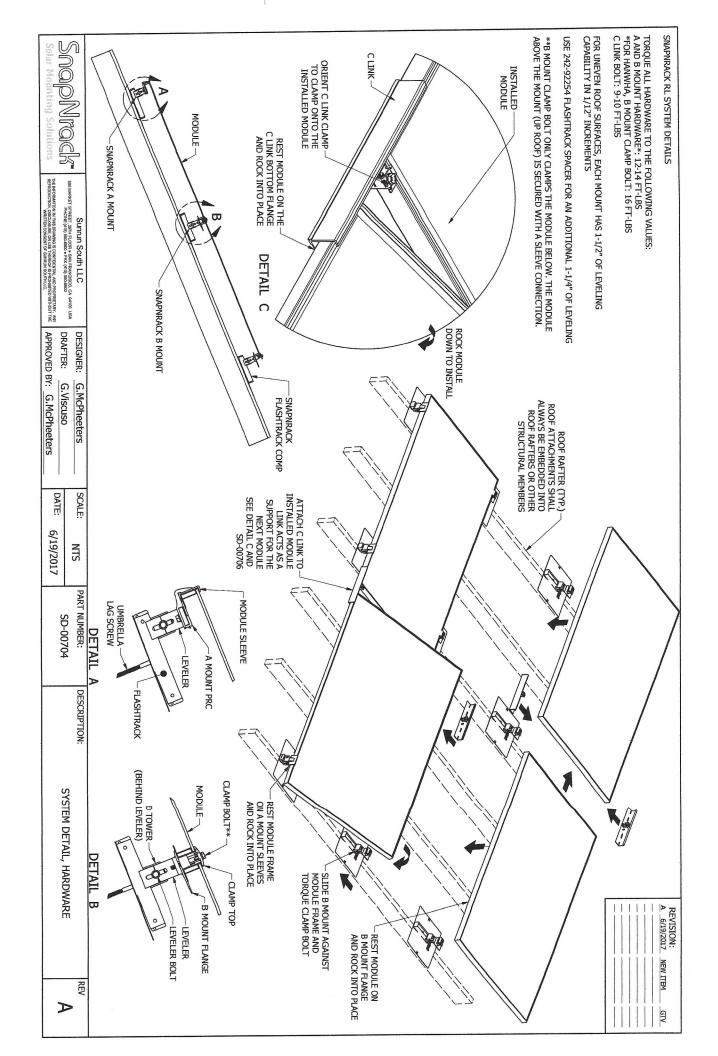
	PARTS LIST						
ITEM	QTY	PART NUMBER	DESCRIPTION				
1	1	242-92266	SNAPNRACK, UMBRELLA LAG, TYPE 3, 41N, SS				
2	1	232-04060	SNAPNRACK, FLASH TRACK PRC, CONE HOLE, 7-1/2IN, BLACK				
3	1	232-01375, 232-01376	SNAPNRACK, COMP FLASHING, 9IN X 12IN, SILVER / BLACK ALUM				

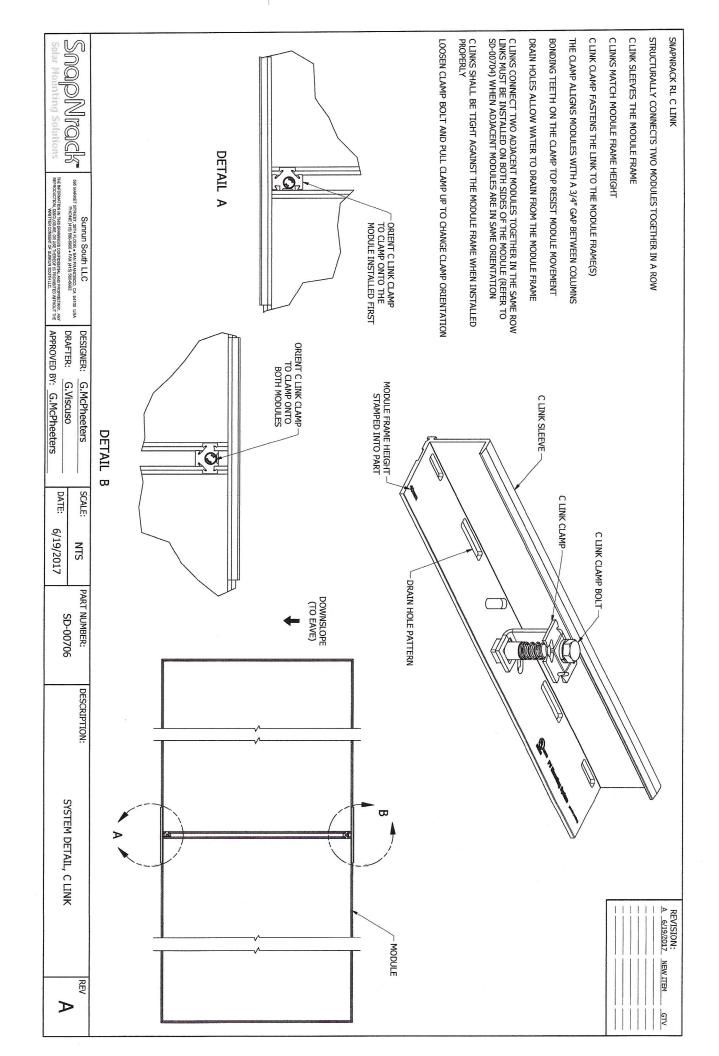
MATERIALS:	6000 SERIES ALUMINUM, STAINLESS STEEL, RUBBER	
DESIGN LOAD (LBS):	306 UP, 372 DOWN, 253 SIDE (LANDSCAPE)	
ULTIMATE LOAD (LBS):	N/A	
TORQUE SPECIFICATION:	N/A LB-FT	
CERTIFICATION:	UL 2703, FILE E359313	
WEIGHT (LBS):	0.83 - 1.06	

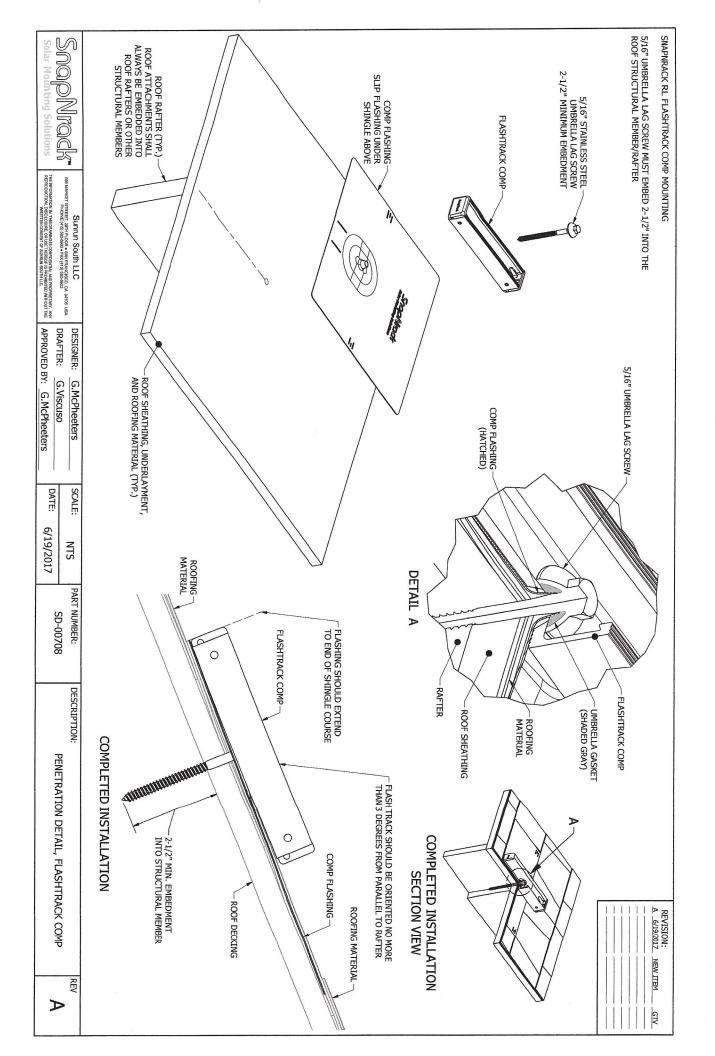
DESCRIPTION: DRAWN BY: SNAPNRACK, COMP FLASH TRACK KIT mwatkins **REVISION:** PART NUMBER(S): В **SEE BELOW** COMP FLASHING PROPERTIES SKU **DESCRIPTION** 232-01375 COMP FLASHING, 9" X 12", BLACK ALUM 232-01376 COMP FLASHING, 9" X 12", SILVER ALUM .30 Ø1.00-6.75 11.75 4.20 105° Ø.35 3.25 8.75 .45 → 3.75 1.08 .20 1.27 - .10 ALL DIMENSIONS IN INCHES

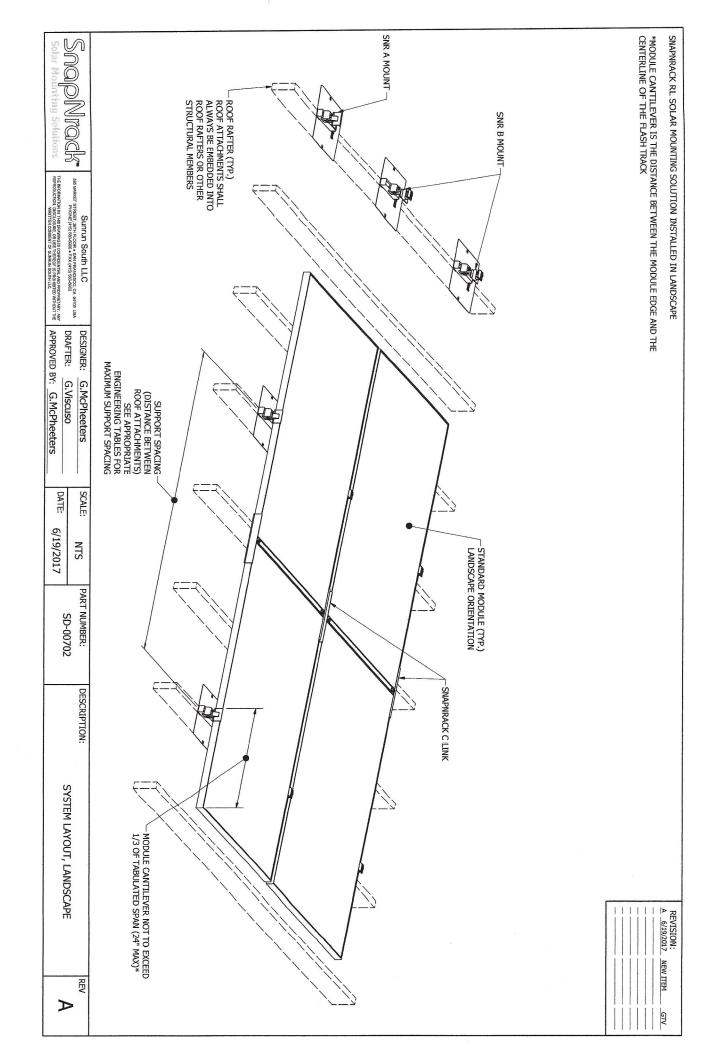


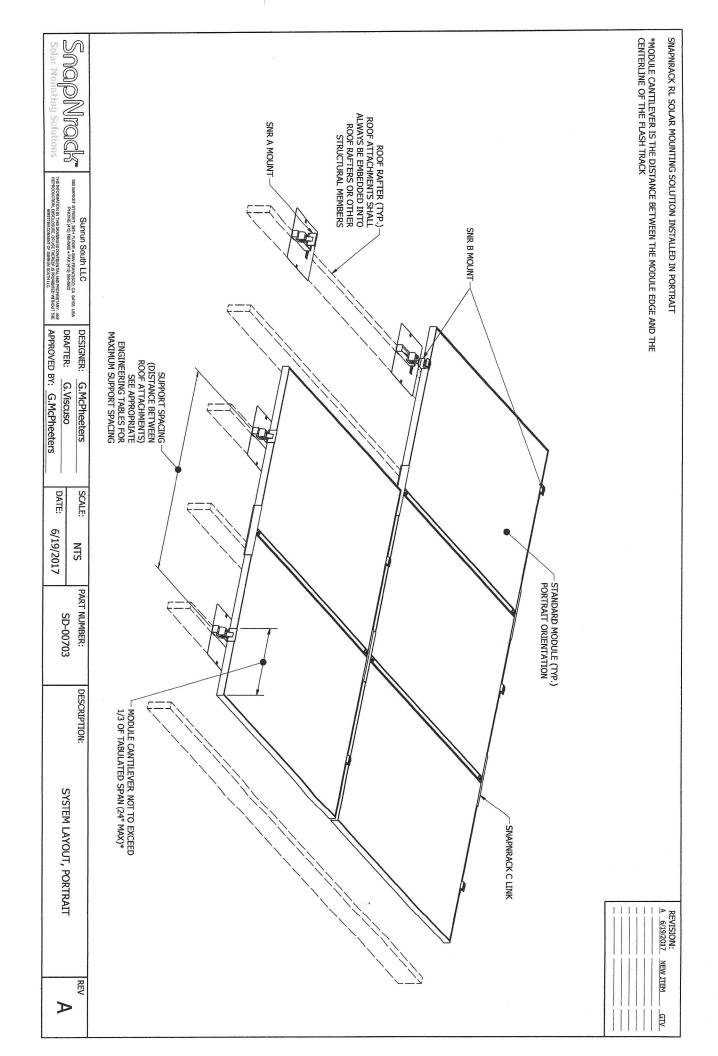












SOLAR ROWERTS SOLUTIONS THE RESOLUTIONS TO THE PERSONNEL PROPOSED TO T		"LANDSCAPE" MODULE ORIENTATION SHOWN, FOR "PORTRAIT" INSTALLATION REFER TO SD-00703	SNAPNRACK C LINKS CONNECT MODULE FRAMES TOGETHER TO ACT AS A CONTINUOUS STRUCTURAL ELEMENT	MODULE ATTACHMENT: SNAPNRACK A MOUNTS AND B MOUNTS	ROOF ATTACHMENT: SNAPNRACK FLASHTRACK COMP	SNAPNRACK RL SOLAR MOUNTING SOLUTION INSTALLED ON COMPOSITION SHINGLE ROOF
SUMPUN SOUTH LLC  SEA MARKET STREET. ZEMPH FLOOTAL: AND PROMOTE OF A MARKET STREET. ZEMPH FLOOTAL: AND PROMOTE OF A MARKET STREET. AND PROMOTE OF A MARKET STREET. AND PROMOTE STREET. AND	ROOF RAFTER (TVP.)— ROOF ATTACHMENTS SHALL ALWAYS BE EMBEDDED INTO ROOF RAFTERS OR OTHER STRUCTURAL MEMBERS					
R: G.McPheeters SCALE:  D BY: G.McPheeters DATE:	ROOF SHEATHING, UNDERLAYMENT,	STANDARD MODULE (TYP.)				
NTS PART NUMBER: SD-00700						
DESCRIPTION: SYSTEM OVERVIEW, FLASHTRACK COMP	SNAPNRACK C LINK  SNAPNRACK FLASHTRACK COMP (TVP.)					
LASHTRACK COMP REV	SNAPNRACK B MOUNT -SNAPNRACK A MOUNT					REVISION:  A _6/19/2017 NEW ITEM GTV



# **Power Optimizer**

P320 / P370 / P400 / P405 / P505



#### PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Compliant with arc fault protection and rapid shutdown NEC requirements (when installed as part of the SolarEdge system)
- Module-level voltage shutdown for installer and firefighter safety



# **Power Optimizer**

P320 / P370 / P400 / P405 / P505

OPTIMIZER MODEL (typical module compatibility)	P320 (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)			
NPUT								
Rated Input DC Power <sup>(1)</sup>	320	370	400	405	505	W		
Absolute Maximum Input Voltage Voc at lowest temperature)	48	60	80	125	83	Vdc		
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 105	12.5 - 83	Vdc		
Maximum Short Circuit Current (Isc)	1	11	10	).1	14	Adc		
Maximum DC Input Current	13	.75	12	.63	17.5	Adc		
Maximum Efficiency		***************************************	99.5		******************	%		
Weighted Efficiency		98	3.8		98.6	%		
Overvoltage Category		• • • • • • • • • • • • • • • • • • • •	II	• • • • • • • • • • • • • • • • • • • •	***************************************			
OUTPUT DURING OPERATION (POWE	R OPTIMIZER CONNE	CTED TO OPERATING	G SOLAREDGE INVE	RTER)				
Maximum Output Current			15			Adc		
Maximum Output Voltage		60		,	85	Vdc		
OUTPUT DURING STANDBY (POWER C	PTIMIZER DISCONN	ECTED FROM SOLAR	EDGE INVERTER OR	SOLAREDGE INVE	RTER OFF)			
Safety Output Voltage per Power Optimizer		1 ± 0.1						
STANDARD COMPLIANCE						,		
EMC		FCC Part15 C	lass B, IEC61000-6-2,	IEC61000-6-3				
Safety		IEC621	.09-1 (class II safety),	 UL1741	•••••			
RoHS		• • • • • • • • • • • • • • • • • • • •	Yes	• • • • • • • • • • • • • • • • • • • •	•••••			
NSTALLATION SPECIFICATIONS								
Maximum Allowed System Voltage			1000			Vdc		
Compatible inverters		All SolarEdge Si	ngle Phase and Three	Phase inverters	***************************************			
Dimensions (W x L x H)	128 x 152 x 28	/ 5 x 5.97 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 / iı		
Weight (including cables)	630	630 / 1.4 750 / 1.7 845 / 1.9 10 MC4 <sup>(2)</sup>						
Output Wire Type / Connector		Double Insulated; MC4						
Output Wire Length	0.95 / 3.0			/ 3.9	***************************************	m / ft		
Operating Temperature Range		-40 - +85 / -40 - +185						
	IP68 / NEMA6P							
Protection Rating								

 $<sup>^{(1)}</sup>$  Rated STC power of the module. Module of up to +5% power tolerance allowed.

<sup>(2)</sup> For other connector types please contact SolarEdge

PV SYSTEM DESIGN USI A SOLAREDGE INVERTE		SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE 208V	THREE PHASE 480V	
Minimum String Length	P320, P370, P400	8		10	18	
(Power Optimizers)	P405 / P505	6		8	14	
Maximum String Length (Power Optimizers)		25	;	25	50 <sup>(5)</sup>	
Maximum Power per Stri	ng	5700 (6000 with SE7600-US - SE11400- US)	5250	6000	12750	W
Parallel Strings of Differer or Orientations	nt Lengths		Ye	es		



<sup>(3)</sup> For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string\_sizing\_na.pdf.
(4) It is not allowed to mix P405/P505 with P320/P370/P400/P600/P700/P800 in one string.
(5) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement

# solaredge

# **Single Phase Inverter**

with HD-Wave Technology for North America

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



#### **Optimized installation with HD-Wave technology**

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Extremely small
- High reliability without any electrolytic capacitors
- Built-in module-level monitoring
- Outdoor and indoor installation
- Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)





# **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	
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
Max. AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
AC Output Voltage MinNomMax. (183 - 208 - 229)	-	1	-	✓	-	-	-	Vac
AC Output Voltage MinNomMax. (211 - 240 - 264)	✓	✓	✓	✓	1	✓	✓	Vac
AC Frequency (Nominal)		4		59.3 - 60 - 60.5 <sup>0</sup>	1)	1	4	Hz
Maximum Continuous Output Current 208V	-	16	-	24	-	-	-	А
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	А
رس علام المراقعة الم		l	1	1	1	1	1	Α
Utility Monitoring, Islanding Protection,		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	Yes	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
Country Configurable Thresholds  INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V		5100		7750	-			
Transformer-less, Ungrounded		]	1	Yes	1	1	1	
Maximum Input Voltage		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	480	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	Vdc
Nominal DC Input Voltage			80		[	400	• • • • • • • • • • • • • • • • • • • •	Vdc
Maximum Input Current 208V	-	9	-	13.5	-	-	_	
Maximum Input Current @240V	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Max. Input Short Circuit Current		1		45	I	1 <del>T</del>	1	Adc
Reverse-Polarity Protection		• • • • • • • • • • • • • • • • • • • •	* * * * * * * * * * * * * * * * * * * *	Yes	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
Ground-Fault Isolation Detection		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	600kΩ Sensitivit	V	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
Maximum Inverter Efficiency	99	[			9.2	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	%
CEC Weighted Efficiency	1			99	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	%
Nighttime Power Consumption		• • • • • • • • • • • • • • • • • • • •		< 2.5	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	W
ADDITIONAL FEATURES								,
Supported Communication Interfaces		R:	S485, Ethernet,	ZigBee (optional	), Cellular (optic	nal)		
Revenue Grade Data, ANSI C12.20	I			Optional <sup>(2)</sup>				[
Rapid Shutdown - NEC 2014 and 2017	Automatic Rapid Shutdown upon AC Grid Disconnect							
690.12								
STANDARD COMPLIANCE	I	1114744 111474	1.04 111.1000	CCA C22 2 C	diam AECLaran	diamete TII MAO	7	
Safety		UL1/41, UL1/4				ding to T.I.L. M-0	/	
Grid Connection Standards Emissions	IEEE1547, Rule 21, Rule 14 (HI)  FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS				FCC Part 15 Class	5 B			
AC Output Conduit Size / AWG Range		2///	minimum / 14-6	AVAC		2/// minimu	m /14-4 AWG	
DC Input Conduit Size / # of Strings /				AVVG	• • • • • • • • • • • • • • • • • • • •			
AWG Range	3/4" minimum / 1-2 strings / 14-6 AWG 3/4" minimum / 1-3 strings /							
Dimensions with Safety Switch (HxWxD)	14-6 AWG 17.7 x 14.6 x 6.8 / 450 x 370 x 174						7.3 / 540 x 370	in / mr
Weight with Safety Switch	x 185 22/10 25.1/11.4 26.2/11.9 38.8/17.6							lb / kg
Noise			25	20.2/		<50		dBA
Cooling	Natural Convection Natural convection							
Operating Temperature Range	-13 to +140 / -25 to +60 <sup>(3)</sup> (-40°F / -40°C option) <sup>(4)</sup>						°F / °C	
Protection Rating	1	• • • • • • • • • • • • • • • • • • • •		(Inverter with Sa			• • • • • • • • • • • • • • • • • • • •	



<sup>(1)</sup> For other regional settings please contact SolarEdge support
(2) Revenue grade inverter P/N: SEXXXXH-US000NNC2
(3) For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf
(4) \_40 version P/N: SEXXXXH-US000NNU4

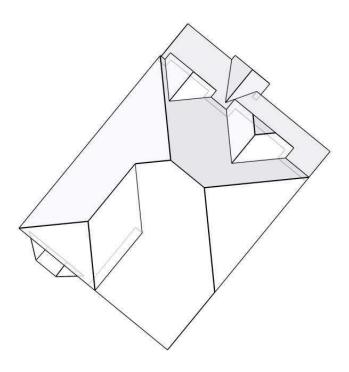


## Sunrun Installation Services, Inc. 2309 South Mount Prospect Road Des Plaines, IL 60018

Location: 11353 Longwood Circle, Orland Park, IL 60467

PV Panel Area	2,823 sq ft
Roof Total Area	590 sq ft
PV Panel Percentage of Roof	20.9%

#### 11353 Longwood Cir, Orland Park, IL 60467



In this 3D model, facets appear as semi-transparent to reveal overhangs.

Report Details	Roof Details	Report Contents
Report: 23717282 Claim: 711R-353HALP	Total Area =2,823 sq ft Total Roof Facets =17 Predominant Pitch =7/12 Number of Stories >1 Total Ridges/Hips =183 ft Total Valleys =79 ft Total Rakes =78 ft Total Eaves =223 ft Total Penetrations =15 Total Penetrations Perimeter = 84 ft Total Penetrations Area = 37 sq ft	Images       1         Length Diagram       4         Rafter Length Diagram       5         Pitch Diagram (In/Ft)       6         Pitch Diagram (Degrees)       7         Azimuth Diagram       8         Area Diagram       9         Grid Diagram       10         Notes Diagram       11         Penetrations Diagram       12         Report Summary       13         Detailed Line Length Appendix       15

Contact: Sunrun BulkAccount

Company: Sunrun

Address: 595 Market St

San Francisco CA 94105

Phone: 855-478-6786

Measurements provided by  $\underline{\text{www.eagleview.com}}$ 





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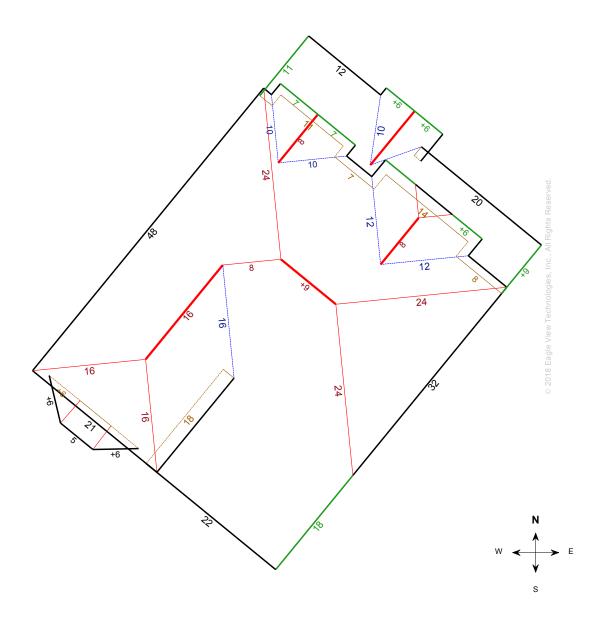
#### **Length Diagram**

Total Line Lengths:

Ridges = 51 ft Hips = 132 ft

Valleys = 79 ftRakes = 78 ftEaves = 223 ft

Flashing = 50 ftStep flashing = 41 ft Parapets = 0 ft



Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).



Report: 23717282

Claim: 711R-353HALP

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