

Samsung takes on the Solar Challenge

Developing viable solar power systems is one of the great tasks facing the world today, and Samsung is now in the race. We are poised to repeat our success in solar power generation. Our track record speaks for itself.

		LPC235SM	LPC238SM	LPC241SM
Performance at Standard Test Conditions (STC) : Irradiance 1000 W/m², AM 1.5, and cell temperature 25 °C				
Maximum power	P _{max} (Wp)	235	238	241
Maximum power voltage	V _{mp} (V)	29.9	30.0	30.1
Maximum power current	I _{mp} (A)	7.88	7.94	8.01
Open circuit voltage	V _{oc} (V)	37.2	37.3	37.4
Short circuit current	I _{sc} (A)	8.47	8.51	8.54
Module efficiency		14.68%	14.87%	15.06%
Performance at Nominal Operating Cell Temperature (NOCT) : Irradiance 800 W/m², AM 1.5				
Maximum power	P _{max} (Wp)	188	190	194
Maximum power voltage	V _{mp} (V)	30.4	30.2	30.3
Maximum power current	I _{mp} (A)	6.21	6.31	6.43
Open circuit voltage	V _{oc} (V)	37.2	37.3	37.4
Short circuit current	I _{sc} (A)	6.65	6.66	6.84

* The rated power may only vary by 0 Wp / +2.99 Wp.



System integration parameters

Maximum system voltage (IEC)	1,000 VDC
Maximum system voltage (UL)	600 VDC
Maximum series fuse rating	15 A
Maximum reverse current	Do not apply external voltages larger than V _{oc} to the module

Safety Ratings & Warranties

Fire Safety Classification	Class C
Certifications	UL 1703, CEC, IEC61215, IEC61730
Warranty	5 years limited product warranty
Performance guarantee	10 years limited warranty of 90% power output 25 years limited warranty of 80% power output

Qualification Test

Temp cycling range	-40 °C to 85 °C for 200 cycles
Damp heat test	85 °C and 85% relative humidity for 1000 hr
Front load test (Snow)	5400 Pa
Rear static load test(Wind)	2400 Pa
Hailstone impact test	25 mm hail at 23 m/s from 1 m distance

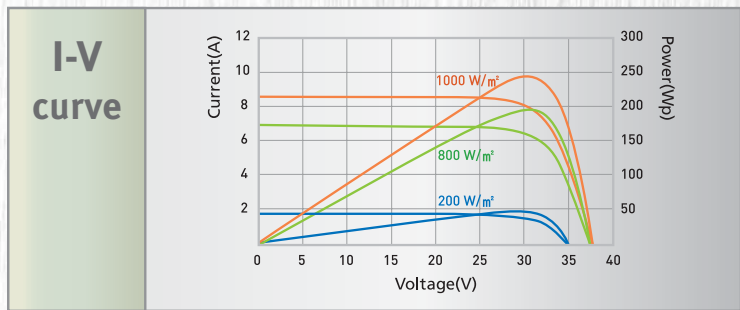
Temperature coefficients	
NOCT	45 ± 2 °C
TC Isc	-0.025%/K
TC Voc	-0.341%/K
TC Pmax	-0.519%/K

(NOCT : Nominal Operating Cell Temperature)

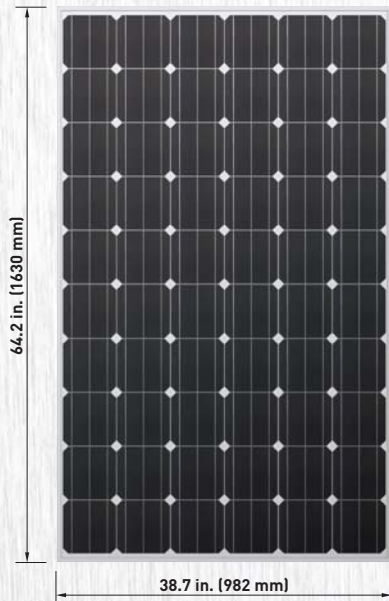
Packing Configuration	
Container	40'HC
Piece per pallet	20
Pallets per container	26



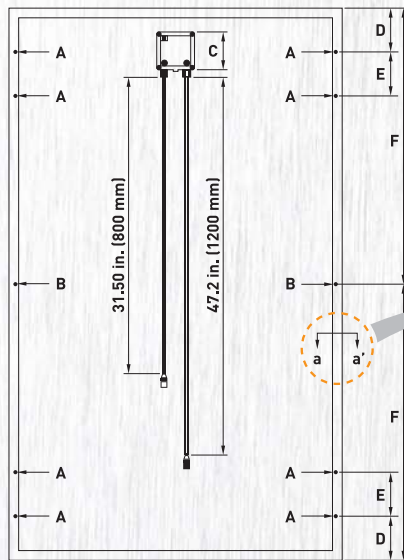
Physical characteristics (UL)		
Type	01(Screw)	02(Corner-key)
Cells per module	60	
Cell type	Mono-crystalline silicon	
Module dimensions	1630 x 982 x 47 mm	1630 x 982 x 46 mm
	64.2 x 38.7 x 1.85 inches	64.2 x 38.7 x 1.81 inches
Front Glass	3.2 mm (0.13 inches) Tempered glass	
Module weight	20.0 kg (44.09 lb)	18.6 kg (41.01 lb)
Frame Type	Screw	Corner-key
Junction box	Connector Type	Bizlink S418-xyz series (MC4 compatible)
	IP Grade	IP65
	Output Cable	(+) 1200 mm, (-) 800 mm (+) 47.2 inches, (-) 31.5 inches



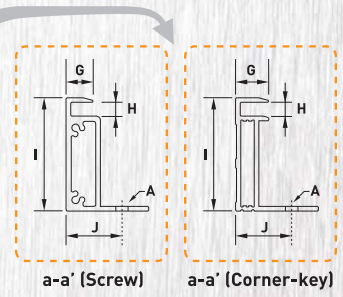
FRONT



REAR



	01(Screw)	02(Corner-key)
A	Ø 0.31 in. (8 mm)	
B	Ø 0.16 in. (4 mm)	
C	5.35 in. (136mm)	
D	5.12 in. (130mm)	
E	5.12 in. (130mm)	
F	32.09 in. (815mm)	
G	0.45 in. (11.5mm)	0.47 in. (12mm)
H	0.22 in. (5.7mm)	
I	1.85 in. (47mm)	1.81 in. (46mm)
J	0.98 in. (25mm)	0.69 in. (17.5mm)



* All data subject to change without prior notice.

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