

# 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	LPC244SM	LPC247SM	LPC250SM
<b>Performance at Standard Test Conditions (STC) : Irradiance 1000 W/m<sup>2</sup>, AM 1.5, and cell temperature 25 °C</b>							
Maximum power	P <sub>max</sub> (Wp)	235	238	241	244	247	250
Maximum power voltage	V <sub>mp</sub> (V)	29.9	30.0	30.1	30.3	30.4	30.5
Maximum power current	I <sub>mp</sub> (A)	7.88	7.94	8.01	8.07	8.14	8.20
Open circuit voltage	V <sub>oc</sub> (V)	37.2	37.3	37.4	37.5	37.6	37.6
Short circuit current	I <sub>sc</sub> (A)	8.47	8.51	8.54	8.58	8.62	8.66
Module efficiency		14.68%	14.87%	15.06%	15.24%	15.43%	15.62%
<b>Performance at Nominal Operating Cell Temperature (NOCT) : Irradiance 800 W/m<sup>2</sup>, AM 1.5</b>							
Maximum power	P <sub>max</sub> (Wp)	188	190	194	196	198	200
Maximum power voltage	V <sub>mp</sub> (V)	30.4	30.2	30.3	30.4	30.5	30.9
Maximum power current	I <sub>mp</sub> (A)	6.21	6.31	6.43	6.48	6.49	6.51
Open circuit voltage	V <sub>oc</sub> (V)	37.2	37.3	37.4	37.3	37.4	37.6
Short circuit current	I <sub>sc</sub> (A)	6.65	6.66	6.84	6.88	6.89	6.90

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

### System integration parameters

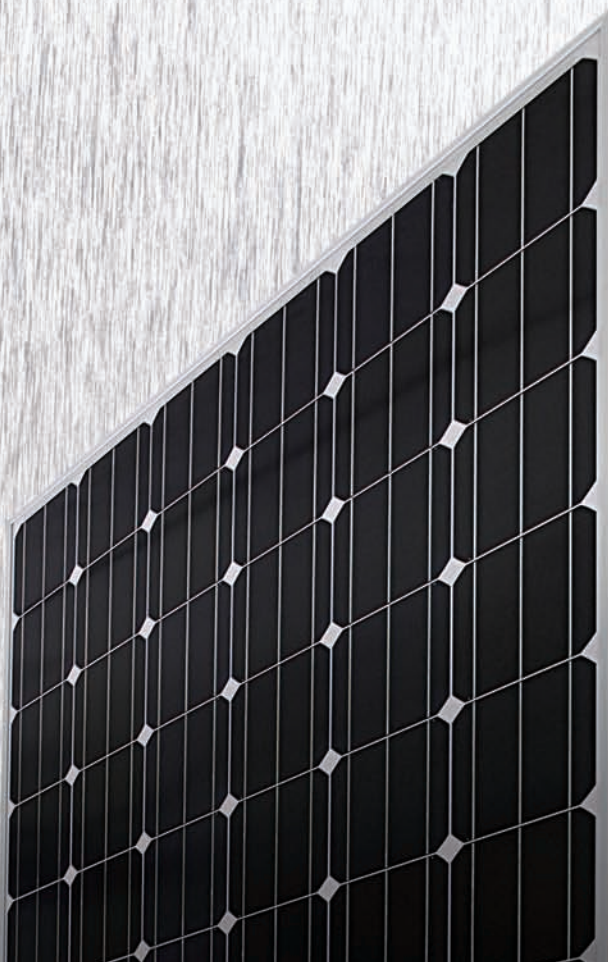
Maximum system voltage (IEC)	1,000 VDC
Maximum system voltage (UL)	600 VDC
Maximum series fuse rating	15 A
Maximum reverse current	Do not apply external voltages larger than V <sub>oc</sub> to the module

### 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

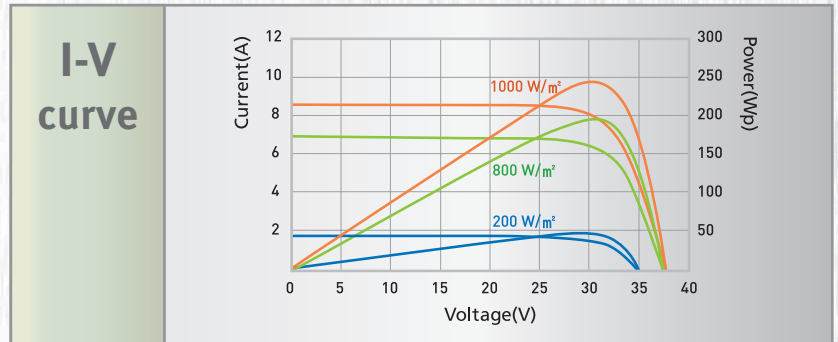


Temperature coefficients	
NOCT	46±2 °C
TC Isc	0.07%/K
TC Voc	-0.35%/K
TC Pmax	-0.48%/K

(NOCT : Nominal Operating Cell Temperature)

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

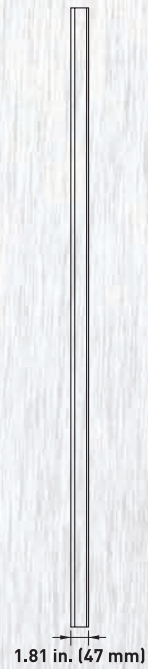
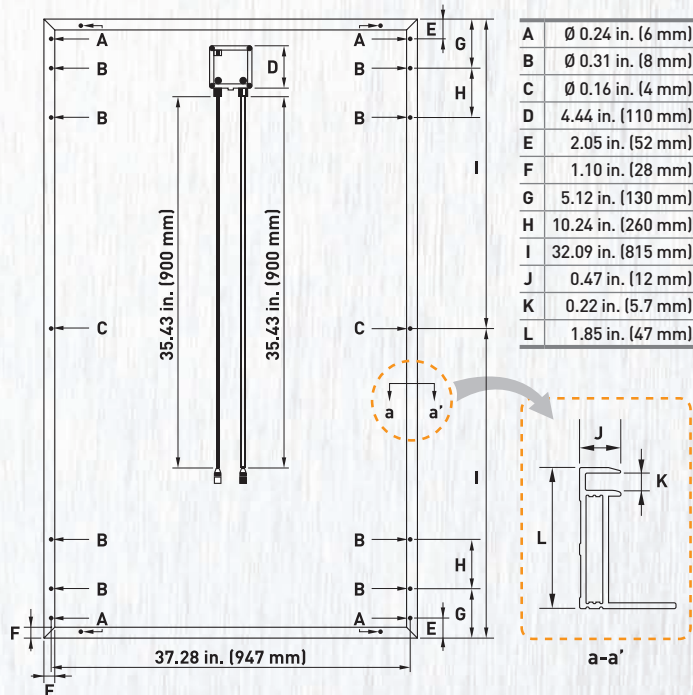
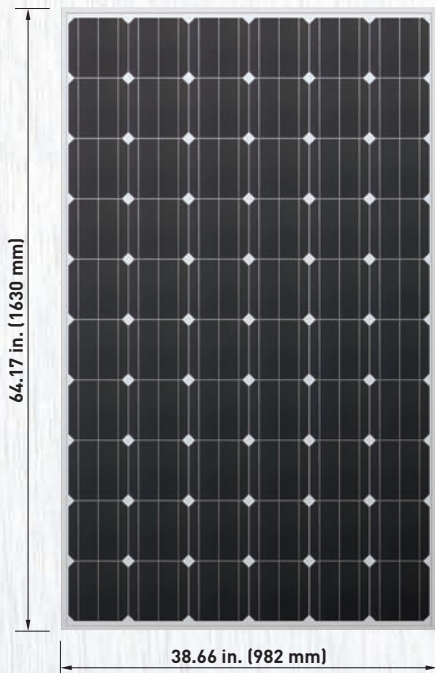
Physical characteristics (UL, VDE)	
Cells per module	60
Cell type	Mono-crystalline silicon
Module dimensions	1630 x 982 x 47 mm, 64.17 x 36.66 x 1.85 in.
Module weight	18.6 kg (41 lbs)
Junction box	IP65
Frame	Anodized Aluminum
Front Glass	3.2 mm(0.13 in.) Tempered glass
Output Cable	(-)900 mm, (+)900 mm, (-)35.43 in., (+)35.43 in. UL : Tyco Solarlok Connector(6-1394461-2) VDE : Bizlink S418-xyz series(S418-xyz)



**FRONT**

**REAR**

**SIDE**



\* All data subject to change without prior notice.

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