

Multi-Crystalline Solar Modules

From 150 to 305 Wp

From 36 to 72 cells

siliken



Recognized as the number one in 2010.

Siliken's module SLK60P6L has been the number one in 2010; it generates 5.9% more power than the average value of all the modules studied and 12.4% more than the minimum value recorded.



Performance assured every year.

The linear guarantee for Siliken modules, which is provided at no additional cost, has been implemented in accordance with the company's aim of offering its customers the best possible service and results from the company's in-depth knowledge of its products.



Why Siliken?

Siliken is a global company integrated in the value chain of the solar energy sector with the commitment and the determination to expand its activities to other renewable energy sectors, developing and implementing innovative programmes that guarantee top-notch power solutions and maximum performance for our customers.

More than 500 MW installed in the Entire World

With more than 500 MW installations in the world over, we have established a respectable brand, continuously offering a quality product with proven performance.

Full Commitment to R&D

Allows us to permanently cut costs and improve efficiency. Similarly, this enables us to improve our existing product suite and develop new technology.

Production Process Key Automation

We improve our production standards. Technology helps us control the most delicate operations with extreme precision, which provides our customers with maximum product guarantees in the manufacture of our products.

- **Number 1 in the Photon Laboratory 2010 Survey** ⁽¹⁾
- **10-year product guarantee**
- **25-year linear power guarantee** ⁽²⁾
- **Positive power tolerance** ⁽³⁾
- **Module efficiency up to 15.7%**
- **Different versions of the module:**
 - Silver Frame / White Backside Foil
 - Silver Frame / Transparent Backside Foil
 - Frameless / White Backside Foil
 - Frameless / Transparent Backside Foil
 - Black Frame / Black Backside Foil
- **UL, TÜV and Intertek certifications for worldwide application**
- **Exceptional behaviour under low light intensity**
- **More than 500 MW installed units endorse our modules**
- **Production process key automation**
- **Full commitment to R&D. We research and innovate constantly**

⁽¹⁾ Model SLK60P6L

⁽²⁾ Except model SLK36P6L

⁽³⁾ Except model SLK36P6L ±5%

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From 36 to 72 cells

Siliken Quality



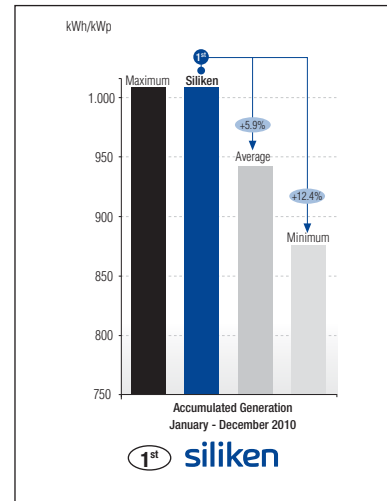
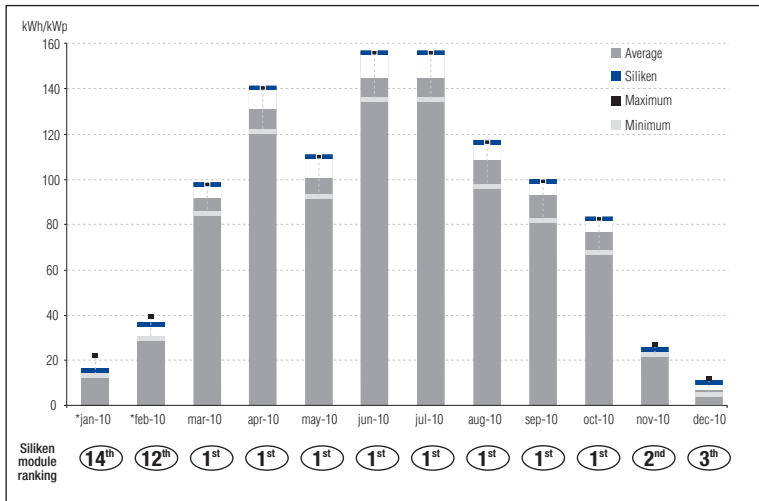
The results from the Photon laboratory are confirmation that Siliken modules are the best quality modules

Since 2005, the prestigious magazine Photon, which is dedicated exclusively to the photovoltaic sector, has been measuring the performance of modules from different manufacturers in terms of the energy they produce when installed at the same location and subjected to the same environmental conditions.

Between January and December 2010, Siliken modules were ranked as the modules showing the best results for energy production when compared with the more than 47 modules of the competition.

Siliken's module SLK60P6L has been the number one in 2010; it generates 5.9% more power than the average value of all the modules studied and 12.4% more than the minimum value recorded.

Month on month evolution of module performance measured by PHOTON Laboratory



Source: Photon publishes the results of its study on a monthly basis in the international and local editions of its magazines. Any modules that were included in the testing after January 1st 2010 are not included in this comparison.
 (*) Snow accumulated on the modules in January and February, preventing optimum operation.

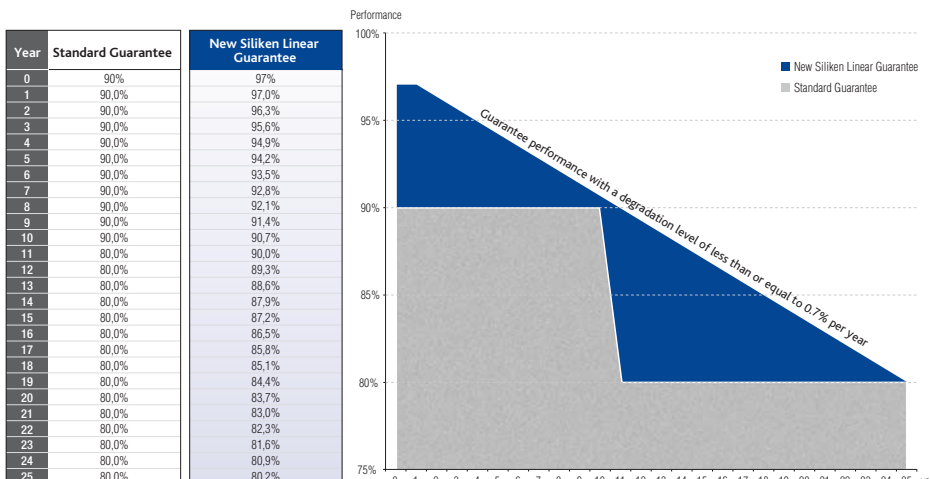
25 year Linear Power Guarantee



Purchasing Siliken modules is nothing short of a safe bet, thanks to both their efficiency and their safety.

Siliken's linear guarantee ensures maximum power of its modules for 25 years. Such a guarantee is only provided by a very small number of manufacturing companies worldwide. The reliability, robustness and efficiency of our modules allow Siliken to offer this linear guarantee.

This guarantee ensures a 97% performance level for the module during the first year. From the second year through to the 25th year the performance of the module is guaranteed with a degradation level of less than or equal to 0.7% per year.



PRODUCT WARRANTY

10 year limited warranty on materials and workmanship

25 YEAR LINEAR POWER GUARANTEE

Year 1: 97% of rated output

Years 2-25: 0.7% p.a. reduction

Multi-Crystalline Solar Modules

SLK36P6L 150 Wp

SLK50P6L 180 - 210 Wp

SLK72P6L 275 - 305 Wp

SLK48P6L 180 - 200 Wp

SLK60P6L 225 - 255 Wp

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ELECTRICAL SPECIFICATIONS

MODELS	VERSIONS Frame / Backside foil	Power Tolerance %	Maximum Power to STC / NOCT P _{mp} (Wp)	Efficiency to STC η (%)	Filling Factor FF	Maximum Voltage to STC / NOCT V _{mp} (V)	Maximum Current to STC / NOCT I _{mp} (A)	Open Circuit Voltage to STC / NOCT V _{oc} (V)	Current to STC / NOCT I _{sc} (A)	Standard Operational Cell Temperature NOCT (°C) / (°F)	
SLK36P6L	Silver / White	+/- 5%	150 / 109	15.0 %	0.764	18.25 / 16.61	8.22 / 6.57	22.3 / 20.3	8.81 / 7.14	46±2 / 114.8±3.6	
SLK48P6L	Silver / White Silver / Transparent Frameless** / White Frameless** / Transparent		200 / 146	15.2%	0.743	23.95 / 21.81	8.35 / 6.67	30.1 / 27.4	8.93 / 7.24	46±2 / 114.8±3.6	
	190 / 138		14.5%	0.725	23.11 / 21.04	8.22 / 6.57	29.7 / 27.1	8.81 / 7.14	8.68 / 7.03		
SLK50P6L	Black / Black		180* / 131	13.7%	0.709	22.33 / 20.33	8.06 / 6.44	29.3 / 26.6	8.81 / 7.14	47±2 / 116.6±3.6	
			190 / 138	14.5%	0.725	23.11 / 20.96	8.22 / 6.56	29.7 / 27.0	8.81 / 7.14		
	180* / 130		13.7%	0.709	22.33 / 20.25	8.06 / 6.44	29.3 / 26.5	8.68 / 7.04			
	210* / 153		15.4%	0.745	24.91 / 22.68	8.43 / 6.74	31.4 / 28.6	8.98 / 7.28			
Silver / White Frameless** / White		200 / 146	14.7%	0.733	24.36 / 22.18	8.21 / 6.56	31.0 / 28.2	8.81 / 7.14	46±2 / 114.8±3.6		
		190* / 138	14.0%	0.713	23.78 / 21.65	7.99 / 6.39	30.5 / 27.8	8.74 / 7.08			
Black / Black		200 / 145	14.7%	0.732	24.36 / 22.09	8.21 / 6.56	31.0 / 28.1	8.81 / 7.14	47±2 / 116.6±3.6		
		190 / 138	14.0%	0.713	23.78 / 21.57	7.99 / 6.38	30.5 / 27.7	8.74 / 7.09			
SLK60P6L	Silver / White Silver / Transparent Frameless** / White Frameless** / Transparent		180 / 130	13.2%	0.708	23.59 / 21.40	7.63 / 6.09	29.9 / 27.1	8.50 / 6.89	46±2 / 114.8±3.6	
			255* / 186	15.7 %	0.750	30.51 / 27.78	8.38 / 6.68	37.9 / 34.55	8.96 / 7.26		
			250 / 182	15.4 %	0.746	30.20 / 27.50	8.31 / 6.62	37.7 / 34.30	8.90 / 7.21		
			245 / 178	15.1 %	0.743	29.90 / 27.22	8.23 / 6.55	37.4 / 33.04	8.82 / 7.15		
			240 / 175	14.8 %	0.734	29.57 / 26.92	8.20 / 6.49	37.2 / 33.84	8.79 / 7.13		
	Black / Black		235 / 171	14.5%	0.730	29.26 / 26.64	8.13 / 6.42	36.9 / 33.59	8.73 / 7.07		47±2 / 116.6±3.6
			230* / 167	14.2%	0.728	28.96 / 26.37	8.04 / 6.35	36.6 / 33.31	8.64 / 7.00		
			250* / 181	15.4 %	0.745	30.20 / 27.39	8.31 / 6.61	37.7 / 34.17	8.90 / 7.22		
			245 / 178	15.1 %	0.743	29.90 / 27.12	8.23 / 6.54	37.4 / 33.91	8.82 / 7.15		
			240 / 174	14.8 %	0.734	29.57 / 26.81	8.20 / 6.48	37.2 / 33.71	8.79 / 7.13		
SLK72P6L	Silver / White Silver / Transparent		235 / 170	14.5%	0.730	29.26 / 26.53	8.13 / 6.42	36.9 / 33.46	8.73 / 7.08	47±2 / 116.6±3.6	
			230 / 167	14.2%	0.728	28.96 / 26.27	8.04 / 6.34	36.6 / 33.18	8.64 / 7.00		
			225* / 163	13.9%	0.725	28.81 / 26.13	7.93 / 6.24	36.4 / 32.98	8.54 / 6.92		
			305* / 222	15.7 %	0.759	36.97 / 33.65	8.25 / 6.59	45.39 / 41.33	8.85 / 7.17		
			300 / 218	15.5 %	0.754	36.50 / 33.23	8.22 / 6.57	45.13 / 40.09	8.82 / 7.15		
	Black / Black		295 / 215	15.2 %	0.748	35.98 / 32.75	8.20 / 6.55	44.9 / 40.84	8.79 / 7.12		46±2 / 114.8±3.6
			290 / 211	14.9 %	0.742	35.45 / 32.28	8.18 / 6.54	44.6 / 40.60	8.76 / 7.10		
			285 / 207	14.7%	0.736	34.93 / 31.80	8.16 / 6.52	44.33 / 40.36	8.73 / 7.07		
			280* / 204	14.4%	0.730	34.44 / 31.36	8.13 / 6.50	44.07 / 40.12	8.70 / 7.05		
			300* / 217	15.5 %	0.754	35.50 / 33.10	8.22 / 6.56	45.13 / 40.93	8.82 / 7.15		
295 / 214	15.2 %	0.748	35.98 / 32.63	8.20 / 6.55	44.9 / 40.69	8.79 / 7.13					
290 / 210	14.9 %	0.742	35.45 / 32.15	8.18 / 6.53	44.6 / 40.45	8.76 / 7.10					
285 / 206	14.7%	0.736	34.93 / 31.68	8.16 / 6.52	44.33 / 40.21	8.73 / 7.08					
280 / 203	14.4%	0.730	34.44 / 31.24	8.13 / 6.49	44.07 / 39.97	8.70 / 7.05					
275* / 199	14.2%	0.724	33.95 / 30.79	8.10 / 6.47	43.80 / 39.73	8.67 / 7.03					

*Subject to availability.

** These modules have passed the tests in accordance with IEC 61215:2005 and IEC61730:2004, except for the Mechanical Load Test 10.16, which depends on the structure used for mounting the modules.

Data regarding standard STC test conditions: Radiation of 1,000 W/m² (92.94 W/ft²), with spectrum AM 1.5 and cell temperature of 25°C (77°F) / Data regarding standard NOCT test conditions: Radiation of 800W/m² (74.32 W/ft²), with spectrum AM 1.5, average wind velocity 1m/s and air temperature of 20°C (68°F).

Note: Siliken PV modules have been tested in accordance with the test procedures in Standard EN (IEC) 61730-1 and -2:2007 MST 26 Reversed Current Overload Test at 13.5 A.

Note: Protective fuses are calculated based on the dimensional criteria I_{sc} x 1.25 for Europe and I_{sc} x 1.25 x 1.25 for USA and Canada. Fuses are not included in the module.

Please see the electrical standards of each country to determine the correct fuse size for the PV installation.

P_{max} measurement tolerances +/- 3%.

MECHANICAL AND THERMAL SPECIFICATIONS

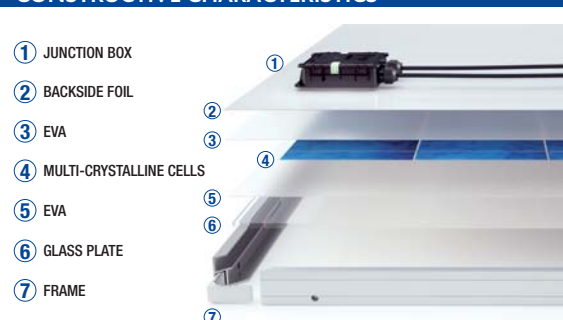
MODELS	Dimensions L x W x D mm / inches	Weight Kg / lbs	Connector type / Output cables	Frame	Multi-Crystalline Solar Cells	Maximum Voltage UL / IEC V _{max} (V) UL/IEC	P _{mp} T _p P _{mp} Coefficient Temperature (%/°C)	V _{oc} T _p V _{oc} Coefficient Temperature (%/°C)	I _{sc} T _p I _{sc} Coefficient Temperature (%/°C)
SLK36P6L	1,490 x 673 x 40 / 58.66 x 26.5 x 1.57	12 / 26.45	MC4 connector type. / Length of symmetrical cables is 1m (39.37"), Ø4 (0.157") mm ² , double insulation layer, halide free, UV radiation resistant. Module SLK72P6L has a cable length of 1.26 metres (49.61 inches).	Hollow section of 15 microns thick anodised aluminium, type 6063 T5, with drainage and grounding perforations. Model SLK72P6L furthermore includes another hole of 8 mm Ø / 0.314" Ø that can be used to guide the security wire.	36 cells 156 x 156 mm	600/1,000	-0.43	-0.356	0.062
SLK48P6L	1,325 x 990 x 40 / 52.16 x 38.98 x 1.57	15 / 33.06			36 cells 6 x 6 in				
SLK50P6L	1,320 x 984 x 5 / 51.97 x 38.74 x 0.20*	13 / 28.66*			48 cells 156 x 156 mm				
	1,640 x 830 x 40 / 64.57 x 32.68 x 1.57	16 / 35.27			48 cells 6 x 6 in				
SLK60P6L	1,634 x 824 x 5 / 64.33 x 32.44 x 0.20*	14 / 30.86*			50 cells 156 x 156 mm				
	1,640 x 990 x 40 / 64.57 x 38.98 x 1.57	19 / 41.9			50 cells 6 x 6 in				
SLK72P6L	1,634 x 984 x 5 / 64.33 x 38.74 x 0.20*	17 / 37.48*	60 cells 156 x 156 mm						
	1,960 x 990 x 40 / 77.16 x 38.98 x 1.57	23 / 50.71	60 cells 6 x 6 in						
					72 cells 156 x 156 mm				
					72 cells 6 x 6 in				

Connection Box: Minimum IP-65 with 3 protection bypass diodes 12A/40V.

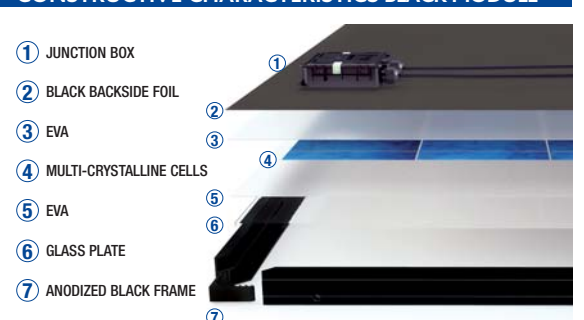
Front glass: Toughened glass of 3.2 mm / 0.125 inches with low iron content and high transmission capacity.

* Measures and weight for frameless module.

CONSTRUCTIVE CHARACTERISTICS



CONSTRUCTIVE CHARACTERISTICS BLACK MODULE



Multi-Crystalline Solar Modules

SLK36P6L 150 Wp

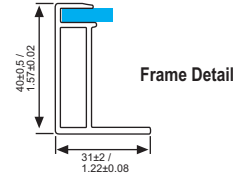
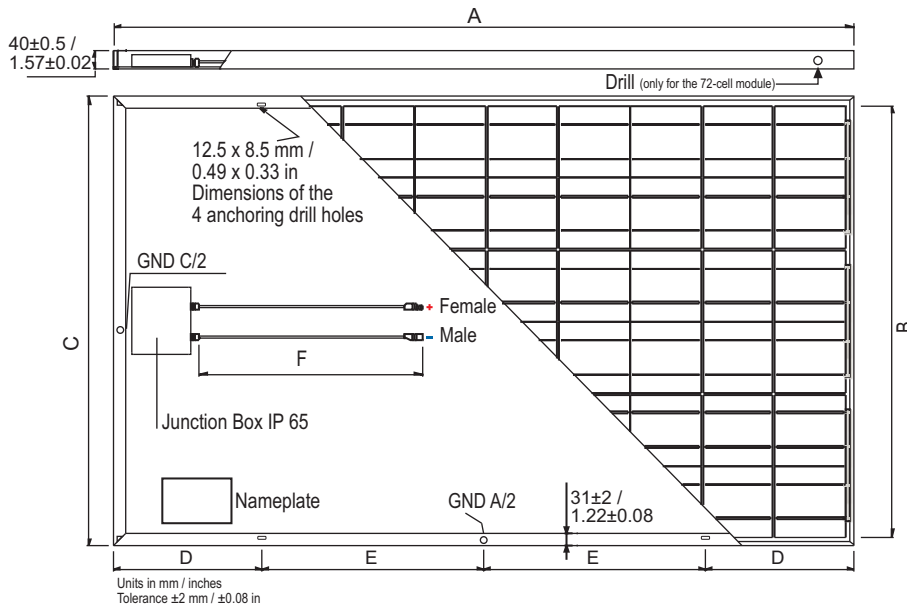
SLK50P6L 180 - 210 Wp

SLK72P6L 275 - 305 Wp

SLK48P6L 180 - 200 Wp

SLK60P6L 225 - 255 Wp

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LIGHT INTENSITY DEPENDENCE

Intensity W/m ²	V _{mp}	I _{mp}
1000	1.000	1.000
800	0.995	0.799
600	0.985	0.598
200	0.943	0.199
100	0.899	0.092
60	0.887	0.052
30	0.878	0.022
15	0.874	0.007

* Light intensity correlation factors of the voltage and current.

DIMENSIONS

MODELS	A	B	C	D	E	F
SLK36P6L	1,490/58.66	633/24.92	673/26.5	304/11.97	441/17.36	1,000/39.37
SLK48P6L	1,325/52.16	950/37.40	990/38.98	270/10.63	392.5/14.45	1,000/39.37
SLK48P6L frameless	1,320/51.97	944/37.16	984/38.74	-	-	1,000/39.37
SLK50P6L	1,640/64.57	790/31.10	830/32.68	330/12.99	490/19.29	1,000/39.37
SLK50P6L frameless	1,634/64.33	784/30.87	824/32.44	-	-	1,000/39.37
SLK60P6L	1,640/64.57	950/37.40	990/38.98	330/12.99	490/19.29	1,000/39.37
SLK60P6L frameless	1,634/64.33	944/37.16	984/38.74	330/12.99	490/19.29	1,000/39.37
SLK72P6L	1,960/77.16	950/37.40	990/38.98	390/15.35	590/23.22	1,260/49.61

Units in mm / inches

TESTED OPERATING CONDITIONS

Temperature Range	-40 °C to +85 °C (-40°F to +185°F)
Static Load	2400 Pa (50 psf)
Max Load	5400 Pa (112.8 psf)
Impact Resistance	Hailstone impact Ø25 mm at 83 Km/h (Ø1 in at 52 mph)

CERTIFICATIONS

	UL Listed & Intertek	UL ORD-C1703-01 / UL1703	Certifies that our modules meet all of the fire protection standards of their electrical equipment to the USA and Canada markets.
	TÜV Certificate	IEC 61215 / IEC 61730 / IEC 61701 Salt Mist Corrosion	Certifies that our PV modules fit the standards of IEC61215 PV module manufacturing and the IEC61730 PV module safety standard.
	ISO 9001:2000	Nr. ES08/5170	Guarantees the manufacture, production and management quality.
	ISO 14001	Nr. ES09/6520	Ensures that Siliken has an environmental management system.
	Declaration of Conformity CE (CE Marking)		Guarantees that our products are suitable for the European market.
	MCS United Kingdom		Guarantees that PV modules are suitable for any PV installation in the United Kingdom.
	Clean Energy Council		Qualification listing the design and/or installation competences of stand-alone and/or PV solar systems under the Australian regulation.
	KIWA / IEC 62716		Ammonia Resistance.
	ISRAEL ELECTRIC CORPORATION, LTD		Guarantees that PV modules are suitable for any PV installation in Israel.
	Fire Resistance	Class C	Certifies the fireproof capacity of the rooftop installations exposed to simulated fire.

NOTE: Confirm available certificates for each of the modules.

WARNING: Please read the User Guide carefully before using the product. NOTE: Due to our policy of continuous improvement, Siliken Manufacturing, S.L.U. reserves the right to modify this product without prior notification.