



The SLA PV module series is a result of the experience of the Silfab technical team, specialized in the entire photovoltaic value chain, with modules produced and operating for over 30 years. Many field experiences attest a typical expected lifetime of Silfab modules of over 40 years;

Quality and characteristics

Module produced with 60 high efficiency and high quality multicrystalline solar cells, with a nominal power of up to 245Wp, with 3 busbars to reduce ohmic losses of the module and of the PV system;

Enhanced Energy production at low wavelength guaranteed by the use of selective emitter solar cells;

Narrow tolerance of nominal power $\pm 1\%$, to minimize mismatch losses in the strings and achieve the maximum electrical performance of the PV system;

Use of reference modules calibrated by Fraunhofer ISE;

Quality, reliability and stability of the electrical performance over the years guaranteed by strict controls during each production step and by using only high quality raw materials;

Reduced weight and overall dimensions maintaining high mechanical characteristics (certified for hail impact and for wind and snow load up to 5.4kN/m^2);

Guaranteed power

97.5% at the end of the first year

$\geq 90\%$ at the end of the 12th year

$\geq 82\%$ at the end of the 25th year

Warranties and product certifications

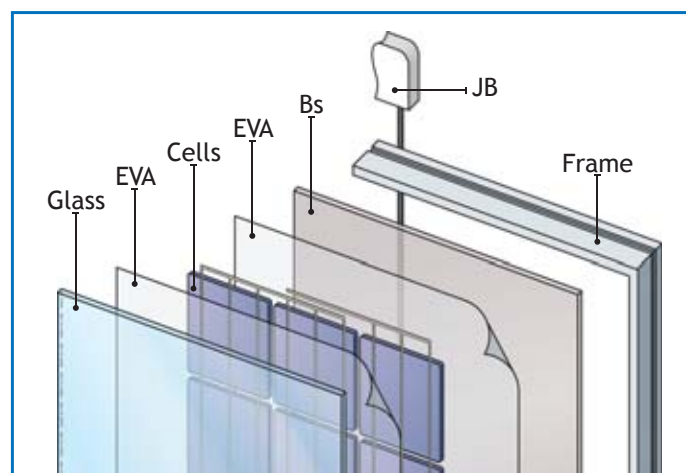
10 years product warranty

IEC 61215 Ed.2 e IEC 61730

UL1703

Production unit certified ISO9001:2008

Product traceability




Frame with practical and compact structure, provided with:

- grounding holes
- mounting holes for a rapid and safe installation
- drainage holes to avoid water stagnation in the aluminum channels and subsequent ice formation

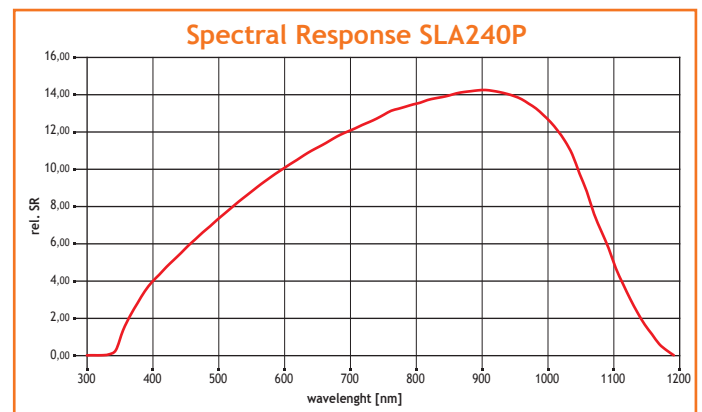
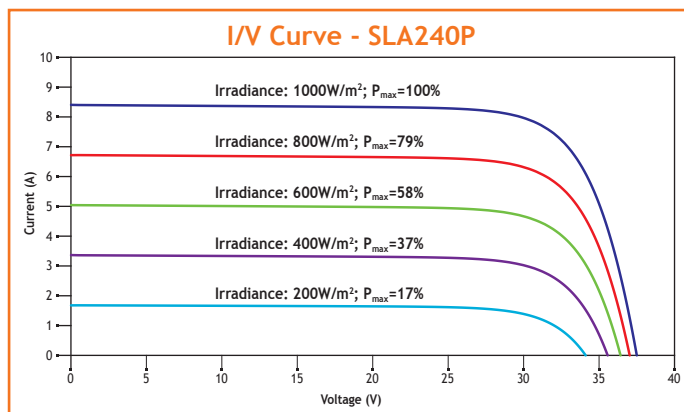
Research, innovation and continuous improvement thanks to the close cooperation with the main raw materials suppliers and the internal Silfab R&D team.

Electrical specifications

Measurement conditions		STC (1000 W/m ² - AM 1.5 - 25 °C)					NOCT (800 W/m ²)*				
Module type		SLA225P	SLA230P	SLA235P	SLA240P	SLA245P	SLA225P	SLA230P	SLA235P	SLA240P	SLA245P
Module power (P _{max})	Wp	225	230	235	240	245	166	170	173	177	181
Power tolerance	%	±1%					±1%				
Open circuit voltage (V _{oc})	V	36.50	36.85	37.20	37.50	37.80	34.21	34.53	34.88	35.17	35.38
Short circuit current (I _{sc})	A	8.20	8.25	8.30	8.40	8.50	6.62	6.66	6.72	6.78	6.87
Maximum power voltage (V _{pmax})	V	29.40	29.80	30.10	30.40	30.60	27.28	27.64	27.95	28.18	28.41
Maximum power current (I _{pmax})	A	7.66	7.72	7.81	7.90	8.01	6.09	6.14	6.21	6.29	6.37
Module efficiency	%	13.8%	14.1%	14.4%	14.7%	15.0%	12.7%	13.0%	13.3%	13.6%	13.8%
Maximum system voltage	VDC	1.000					1.000				

Calibration of sun simulator with modules calibrated by  **Fraunhofer**
ISE

* NOCT (800 W/m²; T_{amb} = 20 °C; T_{cells} = 41 °C ; wind speed = 1 m/s. AM 1.5)

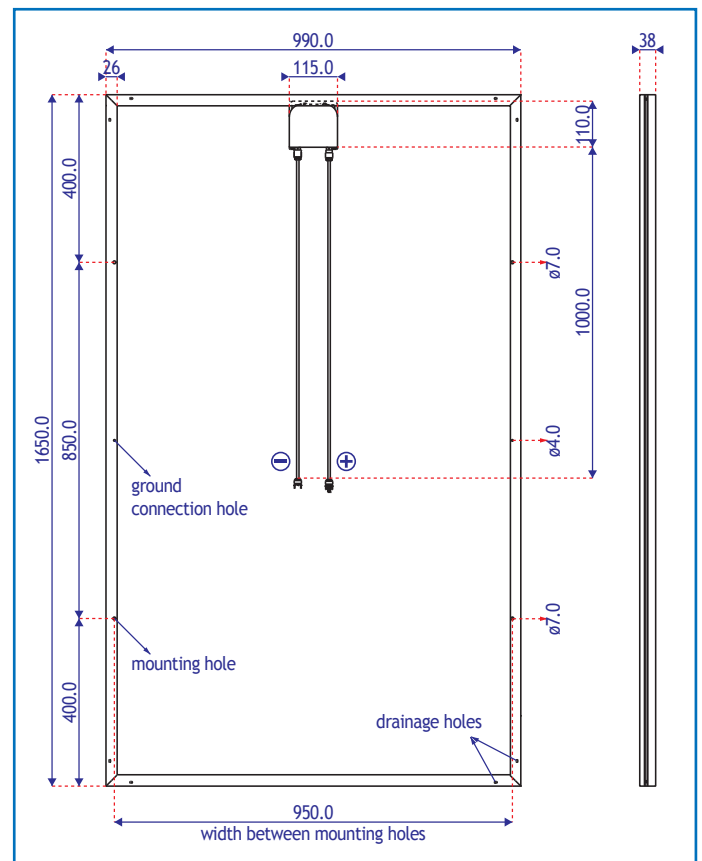


Operational specifications

Temperature coefficient I _{sc} (α)	0.06%/K
Temperature coefficient V _{oc} (β)	-0.31 %/K
Temperature coefficient P _{max} (γ)	-0.41 %/K
NOCT (Nominal Operating Cell Temperature)	41 °C
Operating temperature	from -40 °C to +85 °C
Maximum surface load (wind/ snow)	5.4kN/m ²
Long side certified mounting interaxis	850mm
Hail impact resistance	Ø 25mm a 83km/h

Mechanical properties and components

Cell type	Multicrystalline silicon
Cell technology	3 bus bars, selective emitter
Cell dimensions	156 x 156 mm
Cell number	60 (6 x 10)
Module length	1650 +/-1mm
Module width	990 +/-1mm
Module thickness	38mm
Module weight	19kg
Front glass	3.2mm; high transmittance, tempered, low iron content, antireflective
Encapsulant	2 EVA sheets (ethyl-vinyl-acetate)
Backsheet	Multilayer, polyester-based
Frame	Anodized Al, 6060 T5, 15µm
Junction box and connectors	Tyco, quick plug-in connectors (max. dim: Ø 18mm)
By-pass diodes	3 diodes SL1515; nominal current 13A
Connection cables, cross-section	2 x 1000mm (4mm ²) - Ø5.7mm



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