



*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;

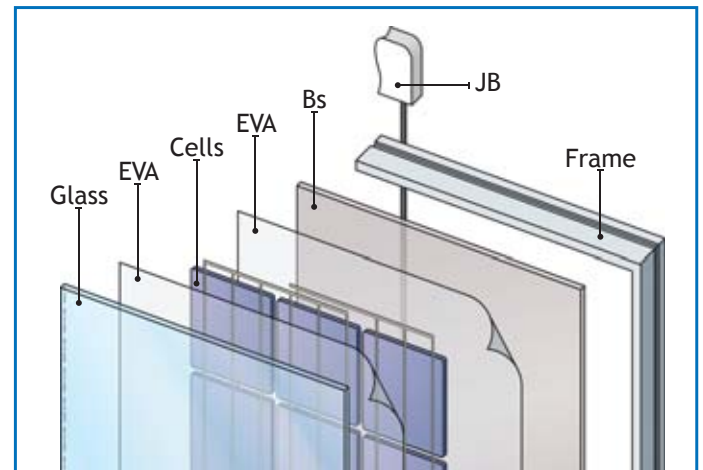
Enhanced Energy production at low wavelength guaranteed by the use of selective emitter solar cells;

Narrow tolerance of nominal power +/-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<sup>2</sup>);



#### Guaranteed power

- 90% remaining power after 10 years
- 80% remaining power after 25 years

#### Warranties and product certifications


- 10 years product warranty
- Certified for heavy snow load requirements at 5400 Pa
- UL1703
- Product traceability

#### Frame with practical and compact structure, provided with:

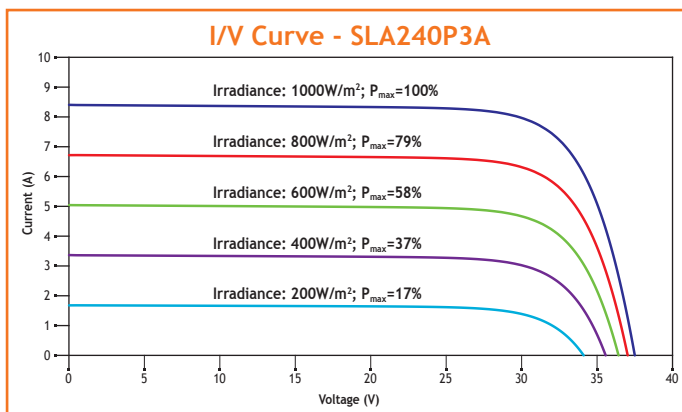
- grounding holes
- mounting holes for a rapid and safe installation
- drainage holes to avoid water stagnation in the aluminum channels and subsequent ice formation

## Electrical specifications

Measurement conditions		STC (1000 W/m <sup>2</sup> - AM 1.5 - 25 °C)					NOCT (800 W/m <sup>2</sup> )*				
Module type		SLA225P3A	SLA230P3A	SLA235P3A	SLA240P3A	SLA245P3A	SLA225P3A	SLA230P3A	SLA235P3A	SLA240P3A	SLA245P3A
Module power (Pmax)	Wp	225	230	235	240	245	166	170	173	177	181
Power tolerance	%	± 1%					± 1%				
Open circuit voltage (Voc)	V	36.50	36.85	37.20	37.50	37.80	34.21	34.53	34.88	35.17	35.38
Short circuit current (Isc)	A	8.20	8.25	8.30	8.40	8.50	6.62	6.66	6.72	6.78	6.87
Maximum power voltage (Vpmax)	V	29.40	29.80	30.10	30.40	30.60	27.28	27.64	27.95	28.18	28.41
Maximum power current (Ippmax)	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	600					600				

Calibration of sun simulator with modules calibrated by  Fraunhofer ISE

\* NOCT (800 W/m<sup>2</sup>; T<sub>amb</sub> = 20°C; T<sub>cells</sub> = 41°C; wind speed = 1 m/s. AM 1.5)

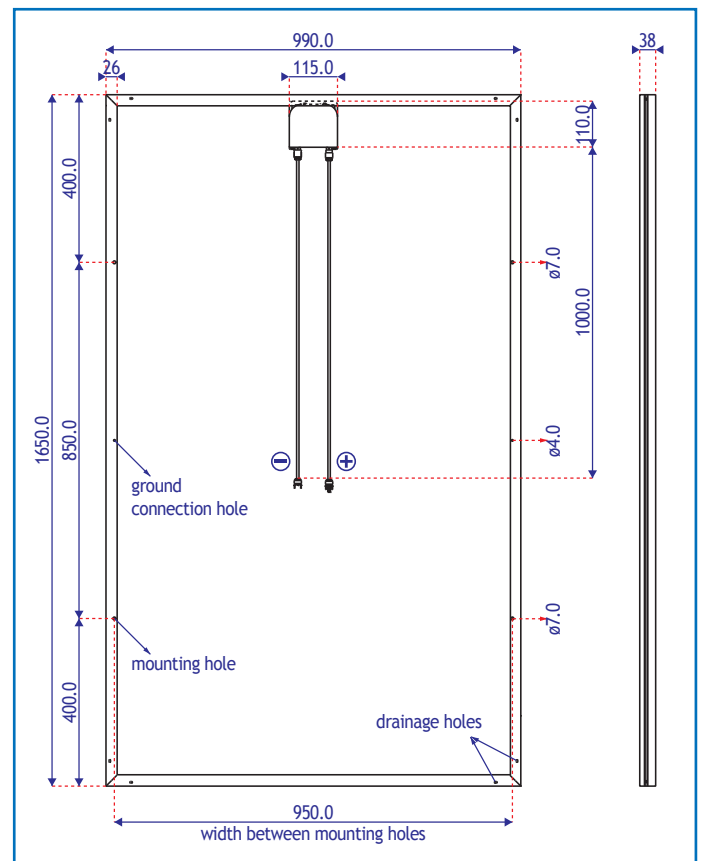


## Operational specifications

Temperature coefficient Isc(α)	0.06%/K
Temperature coefficient Voc (β)	-0.31 %/K
Temperature coefficient Pmax (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 <sup>2</sup>
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 <sup>2</sup> ) - Ø5.7mm



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