LA100-12S

High-efficiency PV Module

Technology

The LORENTZ LA-Series of PV modules with monocrystalline silicon solar cells offer a high conversion efficiency due to the unique back-contact technology.

The low voltage-temperature coefficient guarantees a superior battery charging performance, even at high operating temperatures.

Exceptional low-light performance and broad spectral response further enhance energy delivery in all weather conditions, year round.

Applications

- water pumping
- water purification systems
- remote village lighting
- solar home systems
- street and camp lights
- traffic signals
- medical facilities in remote areas
- microwave/radio repeater stations
- battery charging

photo may differ

Features

- aerospace style cell interconnects with in-plane strain relief
- advanced EVA encapsulation system with multi-layer backsheet for long-term package durabilit
- bypass diodes to minimize the power drop caused by shade
- high reliability

Warranty

- Warranty: 2 years
- Performance guarantee:
  up to 10 years (90% power output)
  up to 20 years (80% power output)

  Details according to warranty issued by LORENTZ

Standards

LA100-12S meets the requirements for IEC and CE.

CE

Specifications

Electrical Data

Peak power	Pmax	[Wp]	100
Tolerance		[%]	+ 10/– 10
Max. power current	Imp	[A]	5.8
Max. power voltage	Vmp	[V]	17.4
Short circuit current	Isc	[A]	6.3
Open circuit voltage	Voc	[V]	21.2
Temperature co-efficient for Pmax		[%/°C]	– 0.38
Temperature co-efficient for Voc		[mV/°C]	– 58.7
Temperature co-efficient for Isc		[mA/°C]	5.3
Max. system voltage		[V]	600

All technical data at standard test condition:
AM = 1.5, E = 1,000W/m², cell temperature: 25 °C

Cells

Number of cells in series	32*
Number of cells in parallel	1
Cell technology	monocrystalline
Cell shape	rectangular

* Due to the back-contact cell technology only 32 cells are required to yield the same Vmp voltage as traditional SI products with 36 cells.

BERNT LORENTZ GmbH & Co. KG | Kroegerskoppel 7, 24558 Henstedt-Ulzburg, Germany, Tel. +49 (0) 4193 7548 - 0, Fax - 29, www.lorentz.de

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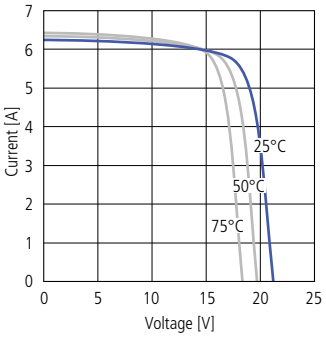
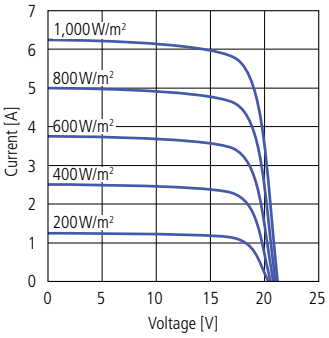
Electrical Performance

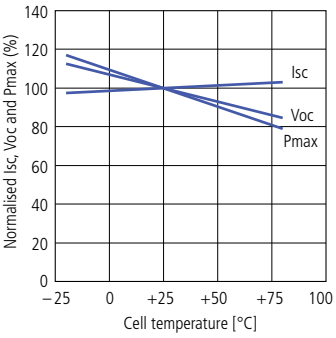
Electrical Performance
for different temperatures, at AM=1.5, E=1,000W/m²



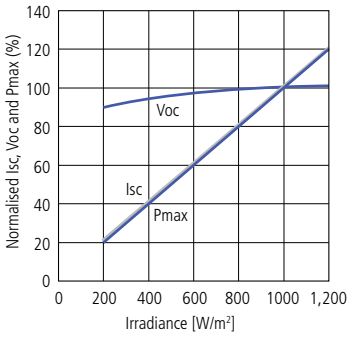
Electrical Performance
for different irradiation, at 25 °C



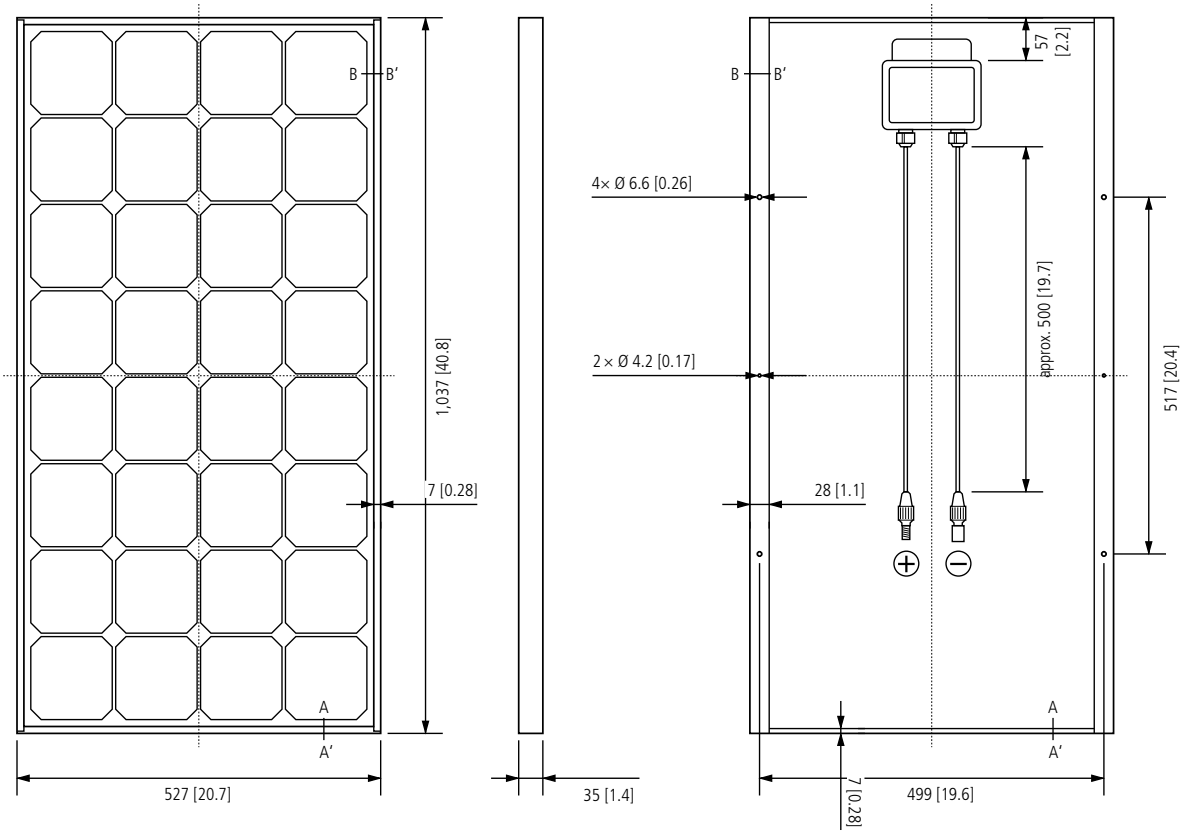
Temperature Dependence
of Isc, Voc and Pmax

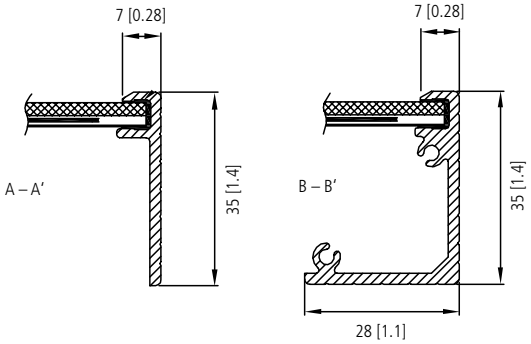


Irradiation Dependence
of Isc, Voc and Pmax at 25 °C



Physical Specifications mm [in]





Weight	[kg]	7.4
Dimension	[mm]	527 × 1,037 × 35
Cable		approx. 500 mm / 19.7 in, 4 mm² / AWG12
Connectors		ZJRH Cixi Renhe 05-1

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