LORENTZ GERMANY

LA20-12S

High-efficiency PV Module

Technology

The LORENTZ LA-Series of PV modules offer a conversion efficiency of 17-20% due to the unique back-contact technology.

Our monocrystalline silicon solar cells yield a higher voltage per cell. Therefore 32 cells are sufficient to provide the same voltage as traditional 36-cell modules. As a result, LORENTZ modules are lighter and smaller.

In combination with an extremely low voltage-temperature coefficient, this 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

Features

- aerospace style cell interconnects with in-plane strain relief
- advanced EVA encapsulation system with multi-layer backsheet for long-term package durability
- high reliability

Warranty

- Warranty: 1 year
- Performance guarantee: 5 years (90% power output)

  Details according to warranty issued by LORENTZ

Standards

LA20-12S meets the requirements for CE.

CE

Specifications

Electrical Data

Peak power	Pmax	[Wp]	20
Tolerance		[%]	+20 / -10
Max. power current	Imp	[A]	1.2
Max. power voltage	Vmp	[V]	16.7
Short circuit current	Isc	[A]	1.5
Open circuit voltage	Voc	[V]	21.2
Efficiency of cells		[%]	17.1
Temperature co-efficient for Pmax		[%/°C]	-0.38
Temperature co-efficient for Voc		[mV/°C]	-64.6
Temperature co-efficient for Isc		[mA/°C]	0.88
Max. system voltage		[V]	48

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

Cells

Number of cells per module	32*
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.

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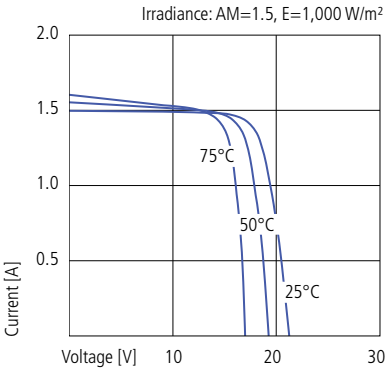
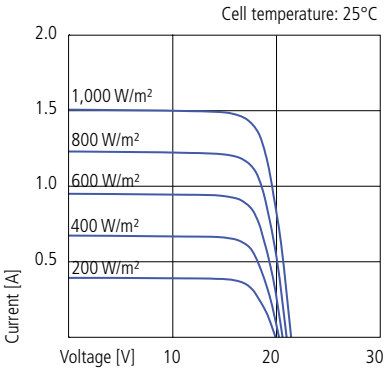
Electrical Performance

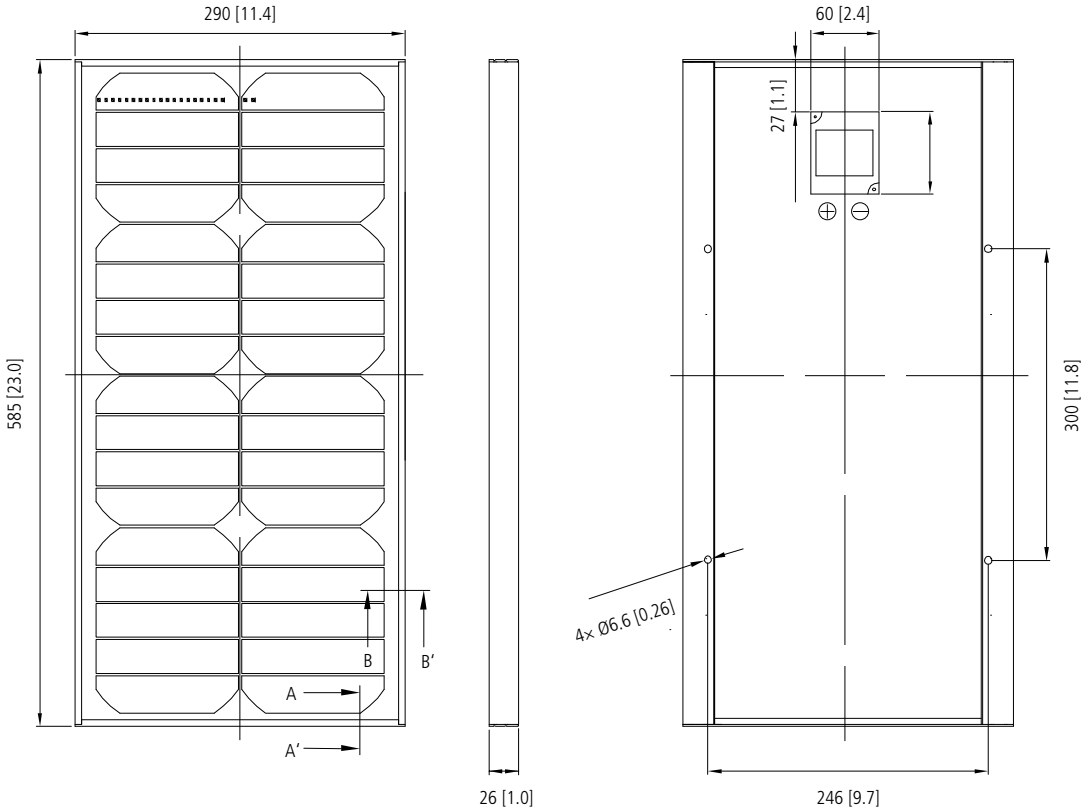


Current-voltage characteristics of PV module LORENTZ LA20-12S at various cell temperatures.



Current-voltage characteristics of PV module LORENTZ LA20-12S at various irradiation levels.

Physical Specifications mm [in]



Weight	[kg]	2.2
Dimension	[mm]	290 × 585 × 26

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