



product guarantee<sup>1</sup>

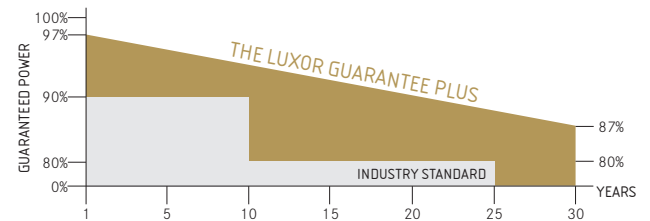


linear performance guarantee<sup>1</sup>

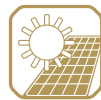


## ECO LINE GLASS-GLASS M60/ 290 - 310 W

Monocrystalline module family,  
 Transparent- / White- / Black Edition



Longlife tested



Power proofed



Safety provided



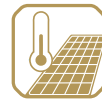
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



100% PID free cells



German warrantor

The Eco Line Glass-Glass module combines the typical and unique proven economy of the Eco Line with the longevity and the excellent temperature behaviour of a glass-glass module. Glass sheets on front and back side ensure a high mechanical stability as well as fire safety of the module. With a thickness of only 2 mm, the front glass offers more light transmission. The high-quality solar cells, with the highest

efficiency and the best possible low-light performance, ensure optimum energy output with plus tolerances of 0 Wp to 6.49 Wp. Based on the reliability and durability of the Eco Line Glass-Glass module, manufactured to German standards, Luxor Solar guarantees a product and performance warranty of 30 years.

# ECO LINE GLASS-GLASS

## M60/290 - 310 W | TRANSPARENT- / WHITE- / BLACK EDITION

Monocrystalline module family

Module type LX - XXXM/156-60+ GG | XXX = Rated power P<sub>mpp</sub>

### Electrical data at STC

Rated power P <sub>mpp</sub> [Wp]	290.00	295.00	300.00	305.00	310.00
P <sub>mpp</sub> range to	296.49	301.49	306.49	311.49	316.49
Rated current I <sub>mpp</sub> [A]	9.26	9.32	9.38	9,44	9.50
Rated voltage V <sub>mpp</sub> [V]	31.37	31.68	32.02	32,33	32.68
Short-circuit current I <sub>sc</sub> [A]	9.78	9.83	9.88	9,93	9.98
Open-circuit voltage U <sub>oc</sub> [V]	38.50	38.70	38.89	39,08	39.28
Efficiency at STC	17.85%	18.15%	18.46%	18,76%	19.09%
Efficiency at 200 W/m <sup>2</sup>	17.25%	17.51%	17.78%	18,06%	18.34%

### Electrical data at NOCT

P <sub>mpp</sub> [Wp]	214.58	217.95	221.68	225.18	228.89
Rated current I <sub>mpp</sub> [A]	7.38	7.43	7.48	7.53	7.58
Rated voltage V <sub>mpp</sub> [V]	29.06	29.33	29.64	29.91	30.21
Short-circuit current I <sub>sc</sub> [A]	7.80	7.84	7.88	7.92	7.96
Open-circuit voltage U <sub>oc</sub> [V]	35.47	35.63	35.76 V	35.92	36.07

Specification as per STC (Standard test conditions): irradiance 1000W/m<sup>2</sup> | module temperature 25°C | AM = 1,5

NOCT (nominal operating cell temperature): irradiance 800W/m<sup>2</sup> | wind speed 1m/sec | temperature 20°C | @45 +/- 2°C | AM = 1,5

### Limiting values

Max. system voltage [V]	1000 V
Max. return current [I]	15 A
Operating Temperature	-40 to 85°C
Snow-load zone <sup>2</sup>	approval up to SLZ 3 (according to DIN 1055)
Max. pressure load (static) [Pa]	5400
Max. dynamic load [Pa]	2400

### Temperature coefficient

Temperature coefficient [V]   [I]   [P]	-0.30% /°C   0.06% /°C   -0.40% /°C
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### Specifications

Number of cells (matrix)	6 x 10, three strings in a row   156 mm x 156 mm
Module dimensions (L x W x H) <sup>3</sup>   Weight	1682 mm x 992 mm x 35 mm   21.5 kg
Front-side glass	2 mm hardened solar glass with low iron content
Back-side glass	2 mm hardened solar glass
Frame	stable, anodised aluminium frame in a hollow-section design
Junction Box	At least IP65
Cable	4 mm <sup>2</sup> solar cable, cable length 1.0m
Diodes	3 Schottky Diodes 15A/45V
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	∅ 45 mm   impact velocity 23m/s ± 83 km/h

The specifications and average values can vary slightly. What is important is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance: rated power +/- 3%, other values +/- 10%, all information in this data sheet corresponds to DIN 50380. A potential light-induced degradation of the power after commissioning is not considered here, other information can be found in the installation guidelines.

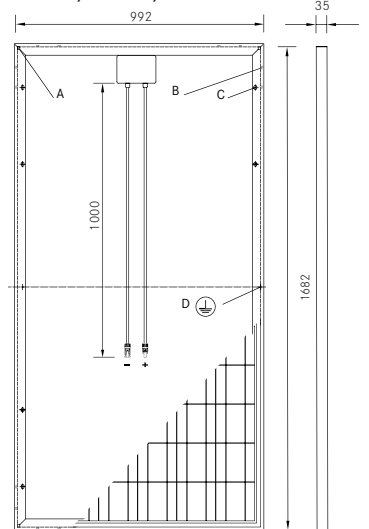
1 The specific warranty conditions are given under [www.luxor-solar.com/download.htm](http://www.luxor-solar.com/download.htm)

2 For standing installation

3 Tolerance L/W = +/- 3 mm, H = the dimensions given in the order confirmation will be decisive

4 Location on request

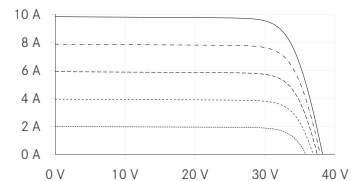
### Back - / Front -/ Side view<sup>3</sup>



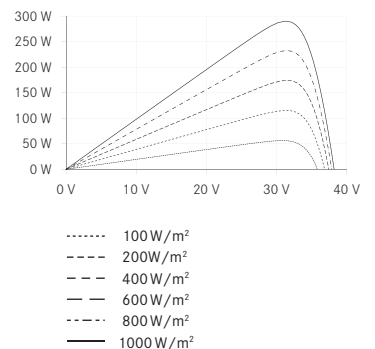
- A: 4 x drainage 10\*10 mm
- B: 8 x ventilation aperture 3\*7 mm
- C: 8 x mounting hole<sup>4</sup> d = 7 mm
- D: 2 x earthing d = 2 mm

### Electrical characteristics

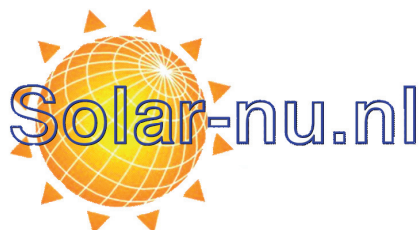
UI-diagram e.g. LX-290M/156-60+ GG



UP-diagram e.g. LX-290M/156-60+ GG



Luxor, your specialised company



Guidelines: 2006/95/EG-2006/95/EC,89/336/EWG-89/336/EEC,93/68/EWG-93/68/EEC



IEC  
IEC 61215  
IEC 61730



The validity of the certificates/listings for a specific country has to be examined under:  
[www.luxor-solar.com/download.htm](http://www.luxor-solar.com/download.htm)