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**Solar Panel Guide
Specification Data Sheet**

**Luxor Solar GmbH
Secure Line M60/300-320W
LX-315M**

Also available on the web at
EnergyPal.com/luxor-solar-gmbh-solar-panels/lx-315m



laminate guarantee¹



product guarantee¹



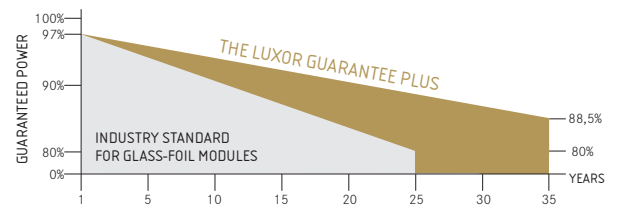
linear performance guarantee¹



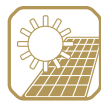
SECURE LINE

M60/300 – 320 W

Glass-glass module family, black edition,
 monocrystalline



Longlife tested



Power proofed



Safety provided



Selection of components



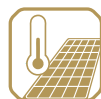
Back glass



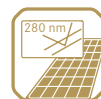
Edge sealing



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



Wider light spectrum absorbed



100% PID free cells



Special packing to avoid micro cracks in the cells



German warrantor

The premium 60-cell Glass-glass edition is the first choice for safety-conscious system owners. Secure stands for outstanding lifespan and a groundbreaking quality standard on components and manufacturing technology. Glass sheets on front and back side guarantee highest durability, mechanical stability as well as fire safety. As special edge sealing of the laminate used in automotive manufacturing provides for absolute protection from humidity and other harmful environmental influences. The use of PVB rather than EVA as encapsulant

allows for a higher transmission factor as well as 100% protection against PID. High-quality solar cells with highest efficiency at the best possible low light behaviour ensure the best energy output. And this at plus tolerances of 0 Wp to 6.49 Wp.

The premium Glass-glass module is the best possible solution when it comes to extraordinary lifespan, reliability and durability. This is reflected by a surpassing 35-year warranty on workmanship and power.

SECURE LINE BLACK EDITION M60/300 - 320 W

Glass-glass module family, monocrystalline

Module type LX - XXXM/156-60+ GG | XXX = Rated power P_{mpp}

Electrical data at STC

Rated power P _{mpp} [Wp]	300.00	305.00	310.00	315.00	320.00
P _{mpp} range to	306.49	311.49	316.49	321.49	326.49
Rated current I _{mpp} [A]	9.44	9.52	9.58	9.65	9.72
Rated voltage V _{mpp} [V]	31.80	32.09	32.38	32.67	32.96
Short-circuit current I _{sc} [A]	9.88	9.97	10.03	10.10	10.18
Open-circuit voltage U _{oc} [V]	37.82	38.16	38.50	38.85	39.20
Efficiency at STC up to	18.22%	18.52%	18.82%	19.11%	19.41%
Efficiency at 200 W/m ²	17.14%	17.48%	17.80%	18.13%	18.48%

Electrical data at NOCT

P _{mpp} [Wp]	221.57	225.76	229.54	233.61	237.75
Rated current I _{mpp} [A]	7.55	7.62	7.67	7.74	7.81
Rated voltage V _{mpp} [V]	29.36	29.64	29.91	30.19	30.46
Short-circuit current I _{sc} [A]	7.98	8.05	8.10	8.16	8.22
Open-circuit voltage U _{oc} [V]	34.90	35.23	35.56	35.89	36.23

Specification as per STC (Standard test conditions): irradiance 1000 W/m² | module temperature 25°C | AM = 1,5

NOCT (nominal operating cell temperature): irradiance 800 W/m² | wind speed 1 m/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 ²	approval up to SLZ 3 (according to DIN 1055)
Max. pressure load (static) [Pa]*	6600
Max. dynamic load [Pa]	2400

Temperature coefficient

Temperature coefficient [V] [I] [P]	-0.30% /°C 0.06% /°C -0.39% /°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) ³ Weight	1682 mm x 1000 mm x 40 mm 23 kg
Front-side glass	2.1 mm hardened solar glass with low iron content, DIN 12150
Back-side glass	2.1 mm hardened solar glass, DIN 12150
Frame	stable, anodised aluminium frame in a hollow-section design
Junction Box	At least IP65
Cable	4 mm ² solar cable, cable length 1.0 m
Diodes	3 Schottky Diodes 15A/45V
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	∅ 45 mm impact velocity 23 m/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

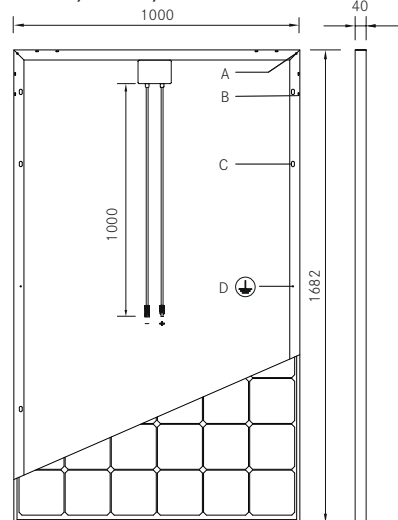
2 For standing installation

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

4 Location on request

* horizontal mounted

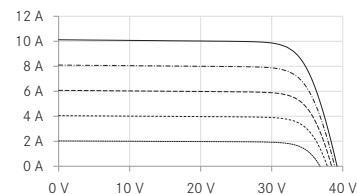
Back - / Front - / Side view³



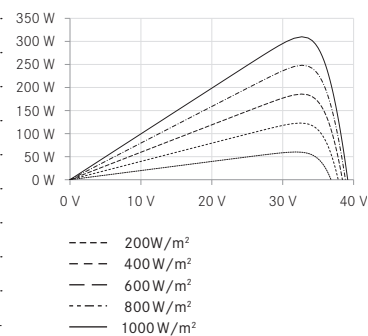
- A: 4 x drainage 10*10 mm
- B: 8 x ventilation aperture 3*7 mm
- C: 8 x mounting hole⁴ d = 7 mm
- D: 2 x earthing d = 2 mm

Electrical characteristics

UI-diagramm e.g. LX-310M/156-60+ GG



UP-diagramm e.g. LX-310M/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