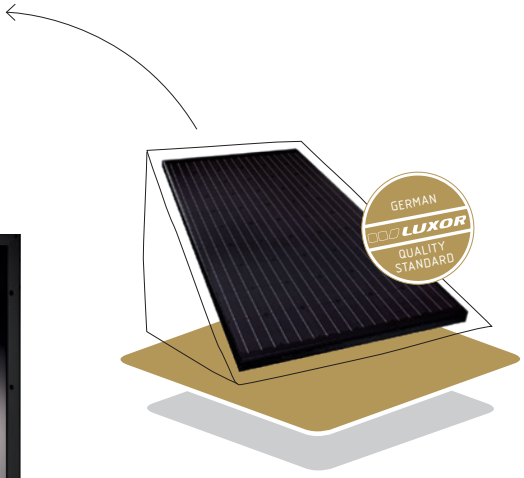
Solar Module
Manufacturer
Since 2004

LUXOR
the sunshine people



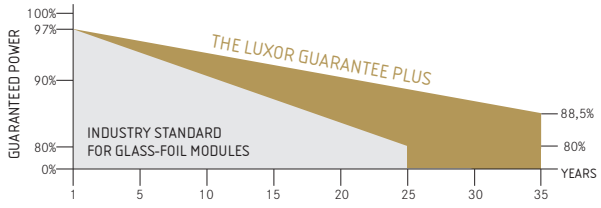
50 YEARS
laminate guarantee[1]

35 YEARS
product guarantee[1]

35 YEARS
linear performance guarantee[1]

SECURE LINE
M60/270 – 290 W

Glass-Glass module family, Black Edition
Monocrystalline



Longlife tested
- Selection of components
- Back glass
- Edge-Sealing

Power proofed
- Performance surplus of 0 Wp to 6.49 Wp
- Higher heat dispensing
- Wider light spectrum absorbed (280 nm)

Safety provided
- 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 livespan and a groundbreaking quality standard on components and manufacturing technology. Glass sheets on front and back side guarentee 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 that 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 0Wp to 6.49Wp.
The premium Glass-Glass module ist 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.

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SECURE LINE BLACK EDITION M60/270 – 290 W

Glass-Glass module family, Monocrystalline Module type LX - XXXM/156-60+ GG | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	270.00	275.00	280.00	285.00	290.00
Pmpp range to	276.49	281.49	286.49	291.49	296.49
Rated current Impp [A]	9.03	9.08	9.14	9.24	9.34
Rated voltage Vmpp [V]	30.22	30.56	30.90	31.09	31.28
Short-circuit current Isc [A]	9.56	9.62	9.68	9.75	9.85
Open-circuit voltage Uoc [V]	37.38	37.80	37.91	38.03	38.22
Efficiency at STC	16.23%	16.51%	16.79%	17.08%	17.38%
Efficiency at 200 W/m²	15.83%	16.10%	16.38%	16.66%	16.97%

Electrical data at NOCT

Pmpp [Wp]	202.28	205.77	209.32	212.70	216.42
Rated current Impp [A]	7.22	7.27	7.31	7.39	7.48
Rated voltage Vmpp [V]	28.00	28.31	28.63	28.77	28.95
Short-circuit current Isc [A]	7.65	7.70	7.74	7.80	7.88
Open-circuit voltage Uoc [V]	34.63	35.02	35.41	35.19	35.37

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

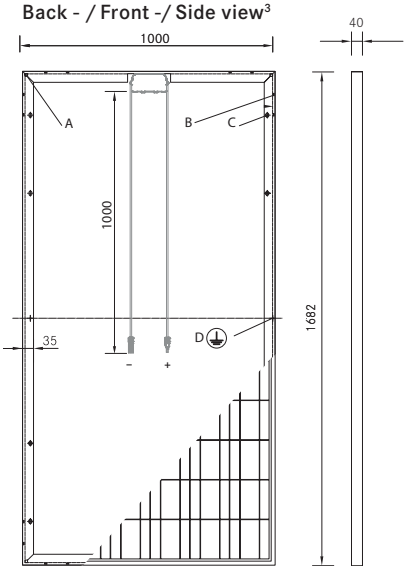
Specifications

Number of cells (matrix)	6 x 10, three strings in a row I 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 mm² solar cable, cable length 1.0 m
Diodes	3 Schottky Diodes 15A/45V
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	Ø 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

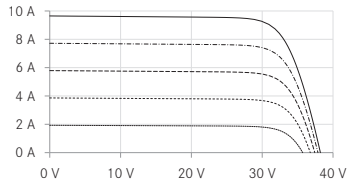
Back - / Front -/ Side view[3]



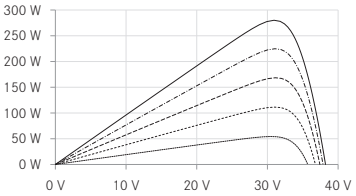
A: 4 x drainage 10*10 mm
B: 8 x ventilation aperture 3*7 mm
C: 8 x mounting hole[4] d = 7 mm
D: 2 x earthing d = 2 mm

Electrical characteristics

UI-diagram e.g. LX-280M/156-60+ GG



UP-diagram e.g. LX-280M/156-60+ GG



100 W/m²
200 W/m²
400 W/m²
600 W/m²
800 W/m²
1000 W/m²

Luxor, your specialised company

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

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