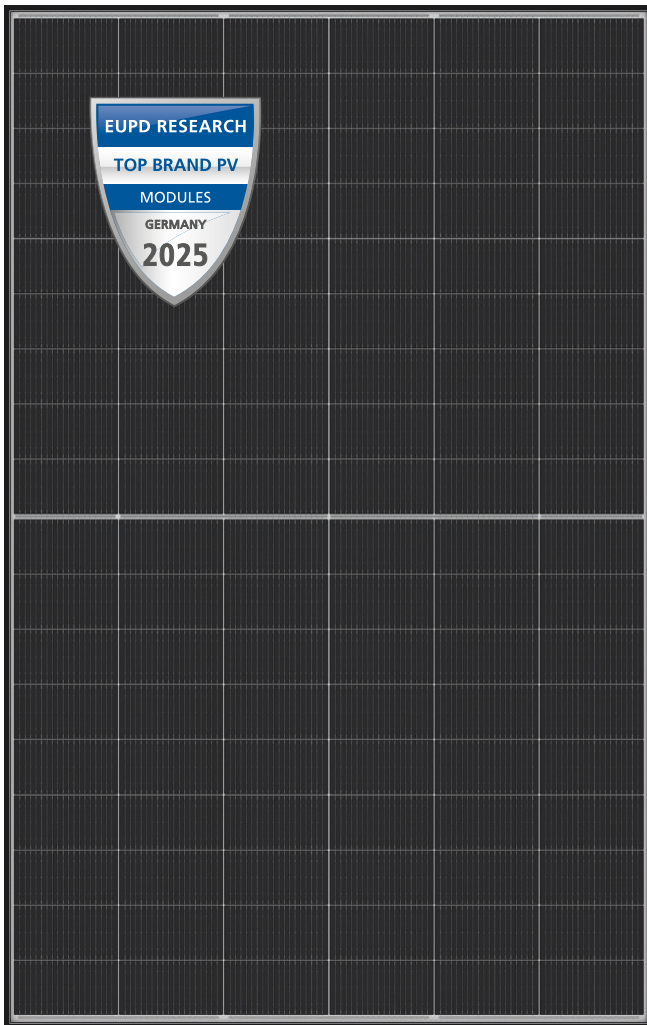


LUXOR

solar module manufacturer



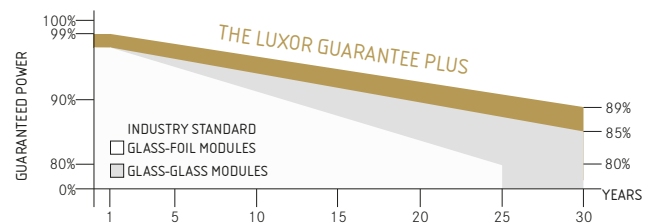
- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BOS-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE TOPCON GLASS-GLASS BIFACIAL

M108 / 435 - 455W

MONOCRYSTALLINE MODULE FAMILY, BLACK FRAME, WHITE MESH



Longlife tested



Power proofed



Safety provided



Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID Free



German warrantor

ECO LINE TOPCON GLASS-GLASS BIFACIAL

M108 / 435 - 455 W, BLACK FRAME, WHITE MESH

Module type LX - XXX M/182R186-108+ GG | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	435.00	440.00	445.00	450.00	455.00
Pmpp range to	441.49	446.49	451.49	456.49	461.49
Rated current Impp [A]	13.08	13.17	13.25	13.34	13.42
Rated voltage Vmpp [V]	33.28	33.44	33.60	33.76	33.92
Short-circuit current Isc [A]	13.83	13.92	14.01	14.10	14.19
Open-circuit voltage Uoc [V]	40.29	40.48	40.68	40.87	41.07
Efficiency at STC up to	22.10%	22.35%	22.60%	22.85%	23.10%
Efficiency at 200 W/m ²	21.55%	21.81%	22.04%	22.30%	22.54%

Electrical data at NOCT

Power at Pmpp [Wp]	327.82	331.58	335.35	339.12	342.89
Rated current Impp [A]	10.56	10.63	10.70	10.77	10.83
Rated voltage Vmpp [V]	31.04	31.19	31.34	31.49	31.66
Short-circuit current Isc [A]	11.16	11.24	11.31	11.38	11.45
Open-circuit voltage Uoc [V]	37.19	37.38	37.57	37.76	37.96

Specification as per STC (Standard test conditions): irradiance 1000W/m² | module temperature 25°C | Air Mass = 1.5
NOCT (nominal operating cell temperature): irradiance 800W/m² | wind speed 1m/sec | ambient temperature 20°C | cell operating temperature 45 +/-2°C | Air Mass = 1.5

Bifacial Gain* (e.g. 445 Wp)

Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	467.25	489.50	511.75	534.00	556.25
Rated current Impp [A]	13.91	14.57	15.23	15.89	16.55
Rated voltage Vmpp [V]	33.60	33.60	33.60	33.61	33.61
Short-circuit current Isc [A]	14.71	15.41	16.11	16.81	17.51
Open-circuit voltage Uoc [V]	40.68	40.68	40.68	40.69	40.69

*depending on the reflection of the underlying surface

Limiting values

Max. system voltage max. return current	1000 V oder 1500 V 30 A
Safety class Fire safety class	II C (according to IEC 61730)
Operating Temperature	-40 up to 85°C
Max. tested pressure load-/tensile ²	6000 Pa / 4000 Pa

Temperature coefficient

Temperature coefficient [U] [I] [P]	-0.25 % /°C 0.045 % /°C -0.29 % /°C
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Specifications

Cells (matrix) Wafer Type	108 (6 x 18) M10 N-Type Topcon
Module dimensions (L x W x H) ³ Weight	1762 mm x 1134 mm x 30 mm 24.5 kg
Bifaciality factor ⁵	Up to 80 %
Front-side glass	2.0 mm semi tempered anti-reflection solar glass
Back-side	2.0 mm semi tempered solar glass, white mesh
Frame	Stable, anodised aluminium frame
Embedding material	POE / EVA
Junction Box Diodes	At least IP67 3 Schottky Diodes
Cable	Symmetrical cable lengths > 1.1 m, 4 mm ² solar cable
Connectors	MC4 or equivalent with IP67
Hail test (max. hailstorm)	Ø 45 mm impact velocity 30.7 m/s ± 110.5 km/h

The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment: rated power +/- 3%, other values +/- 10%. All information given in this data-sheet corresponds to DIN EN 50380. A potential light-induced degradation of the power after commissioning is not considered here.

Further information in the installation manuals.

1 The specific warranty conditions are given under www.luxor.solar/downloads.html

2 Horizontal mounted, for details please check mounting instruction

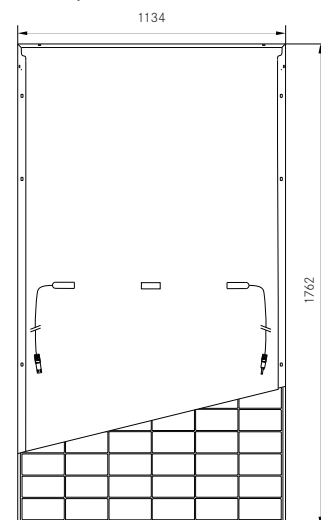
3 Tolerance L/W = +/- 3 mm, H +/- 2 mm, the dimensions given in the order confirmation will be decisive

4 Location and dimensios of holes on request

5 N-Type TOPCon bifaciality factor 77 % +/- 3

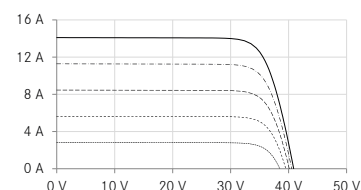
Luxor, your specialised company

Back - / Frontview^{3,4}

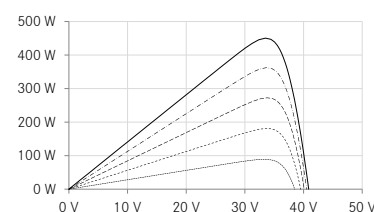


Electrical characteristics

UI -diagram e.g. 450 Wp



UP - diagram e.g. 450 Wp



..... 200W/m²
--- 400W/m²
- - - 600W/m²
- - - 800W/m²
— 1000 W/m²



Guidelines:
93/68/EEC
2014/35/EU, (LVD)
2014/30/EU, (EMC)

The validity of the certificates/listings for a specific country has to be examined under:
www.luxor.solar/downloads.html