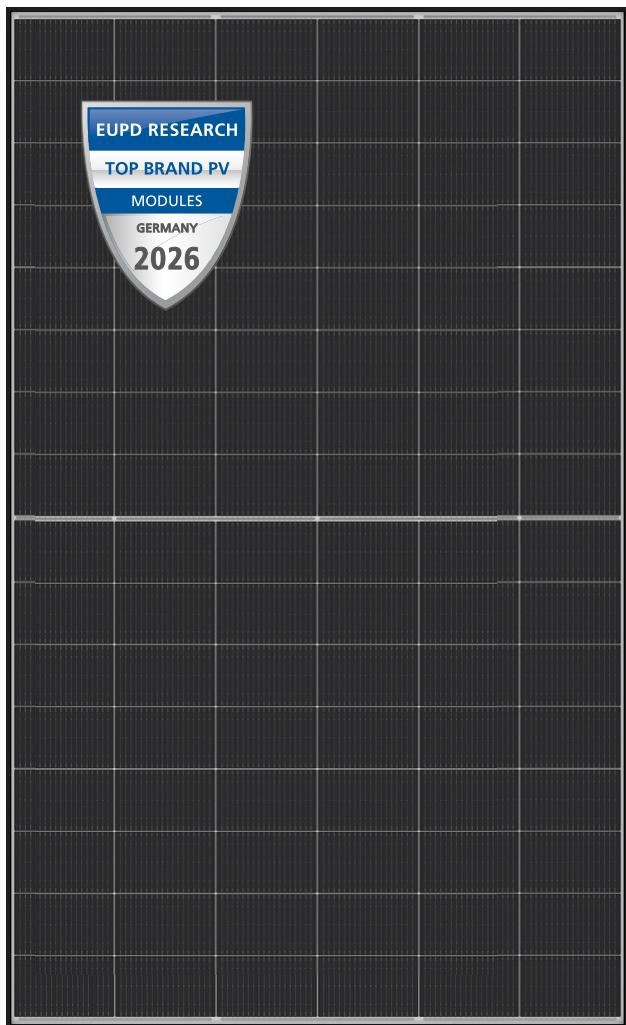




LUXOR

solar module manufacturer



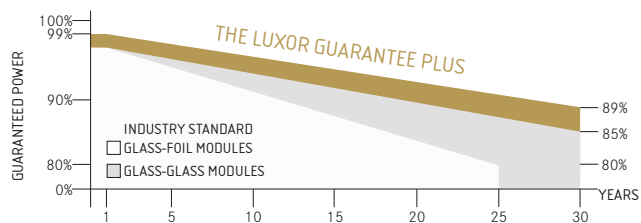
- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BALANCE-OF-SYSTEM-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE PRO 445-465W

TOPCON BLACK WHITE

GLASS-GLASS, BIFACIAL, 1762MM X 1134MM



Longlife tested



Power proofed



Safety provided



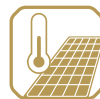
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID Free



German warrantor

ECO LINE PRO 445-465W

TOPCON, GLASS-GLASS, BIFACIAL, BW, 182R-96+

Module type

LX - XXXM/182R-96+ GG | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	445.00	450.00	455.00	460.00	465.00
Pmpp range to	451.49	456.49	461.49	466.49	471.49
Rated current Impp [A]	15.08	15.17	15.27	15.37	15.46
Rated voltage Vmpp [V]	29.54	29.68	29.82	29.96	30.10
Short-circuit current Isc [A]	15.94	16.04	16.14	16.25	16.34
Open-circuit voltage Uoc [V]	35.76	35.93	36.10	36.27	36.44
Efficiency at STC up to	22.60%	22.85%	23.10%	23.35%	23.60%
Efficiency at 200 W/m ²	22.06%	22.29%	22.55%	22.80%	23.04%

Electrical data at NOCT

Power at Pmpp [Wp]	335.35	339.12	342.89	346.66	350.42
Rated current Impp [A]	12.17	12.25	12.33	12.41	12.48
Rated voltage Vmpp [V]	27.56	27.68	27.81	27.93	28.08
Short-circuit current Isc [A]	12.87	12.95	13.03	13.12	13.19
Open-circuit voltage Uoc [V]	33.01	33.17	33.34	33.51	33.68

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

Electrical data at BNPI

Rated power Pmpp [Wp]	445.00	450.00	455.00	460.00	465.00
Maximum Rated power Pmpp [Wp]	493.06	498.60	504.14	509.68	515.22
Rated current Impp [A]	16.71	16.81	16.92	17.03	17.13
Rated voltage Vmpp [V]	29.51	29.66	29.80	29.93	30.08
Short-circuit current Isc [A]	17.66	17.77	17.88	18.01	18.10
Open-circuit voltage Uoc [V]	35.80	35.97	36.14	36.31	36.48

Specifications as per BNPI (Bifacial Nameplate Irradiance): irradiance front 1000 W/m² | rear 135 W/m² | Temperature 25°C | Air Mass 1.5

Limiting values

Max. system voltage max. return current	1000 V or 1500 V 30 A
Safety class Fire safety class	II C (IEC 61730)
Operating temperature	-40 up to 85°C
Max. tested pressure/tensile load 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	96 (6x16) M10 N-Type TOPCon
Module dimensions (L x B x H) ³ Weight	1762 mm x 1134 mm x 30 mm 24.5 kg
Bifaciality factor ⁵	Up to 80%
Front side	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	IP68 3 Schottky Diodes
Cable	Symmetrical cable lengths > 1.1 m, 4 mm ² solar cable
Connectors	MC4 or equivalent (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. 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 (IEC61215), for details please check mounting instruction

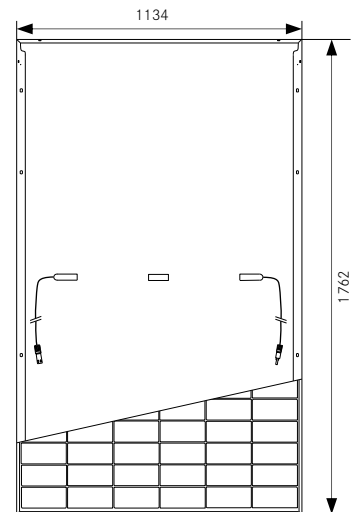
³ Tolerance L/W = +/- 3 mm, H +/- 2 mm, the dimensions given in the order confirmation will be decisive

⁴ Location and dimensions of holes on request

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

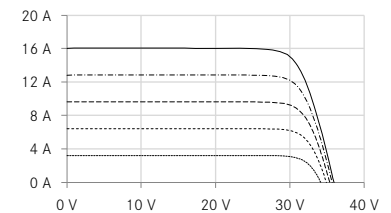
Your specialised Luxor partner

Back - / Frontview ^{3, 4}

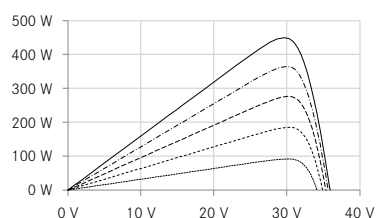


Electrical characteristics

UI-diagram e.g. 450 Wp



UP-diagram e.g. 450 Wp



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