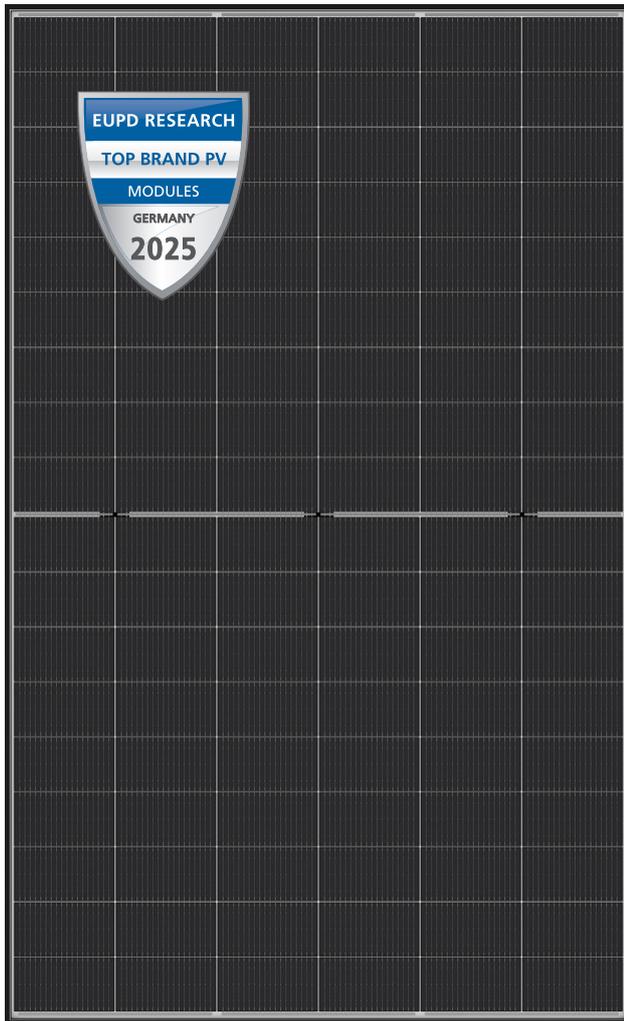




LUXOR

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 SECURE 450-470W TOPCON BLACK TRANSPARENT



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 SECURE 450-470W

TOPCON, GLASS-GLASS, BIFACIAL, BT, 182R188-108+

Module type LX - XXXM/182R188-108+ GG | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	450.00	455.00	460.00	465.00	470.00
Pmpp range to	456.49	461.49	466.49	471.49	476.49
Rated current Impp [A]	13.88	13.95	14.02	14.09	14.15
Rated voltage Vmpp [V]	32.44	32.63	32.83	33.03	33.23
Short-circuit current Isc [A]	14.67	14.75	14.82	14.89	14.96
Open-circuit voltage Uoc [V]	38.85	39.08	39.32	39.56	39.80
Efficiency at STC up to	22.85%	23.10%	23.35%	23.60%	23.85%
Efficiency at 200 W/m ²	22.30%	22.54%	22.79%	23.04%	23.28%

Electrical data at NOCT

Power at Pmpp [Wp]	339.12	342.89	346.66	350.42	354.19
Rated current Impp [A]	11.20	11.26	11.32	11.37	11.42
Rated voltage Vmpp [V]	30.28	30.45	30.62	30.82	31.01
Short-circuit current Isc [A]	11.84	11.91	11.96	12.02	12.08
Open-circuit voltage Uoc [V]	35.86	36.08	36.32	36.55	36.78

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]	450.00	455.00	460.00	465.00	470.00
Maximum Rated power Pmpp [Wp]	500.42	505.98	511.54	517.10	522.66
Rated current Impp [A]	15.44	15.51	15.59	15.67	15.74
Rated voltage Vmpp [V]	32.42	32.62	32.81	33.00	33.22
Short-circuit current Isc [A]	16.31	16.40	16.48	16.56	16.64
Open-circuit voltage Uoc [V]	38.89	39.12	39.36	39.60	39.84

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

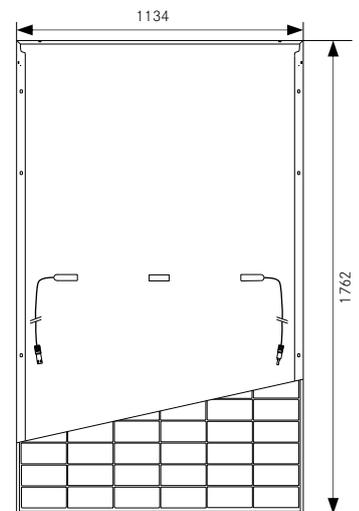
Cells (matrix) Wafer Type	108 (6x18) M10 N-Type TOPCon
Module dimensions (L x B x H) ³ Weight	1762 mm x 1134 mm x 40 mm 40.0 kg
Bifaciality factor ⁵ Transparency	Up to 83% approx. 4%
Front side	3.2 mm semi tempered anti-reflection solar glass
Back side	3.2 mm semi tempered solar glass
Frame	Stable anodised 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.

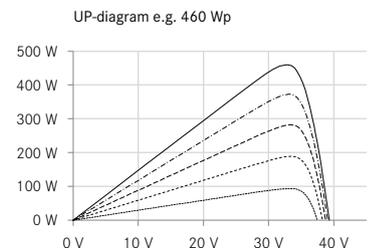
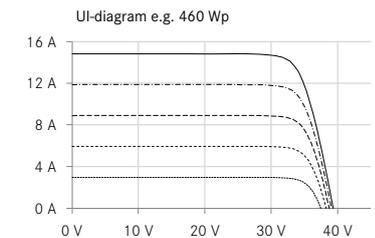
- The specific warranty conditions are given under www.luxor.solar/downloads.html
- Horizontal mounted (IEC61215), for details please check mounting instruction
- Tolerance L/W = +/- 3 mm, H +/- 2 mm, the dimensions given in the order confirmation will be decisive
- Location and dimensions of holes on request
- N-Type TOPCon Bifaciality factor 80 +/- 3%

Your specialised Luxor partner

Back - / Frontview ^{3, 4}



Electrical characteristics



..... 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