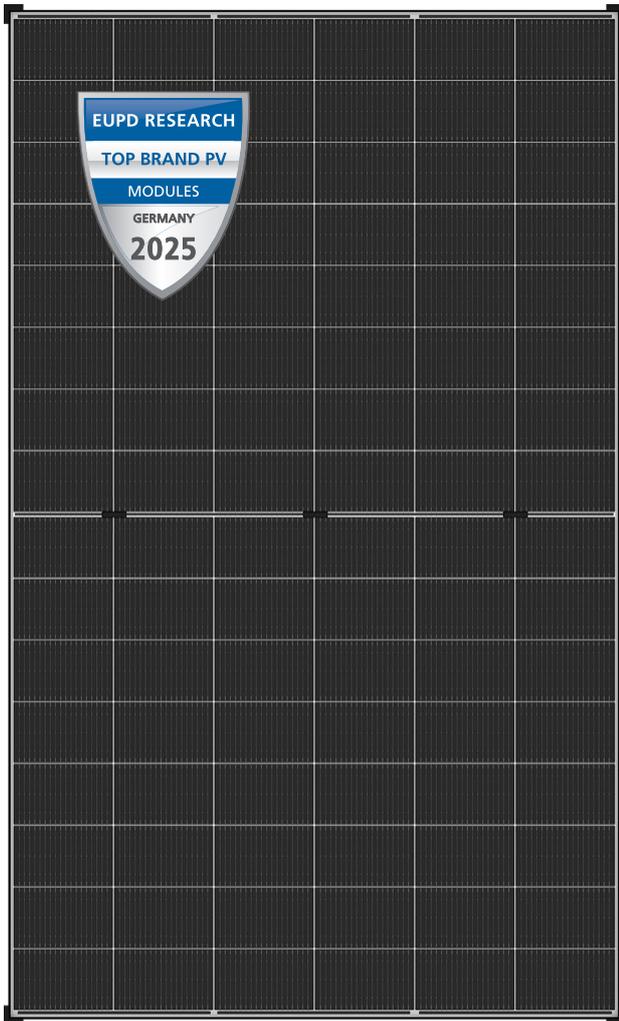




# LUXOR

solar module manufacturer



- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + HIGH CLASS APPEARANCE: EASY INTEGRATION IN BUILDINGS
- + SPECIAL EDGE SEALING
- + ESPECIALLY DURABLE AND ROBUST



product guarantee<sup>1</sup>



linear performance guarantee<sup>1</sup>



## ECO LINE PRO 450-470W TOPCON FRAMELESS

GLASS-GLASS, BIFACIAL, 1756MM X 1128MM



Longlife tested



Power proofed



Safety provided



Special Edge Sealing



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free LID Free



German warrantor

# ECO LINE PRO 450-470W

## TOPCON, GLASS-GLASS, BIFACIAL, FLT, 182R-96+

Module type LX - XXXM/182R-96+ 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 Imp [A]	15.27	15.36	15.46	15.55	15.65
Rated voltage Vmpp [V]	29.50	29.64	29.78	29.92	30.06
Short-circuit current Isc [A]	16.14	16.24	16.34	16.44	16.54
Open-circuit voltage Uoc [V]	35.71	35.88	36.05	36.22	36.39
Efficiency at STC up to	23.05%	23.30%	23.55%	23.80%	24.06%
Efficiency at 200 W/m <sup>2</sup>	22.50%	22.74%	23.00%	23.24%	23.50%

### Electrical data at NOCT

Power at Pmpp [Wp]	339.12	342.89	346.66	350.42	354.19
Rated current Imp [A]	12.33	12.40	12.48	12.55	12.63
Rated voltage Vmpp [V]	27.50	27.65	27.78	27.92	28.04
Short-circuit current Isc [A]	13.03	13.11	13.19	13.27	13.35
Open-circuit voltage Uoc [V]	32.96	33.13	33.30	33.46	33.63

Specification as per STC (Standard test conditions): irradiance 1000 W/m<sup>2</sup> | module temperature 25°C | Air Mass = 1.5  
 NOCT (nominal operating cell temperature): irradiance 800 W/m<sup>2</sup> | 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 Imp [A]	16.98	17.08	17.19	17.29	17.40
Rated voltage Vmpp [V]	29.47	29.62	29.75	29.90	30.03
Short-circuit current Isc [A]	17.95	18.06	18.17	18.28	18.39
Open-circuit voltage Uoc [V]	35.75	35.92	36.09	36.26	36.43

Specifications as per BNPI (Bifacial Nameplate Irradiance) : irradiance front 1000 W/m<sup>2</sup> | rear 135 W/m<sup>2</sup> | 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 <sup>2</sup>	1200 Pa / 600 Pa

### Temperature coefficient

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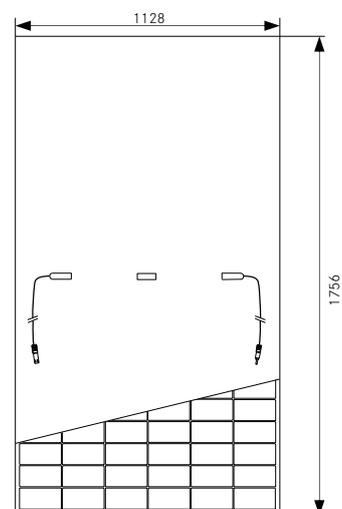
### Specifications

Cells (matrix)   Wafer   Type	96 (6x16)   M10   N-Type TOPCon
Module dimensions (L x B x H) <sup>3</sup>   Weight	1756 mm x 1128 mm x 5 mm   23.5 kg
Bifaciality factor <sup>4</sup>   Transparency	Up to 83%   approx. 4%
Front side	2 mm semi tempered anti-reflection solar glass
Back side	2 mm semi tempered solar glass
Frame	Frameless version
Embedding material	POE / EVA
Junction Box   Diodes	IP68   3 Schottky Diodes
Cable	Symmetrical cable lengths > 1.1 m, 4 mm <sup>2</sup> solar cable
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	Ø 45 mm   impact velocity 30.7 m/s ± 110.5 km/h

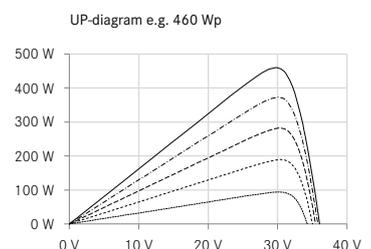
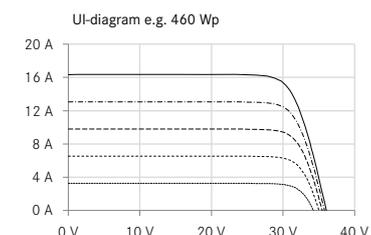
The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement.  
 Specifications are subject to change without notice. Tolerance depending on equipment: rated power +/- 3%, other values +/- 10%.  
 All information given in this data sheet corresponds 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](http://www.luxor.solar/downloads.html)  
 2 Horizontal mounted (IEC61215), for details please check mounting instruction  
 3 Tolerance L/W = +/- 3 mm, H +/- 0.5 mm. the dimensions given in the order confirmation will be decisive  
 4 N-Type TOPCon Bifaciality factor 80 +/- 3%

### Back - / Frontview <sup>3</sup>



### Electrical characteristics



----- 200W/m<sup>2</sup>  
 - - - - - 400W/m<sup>2</sup>  
 ..... 600W/m<sup>2</sup>  
 - - - - - 800W/m<sup>2</sup>  
 \_\_\_\_\_ 1000W/m<sup>2</sup>



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](http://www.luxor.solar/downloads.html)

Your specialised Luxor partner