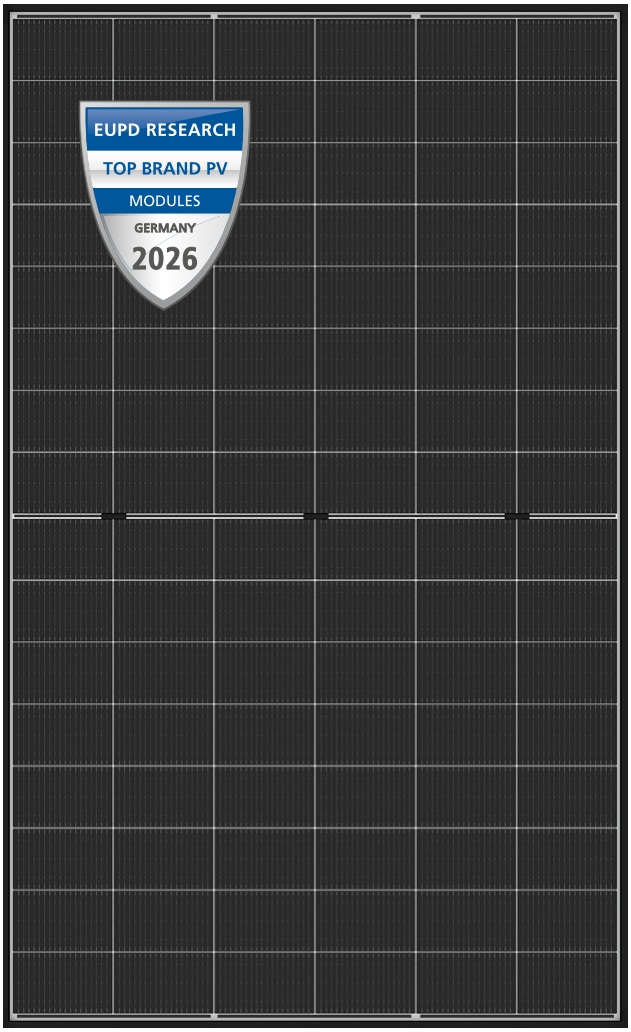
PRO

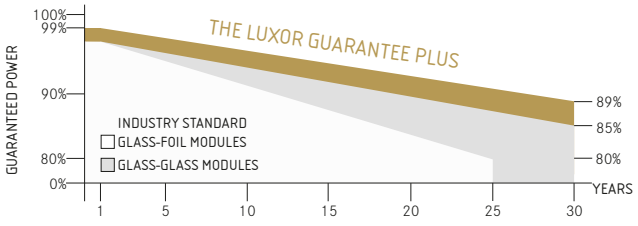
LUXOR
solar module manufacturer



+ APPLICABLE ACCORDING TO DIN18008 ABZ/ABG: Z-70.3-306
+ POWERFUL N-TYPE TOPCON CELLS
+ DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
+ BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
+ FOR PUBLICLY ACCESSIBLE AREAS LIKE PROMENADES AND CAR PARKS

30 YEARS
product guarantee[1]

30 YEARS
linear performance guarantee[1]



ECO LINE PRO SECURE 450-470W
TOPCON BLACK TRANSPARENT

Luxor Solar GmbH
Allgemeine bauaufsichtliche Zulassung
Z-70.3-306
Deutsches Institut für Bautechnik

GLASS-GLASS, BIFACIAL, 1762MM X 1134MM

Longlife tested
- Selection of components
- Back glass

Power proofed
- Performance surplus of 0 Wp to 6.49 Wp
- Higher heat dispensing

Safety provided
- PID free LID Free
- German warrantor

Luxor Solar GmbH | Kornbergstraße 29 | 70176 Stuttgart | Germany | T+49.711.88 888-999 | info@luxor-solar.com | www.luxor.solar

ECO LINE PRO SECURE 450-470W

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

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

Electrical data at STC

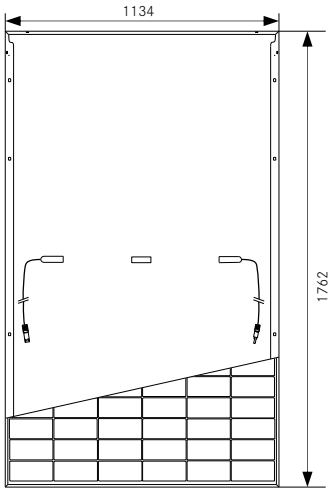
Rated power Pmpp [Wp]	450.00	455.00	460.00	465.00	470.00
Pmpp range to	456.49	461.49	466.49	471.49	476.49
Rated current Impp [A]	15.27	15.36	15.46	15.55	15.65
Rated voltage Vmpp [V]	29.50	29.64	29.78	29.92	30.06
Short-circuit current Isc [A]	16.14	16.24	16.34	16.44	16.54
Open-circuit voltage Uoc [V]	35.71	35.88	36.05	36.22	36.39
Efficiency at STC up to	22.85%	23.10%	23.35%	23.60%	23.85%
Efficiency at 200 W/m²	22.31%	22.54%	22.80%	23.04%	23.29%

Electrical data at NOCT

Power at Pmpp [Wp]	339.12	342.89	346.66	350.42	354.19
Rated current Impp [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/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

Back - / Frontview [3, 4]



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]	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/m² | rear 135 W/m² | Temperature 25°C | Air Mass 1.5

Limiting values

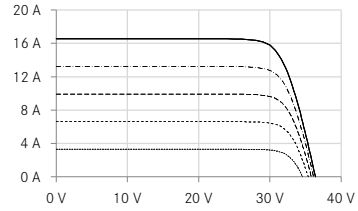
Max. system voltage | max. return current	1000 V or 1500 V | 30 A
Safety class | Fire safety class	II | A (IEC 61730) , E (EN13501-1)
Operating temperature	-40 up to 85°C
Max. tested pressure/tensile load[2]	6000 Pa/ 4000 Pa

Temperature coefficient

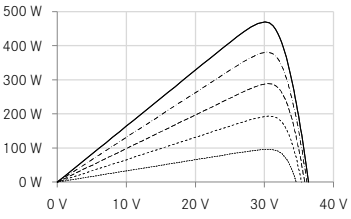
Temperature coefficient [U] | [I] | [P]	-0.25 %/°C | 0.045 %/°C | -0.29 %/°C

Electrical characteristics

UI-diagram e.g. 470 Wp



UP-diagram e.g. 470 Wp



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

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 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, 4mm solar cable
Connectors	MC4 or Equivalent (IP67)
Hail test (max. hailstorm)	⌀ 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 correspondes 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 dimensios of holes on request
5 N-Type TOPCon Bifaciality factor 80 +/- 3 %

Your specialised Luxor partner

IEC 61215
IEC 61730

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