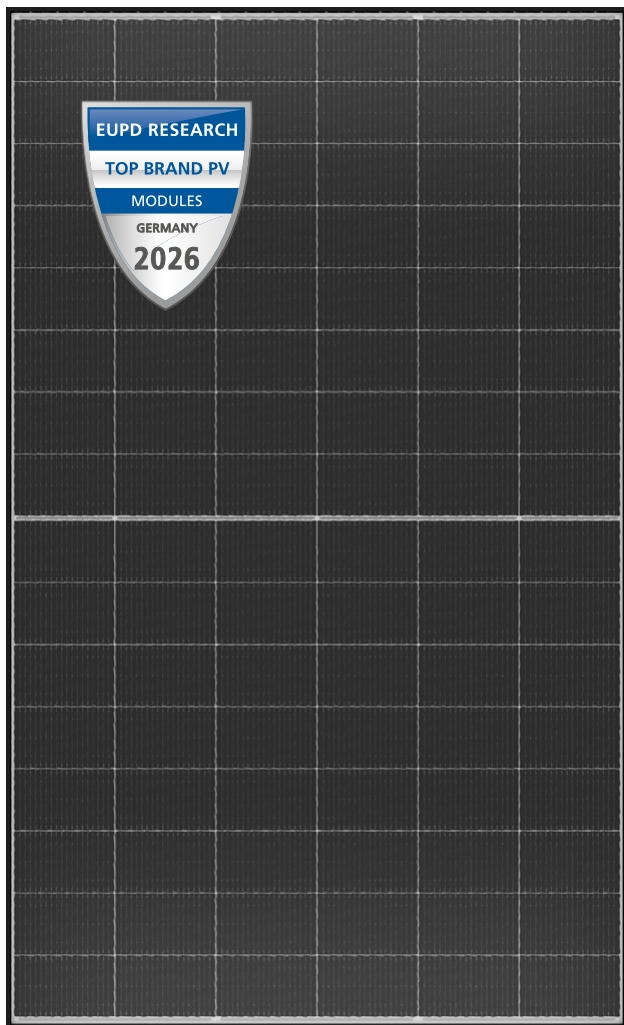




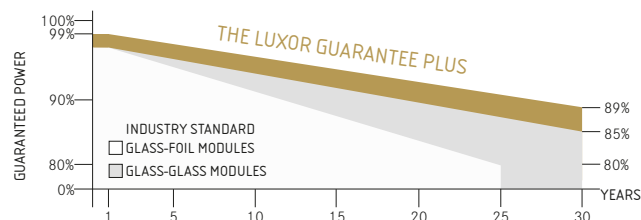
- + NON-REFLECT: SPECIAL GLASS FOR LEAST REFLECTION
- + APPLICATIONS: NEAR AIRPORTS, MOTORWAYS, PROTECTED AREAS
- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD



product guarantee¹



linear performance guarantee¹



ECO LINE PRO NON-REFLECT 450-470W

TOPCON BLACK WHITE

GLASS-GLASS, BIFACIAL, 1762MM X 1134MM



Longlife tested



Power proofed



Safety provided



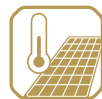
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID Free



German warranty

ECO LINE PRO NON-REFLECT 450-470W

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]	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]	15.17	15.27	15.37	15.46	15.55
Rated voltage Vmpp [V]	29.68	29.82	29.96	30.10	30.24
Short-circuit current Isc [A]	16.04	16.14	16.25	16.34	16.44
Open-circuit voltage Uoc [V]	35.93	36.10	36.27	36.44	36.61
Efficiency at STC up to	22.85%	23.10%	23.35%	23.60%	23.85%
Efficiency at 200 W/m ²	22.29%	22.55%	22.80%	23.04%	23.28%

Electrical data at NOCT

Power at Pmpp [Wp]	339.12	342.89	346.66	350.42	354.19
Rated current Imp [A]	12.25	12.33	12.41	12.48	12.55
Rated voltage Vmpp [V]	27.68	27.81	27.93	28.08	28.22
Short-circuit current Isc [A]	12.95	13.03	13.12	13.19	13.27
Open-circuit voltage Uoc [V]	33.16	33.33	33.50	33.67	33.83

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]	498.60	504.14	509.68	515.22	520.76
Rated current Imp [A]	16.81	16.92	17.03	17.13	17.23
Rated voltage Vmpp [V]	29.66	29.80	29.93	30.08	30.23
Short-circuit current Isc [A]	17.77	17.88	18.01	18.10	18.22
Open-circuit voltage Uoc [V]	35.97	36.14	36.31	36.48	36.65

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 solar glass with Non Reflect technology
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

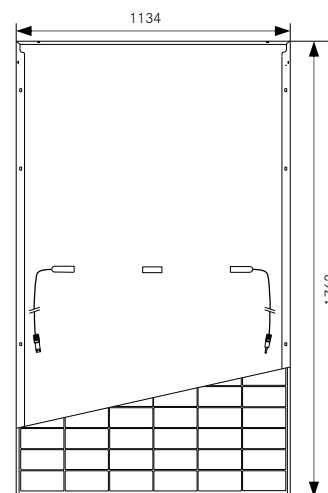
2 Horizontal mounted (IEC 61215), for details please check mounting instruction

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

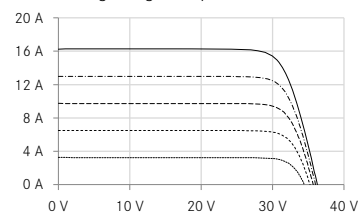
5 N-Type TOPCon Bifaciality factor 77 +/- 3 %

Back - / Frontview ^{3, 4}

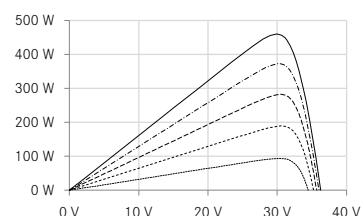


Electrical characteristics

UI-diagram e.g. 460 Wp



UP-diagram e.g. 460 Wp



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



IEC
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

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