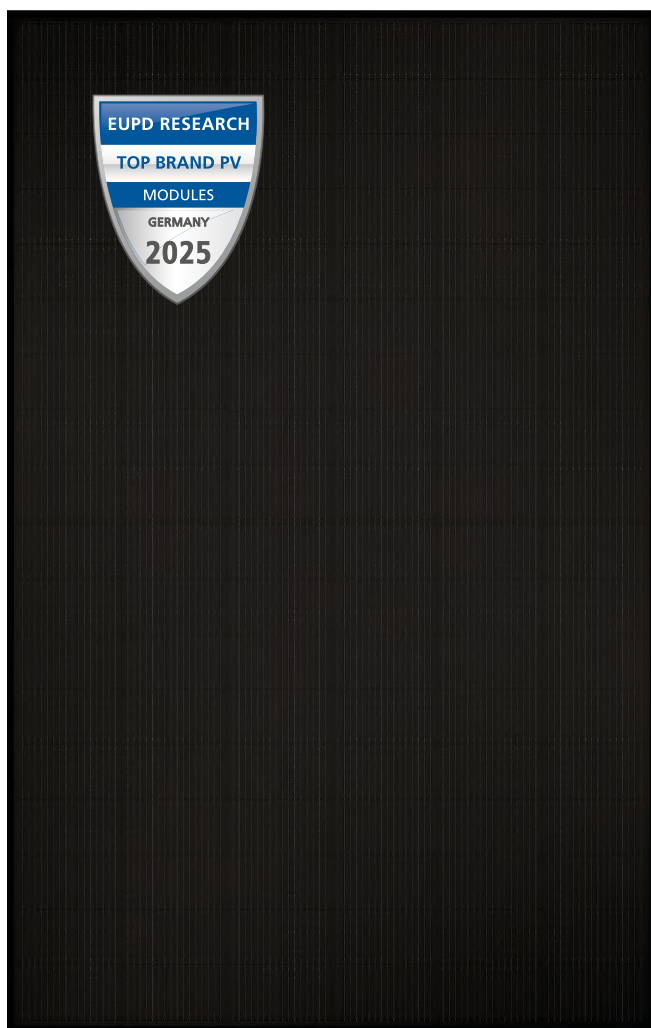




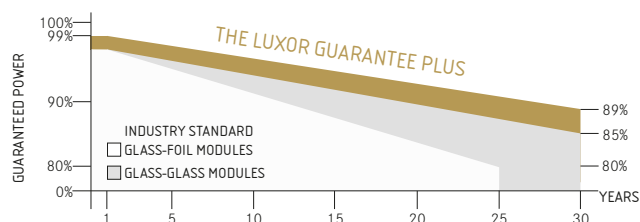
- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BOS-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE TOPCON GLASS-GLASS BIFACIAL

M96 / 435 - 455W

MONOCRYSTALLINE MODULE FAMILY, FULL BLACK



Longlife tested



Power proofed



Safety provided



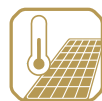
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID Free



German warrantor

ECO LINE TOPCON GLASS-GLASS BIFACIAL

M96 / 435 - 455 W, FULL BLACK

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

Electrical data at STC

Rated power Pmpp [Wp]	435.00	440.00	445.00	450.00	455.00
Pmpp range to	441.49	446.49	451.49	456.49	461.49
Rated current Impp [A]	14.97	15.07	15.17	15.27	15.36
Rated voltage Vmpp [V]	29.08	29.22	29.36	29.50	29.64
Short-circuit current Isc [A]	15.82	15.93	16.04	16.14	16.24
Open-circuit voltage Uoc [V]	35.21	35.38	35.54	35.71	35.88
Efficiency at STC up to	22.10%	22.35%	22.60%	22.85%	23.10%
Efficiency at 200 W/m ²	21.56%	21.80%	22.05%	22.31%	22.54%

Electrical data at NOCT

Power at Pmpp [Wp]	327.82	331.58	335.35	339.12	342.89
Rated current Impp [A]	12.08	12.16	12.25	12.33	12.40
Rated voltage Vmpp [V]	27.14	27.27	27.38	27.50	27.65
Short-circuit current Isc [A]	12.77	12.86	12.95	13.03	13.11
Open-circuit voltage Uoc [V]	32.50	32.67	32.82	32.99	33.16

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

Bifacial Gain* (e.g. 445 Wp)

Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	467.25	489.50	511.75	534.00	556.25
Rated current Impp [A]	15.91	16.67	17.43	18.18	18.94
Rated voltage Vmpp [V]	29.36	29.36	29.36	29.37	29.37
Short-circuit current Isc [A]	16.84	17.64	18.45	19.25	20.05
Open-circuit voltage Uoc [V]	35.54	35.54	35.54	35.55	35.55

*depending on the reflection of the underlying surface

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
---	--------------------------------------

Specifications

Cells (matrix) Wafer Type	96 (6x16) M10 N-Type TOPCon
Module dimensions (L x W 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, black mesh
Frame	Stable anodised aluminium frame
Embedding material	POE / EVA
Junction Box Diodes	At least IP67 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. Measurement 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

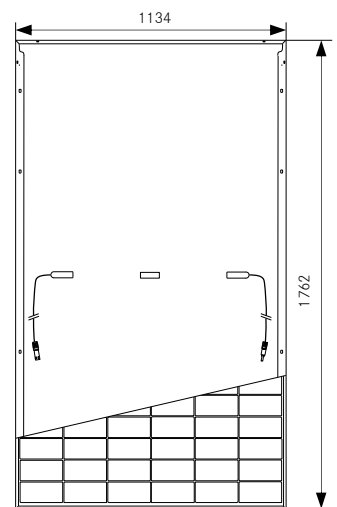
3 Tolerance L/W = +/- 3 mm, H +/- 2 mm, the dimensions given in the order confirmation will be decisive

4 Location and dimensions of holes on request

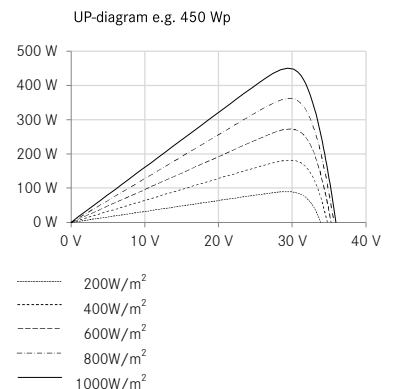
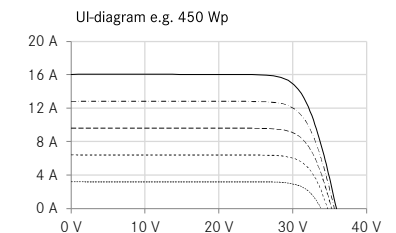
5 N-Type TOPCon Bifaciality factor 77 +/- 3 %

Your specialised Luxor partner

Back - / Frontview ^{3, 4}



Electrical characteristics



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