

- + 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
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE TOPCON GLASS-GLASS BIFACIAL

M108 / 445 - 465W

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

M108 / 445 - 465 W, FULL BLACK

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

Electrical data at STC

	445.00	450.00	455.00	460.00	465.00
Rated power Pmpp [Wp]	445.00	450.00	455.00	460.00	465.00
Pmpp range to	451.49	456.49	461.49	466.49	471.49
Rated current Impp [A]	13.81	13.88	13.95	14.02	14.09
Rated voltage Vmpp [V]	32.25	32.44	32.63	32.83	33.03
Short-circuit current Isc [A]	14.60	14.67	14.75	14.82	14.89
Open-circuit voltage Uoc [V]	38.62	38.85	39.08	39.32	39.56
Efficiency at STC up to	22.60%	22.85%	23.10%	23.35%	23.60%
Efficiency at 200 W/m ²	22.05%	22.30%	22.54%	22.79%	23.04%

Electrical data at NOCT

	335.35	339.12	342.89	346.66	350.42
Power at Pmpp [Wp]	335.35	339.12	342.89	346.66	350.42
Rated current Impp [A]	11.15	11.20	11.26	11.32	11.37
Rated voltage Vmpp [V]	30.08	30.28	30.45	30.62	30.82
Short-circuit current Isc [A]	11.79	11.84	11.91	11.96	12.02
Open-circuit voltage Uoc [V]	35.65	35.87	36.09	36.33	36.56

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. 455 Wp)

	5%	10%	15%	20%	25%
Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	477.75	500.50	523.25	546.00	568.75
Rated current Impp [A]	14.64	15.34	16.04	16.73	17.42
Rated voltage Vmpp [V]	32.63	32.63	32.63	32.64	32.64
Short-circuit current Isc [A]	15.49	16.23	16.96	17.70	18.44
Open-circuit voltage Uoc [V]	39.08	39.08	39.08	39.09	39.09

*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
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Specifications

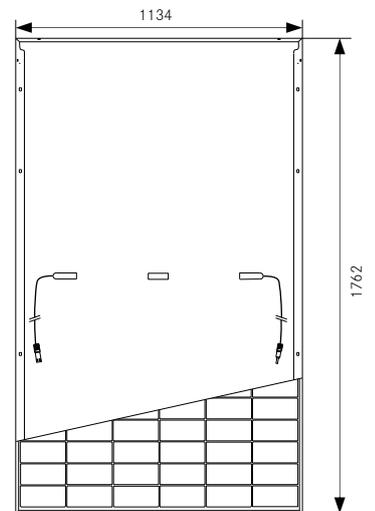
Cells (matrix) Wafer Type	108 (6x18) M10 N-Type TOPCon
Module dimensions (L x W x H) ³ Weight	1762 mm x 1134 mm x 30 mm 24.5 kg
Bifaciality factor ⁵	Up to 80%
Front side	2.0 mm semi tempered anti-reflection solar glass
Back side	2.0 mm semi tempered solar glass, black mesh
Frame	Stable anodised aluminium 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. 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 77 +/- 3 %

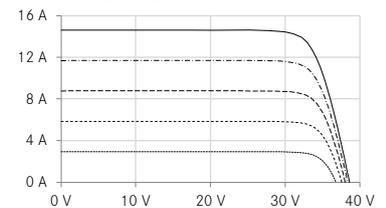
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Back - / Frontview ^{3, 4}

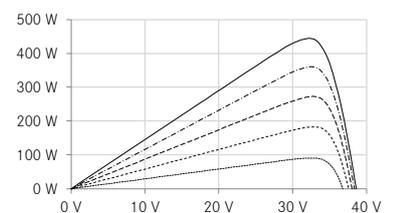


Electrical characteristics

UI-diagram e.g. 445 Wp



UP-diagram e.g. 445 Wp



..... 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