

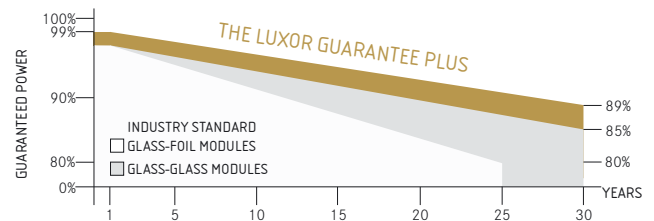
- + POWERFUL N-TYPE TOPCON CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL STABILITY AND FIRE SAFETY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BALANCE-OF-SYSTEM-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE N-TYPE TOPCON GLASS-GLASS BIF

M132 / 680 - 700W

MONOCRYSTALLINE N-TYPE MODULE FAMILY, WHITE MESH



Longlife tested



Power proofed



Safety provided



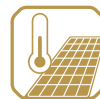
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID Free



German warrantor

ECO LINE N-TYPE TOPCON GLASS-GLASS BIF

M132 / 680 - 700 W, WHITE MESH

Module type LX - XXX M/210-132+ GG | XXX = Rated power Pmpp

Electrical data at STC

	680.00	685.00	690.00	695.00	700.00
Rated power Pmpp [Wp]	680.00	685.00	690.00	695.00	700.00
Pmpp range to	686.49	691.49	696.49	701.49	706.49
Rated current Impp [A]	17.19	17.23	17.27	17.30	17.34
Rated voltage Vmpp [V]	39.58	39.78	39.98	40.18	40.38
Short-circuit current Isc [A]	18.29	18.33	18.37	18.40	18.45
Open-circuit voltage Uoc [V]	47.92	48.16	48.40	48.64	48.89
Efficiency at STC up to	22.10%	22.26%	22.42%	22.58%	22.74%
Efficiency at 200 W/m ²	21.67%	21.83%	21.99%	22.14%	22.30%

Electrical data at NOCT

	511.36	515.12	518.88	522.64	526.40
Power at Pmpp [Wp]	511.36	515.12	518.88	522.64	526.40
Rated current Impp [A]	13.88	13.91	13.94	13.96	14.00
Rated voltage Vmpp [V]	36.85	37.04	37.22	37.43	37.61
Short-circuit current Isc [A]	14.76	14.80	14.83	14.85	14.89
Open-circuit voltage Uoc [V]	44.23	44.47	44.70	44.94	45.18

Specification as per STC (Standard test conditions): irradiance 1000W/m² | module temperature 25°C | Air Mass = 1.5
 NOCT (nominal operating cell temperature): irradiance 800W/m² | wind speed 1 m/sec | ambient temperature 20°C | cell operating temperature 45 +/- 2°C | Air Mass = 1.5

Bifacial Gain* (e.g. 690 Wp)

	5%	10%	15%	20%	25%
Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	724,50	759,00	793,50	828,00	862,50
Rated current Impp [A]	18,12	18,98	19,85	20,71	21,57
Rated voltage Vmpp [V]	39,98	39,98	39,98	39,99	39,99
Short-circuit current Isc [A]	14,97	15,68	16,39	17,10	17,82
Open-circuit voltage Uoc [V]	48,40	48,40	48,40	48,41	48,41

*depending on the reflection of the underlying surface

Limiting values

Max. system voltage max. return current	1500 V 30 A
Safety class Fire safety class	II C (according to IEC 61730)
Operating Temperature	-40 up to 85°C
Max. tested pressure load-/tensile ²	5400 Pa / 2400 Pa

Temperature coefficient

Temperature coefficient [U] [I] [P]	-0.25 % /°C 0.045 % /°C -0.3 % /°C
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Specifications

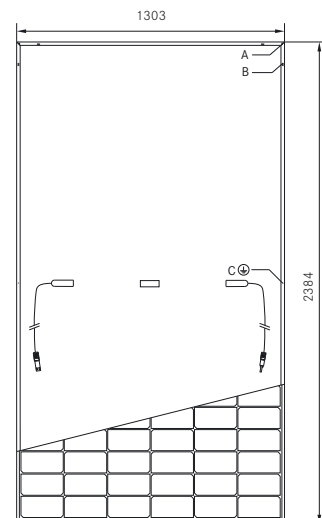
Cells (matrix) Wafer Type	132 (6 x 22) M12, Half Cell N-Type Topcon
Module dimensions (L x W x H) ³ Weight	2384 mm x 1303 mm x 35 mm 38.7 kg
Bifaciality factor ⁵	Up to 80 %
Front-side glass	2 mm highly transparent, anti-reflection solar glass
Back-side	2 mm highly transparent solar glass, white mesh
Frame	Stable, anodised aluminium frame
Embedding material	POE / EVA
Junction Box Diodes	At least IP67 3 Schottky Diodes
Cable	Symmetrical cable lengths > 1.4 m, 4 mm ² solar cable
Connectors	MC4 or equivalent with IP67
Hail test (max. hailstorm)	Ø 45 mm impact velocity 23 m/s ± 83 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.

- The specific warranty conditions are given under www.luxor.solar/downloads.html
- Horizontal mounted, 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 dimensios of holes on request
- N-Type Topcon Bifaciality 77 % +/- 3 %

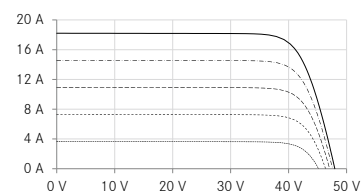
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Back - / Frontview^{3,4}

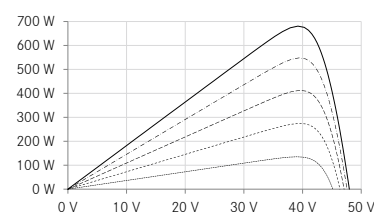


Electrical characteristics

UI-diagram e.g. 680 Wp



UP - diagram e.g. 680 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