



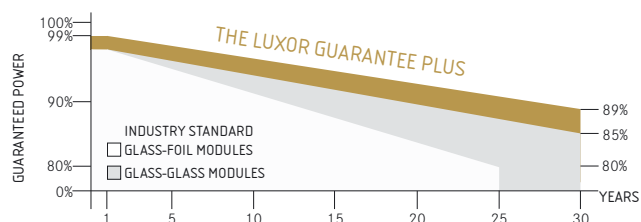
- + POWERFUL N-TYPE TOPCON CELLS
- + GLASS-GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BALANCE-OF-SYSTEM-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED



product guarantee¹



linear performance guarantee¹



ECO LINE N-TYPE TOPCON GLASS-GLASS BIF

M144/ 600 - 620W

MONOCRYSTALLINE MODULE FAMILY, WHITE MESH



Longlife tested



Power proofed



Safety provided



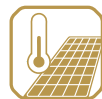
Selection of components



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 BIFACIAL

M144 / 600 - 620 W, WHITE MESH

Module type LX - XXX M/182R-144+ GG | XXX = Rated power Pmpp

Electrical data at STC

Rated power Pmpp [Wp]	600.00	605.00	610.00	615.00	620.00
Pmpp range to	606.49	611.49	616.49	621.49	626.49
Rated current Impp [A]	13.89	13.94	13.99	14.03	14.08
Rated voltage Vmpp [V]	43.21	43.42	43.63	43.84	44.05
Short-circuit current Isc [A]	14.71	14.77	14.82	14.86	14.92
Open-circuit voltage Uoc [V]	52.06	52.31	52.57	52.82	53.07
Efficiency at STC up to	22.45%	22.64%	22.82%	23.01%	23.19%
Efficiency at 200 W/m ²	21.98%	22.17%	22.36%	22.53%	22.72%

Electrical data at NOCT

Power at Pmpp [Wp]	452.16	455.93	459.70	463.46	467.23
Rated current Impp [A]	11.21	11.25	11.29	11.33	11.37
Rated voltage Vmpp [V]	40.34	40.53	40.72	40.91	41.09
Short-circuit current Isc [A]	11.87	11.92	11.96	11.99	12.04
Open-circuit voltage Uoc [V]	48.05	48.30	48.55	48.80	49.05

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. 610 Wp)

Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	640.50	671.00	701.50	732.00	762.50
Rated current Impp [A]	14.68	15.38	16.08	16.77	17.47
Rated voltage Vmpp [V]	43.63	43.63	43.63	43.64	43.64
Short-circuit current Isc [A]	15.56	16.30	17.04	17.78	18.53
Open-circuit voltage Uoc [V]	52.57	52.57	52.57	52.58	52.58

*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 (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 -0.29 %/°C
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Specifications

Cells (matrix) Wafer Type	144 (6 x 24) M10 N-Type TOPCon
Module dimensions (L x W x H) ³ Weight	2382 mm x 1134 mm x 30 mm 33.5 kg
Bifaciality factor ⁵	Up to 80 %
Front-side glass	2 mm tempered, highly transparent, anti-reflection solar glass
Back-side	2 mm tempered, highly transparent, solar glass with 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.

1 The specific warranty conditions are given under www.luxor.solar/downloads.html

2 Horizontal mounted, for details please check mounting instruction

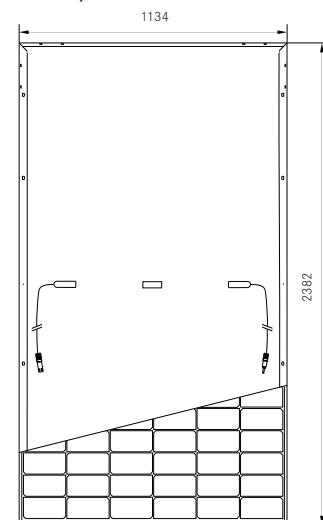
3 Tolerance L/W = +/- 3 mm, H +/- 2 mm, the dimensions given in the order confirmation will be decisive

4 Frame drawing, location and dimensions of holes on request

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

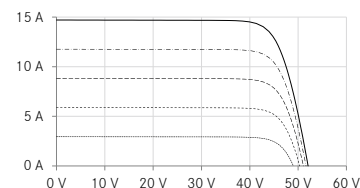
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Back - / Frontview^{3,4}

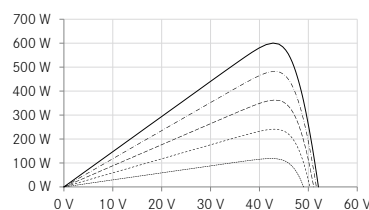


Electrical characteristics

UI - diagram e.g. 600 Wp



UP - diagram e.g. 600 Wp



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