

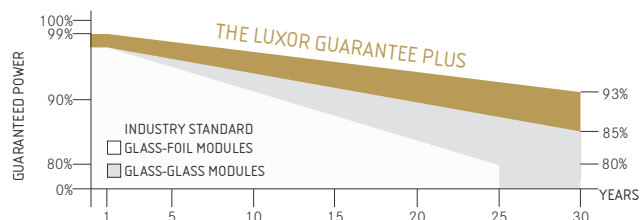
- + POWERFUL N-TYPE HETEROJUNCTION CELLS
- + GLASS-GLASS: HIGHER MECHANICAL AND THERMAL STABILITY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BOS COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + SPECIAL EDGE SEALING
- + ESPECIALLY DURABLE AND ROBUST



product guarantee<sup>1</sup>



linear performance guarantee<sup>1</sup>



## ECO LINE N-TYPE HJT GLASS-GLASS BIFACIAL M108 / 420 - 440 W

MONOCRYSTALLINE MODULE FAMILY, TRANSPARENT, BLACK FRAME



Longlife tested



Power proofed



Safety provided



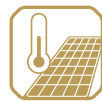
Edge-Sealing



Back glass



Performance surplus  
of 0 Wp to 6.49 Wp



Higher heat  
dispensing



PID free  
LID free



German  
warrantor

# ECO LINE N-TYPE HJT GLASS-GLASS BIFACIAL

## M108 / 420 - 440 W, TRANSPARENT, BLACK FRAME

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

### Electrical data at STC

Rated power Pmpp [Wp]	420.00	425.00	430.00	435.00	440.00
Pmpp range to	426.49	431.49	436.49	441.49	446.49
Rated current Impp [A]	12.34	12.43	12.53	12.62	12.72
Rated voltage Vmpp [V]	34.07	34.21	34.35	34.49	34.63
Short-circuit current Isc [A]	13.13	13.22	13.33	13.43	13.53
Open-circuit voltage Uoc [V]	41.80	41.98	42.15	42.32	42.49
Efficiency at STC up to	21.84%	22.10%	22.35%	22.61%	22.86%
Efficiency at 200 W/m <sup>2</sup>	21.31%	21.56%	21.82%	22.07%	22.33%

### Electrical data at NOCT

Power at Pmpp [Wp]	319.87	323.68	327.49	331.30	335.10
Rated current Impp [A]	9.95	10.02	10.10	10.18	10.26
Rated voltage Vmpp [V]	32.15	32.30	32.42	32.54	32.66
Short-circuit current Isc [A]	10.59	10.66	10.75	10.83	10.91
Open-circuit voltage Uoc [V]	38.58	38.76	38.93	39.10	39.27

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

### Bifacial Gain\* (e.g. 430 Wp)

Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	451.50	473.00	494.50	516.00	537.50
Rated current Impp [A]	13.14	13.77	14.40	15.02	15.64
Rated voltage Vmpp [V]	34.35	34.35	34.35	34.36	34.36
Short-circuit current Isc [A]	13.88	14.54	15.20	15.86	16.53
Open-circuit voltage Uoc [V]	42.15	42.15	42.15	42.16	42.16

\*depending on the reflection of the underlying surface

### Limiting values

Max. system voltage   max. return current	1000V or 1500 V   25 A
Safety class   Fire safety class	II   C (according to IEC 61730)
Operating temperature	-40 up to 85°C
Max. tested pressure load-/tensile <sup>2</sup>	5400 Pa / 2400 Pa

### Temperature coefficient

Temperature coefficient [U]   [I]   [P]	-0.26 %/°C   0.04 %/°C   -0.24 %/°C
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### Specifications

Cells (matrix)   Wafer   Type	108 (6 x 18)   M10, Half-Cell   N-Type HJT
Module dimensions (L x W x H) <sup>3</sup>   Weight	1722 mm x 1134 mm x 30 mm   24 kg
Bifaciality factor <sup>5</sup>   Transparency	Up to 95 %   approx. 7 %
Front-side glass	2 mm tempered, highly transparent, anti-reflection solar glass
Back-side	2 mm tempered, highly transparent
Frame	Stable anodised aluminium frame
Embedding material	EVA / POE
Junction Box   Diodes	At least IP67   3 Schottky Diodes
Cable	Symmetrical cable lengths > 1.1 m, 4 mm <sup>2</sup> solar cable
Connectors	MC4 or equivalent with IP67
Hail test (max. hailstorm)	Ø 45 mm   impact velocity 23 m/s ± 83 km/h

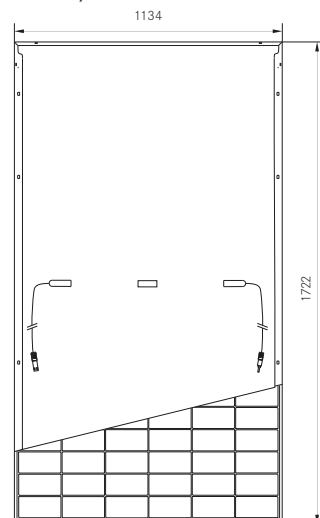
The specifications and average values can vary slightly. Relevant is the corresponding data of the individual measurement. Specifications are subject to change without notice. Measurement tolerance depending on equipment: rated power +/- 3%, other values +/- 10%. All information given in this data sheet 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](http://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
- Bifaciality factor 92 % +/- 3 %

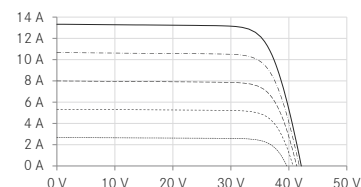
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### Back - / Frontview<sup>3,4</sup>

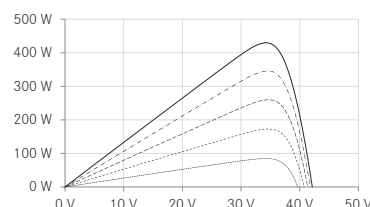


### Electrical characteristics

UI - diagram e.g. 430 Wp



UP - diagram e.g. 430 Wp



----- 200W/m<sup>2</sup>  
 - - - - 400W/m<sup>2</sup>  
 - - - - 600W/m<sup>2</sup>  
 - - - - 800W/m<sup>2</sup>  
 ——— 1000W/m<sup>2</sup>



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](http://www.luxor.solar/downloads.html)