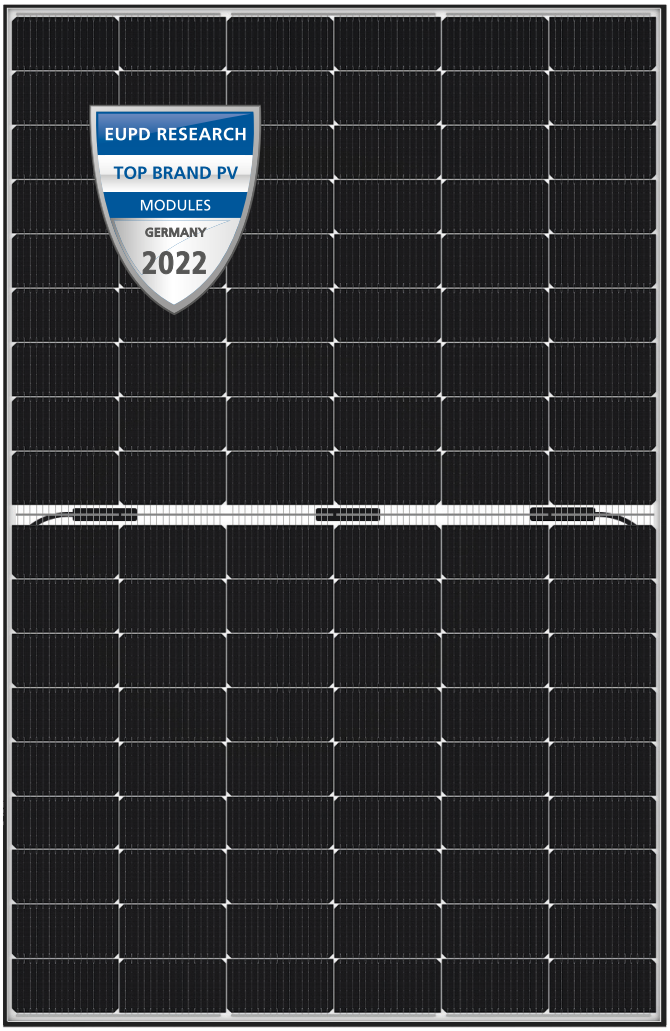
LUXOR

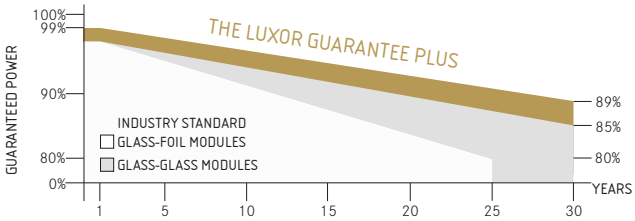
*solar module manufacturer since 2007*




- 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 PERFOR-MANCE PER MODULE
- APPLICATION: WHEREVER LONGEVITY AND ROBUSTNESS ARE REQUIRED

30 YEARS
product guarantee[1]

30 YEARS
linear performance guarantee[1]




# ECO LINE N-TYPE GLASS-GLASS BIFACIAL

# M108 / 410 - 430W

## MONOCRYSTALLINE N-TYPE MODULE FAMILY, TRANSPARENT

Longlife tested

- Selection of components
- Back glass

Power proofed

- Performance surplus of 0 Wp to 6.49 Wp
- Higher heat dispensing

Safety provided

- PID free LID Free
- German warrantor

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# ECO LINE N-TYPE GLASS-GLASS BIFACIAL

## M108 / 410 - 430 W, TRANSPARENT

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

### Electrical data at STC

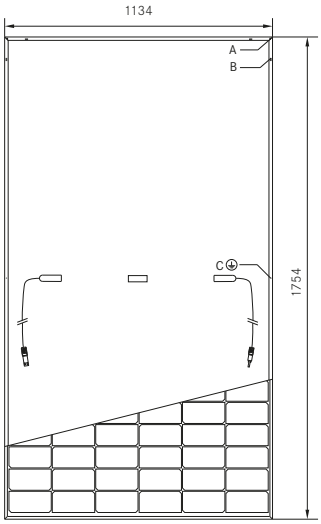
| | | | | | |
|---|---|---|---|---|---|
| Rated power Pmpp [Wp] | 410.00 | 415.00 | 420.00 | 425.00 | 430.00 |
| Pmpp range to | 416.49 | 421.49 | 426.49 | 431.49 | 436.49 |
| Rated current Impp [A] | 13.20 | 13.28 | 13.36 | 13.44 | 13.52 |
| Rated voltage Vmpp [V] | 31.08 | 31.27 | 31.46 | 31.65 | 31.84 |
| Short-circuit current Isc [A] | 13.92 | 14.01 | 14.09 | 14.18 | 14.26 |
| Open-circuit voltage Uoc [V] | 37.63 | 37.86 | 38.09 | 38.32 | 38.55 |
| Efficiency at STC up to | 21.33% | 21.58% | 21.84% | 22.10% | 22.35% |
| Efficiency at 200 W/m² | 20.78% | 21.04% | 21.30% | 21.55% | 21.81% |

### Electrical data at NOCT

| | | | | | |
|---|---|---|---|---|---|
| Power at Pmpp [Wp] | 308.32 | 312.08 | 315.84 | 319.60 | 323.36 |
| Rated current Impp [A] | 10.66 | 10.72 | 10.78 | 10.85 | 10.91 |
| Rated voltage Vmpp [V] | 28.92 | 29.11 | 29.30 | 29.46 | 29.64 |
| Short-circuit current Isc [A] | 11.24 | 11.31 | 11.37 | 11.45 | 11.51 |
| Open-circuit voltage Uoc [V] | 34.73 | 34.96 | 35.18 | 35.40 | 35.63 |

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

### Back - / Frontview[3]




**Drilled holes[4]**
A: 4 x drainage
B: 16 x ventilation
C: 8 x mounting

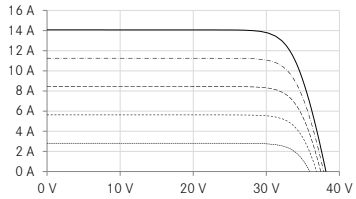
### Bifacial Gain* (e.g.415 Wp)

| | | | | | |
|---|---|---|---|---|---|
| Backside power gain [Wp] | 5% | 10% | 15% | 20% | 25% |
| Rated power Pmpp [Wp] | 435.75 | 456.50 | 477.25 | 498.00 | 518.75 |
| Rated current Impp [A] | 13.94 | 14.60 | 15.26 | 15.92 | 16.58 |
| Rated voltage Vmpp [V] | 31.27 | 31.27 | 31.27 | 31.28 | 31.28 |
| Short-circuit current Isc [A] | 14.71 | 15.41 | 16.11 | 16.81 | 17.51 |
| Open-circuit voltage Uoc [V] | 37.86 | 37.86 | 37.86 | 37.87 | 37.87 |

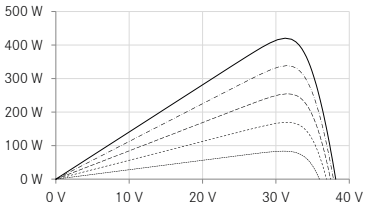
*depending on the reflection of the underlying surface

### Electrical characteristics

UI -diagram e.g. 420Wp




UP - diagram e.g. 420 Wp




### Limiting values

| | |
|---|---|
| Max. system voltage \| max. return current | 1000 V or 1500 V \| 30 A |
| Safety class \| Fire safety class | II \| A (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 |

### Specifications

| | |
|---|---|
| Cells (matrix) \| Dimenstions \| Type | 108 (6 x 18) I 182 mm x 91 mm \| N-Type Topcon |
| Module dimensions (L x W x H)[3] \| Weight | 1754 mm x 1134 mm x 30 mm \| 24.5 kg |
| Bifaciality factor[5] \| Transparecy | Up to 83 % \| approx. 8% |
| Front-side glass | 2 mm tempered, highly transparent, anti-reflection solar glass |
| Back-side | 2 mm tempered, highly transparent solar glass |
| 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 mm² solar cable |
| Connectors | MC4 or equivalent with IP67 |
| Hail test (max. hailstorm) | ⌀ 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 correspondes 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 Location and dimensios of holes on request
5 N-Type TOPCon bifaciality factor 80 % +/- 3%

Luxor, your specialised company

IEC 61215
IEC 61730

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

Eco Line_N-Type_GG_BIF_ST_M108/410-430W_182_19/12/2022