

- + REDUCED LOSSES DURING PARTIAL SHADING
- + HIGHER YIELD: MORE REFELCTION ON CELL SURFACE
- + APPLICATIONS: INDUSTRIAL AND COMMERCIAL POWER PLANTS
- + ECO: ESPECIALLY ECONOMIC AND RELIABLE



product guarantee<sup>1</sup>



linear performance guarantee<sup>1</sup>



## ECO LINE HALF CELL M144 / 390 - 410 W

### MONOCRYSTALLINE MODULE FAMILY



Longlife tested



Power proofed



Safety provided



Selection of components



Cross-linking degree test



Performance surplus of 0 Wp to 6.49 Wp



100% PID free cells



Special packing to avoid micro cracks in the cells



German warrantor

# ECO LINE HALF CELL M144 / 390 - 410 W

Monocrystalline module family

Module type LX - XXXM/158-144+ | XXX = Rated power P<sub>mp</sub>

## Electrical data at STC

|   |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
| Rated power P <sub>mp</sub> [Wp]          | 390.00 | 395.00 | 400.00 | 405.00 | 410.00 |
| P <sub>mp</sub> range to                  | 396.49 | 401.49 | 406.49 | 411.49 | 416.49 |
| Rated current I <sub>mp</sub> [A]         | 9.55   | 9.60   | 9.65   | 9.70   | 9.75   |
| Rated voltage V <sub>mp</sub> [V]         | 40.85  | 41.16  | 41.47  | 41.78  | 42.09  |
| Short-circuit current I <sub>sc</sub> [A] | 10.08  | 10.14  | 10.19  | 10.24  | 10.30  |
| Open-circuit voltage U <sub>oc</sub> [V]  | 49.40  | 49.77  | 50.14  | 50.52  | 50.90  |
| Efficiency at STC up to                   | 19.69% | 19.93% | 20.18% | 20.43% | 20.68% |
| Efficiency at 200 W/m <sup>2</sup>        | 19.13% | 19.37% | 19.62% | 19.87% | 20.12% |

## Electrical data at NOCT

|   |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
| Power at P <sub>mp</sub> [Wp]             | 287.94 | 292.01 | 296.13 | 300.30 | 304.53 |
| Rated current I <sub>mp</sub> [A]         | 7.64   | 7.68   | 7.73   | 7.78   | 7.83   |
| Rated voltage V <sub>mp</sub> [V]         | 37.71  | 38.02  | 38.31  | 38.60  | 38.90  |
| Short-circuit current I <sub>sc</sub> [A] | 8.14   | 8.18   | 8.23   | 8.27   | 8.32   |
| Open-circuit voltage U <sub>oc</sub> [V]  | 45.60  | 45.95  | 46.31  | 46.68  | 47.04  |

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

## Limiting values

|   |                  |
|---|------------------|
| Max. system voltage [V]                     | 1000 V or 1500 V |
| Max. return current [I]                     | 25 A             |
| Operating Temperature                       | -40 to 85°C      |
| Safety class                                | II               |
| Max. tested pressure load [Pa] <sup>2</sup> | 5400             |
| Max. tested tensile load [Pa] <sup>2</sup>  | 2400             |

## Temperature coefficient

|   |                                     |
|---|-------------------------------------|
| Temperature coefficient [V]   [I]   [P] | -0.30% /°C   0.06% /°C   -0.40% /°C |
|---|-------------------------------------|

## Specifications

|   |  |
|---|--|
| Number of cells (matrix)                        | 144 (6 x 24)   158 x 79 mm   |
| Module dimensions (LxWxH) <sup>3</sup>   Weight | 2010 mm x 1002 mm x 40 mm   24 kg  |
| Front-side glass                                | 3.2 mm tempered highly transparent, anti-reflection solar glass            |
| Frame   | stable, anodised aluminium frame   |
| Junction Box                                    | At least IP67  |
| Cable   | symmetrical cable lengths > 1.1 m and 1.1 m, 4 mm <sup>2</sup> solar cable |
| Diodes  | 3 Schottky Diodes  |
| Plug-in connection                              | MC4 or equivalent (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 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.

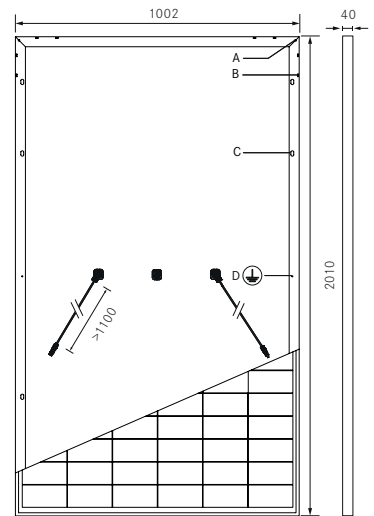
1 The specific warranty conditions are given under [www.luxor-solar.com/download.htm](http://www.luxor-solar.com/download.htm)

2 Horizontal mounted

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

4 Location and dimensions of holes on request

## Back - / Front -/ Side view<sup>3</sup>

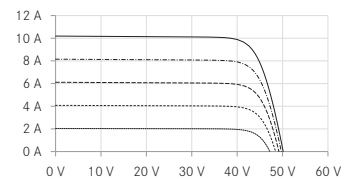


## Drilled holes<sup>4</sup>

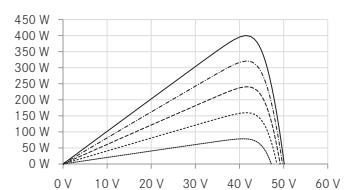
- A: 4 x drainage
- B: 16 x ventilation
- C: 8 x mounting
- D: 2 x earthing

## Electrical characteristics

UI-diagram e.g. LX-400M/158-144+



UP-diagram e.g. LX-400M/158-144+



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

Luxor, your specialised company



**IEC**  
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.com/download.htm](http://www.luxor-solar.com/download.htm)