



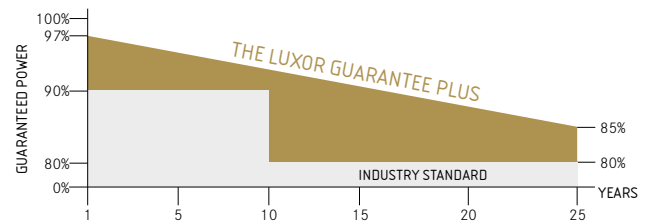
- + REDUCED LOSSES DURING PARTIAL SHADING
- + HIGHER YIELD: MORE REFLECTION ON CELL SURFACE
- + APPLICATIONS: ALL-ROUNDER FOR ALL SYSTEMS IN THE DIMENSIONS 1:2
- + ECO: ESPECIALLY ECONOMIC AND RELIABLE



product guarantee<sup>1</sup>



linear performance guarantee<sup>1</sup>



## ECO LINE HALF CELL

M144 / 440 - 460 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 warranty

# ECO LINE HALF CELL M144 / 440 - 460 W

Monocrystalline module family

Module type LX - XXXM/166-144+ | XXX = Rated power P<sub>mp</sub>

## Electrical data at STC

Rated power P <sub>mp</sub> [Wp]	440.00	445.00	450.00	455.00	460.00
P <sub>mp</sub> range to	446.49	451.49	456.49	461.49	466.49
Rated current I <sub>mp</sub> [A]	10.70	10.74	10.79	10.83	10.88
Rated voltage V <sub>mp</sub> [V]	41.16	41.44	41.73	42.03	42.32
Short-circuit current I <sub>sc</sub> [A]	11.30	11.34	11.39	11.44	11.49
Open-circuit voltage U <sub>oc</sub> [V]	49.00	49.34	49.68	50.03	50.38
Efficiency at STC up to	20.21%	20.44%	20.66%	20.89%	21.12%
Efficiency at 200 W/m <sup>2</sup>	19.68%	19.90%	20.13%	20.34%	20.58%

## Electrical data at NOCT

Power at P <sub>mp</sub> [Wp]	324.99	328.94	333.23	337.26	341.65
Rated current I <sub>mp</sub> [A]	8.55	8.59	8.64	8.69	8.74
Rated voltage V <sub>mp</sub> [V]	37.99	38.28	38.56	38.83	39.11
Short-circuit current I <sub>sc</sub> [A]	9.12	9.15	9.20	9.24	9.28
Open-circuit voltage U <sub>oc</sub> [V]	45.22	45.55	45.89	46.22	46.56

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]	20 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]	-0.285% /°C   0.049% /°C   -0.360% /°C
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## Specifications

Number of cells (matrix)	144 (6 x 24)   166 mm x 83 mm
Module dimensions (LxWxH) <sup>3</sup>   Weight	2108 mm x 1048 mm x 35 mm   25.5 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 > 1.3 m and 1.3 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.

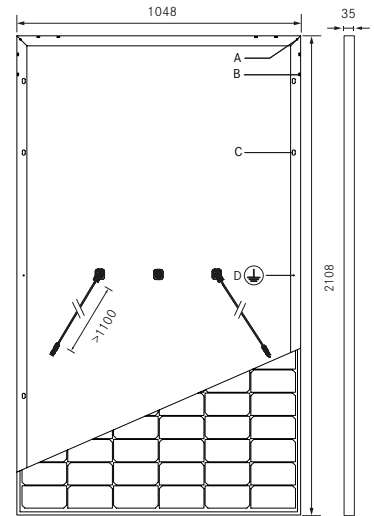
1 The specific warranty conditions are given under [www.luxor-solar.com/downloads.html](http://www.luxor-solar.com/downloads.html)

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>

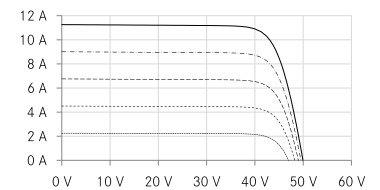


## Drilled holes<sup>4</sup>

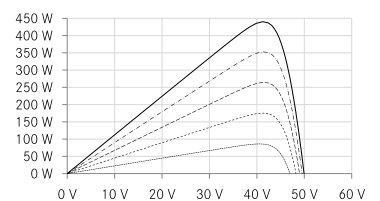
- A: 4 x drainage
- B: 16 x ventilation
- C: 8 x mounting
- D: 2 x earthing

## Electrical characteristics

UI-diagram e.g. LX-440M/166-144+

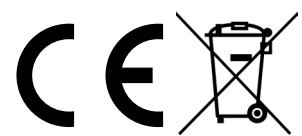


UP-diagram e.g. LX-440M/166-144+



- 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>

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