



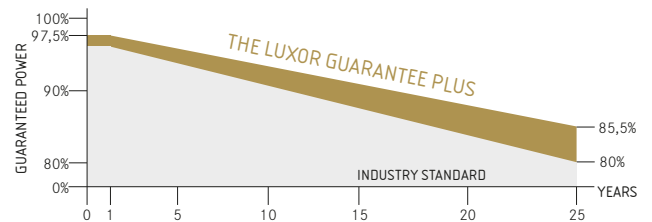
- + REDUCED LOSSES DURING PARTIAL SHADING
- + HIGHER YIELD: MORE REFLECTION ON CELL SURFACE
- + APPLICATIONS: ALL-ROUNDER FOR ALL SYSTEMS IN THE DIMENSIONS 1:2
- + ECO: ESPECIALLY ECONOMIC AND RELIABLE



product guarantee¹



linear performance guarantee¹



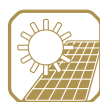
ECO LINE HALF CELL

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



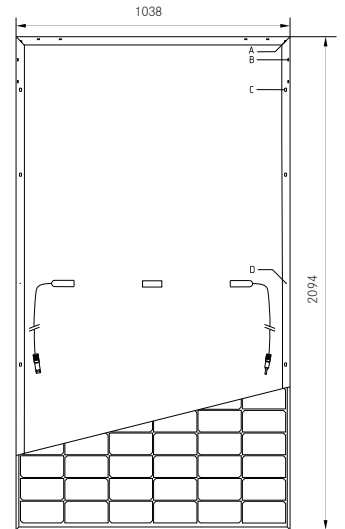
German warrantor

ECO LINE HALF CELL M144 / 440 - 460 W

Monocrystalline module family

Module type LX - XXXM/166-144+ | XXX = Rated power P_{mp}

Back - / Front - view^{3,4}



Electrical data at STC

Rated power P _{mp} [Wp]	440.00	445.00	450.00	455.00	460.00
P _{mp} range to	446.49	451.49	456.49	461.49	466.49
Rated current I _{mp} [A]	10.70	10.74	10.79	10.83	10.88
Rated voltage V _{mp} [V]	41.16	41.44	41.73	42.03	42.32
Short-circuit current I _{sc} [A]	11.30	11.34	11.39	11.44	11.49
Open-circuit voltage U _{oc} [V]	49.00	49.34	49.68	50.03	50.38
Efficiency at STC up to	20.54%	20.77%	21.00%	21.23%	21.46%
Efficiency at 200 W/m ²	20.01%	20.22%	20.46%	20.68%	20.92%

Electrical data at NOCT

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

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

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] ²	5400
Max. tested tensile load [Pa] ²	2400

Temperature coefficient

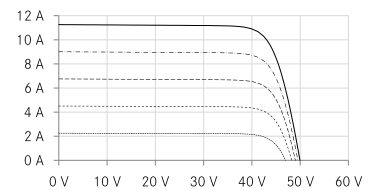
Temperature coefficient [V] [I] [P]	-0.285% /°C 0.049% /°C -0.360% /°C
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Specifications

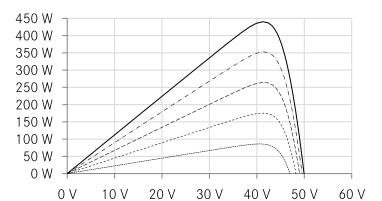
Number of cells (matrix)	144 (6 x 24) 166 mm x 83 mm
Module dimensions (LxWxH) ³ Weight	2094 mm x 1038 mm x 35 mm 23.5 kg
Front-side glass	3.2 mm tempered highly transparent, anti-reflection solar glass
Frame	stable, anodised aluminium frame
Junction Box	At least IP67
Cable	symmetrical cable lengths > 1.3 m and 1.3 m, 4 mm ² 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

Electrical characteristics

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



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



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

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

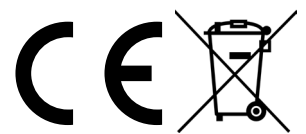
3 Tolerance L/W = +/- 3 mm. H +/- 2mm, the dimensions given in the order confirmation will be decisive

4 Location and dimensions of holes on request

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/downloads.html