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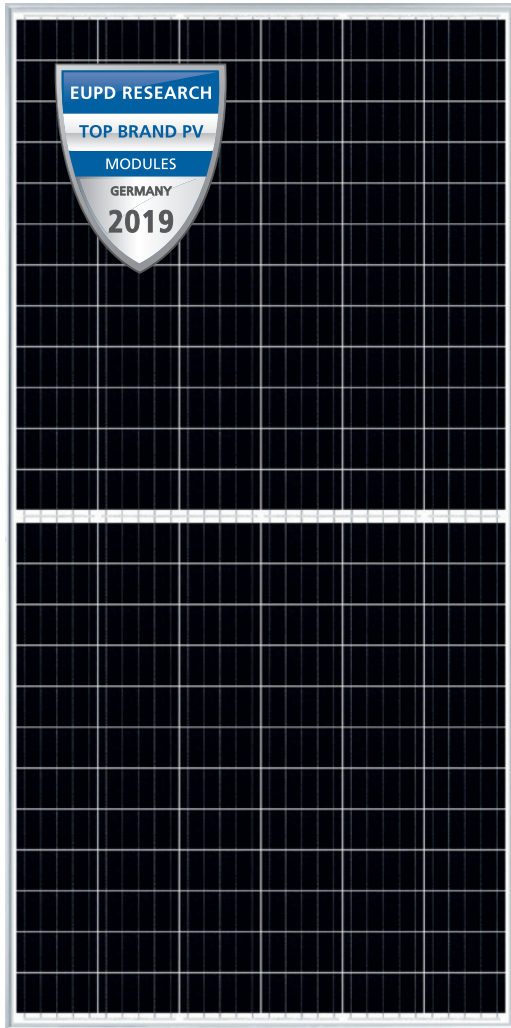
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EnergyPal

Solar Panel Guide Specification Data Sheet

**Luxor Solar GmbH
Eco Line Half Cell M144/390-410W
LX - 410M/158-144+**

Also available on the web at
EnergyPal.com/luxor-solar-gmbh-solar-panels/lx-410m-158-144



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



product guarantee¹



linear performance guarantee¹

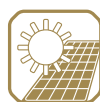


ECO LINE HALF CELL M144 / 390 - 410 W

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_{mp}

Electrical data at STC

Rated power P _{mp} [Wp]	390.00	395.00	400.00	405.00	410.00
P _{mp} range to	396.49	401.49	406.49	411.49	416.49
Rated current I _{mp} [A]	9.55	9.60	9.65	9.70	9.75
Rated voltage V _{mp} [V]	40.85	41.16	41.47	41.78	42.09
Short-circuit current I _{sc} [A]	10.08	10.14	10.19	10.24	10.30
Open-circuit voltage U _{oc} [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 ²	19.13%	19.37%	19.62%	19.87%	20.12%

Electrical data at NOCT

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

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]	25 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]	-0.30% /°C 0.06% /°C -0.40% /°C
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Specifications

Number of cells (matrix)	144 (6 x 24) 158 x 79 mm
Module dimensions (LxWxH) ³ 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 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

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.

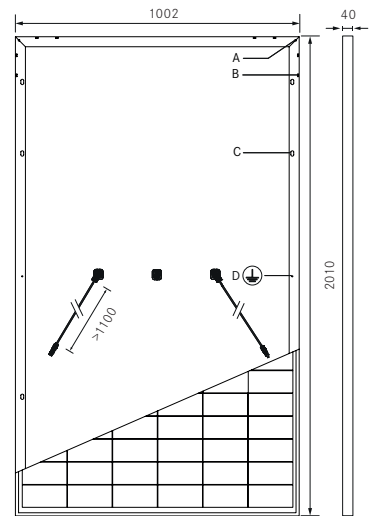
1 The specific warranty conditions are given under www.luxor-solar.com/download.htm

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 view³

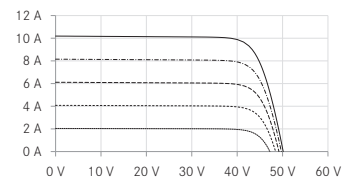


Drilled holes⁴

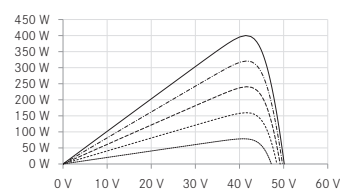
- A: 4 x drainage
- B: 16 x ventilation
- C: 8 x mounting
- D: 2 x earthing

Electrical characteristics

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



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



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

Luxor, your specialised company



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