

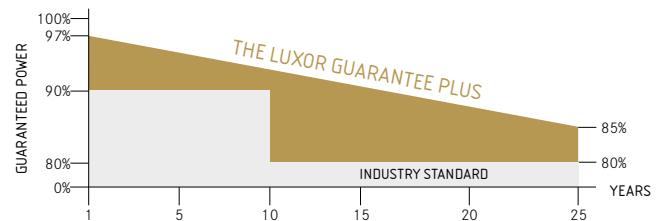
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCED LOSSES DURING PARTIAL SHADING
- + REDUCTION OF BALANCE-OF-SYSTEM-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + ESPECIALLY ECONOMIC FOR COMMERCIAL SYSTEMS



product guarantee¹



linear performance guarantee¹



ECO LINE HALF CELL BIFACIAL

M144 / 440-460 W

MONOCRYSTALLINE MODULE FAMILY, WHITE MESH



Longlife tested



Power proofed



Safety provided



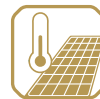
Selection of components



Cross-linking degree test



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



100% PID free cells



German warrantor

ECO LINE HALF CELL BIFACIAL

M144 / 420-440 W, SILVER FRAME

Monocrystalline module family

Module type LX - XXXM/166-144+ | XXX = Rated power Pmpp

Electrical data at STC

	440.00	445.00	450.00	455.00	460.00
Rated power Pmpp [Wp]	440.00	445.00	450.00	455.00	460.00
Pmpp range to	446.49	451.49	456.49	461.49	466.49
Rated current Impp [A]	10.70	10.74	10.79	10.83	10.88
Rated voltage Vmpp [V]	41.16	41.44	41.73	42.03	42.32
Short-circuit current Isc [A]	11.30	11.34	11.39	11.44	11.49
Open-circuit voltage Uoc [V]	49.00	49.34	49.68	50.03	50.38
Efficiency at STC up to	19.99	20.22	20.44	20.66	20.89
Efficiency at 200 W/m ²	19.47	19.68	19.91	20.13	20.36

Electrical data at NOCT

	389.76	393.47	397.18	400.90	404.61
Power at Pmpp [Wp]	389.76	393.47	397.18	400.90	404.61
Rated current Impp [A]	10.44	10.50	10.56	10.62	10.68
Rated voltage Vmpp [V]	37.34	37.47	37.62	37.74	37.89
Short-circuit current Isc [A]	11.01	11.08	11.14	11.21	11.28
Open-circuit voltage Uoc [V]	44.99	45.17	45.35	45.53	45.71

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

Bifacial Gain* (e.g. LX-440M/166-144+ BiF)

	5%	10%	15%	20%	25%
Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	472.5	495	517.5	540	562.5
Rated current Impp [A]	11.33	11.87	12.41	12.95	13.49
Rated voltage Vmpp [V]	41.73	41.73	41.73	41.74	41.74
Short-circuit current Isc [A]	11.96	12.53	13.10	13.67	14.24
Open-circuit voltage Uoc [V]	49.68	49.68	49.68	49.69	49.69

*depending on the reflection of the underlying surface

Limiting values

Max. system voltage [V]	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 0.055% /°C -0.36% /°C
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Specifications

Number of cells (matrix)	144 (6x24) 166 mm x 83 mm
Module dimensions (L x W x H) ³ Weight	2131 mm x 1048 mm x 40 mm 25 kg
Front-side glass	3.2 mm tempered, highly transparent, anti-reflection solar glass
Back sheet	White Mesh
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
Connectors	MC4 or equivalent (IP67)
Hail test (max. hailstorm)	Ø 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.

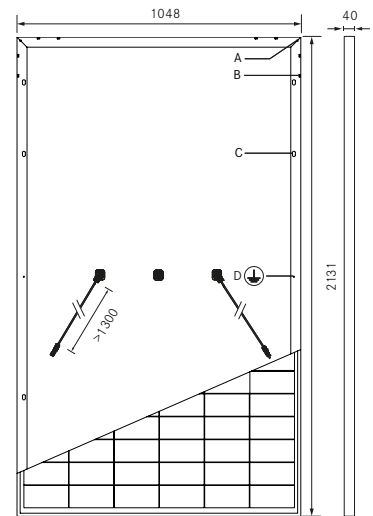
1 The specific warranty conditions are given under www.luxor-solar.com/download.htm

2 Horizontal mounted

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

4 Location and dimensios of holes on request

Back - / Front - / Side view³

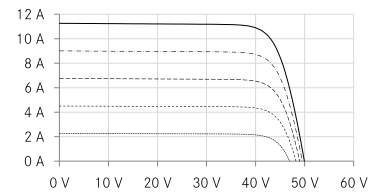


Drilled holes⁴

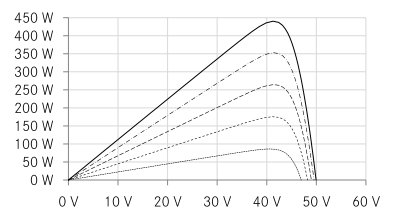
- A: 4 x drainage
- B: 16 x ventilation
- C: 8 x mounting
- D: 2 x earthing

Electrical characteristics

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



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



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



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.htm

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