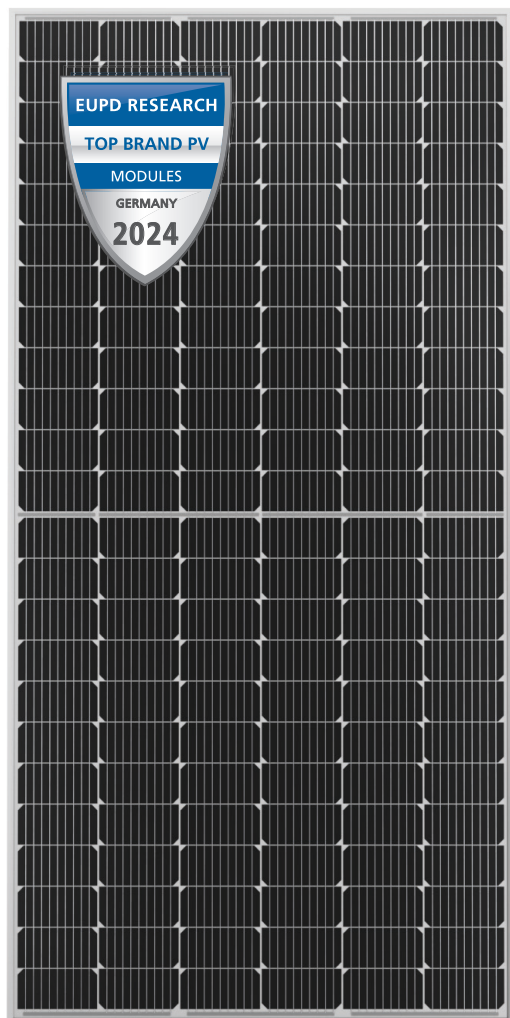




LUXOR

solar module manufacturer



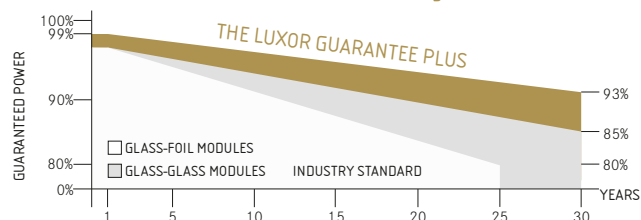
- + POWERFUL HETEROJUNCTION CELLS
- + DOUBLE GLASS: HIGHER MECHANICAL STABILITY AND FIRE SAFETY
- + BIFACIAL: DOUBLE-SIDED POWER GENERATION FOR MORE YIELD
- + REDUCTION OF BALANCE-OF-SYSTEM-COSTS THROUGH HIGHER PERFORMANCE PER MODULE
- + ESPECIALLY ECONOMIC FOR COMMERCIAL SYSTEMS



product guarantee¹



linear performance guarantee¹



ECO LINE HJT GLASS-GLASS HC BIFACIAL

M144 / 460-480 W

MONOCRYSTALLINE HJT MODULE FAMILY. WHITE MESH



Longlife tested



Power proofed



Safety provided



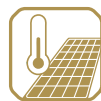
Selection of components



Back glass



Performance surplus of 0 Wp to 6.49 Wp



Higher heat dispensing



PID free
LID free



German warrantor

ECO LINE HJT GLASS-GLASS HC BIFACIAL

M144 / 460-480 W, WHITE MESH

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

Electrical data at STC

Rated power Pmpp [Wp]	460.00	465.00	470.00	475.00	480.00
Pmpp range to	466.49	471.49	476.49	481.49	486.49
Rated current Impp [A]	10.14	10.21	10.28	10.35	10.42
Rated voltage Vmpp [V]	45.37	45.55	45.73	45.92	46.10
Short-circuit current Isc [A]	10.79	10.86	10.94	11.01	11.09
Open-circuit voltage Uoc [V]	53.38	53.59	53.81	54.02	54.24
Efficiency at STC up to	21.46%	21.69%	21.92%	22.15%	22.38%
Efficiency at 200 W/m ²	20.95%	21.18%	21.41%	21.65%	21.88%

Electrical data at NOCT

Power at Pmpp [Wp]	349.01	352.80	356.60	360.39	364.19
Rated current Impp [A]	8.14	8.20	8.25	8.31	8.36
Rated voltage Vmpp [V]	42.88	43.05	43.21	43.38	43.54
Short-circuit current Isc [A]	8.66	8.72	8.78	8.84	8.90
Open-circuit voltage Uoc [V]	49.27	49.48	49.69	49.91	50.13

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. 460Wp)

Backside power gain [Wp]	5%	10%	15%	20%	25%
Rated power Pmpp [Wp]	483.00	506.00	529.00	552.00	575.00
Rated current Impp [A]	10.65	11.16	11.67	12.17	12.68
Rated voltage Vmpp [V]	45.37	45.37	45.37	45.37	45.37
Short-circuit current Isc [A]	11.33	11.87	12.41	12.95	13.49
Open-circuit voltage Uoc [V]	53.38	53.38	53.38	53.39	53.39

*depending on the reflection of the underlying surface

Limiting values

Max. system voltage max. return current	1500 V 25 A
Safety class Fire safety class	II A (according to IEC 61730)
Operating Temperature	-40 bis 85°C
Max. tested pressure load-/tensile ²	5400 Pa / 2400 Pa

Temperature coefficient

Temperature coefficient [U] [I] [P]	-0.26% /°C 0.04% /°C -0.24% /°C
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Specifications

Number of cells (matrix)	144 (6 x 24) 166 mm x 83 mm
Module dimensions (L x W x H) ³ Weight	2094 mm x 1038 mm x 30 mm 29 kg
Bifaciality factory ³	Up to 83%
Front-side	2 mm tempered, highly transparent, anti-reflection solar glass
Back-side	2 mm tempered, highly transparent, white mesh print
Frame	stable, anodised aluminium frame
Embedding material	EVA/POE
Junction Box	At least IP67
Cable	Symmetrical cable lengths > 1.3 m and 1.3 m. 4 mm ² solar cable
Connectors Diodes	MC4 or equivalent with IP67 3 Schottky Diodes
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/downloads.html

2 Horizontal mounted, for details please check mounting instruction

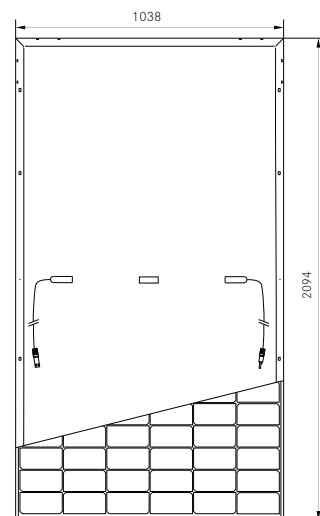
3 Tolerance L/W = +/- 3 mm. H +/- 2mm. the dimensions given in the order confirmation will be decisive

4 Location and dimensios of holes on request

5 Bifaciality degree: 80% +/- 3%

Luxor. your specialised company

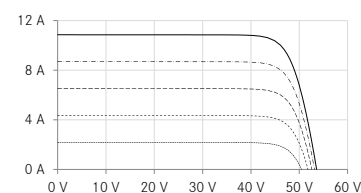
Back - / Frontview³



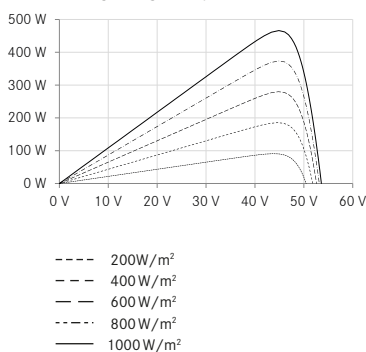
Drilled holes⁴ A: 4 x drainage
 B: 8 x ventilation
 C: 2 x earthing

Electrical characteristics

UI-diagram e.g. 460Wp



UP-diagram e.g. 460Wp



Legend for irradiance levels:

--- 200 W/m²

--- 400 W/m²

--- 600 W/m²

--- 800 W/m²

--- 1000 W/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/downloads.html