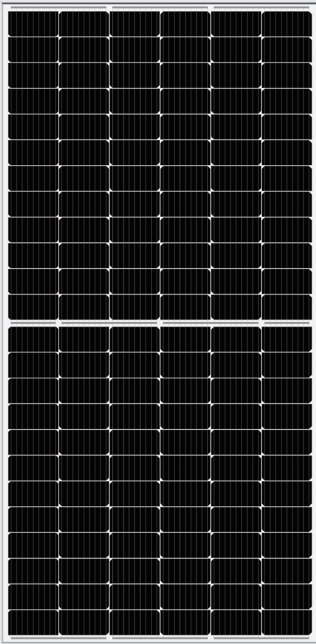


# YLM 144 CELL

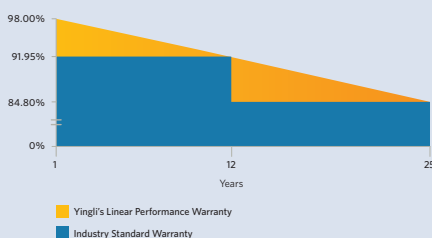


**22.3%**  
CELL EFFICIENCY

**12 YEAR**  
PRODUCT WARRANTY

**0-5W**  
POWER TOLERANCE

## 25 Years Linear Warranty



## IMPROVED POWER NEVER SETTLE FOR LESS

YLM series product, using multi-busbar design, reduced the cells silver paste consumption, improved cells efficiency, achieved the higher modules power output.



### Higher Durability

The multi-busbar design can decrease the risk of the cell micro-cracks and fingers broken.



### High Power Density

High conversion efficiency and more power output per square meter, by lower series resistance and improved light harvesting.



### Half-cell Design

Less energy loss caused by shading due to new cell string layout and split J-box, and lower cell connection power loss due to half-cell design.



### Advanced Glass

Our high-transmission glass features a unique anti-reflective coating that directs more light on the solar cells, resulting in a higher energy yield.

### Yingli Solar

Yingli Energy (China) Company Limited, known as "Yingli Solar", is one of the world's leading solar panel manufacturers with the mission to provide affordable green energy for all. Yingli Solar makes solar power possible for communities everywhere by using our global manufacturing and logistics expertise to address unique local challenges.

# YLM 144 CELL

## ELECTRICAL PERFORMANCE

### Electrical parameters at Standard Test Conditions (STC)

Module type	YLxxxD-40d 1/2 (xxx=Pmax) YLxxxD-40d 1500V 1/2 (xxx=Pmax)					
Power output	$P_{max}$	W	435	440	445	450
Power output tolerances	$\Delta P_{max}$	W	0/+5			
Module efficiency	$\eta_m$	%	20.01	20.24	20.47	20.70
Voltage at $P_{max}$	$V_{mpp}$	V	40.75	40.95	41.15	41.35
Current at $P_{max}$	$I_{mpp}$	A	10.68	10.75	10.82	10.89
Open-circuit voltage	$V_{oc}$	V	49.30	49.50	49.70	49.90
Short-circuit current	$I_{sc}$	A	11.26	11.33	11.40	11.47

STC: 1000W/m<sup>2</sup> irradiance, 25°C module temperature, AM1.5g spectrum according to EN 60904-3.  
Average relative efficiency reduction of 3.3% at 200W/m<sup>2</sup> according to EN 60904-1.

### Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	$P_{max}$	W	322.2	326.0	329.7	333.4
Voltage at $P_{max}$	$V_{mpp}$	V	37.7	37.9	38.1	38.3
Current at $P_{max}$	$I_{mpp}$	A	8.54	8.60	8.66	8.71
Open-circuit voltage	$V_{oc}$	V	46.0	46.2	46.3	46.5
Short-circuit current	$I_{sc}$	A	9.12	9.17	9.23	9.29

NOCT: open-circuit module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C ambient temperature, 1m/s wind speed.

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of $P_{max}$	$\gamma$	%/°C	-0.37
Temperature coefficient of $V_{oc}$	$\beta_{Voc}$	%/°C	-0.29
Temperature coefficient of $I_{sc}$	$\alpha_{Isc}$	%/°C	0.06

## OPERATING CONDITIONS

Max. system voltage	1000V <sub>DC</sub> or 1500V <sub>DC</sub>
Max. series fuse rating	20A
Operating temperature range	-40°C to 85°C
Max. static load, front (e.g., snow)	5400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

\*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION

## CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / material)	144 / monocrystalline silicon
Frame (material)	anodized aluminum alloy
Junction box (protection degree)	≥ IP67
Cable (length / cross-sectional area)	400(300)mm / 4mm <sup>2</sup>

- Due to continuous innovation, research and product improvement, the specifications in this product information sheet are subject to change without prior notice. The specifications may deviate slightly and are not guaranteed.
- The data do not refer to a single module and they are not part of the offer, they only serve for comparison to different module types.

## QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE, ISO 9001:2015, ISO 14001:2004, BS OHSAS 18001:2007



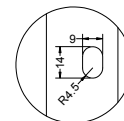
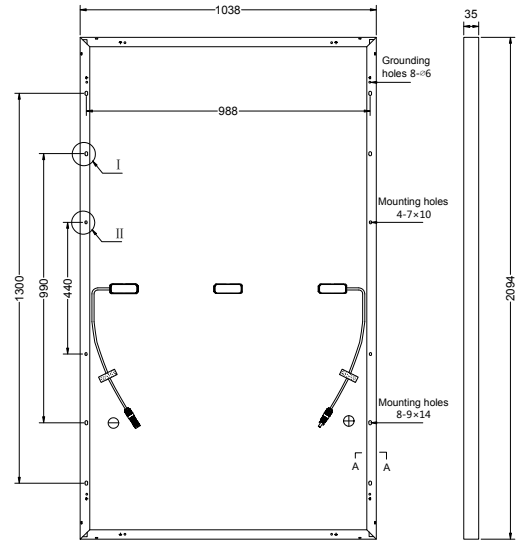
## GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2094mm / 1038mm / 35mm
Weight	23.5kg

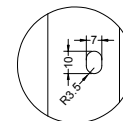
## PACKAGING SPECIFICATIONS

Number of modules per pallet	31
Number of pallets per 40' container	22
Packaging box dimensions (L / W / H)	2115mm / 1110mm / 1190mm
Box weight	769 kg

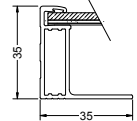
Unit: mm



DETAIL I



DETAIL II



SECTION A-A



**Warning:** Read the Installation and User Manual in its entirety before handling, installing and operating Yingli Solar modules.

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