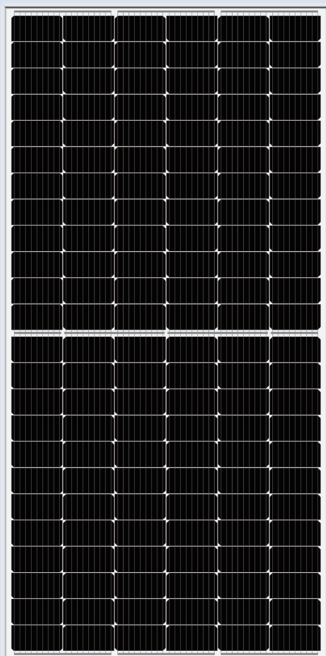


# YLM 144 CELL (M10)



## Up to 21.1%

MODULE EFFICIENCY

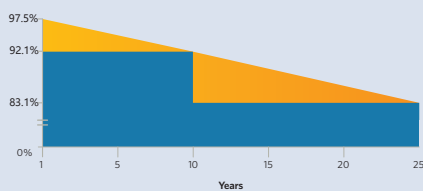
## 12 YEAR

PRODUCT WARRANTY

## 0 to +5W

POWER TOLERANCE

## 25 Years Linear Warranty



Yingli's Linear Performance Warranty

Industry Standard Warranty

# IMPROVED POWER NEVER SETTLE FOR LESS

With over two decades of manufacturing experience and millions of PV systems installed worldwide you can trust that our product quality and long term reliability have been proven in the field.



### Higher Durability

The multi-busbar design can decrease the risk of cell micro-cracks by improving long-term mechanical performance



### 144 Cell Design

With double the standard amount of cells, we have increased the performance of the module. Each cell operates cooler as they now carry just half the amount of current in the same conditions. This design effectively deals with shadow and improves performance by reducing degradation.



### Better Heat Dissipation

When part of the module is shaded, the bypass diodes are activated so the modules can continue to produce power. This module uses three junction boxes instead of one which improves the heat dissipation.



### Bigger Cells with better performance

Using the next generation size of cells has boosted the power of the modules meaning more watts per installed panel and more time saved during installation.

### Yingli Green Energy

Founded in 1987, Yingli Green Energy Holding Company Limited, known as "Yingli Solar", is one of the world's oldest 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 (M10)

## ELECTRICAL PERFORMANCE

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

Module type	YLxxxD-49e 1500V 1/2 (xxx=Pmax)						
Power output	$P_{max}$	W	525	530	535	540	545
Power output tolerances	$\Delta P_{max}$	W	0/+5				
Module efficiency	$\eta_m$	%	20.5	20.7	20.9	21.1	21.3
Voltage at $P_{max}$	$V_{mpp}$	V	41.25	41.40	41.55	41.70	41.85
Current at $P_{max}$	$I_{mpp}$	A	12.73	12.81	12.88	12.95	13.03
Open-circuit voltage	$V_{oc}$	V	49.07	49.22	49.37	49.52	49.67
Short-circuit current	$I_{sc}$	A	13.62	13.69	13.76	13.83	13.90

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.  
Measurement tolerance of  $P_{max}$ ,  $V_{oc}$  and  $I_{sc}$  is  $\pm 3\%$ .

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

Power output	$P_{max}$	W	390.6	394.3	398.0	401.8	405.5
Voltage at $P_{max}$	$V_{mpp}$	V	38.4	38.5	38.6	38.8	38.9
Current at $P_{max}$	$I_{mpp}$	A	10.18	10.25	10.30	10.36	10.42
Open-circuit voltage	$V_{oc}$	V	46.0	46.1	46.2	46.4	46.5
Short-circuit current	$I_{sc}$	A	11.00	11.06	11.12	11.17	11.23

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	-0.35
Temperature coefficient of $V_{oc}$	$\beta_{Voc}$	%/°C	-0.27
Temperature coefficient of $I_{sc}$	$\alpha_{Isc}$	%/°C	0.05

## OPERATING CONDITIONS

Max. system voltage	1500V <sub>DC</sub>
Max. series fuse rating	25A
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)	anti-reflection coated, high transmission tempered glass / 3.2mm
Cell (quantity / material)	144 / monocrystalline silicon multi busbar
Frame (material)	anodized aluminum alloy
Junction box (protection degree)	≥ IP67
Cable (length / cross-sectional area)	300 mm / 4mm <sup>2</sup>
Plug Connector (type)	Renhe RH05-8 or Yitong YT18-01 or Staubli MC4-Evo2

- 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 does not refer to a single module and it is not part of the offer, it only serves to enable comparisons between different module types.

## QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE, CQC, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007

Certificates are held by Yingli Energy (China) Co., Ltd., a wholly owned subsidiary of Yingli Green Energy Holding Co., Ltd.



Proudly made in China

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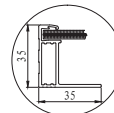
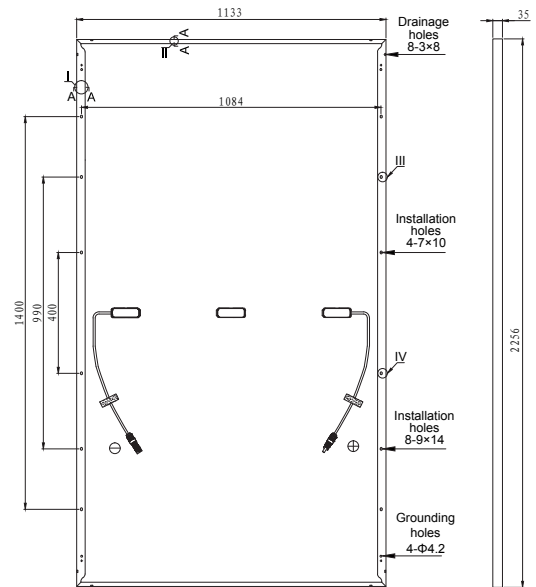
## GENERAL CHARACTERISTICS

Dimensions (L x W x H)	2256 x 1133 x 35mm
Weight	27.2kg
Fire Class Rating (UL790)	Class C

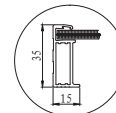
## PACKAGING SPECIFICATIONS

Number of modules per pallet	31
Number of pallets per 40' container	20
Packaging box dimensions (L x W x H)	2270 x 1110 x 1245mm
Box weight	893kg

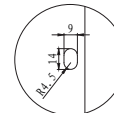
Unit: mm



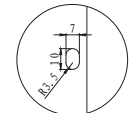
SECTION A-A I



SECTION A-A II



Enlarge figure III



Enlarge figure IV



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

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