# YLM 60 CELL



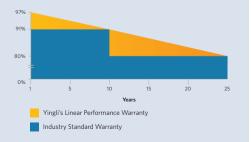


21.6% CELL EFFICIENCY

**10 YEAR** PRODUCT WARRANTY

**O-5W** POWER TOLERANCE

# 25 Years Linear Warranty



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# IMPROVED POWER NEVER SETTLE FOR LESS

Choosing the best P-type monocrystalline cells, YLM series modules are making the best out of your system. Trust in the expertise of Yingli and well proven technology.

#### 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.

# PID Resistant

Tested in accordance to the standard IEC 62804, our PV modules have demonstrated resistance against PID (Potential Induced Degradation), which translates to security for your investment.

#### 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 Green Energy

Yingli Green Energy Holding 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 60 CELL

### ELECTRICAL PERFORMANCE

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

Module type			YLxxxD-30b (xxx=P <sub>max</sub> ) YLxxxD-30b 1500V (xxx=Pmax)							
Power output	P <sub>max</sub>	W	325	320	315	310	305	300	290	285
Power output tolerances	$\Delta P_{max}$	W	0/+5							
Module efficiency	η"	%	19.8	19.5	19.2	18.9	18.6	18.3	17.7	17.4
Voltage at P <sub>max</sub>	V <sub>mpp</sub>	V	33.6	33.5	33.3	33.1	32.9	32.7	32.3	32.1
Current at P <sub>max</sub>	I <sub>mpp</sub>	А	9.68	9.58	9.48	9.38	9.28	9.18	8.98	8.88
Open-circuit voltage	V <sub>oc</sub>	V	40.1	39.9	39.7	39.5	39.3	39.1	38.7	38.5
Short-circuit current	I <sub>sc</sub>	А	10.18	10.08	9.98	9.88	9.78	9.68	9.48	9.38

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. Average relative efficiency reduction of 3.0% at 200W/m<sup>2</sup> according to EN 60904-1.

Electrical parameters at Nominal Operating Cell Temperature (NOCT)										
Power output	P <sub>max</sub>	W	239.7	236.0	232.3	228.7	225.0	221.3	213.9	210.2
Voltage at P <sub>max</sub>	V <sub>mpp</sub>	V	31.0	30.8	30.6	30.5	30.3	30.1	29.8	29.6
Current at P <sub>max</sub>	I	А	7.74	7.66	7.58	7.50	7.42	7.34	7.18	7.10
Open-circuit voltage	V <sub>oc</sub>	V	37.3	37.1	36.9	36.8	36.6	36.4	36.0	35.8
Short-circuit current	I <sub>sc</sub>	А	8.24	8.16	8.08	8.00	7.92	7.84	7.68	7.59
NOCT: open-circuit module operation temperature at 800W/m² irradiance, 20°C ambient temperature, 1m/s wind speed.										

#### THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 +/- 2
Temperature coefficient of $P_{max}$	Y	%/°C	-0.39
Temperature coefficient of $V_{\rm oc}$	$\beta_{Voc}$	%/°C	-0.30
Temperature coefficient of I <sub>sc</sub>	α <sub>lsc</sub>	%/°C	0.06

#### **OPERATING CONDITIONS**

Max. system voltage	1000V <sub>DC</sub> /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 /number of busbars)	60 / monocrystalline silicon / 12 or 5			
Frame (material )	anodized aluminum alloy			
Junction box (protection degree)	≥ IP67			
Cable (length / cross-sectional area)	1000mm / 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 14001:2015, BS OHSAS 18001:2007, SA 8000





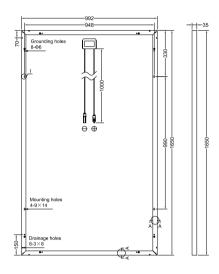
#### **GENERAL CHARACTERISTICS**

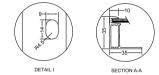
Dimensions (L / W / H)	1650mm / 992mm / 35mm			
Weight	18.5kg			

### PACKAGING SPECIFICATIONS

Number of modules per pallet	30
Number of pallets per 40' container	28
Packaging box dimensions (L / W / H)	1700mm / 1120mm / 1140mm
Box weight	588kg

#### Unit: mm





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

Yingli Partners:

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