

**YGE  
60 CELL  
SERIES 2  
MULTI-BUSBAR**

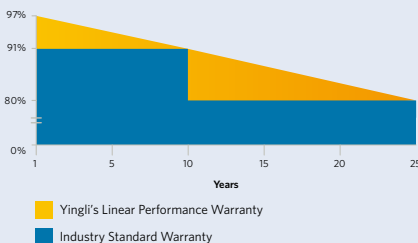


**19.6%**  
CELL EFFICIENCY

**10 YEAR**  
PRODUCT WARRANTY

**0-5W**  
POWER TOLERANCE

**25 Years Linear Warranty**



**IMPROVED POWER  
NEVER SETTLE FOR LESS**

YGE multi-busbar 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.



**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 (NYSE: YGE), 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.

# YGE 60 CELL SERIES 2 MULTI-BUSBAR

## ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)								
Module type			YLXXXP12B-29b (XXX=Pmax)					
Power output	$P_{max}$	W	295	290	285	280	275	270
Power output tolerances	$P_{max}$	W	0/+5					
Module efficiency	$\eta_m$	%	18.0	17.7	17.4	17.1	16.8	16.5
Voltage at $P_{max}$	$V_{mpp}$	V	32.0	31.7	31.5	31.3	31.0	30.8
Current at $P_{max}$	$I_{mpp}$	A	9.22	9.15	9.05	8.95	8.88	8.77
Open-circuit voltage	$V_{oc}$	V	38.5	38.4	38.2	38.0	37.8	37.7
Short-circuit current	$I_{sc}$	A	9.74	9.65	9.55	9.45	9.36	9.26

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

Electrical parameters at Nominal Operating Cell Temperature (NOCT)								
Power output	$P_{max}$	W	217.0	213.3	209.6	205.9	202.3	198.6
Voltage at $P_{max}$	$V_{mpp}$	V	29.4	29.1	29.0	28.8	28.5	28.3
Current at $P_{max}$	$I_{mpp}$	A	7.38	7.32	7.24	7.16	7.10	7.02
Open-circuit voltage	$V_{oc}$	V	35.8	35.7	35.5	35.3	35.1	35.0
Short-circuit current	$I_{sc}$	A	7.85	7.78	7.69	7.61	7.54	7.46

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	46 +/- 2
Temperature coefficient of $P_{max}$	$\gamma$	%/°C	-0.38
Temperature coefficient of $V_{oc}$	$\beta_{Voc}$	%/°C	-0.29
Temperature coefficient of $I_{sc}$	$\alpha_{Isc}$	%/°C	0.03

## OPERATING CONDITIONS

Max. system voltage	1000V <sub>DC</sub>
Max. series fuse rating	15A
Limiting reverse current	15A
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

## CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / material / dimensions / number of busbars)	60 / multicrystalline silicon / 156.75mm x 156.75mm (+/-0.25) / 12
Frame (material)	anodized aluminum alloy
Junction box (protection degree)	≥ IP67
Cable (length / cross-sectional area)	1000mm / 4mm <sup>2</sup>
Plug connector (type / protection degree)	MC4 / IP68 or YT08-1S / IP67 or Amphenol H4 / IP68 or Forsol SIKE4 / IP68 or Renhe RH05-6 / IP67

• 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 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA 8000



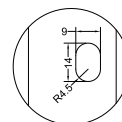
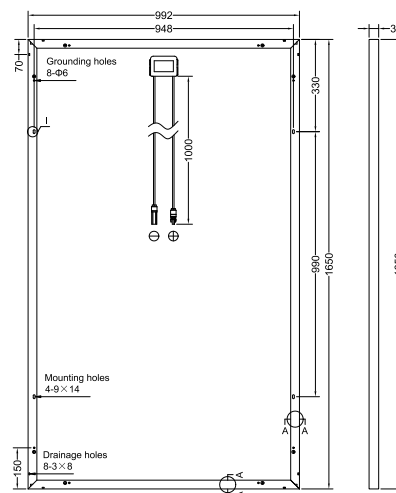
## GENERAL CHARACTERISTICS

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

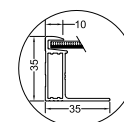
## PACKAGING SPECIFICATIONS

Number of modules per pallet	30
Number of pallets per 40' container	28
Packaging box dimensions (L / W / H)	1700mm / 1135mm / 1165mm
Box weight	588kg

Unit: mm



DETAIL I



SECTION A-A



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

Yingli Partners:



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