

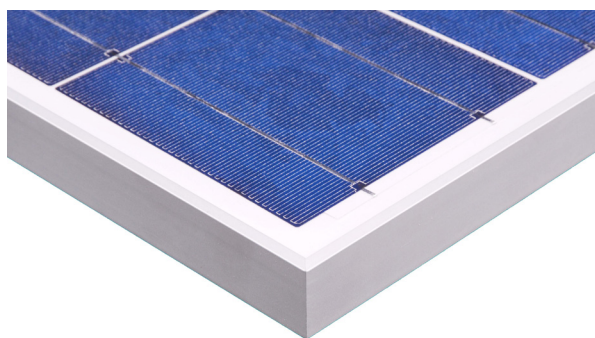
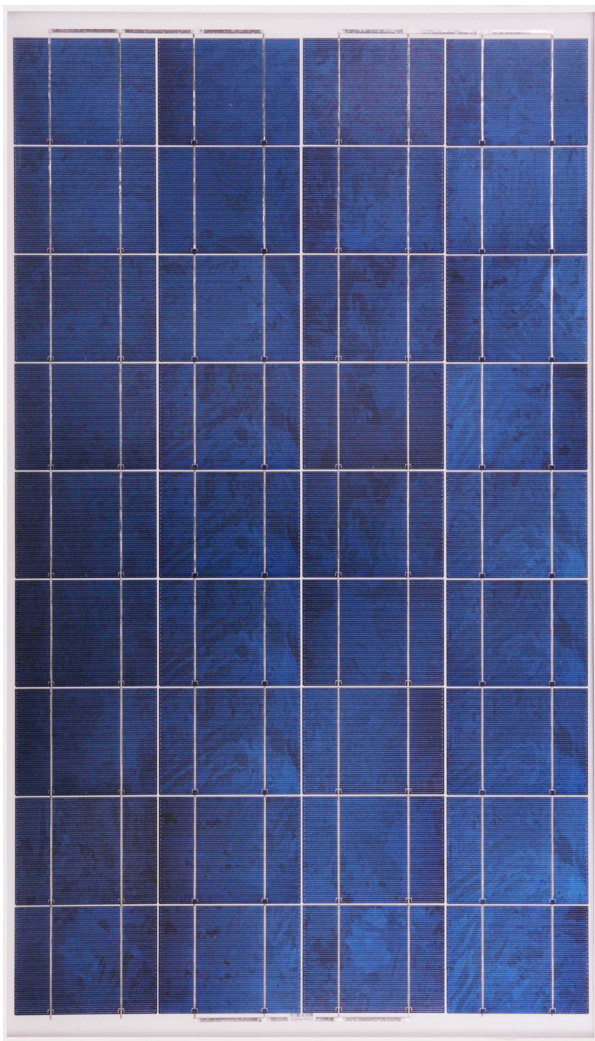
# YGE 110 SERIES

YL110P-17b 4/5

YL105P-17b 4/5

YL100P-17b 4/5

YL095P-17b 4/5



## ABOUT YINGLI GREEN ENERGY

- Yingli Green Energy Holding Company Limited (NYSE: YGE) is one of the world's largest fully vertically integrated PV manufacturers. With over 2 GW of modules installed globally, we are a leading solar energy company built upon proven product reliability and sustainable performance. We are the first renewable energy company and the first Chinese company to sponsor the FIFA World Cup™.

## PERFORMANCE

- High efficiency, polycrystalline solar cells with high transmission and textured glass delivering a module efficiency of up to 12.9%, minimizing installation costs and maximizing the kWh output of your system per unit area.
- Power tolerance of +/-3% minimizing PV system mismatch losses.

## QUALITY AND RELIABILITY

- Industry leading in-house manufacturing of polysilicon, ingots, wafers, cells and modules ensures tight control of our material and production quality.
- Robust, corrosion resistant aluminum frame independently tested to withstand wind loads of 2.4 kPa and snow loads of 5.4 kPa ensuring a stable mechanical life for your modules.
- Module packaging optimized to protect product during transportation and minimize on-site waste.
- This type of module is commonly used for the small off-grid system.
- Manufacturing facility certified by TÜV Rheinland to ISO 9001:2008, ISO 14001:2004 and BS OHSAS 18001:2007.

## QUALIFICATIONS AND CERTIFICATES

IEC 61215, IEC 61730, UL 1703 and ULC 1703, UL Fire Safety Class C, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA 8000, PV Cycle



# YGE 110 SERIES

## ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)

Module name			YGE 110	YGE 105	YGE 100	YGE 95
Module type			YL110P-17b 4/5	YL105P-17b 4/5	YL100P-17b 4/5	YL095P-17b 4/5
Power output	$P_{max}$	W	110	105	100	95
Power output tolerances	$\Delta P_{max}$	%	+/- 3			
Module efficiency	$\eta_m$	%	14.2	13.6	12.9	12.3
Voltage at $P_{max}$	$V_{mpp}$	V	17.5	17.0	17.0	17.0
Current at $P_{max}$	$I_{mpp}$	A	6.30	6.18	5.88	5.59
Open-circuit voltage	$V_{oc}$	V	22.0	22.0	21.5	21.0
Short-circuit current	$I_{sc}$	A	6.70	6.63	6.55	6.37

STC: 1000W/m<sup>2</sup> irradiance, 25°C T<sub>module</sub>, AM 1.5g spectrum according to EN 60904-3.  
Ave. efficiency reduction of 5% at 200W/m<sup>2</sup> according to EN 60904-1.

Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	$P_{max}$	W	79.9	76.3	72.6	69.0
Voltage at $P_{max}$	$V_{mpp}$	V	15.9	15.5	15.5	15.5
Current at $P_{max}$	$I_{mpp}$	A	5.02	4.92	4.68	4.45
Open-circuit voltage	$V_{oc}$	V	20.1	20.1	19.2	19.2
Short-circuit current	$I_{sc}$	A	5.67	5.37	5.31	5.16

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

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of $P_{max}$	$\gamma$	%/°C	-0.45
Temperature coefficient of $V_{oc}$	$\beta_{Voc}$	%/°C	-0.37
Temperature coefficient of $I_{sc}$	$\alpha_{Isc}$	%/°C	0.06

## OPERATING CONDITIONS

Max. system voltage	50V <sub>DC</sub>
Max. series fuse rating	10A
Limiting reverse current	Do not apply external voltages larger than V <sub>oc</sub> of the module
Operating temperature range	-40 to 85°C
Max. static load, front (e.g., snow and wind)	2400Pa
Max. static load, back (e.g., wind)	2400Pa
Hailstone impact (hailstone diameter / impact velocity)	25mm / 23m/s

## CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / type / dimensions)	36 / multicrystalline / 124.8mm x 156mm
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material / color / anodization color)	anodized aluminum alloy / silver / clear

- 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.

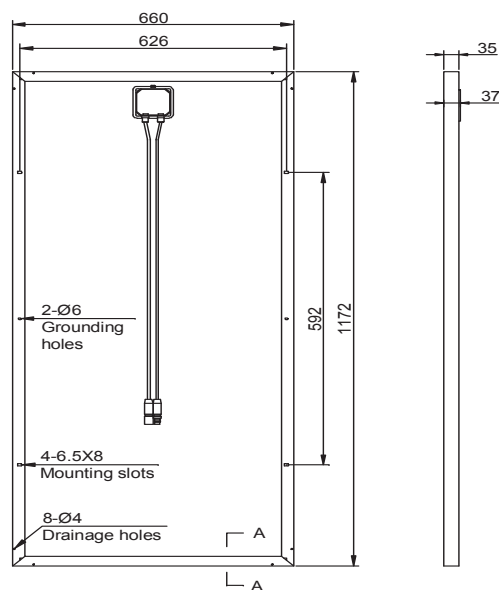
## GENERAL CHARACTERISTICS

Dimensions (length / width / height)	1172mm / 660mm / 35mm
Weight	8.3kg

## PACKAGING SPECIFICATIONS

Number of modules per box	4
Packaging box dimensions (length / width / height)	1040mm / 690mm / 200mm

Unit: mm



Warning: Read the installation manual in its entirety before handling, installing, and operating Yingli Solar module.

Our Partners:

Yingli Green Energy Holding Co. Ltd.

service@yinglisolar.com

0086-312-8929802

YINGLISOLAR.COM

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