



U.S. Soccer Powered by Yingli Solar





Yingli Green Energy (NYSE:YGE) is one of the world's largest fully vertically integrated PV manufacturers. With over 3.6 GW of modules installed globally, we are a leading solar energy company built upon proven product reliability and sustainable performance. Founded in 1998, Yingli Green Energy serves customers through our U.S. subsidiary, Yingli Americas, co-headquartered in New York and San Francisco. We are the first renewable energy company to sponsor the U.S. National Soccer teams and the FIFA World Cup™.

PERFORMANCE

- Industry leading in-house manufacturing of polysilicon, ingots, wafers, cells and modules ensures tight control of our material and production quality.
- High performance, multicrystalline solar cells deliver a module series efficiency of up to 15.0%, reducing installation costs and maximizing the kWh output per unit area.
- Tight positive power tolerance of -0W to +5W ensures modules are delivered at or above rated power, improving system performance through the reduction of module mismatch loss.

QUALITY & RELIABILITY

- Robust, corrosion resistant aluminum frame independently tested to withstand wind and snow loads of up to 50 psf and 113 psf, respectively, ensuring mechanical stability.
- Manufacturing facility certified to ISO9001 Quality Management System standards.
- Module packaging optimized to protect product during transportation and minimize on-site waste.

WARRANTIES

- Leading limited power warranty* ensures 91.2% of rated power for 10 years, and 80.7% of rated power for 25 years.
- 10-year limited product warranty.
- *In compliance with our warranty terms and conditions.

QUALIFICATIONS & CERTIFICATES

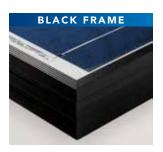
UL 1703 and ULC 1703, UL Fire Safety Class C, CEC, FSEC, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA8000











YGE 245 SERIES

ELECTRICAL PERFORMANCE

Electrical parameters at Sta	nuaru lest C	onaitic	ons (STC)			
Module name			YGE 245	YGE 240	YGE 235	YGE 230
Module type			YL245P-29b	YL240P-29b	YL235P-29b	YL230P-29b
Power output	P _{max}	W	245	240	235	230
Power output tolerances	ΔP _{max}	W	-0/+5			
Module efficiency	ηm	%	15.0	14.7	14.4	14.1
Voltage at P _{max}	V _{mpp}	٧	30.2	29.5	29.5	29.5
Current at P _{max}	Impp	Α	8.11	8.14	7.97	7.80
Open-circuit voltage	Voc	٧	37.8	37.5	37.0	37.0
Short-circuit current	Isc	Α	8.63	8.65	8.54	8.40

STC: $1000W/m^2$ irradiance, $25^{\circ}C$ module temperature, AM 1.5g spectrum according to EN 60904-3 Relative efficiency reduction of 5.0% at $200W/m^2$ according to EN 60904-1

Electrical parameters at Nominal Operating Cell Temperature (NOCT)						
Power output	P _{max}	W	177.9	170.7	167.0	163.4
Voltage at P _{max}	V _{mpp}	٧	27.2	26.6	26.6	26.6
Current at P _{max}	Impp	Α	6.54	6.42	6.29	6.15
Open-circuit voltage	Voc	٧	34.5	33.8	33.8	33.3
Short-circuit current	Isc	Α	6.99	6.92	6.81	6.71

NOCT: open-circuit operating cell temperature at 800W/m² irradiance, 20°C ambient temperature, 1 m/s wind speed

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of P_{max}	γ	%/°C	-0.45
Temperature coefficient of V _{oc}	β _{Voc}	%/°C	-0.33
Temperature coefficient of Isc	αlsc	%/°C	0.06
Temperature coefficient of V _{mpp}	β _{Vmpp}	%/°C	-0.45

OPERATING CONDITIONS

Max. system voltage	600Vpc
Max. series fuse rating	15A
Limiting reverse current	15A
Operating temperature range	-40 to 194°F (-40 to 90°C)
Max. static load, front (e.g., snow and wind)	113 psf (5400 Pa)
Max. static load, back (e.g., wind)	50 psf (2400 Pa)
Hailstone impact	1 in (25 mm) at 51 mph (23 m/s)

CONSTRUCTION MATERIALS

Front cover (material/type/thickness)	Low-iron glass / tempered / 3.2 mm		
Cell (quantity/material/type/dimensions/area)	60 / polysilicon / multicrystalline / 156 mm x 156 mm / 243.3 cm²		
Encapsulant (material)	Ethylene vinyl acetate (EVA)		
Frame (material/color)	Aluminum alloy / anodized silver or black		
Junction box (protection degree)	IP65		
Cable (type/length/gauge/outside diameter)	PV Wire / 43.31 in (1100 mm) / 12 AWG / 0.244 in (6.2 mm)		
Plug connector (manufacturer/type/protection degree)	Amphenol / H4 / IP68		

The specifications in this datasheet are not guaranteed and are subject to change without prior notice. This datasheet complies with EN 50380:2003 requirements.

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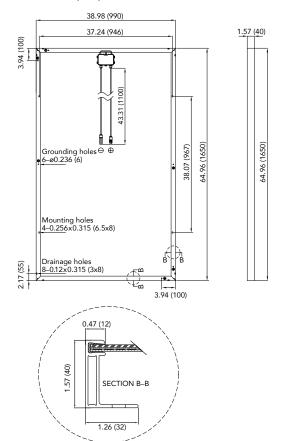
GENERAL CHARACTERISTICS

Dimensions (L/W/H)	64.96 in (1650 mm) / 38.98 in (990 mm) / 1.57 in (40 mm)
Weight	42.1 lbs (19.1 kg)

PACKAGING SPECIFICATIONS

Number of modules per pallet	26
Number of pallets per 53' container	36
Packaging box dimensions (L/W/H)	67 in (1700 mm) / 45 in (1150 mm) / 47 in (1190 mm)
Box weight	1177 lbs (534 kg)

Units: inch (mm)





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





