

YGE-Z 60 CELL SERIES

- YL250P-29b **NEW!**
- YL245P-29b
- YL240P-29b
- YL235P-29b
- YL230P-29b



U.S. Soccer Powered by Yingli Solar

YINGLI SOLAR Z SERIES Ideal for residential and commercial applications where cost savings, installation time, and aesthetics matter most.

Best Choice for INSTALLERS

- ▶ Lower balance-of-system costs with Zep Compatible™ frame.
- ▶ Reduce on-roof labor costs by more than 25%.
- ▶ Leverage the built-in grounding system – if it's mounted, it's grounded.
- ▶ Lower your parts count – eliminate rails, screws, mounting clips, and grounding hardware.
- ▶ Design and permit projects easily with access to layout calculator and stamped drawings.

Best Choice for HOMEOWNERS

- ▶ Lower installation costs with savings across equipment and labor.
- ▶ Minimize roof penetrations while maintaining the system's structural integrity.
- ▶ Invest in an attractive solar array that includes a black frame, low mounting profile, and aesthetic array skirt.
- ▶ Increase energy output with flexible module layouts (portrait or landscape).
- ▶ Trust in the reliability and theft-resistance of the Zep Compatible™ system.



AC SOLUTION OPTION

The YGE-Z Series is now available as an *Enphase Energized™* AC Solution. This solution delivers optimum performance and integrated intelligence.

The Enphase M215-Z Zep Compatible Microinverter is designed to connect directly into the Z Series module groove, eliminating the need for tools or fasteners – all with one easy step.



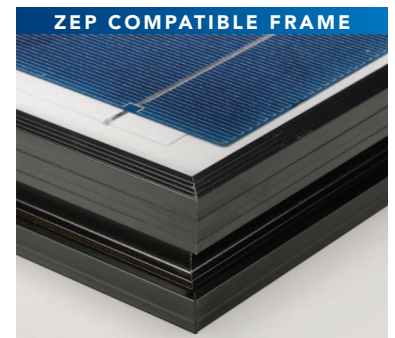
Intelligent real-time monitoring at the system and module level with Enlighten.

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, CEC, FSEC, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA8000



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ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)

Module type			YL250P-29b	YL245P-29b	YL240P-29b	YL235P-29b	YL230P-29b
Power output	P_{max}	W	250	245	240	235	230
Power output tolerances	ΔP_{max}	W	-0/+5				
Module efficiency	η_m	%	15.3	15.0	14.7	14.4	14.1
Voltage at P_{max}	V_{mpp}	V	30.4	30.2	29.5	29.5	29.5
Current at P_{max}	I_{mpp}	A	8.24	8.11	8.14	7.97	7.80
Open-circuit voltage	V_{oc}	V	38.4	37.8	37.5	37.0	37.0
Short-circuit current	I_{sc}	A	8.79	8.63	8.65	8.54	8.40

STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3
Average relative efficiency reduction of 5.0% at 200W/m² according to EN 60904-1

Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	P_{max}	W	181.1	177.9	174.3	170.7	167.0
Voltage at P_{max}	V_{mpp}	V	27.6	27.2	26.6	26.6	26.6
Current at P_{max}	I_{mpp}	A	6.56	6.54	6.56	6.42	6.29
Open-circuit voltage	V_{oc}	V	35.4	34.5	34.2	33.8	33.8
Short-circuit current	I_{sc}	A	7.12	6.99	7.01	6.92	6.81

NOCT: open-circuit module operation 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 I_{sc}	α_{Isc}	%/°C	0.06
Temperature coefficient of V_{mpp}	β_{Vmpp}	%/°C	-0.45

OPERATING CONDITIONS

Max. system voltage	600V _{dc}
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)	50 psf (2400 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 Glass may have anti-reflective coating
Cell (quantity/material/type/dimensions/area/# of busbars)	60 / polysilicon / multicrystalline / 156 mm x 156 mm / 243.3 cm ² / 2 or 3
Encapsulant (material)	Ethylene vinyl acetate (EVA)
Frame (material/color)	Anodized aluminum alloy / 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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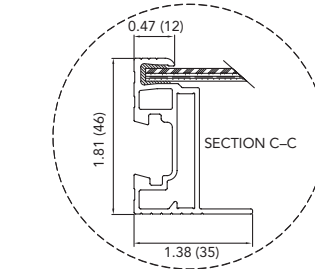
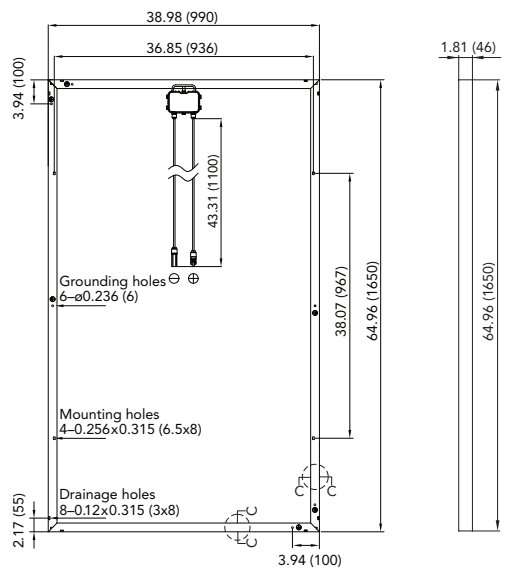
GENERAL CHARACTERISTICS

Dimensions (L/W/H)	64.96 in (1650 mm) / 38.98 in (990 mm) / 1.81 in (46 mm)
Weight	45.2 lbs (20.5 kg)

PACKAGING SPECIFICATIONS

Number of modules per pallet	22
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	1076 lbs (488 kg)

Units: inch (mm)



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



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