

# PROVEN PERFORMANCE IN LARGE-SCALE APPLICATIONS

The YGE-U Series is designed to deliver superior energy yields in large-scale applications. Fully compatible with the latest fixed tilt and tracking systems, our large-format module helps maximize PV power plant performance.

16.0%
MAXIMUM EFFICIENCY

25 YEAR

LINEAR POWER WARRANTY

0-3%
POWER TOLERANCE



YL290P-35b

#### Trusted Partner

As one of the world's largest solar PV manufacturers, Yingli has a proven track record of bankability with major financial institutions and energy companies. Yingli offers industry-leading performance guarantees to backstop project production requirements.



### More Energy per Watt

Yingli modules deliver superior power output in a variety of temperature and irradiance conditions, and self-cleaning anti-reflective coated glass reduces soiling to help maximize power output. Performance is backed by our 25-year linear warranty.



### Designed to Outlast

Tested to the industry's most rigorous durability standards, Yingli modules are PID-resistant in conformance with IEC 62804 (draft). To ensure reliable performance, Yingli uses quality components such as DuPont™ Tedlar® PVF film-based backsheets.



### Best-In-Class Technical Support

Yingli's highly trained, locally-based engineering team evaluates project-specific technical requests and works closely with balance-of-systems vendors to reduce system costs. With Yingli's PV Testing Lab in California as a resource, we offer value-added after-sales services such as in-house testing, commissioning, and field-testing support.

### Warranty Information

Ten-year limited product warranty. Industry leading 25-year performance warranty adds value by guaranteeing power output on an annual basis, in compliance with our warranty terms and conditions.

### Performance Modeling

For those interested in obtaining module performance modeling files for system energy yield simulation, please contact Yingli at simulation@yingliamericas.com.

### Qualifications & Certificates

UL 1703 and UL 1703, CEC, FSEC, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, SA8000





## YGE-U72 CELL SERIES

### **ELECTRICAL PERFORMANCE**

| Electrical parameters at Standard Test Conditions (STC) |                   |   |            |            |            |            |            |
|---|-------------------|---|------------|------------|------------|------------|------------|
| Module type   |                   |   | YL310P-35b | YL305P-35b | YL300P-35b | YL295P-35b | YL290P-35b |
| Power output  | P <sub>max</sub>  | w | 310        | 305        | 300        | 295        | 290        |
| Power output tolerances                                 | ΔP <sub>max</sub> | % | -0 / +3    |            |            |            |            |
| Module efficiency                                       | ηm                | % | 16.0       | 15.7       | 15.5       | 15.2       | 14.9       |
| Voltage at P <sub>max</sub>                             | V <sub>mpp</sub>  | v | 36.3       | 36.1       | 35.8       | 35.6       | 35.3       |
| Current at P <sub>max</sub>                             | Ітрр              | Α | 8.53       | 8.45       | 8.37       | 8.29       | 8.22       |
| Open-circuit voltage                                    | Voc               | V | 45.6       | 45.4       | 45.2       | 45.0       | 44.8       |
| Short-circuit current                                   | Isc               | Α | 8.99       | 8.93       | 8.86       | 8.79       | 8.73       |

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM 1.5G spectrum according to EN 60904-3

| Maximum power output P <sub>max</sub> at multiple rating conditions of temperature and irradiance |      |             |            |            |            |            |            |            |
|---|------|-------------|------------|------------|------------|------------|------------|------------|
|   |      | Temperature | Irradiance | YL310P-35b | YL305P-35b | YL300P-35b | YL295P-35b | YL290P-35b |
|   |      | °C          | W/m²       | w          | w          | w          | w          | w          |
| High Temperature Condition  | нтс  | 75          | 1000       | 242.9      | 239.0      | 235.1      | 231.2      | 227.3      |
| Nominal Operating Cell Temperature  | NOCT | 46          | 800        | 227.2      | 223.5      | 219.8      | 216.2      | 212.5      |
| Low Temperature Condition   | LTC  | 15          | 500        | 161.8      | 159.2      | 156.6      | 154.0      | 151.4      |
| Low Irradiance Condition  | LIC  | 25          | 200        | 60.0       | 59.0       | 58.1       | 57.1       | 56.1       |

### **OPERATING CONDITIONS**

| Max. system voltage                         | 1000Vpc                    |
|---|----------------------------|
| Max. series fuse rating                     | 15A                        |
| Limiting reverse current                    | 15A                        |
| Operating temperature range                 | -40 to 185°F (-40 to 85°C) |
| Max. hailstone impact (diameter / velocity) | 25mm / 23m/s               |

### THERMAL CHARACTERISTICS

| Temperature coefficient of P <sub>max</sub> | %/°C | -0.43 |
|---|------|-------|
| Temperature coefficient of $V_{\text{oc}}$  | %/°C | -0.32 |
| Temperature coefficient of Isc              | %/°C | 0.04  |
| Temperature coefficient of V <sub>mpp</sub> | %/°C | -0.42 |

### **CONSTRUCTION MATERIALS**

| Front cover (material / thickness)           | low-iron tempered glass / 4.0mm                  |  |  |
|--|--|--|--|
| Cell (quantity / material / dimensions)      | 72 / multicrystalline silicon /<br>156mm x 156mm |  |  |
| Encapsulant (material)                       | ethylene vinyl acetate (EVA)                     |  |  |
| Backsheet (material)                         | fluoropolymer-based with EVA primer              |  |  |
| Frame (material / color)                     | anodized aluminum / silver                       |  |  |
| Junction box (ingress protection rating)     | ≥IP65  |  |  |
| Cable (length / cross-sectional area)        | 1100mm / 4mm²                                    |  |  |
| Connector (type / ingress protection rating) | MC4 / IP67 or Amphenol H4 / IP68                 |  |  |

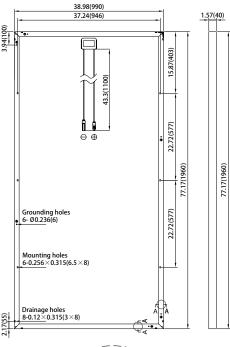
### GENERAL CHARACTERISTICS

| GENERAL CHARACTERISTICS              |  |  |
|--------------------------------------|--|--|
| Module dimensions (L / W / H)        | 77.17in (1960mm) / 38.98in (990mm) / 1.57in (40mm) |  |
| Module weight                        | 56.2lbs (25.5kg)                                   |  |
| Number of modules per pallet         | 26   |  |
| Number of pallets per 40' container  | 24   |  |
| Packaging box dimensions (L / W / H) | 78in (1995mm) / 45in (1145mm) / 46in (1170mm)      |  |
| Packaging box weight                 | 1559lbs (707kg)                                    |  |



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

### Units: inch (mm)







Tel: +1 (888) 686-8820

### YINGLISOLAR.COM NYSE:YGE

© Yingli Green Energy Holding Co. Ltd. | YGE-U72CellSeries2015\_EN\_20152\_V01

