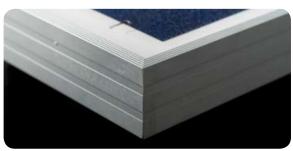


YL185 Pb-3/1335x990 SERIES

YL185 Pb-3 . YL180 Pb-3 . YL175 Pb-3 YL170 Pb-3 . YL165 Pb-3 . YL160 Pb-3







* In compliance with our Warranty Terms and Conditions

ABOUT YINGLI SOLAR

Yingli Solar is a vertically integrated manufacturer of solar photovoltaic modules. Under one roof we manufacture our ingots, wafers, cells and modules. This ensures that we can tightly control our material and production quality, offering our customers leading product durability and sustainable performance backed by our 25 year limited power warranty*.

PERFORMANCE

- >> High efficiency, polycrystalline solar cells with high transmission and textured glass delivering a module series efficiency of up to 14.0%, minimising installation costs and maximising the kWh output of your system per unit area.
- >> Power tolerance of +/-3% minimising PV system mismatch losses.

QUALITY & RELIABILITY

- » Robust, corrosion resistant aluminium frame independently tested to withstand wind loads of 2.4KPa ensuring a stable mechanical life for your modules.
- >> Take confidence in our modules with a 5 year limited product warranty and a 25 year limited power warranty*.
- >> Modules protected by box during transportation and with 18 modules in a box on-site waste is minimised.
- >> Modules independently tested to ensure conformance with certification and regulatory standards.
- >> Manufacturing facility certified to ISO9001 Quality Management System standards.

WARRANTIES

5-year limited product warranty* Limited power warranty*:10 years at 90% of the minimal rated power output, 25 years at 80% of the minimal rated power output

QUALIFICATIONS AND CERTIFICATES
150 9001

YL185 Pb-3/1335x990 SERIES

ELECTRICAL PARAMETERS

| | the second contract of the second contract of | | |
|-----------------------|---|--------------|--------------------------|
| Electrical narameters | at STC (1000 W/m ² | 25 °C AM 1 5 | according to FN 60904-3) |

| Module type | | YL185 Pb-3 | YL180 Pb-3 | YL175 Pb-3 | YL170 Pb-3 | YL165 Pb-3 | YL160 Pb-3 |
|---|-----|------------|------------|------------|------------|------------|------------|
| Power output | [W] | 185.0 | 180.0 | 175.0 | 170.0 | 165.0 | 160.0 |
| Power output tolerances | [%] | +/- 3 | +/- 3 | +/- 3 | +/- 3 | +/- 3 | +/- 3 |
| Module Efficiency | [%] | 14.0 | 13.6 | 13.2 | 12.9 | 12.5 | 12.1 |
| Voltage at Pmax, $\mathbf{V}_{\mathrm{mpp}}$ | [V] | 23.5 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Current at Pmax, I _{mpp} | [A] | 7.87 | 7.83 | 7.61 | 7.39 | 7.17 | 6.96 |
| Open circuit voltage \mathbf{V}_{oc} | [v] | 29.5 | 29.5 | 29.0 | 29.0 | 29.0 | 29.0 |
| Short circuit current I _{sc} | [A] | 8.45 | 8.30 | 8.20 | 8.10 | 7.90 | 7.70 |
| Max. system Voltage | [v] | | | 1,000 | VDC | | |

Parameters of the thermal characteristics

| NOCT (Nominal Operating Cell Temperature) | [°C] | 46 +/- 2 |
|--|-------|----------|
| Temperature coefficient of the short circuit current \mathbf{I}_{sc} | [%/K] | + 0.06 |
| Temperature coefficient of the open circuit voltage $\mathbf{V}_{\text{\tiny oc}}$ | [%/K] | - 0.37 |
| Temperature coefficient of the MPP power $P_{\mbox{\tiny moo}}$ | [%/K] | - 0.45 |

MECHANICAL PARAMETERS

| Dimensions (length [mm]/width [mm]/thickness [mm]) | 1335 / 990 / 50 |
|---|--|
| Thickness with junction box [mm] | 50 |
| Weight [kg] | 16.3 |
| Junction box (manufacturer/protection degree/number of diodes) | QC / IP65 / 3 |
| Junction box dimensions (length/width/thickness [mm]) | 135 / 132 / 28 |
| Positive cable (manufacturer/length [mm]/cable cross-section [mm²]) | Nanyang / 1200(900) / 4 |
| Negative cable (manufacturer/length [mm]/cable cross-section [mm²]) | Nanyang / 1200(900) / 4 |
| Plug connector (manufacturer/type/protection degree) | QC / UV resistance and self-locking / IP65 |
| Front cover (material/thickness [mm]) | Tempered Glass, 3.2mm |
| Cell type (quantity/technology) | 48 / polycrystalline / 156 x 156 |
| Encapsulation materials | Ethylene Vinyl Acetate (EVA) |
| Rear cover (material/thickness [mm]) | TPT / 0.35 |
| Frame (material) | robust anodized aluminum alloy |

OPERATING CONDITIONS

| Operating temperature [° C] | - 40 to + 85 |
|-----------------------------|--------------|
| Max. wind load [Pa] | 2.4K |

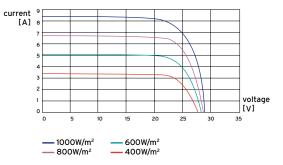
PACKAGING

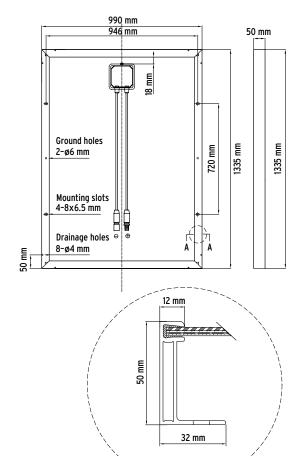
| Number of modules per box | 18 |
|--|--------------------|
| Box size (length [mm]/width [mm]/depth [mm]) | 1380 / 1120 / 1050 |
| Box Gross weight in Kg | 331 |
| Povoc nor nallot | 1 |

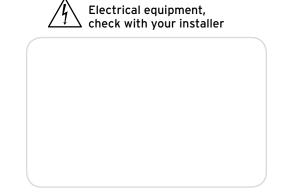
^{*} The data does not refer to a single module and they are not part of the offer, they serve for comparison only to different module types.

Yingli Green Energy Holding Co. Ltd. commerce@yinglisolar.com 0086 - (0)312 - 8929802 Subject to modifications and errors

IV CURVES







SECTION A-A

