



YLM 3.0 Plus 1

670W

MAXIMUM MODULE EFFICIENCY

21.6%

POSITIVE POWER TOLERANCE

0~+5_w



P-type monofacial PV module

**IMPROVED POWER
NEVER SETTLE FOR LESS**



Classic Structure



Wide Applications



Superior Yield



Lower Losses



Excellent Durability



Yingli Solar Website



QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE

ISO 9001: Quality management systems

ISO 14001: Environmental management systems

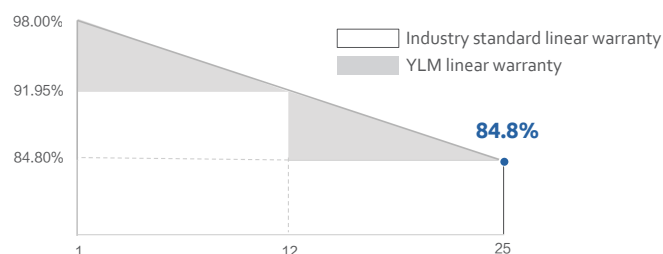
IEC 62941: Quality system for PV module manufacturing

ISO 45001: Occupational health and safety management systems

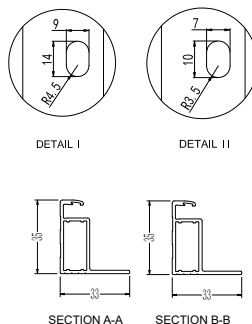
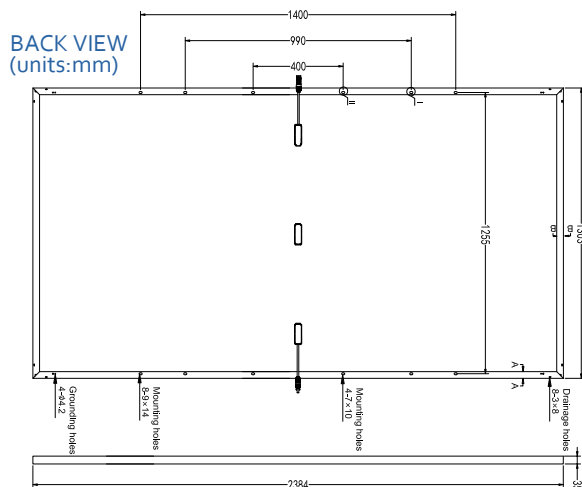


Warranty partner

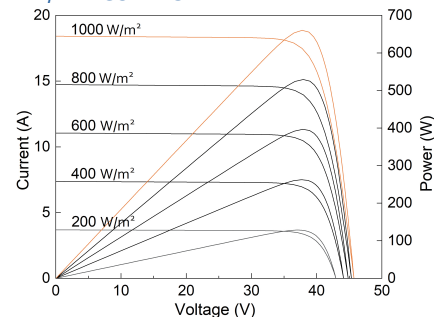
Munich RE



2.00% the 1st year power degradation
0.55% annual power degradation



I-V / P-V CURVES



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

Electrical Parameters at Standard Test Conditions (STC)

Module type	YLxxxD-45f 1/2 (xxx=Pmax)	YLxxxD-45f 1500V 1/2 (xxx=Pmax)				
Power output*-Pmax (W)	645	650	655	660	665	670
Power output tolerances- ΔPmax (W)	0 / + 5					
Module efficiency-η _m (%)	20.8	20.9	21.1	21.2	21.4	21.6
Voltage at Pmax - V _{mpp} (V)	37.50	37.70	37.90	38.10	38.30	38.50
Current at Pmax-I _{mp} (A)	17.20	17.24	17.29	17.33	17.37	17.41
Open-circuit voltage*-V _{oc} (V)	45.10	45.30	45.50	45.70	45.90	46.10
Short-circuit current*-I _{sc} (A)	18.26	18.31	18.36	18.42	18.48	18.54

STC: 1000 W·m⁻² irradiance, 25°C cell temperature, AM 1.5. *Measuring tolerance: ±3%.

Electrical Parameters at Nominal Operating Cell Temperature (NOCT)

Power output-Pmax (W)	484	488	492	496	499	503
Voltage at Pmax - V _{mpp} (V)	35.21	35.40	35.56	35.75	35.94	36.13
Current at Pmax-I _{mp} (A)	13.76	13.79	13.83	13.86	13.90	13.93
Open-circuit voltage-V _{oc} (V)	42.64	42.83	43.02	43.21	43.40	43.59
Short-circuit current-I _{sc} (A)	14.71	14.75	14.79	14.84	14.89	14.94

NOCT: open-circuit module operation temperature at 800 W·m⁻² irradiance, 20°C ambient temperature, 1 m · s⁻¹ wind speed.

Thermal Characteristics

Nominal operating cell temperature-NOCT(°C)	43 ± 2
Temperature coefficient of Pmax-γ (% / °C)	- 0.34
Temperature coefficient of Voc-β (% / °C)	- 0.25
Temperature coefficient of Isc-α (% / °C)	0.04

Packaging Specifications

Number of modules per pallet	31
Number of pallets per 40' container	17
Packaging box dimensions (L / W / H)	1340 mm / 1140 mm / 2500 mm
Box weight	1107 kg

Operating Conditions

Max. system voltage	1000 V _{DC} / 1500 V _{DC}
Max. series fuse rating*	30 A
Operating temperature range	- 40°C ~ 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter / velocity)	25 mm / 23 m·s ⁻¹

*Do not connect fuse in combiner box with two or more strings in parallel connection.

General Characteristics

Dimensions (L / W / H)	2384 mm / 1303 mm / 35 mm
Weight	34.0 kg

Construction Materials

Cell (material / quantity)	p-type monocrystalline silicon / 6 x 22
Glass (material / thickness)	low-iron tempered glass / 3.2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

• 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.



Yingli Solar Website