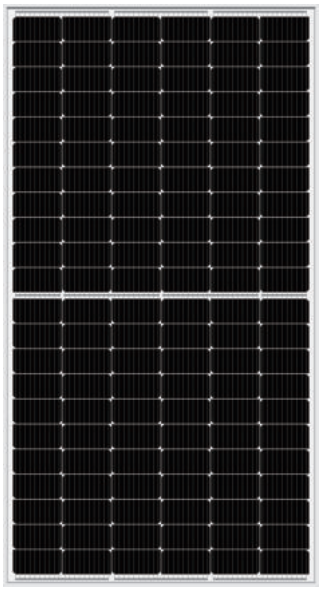
YINGLI SOLAR

YLM-J
GG
132CELL

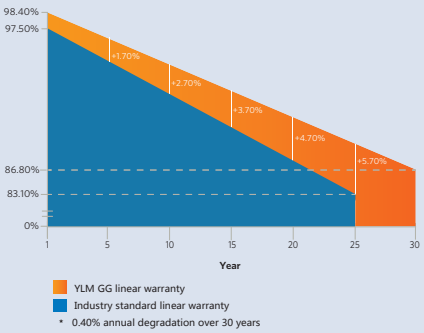


UP TO 21.23%
MODULE EFFICIENCY

12 YEAR
PRODUCT WARRANTY

0 to +5W
POWER SELECTION TOLERANCE

30 Years Linear Warranty



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DOUBLED STRENGTH
FOR MULTIPLIED RELIABILITY

Whenever the conditions are requiring a more robust solution, our modules are the right choice. Carefully chosen materials, state of the art solar cells and our experience in manufacturing to ensure high product quality.

Bifacial Power
In contrast to conventional modules, YLM GG modules can generate energy from both sides. As the backside makes use of the reflected and scattered light from the surroundings, these modules could yield significantly more power, depending upon the albedo.

+ W/m² 132 Cell Design
With double the standard amount of cells, we have increased the performance of the module. Each cell operates cooler as they now carry just half the amount of current in the same conditions. This design effectively deals with shadow and improves performance by reducing degradation.

Longterm Durability
The multi-busbar cells encapsulated between a double layer of glass can decrease the risk of cell micro-cracks by improving the long term mechanical performance.

Fire Resistant
The double glass construction is our most fire resistant product design achieving an industry leading Fire Class A rating.

Mechanical Performance
Choose our specially designed aluminium framed "HDF" module for enhanced mechanical performance and more ease of use in traditional installation methods.

Polyolefin (POE) Encapsulation
Polyolefin (POE) hydrophobic encapsulation for increased durability and long term performance in high heat and humid environments.

Yingli Solar
Founded in 1987, Yingli Energy (China) Company Limited, known as "Yingli Solar", is one of the world's oldest leading solar panel manufacturers with the mission to provide affordable green energy for all. Yingli Solar makes solar power possible for communities everywhere by using our global manufacturing and logistics expertise to address unique local challenges.

YLM-J GG 132CELL

YINGLI SOLAR

MODULE TYPE

132DF (132 cell, p-type mono-Si, framed): YLxxxDF66 e/2 (xxx=Pmax)

Electrical Parameters at STC								
Power output	P_{max}	W	480	485	490	495	500	505
Voltage at P_{max}	V_{Pmax}	V	37.68	37.84	37.99	38.14	38.29	38.44
Current at P_{max}	I_{Pmax}	A	12.74	12.82	12.90	12.98	13.06	13.14
Open-circuit voltage	V_{oc}	V	44.91	45.04	45.18	45.31	45.45	45.58
Short-circuit current	I_{sc}	A	13.66	13.74	13.82	13.90	13.98	14.06
Power output tolerance	ΔP_{max}	W	0 / + 5					
Module efficiency	N_{Pmax}	%	20.18	20.39	20.60	20.81	21.02	21.23
Electrical Parameters at NMOT								
Power output	$P_{max'}$	W	365.22	369.07	372.85	376.64	380.45	384.28
Voltage at $P_{max'}$	$V_{Pmax'}$	V	35.93	36.09	36.23	36.37	36.52	36.66
Current at $P_{max'}$	$I_{Pmax'}$	A	10.16	10.23	10.29	10.35	10.42	10.48
Open-circuit voltage	$V_{oc'}$	V	42.69	42.82	42.95	43.07	43.21	43.33
Short-circuit current	$I_{sc'}$	A	11.00	11.07	11.13	11.20	11.26	11.33
Bifacial Electrical Parameters at STC*								
Power output	$P_{max''}$	W	525.36	530.83	536.31	541.78	547.25	552.72
Voltage at $P_{max''}$	$V_{Pmax''}$	V	37.68	37.84	37.99	38.14	38.29	38.44
Current at $P_{max''}$	$I_{Pmax''}$	A	13.94	14.03	14.12	14.20	14.29	14.38
Open-circuit voltage	$V_{oc''}$	V	44.91	45.04	45.18	45.31	45.45	45.58
Short-circuit current	$I_{sc''}$	A	14.95	15.04	15.13	15.21	15.30	15.39

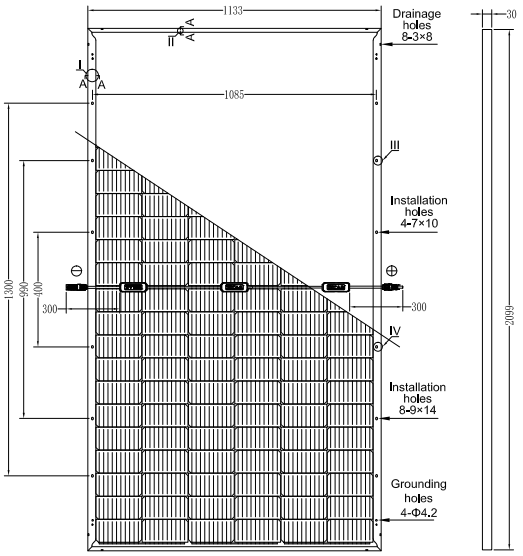
Other Characteristics							
Bifaciality coefficient	ϕ	%	70 ± 5	Temperature coefficient of I_{sc}	α_{Isc}	% / °C	0.05
Nominal module operating temperature	NMOT	°C	39 ± 2	Temperature coefficient of V_{oc}	β_{Voc}	% / °C	- 0.28
Measurement tolerance of Voc and Isc		%	± 3	Temperature coefficient of P_{max}	γ_{Pmax}	% / °C	- 0.35

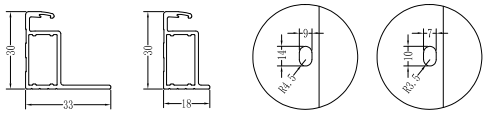
STC: 1000 W·m^{-2} irradiance, 25 °C cell temperature, AM 1.5 spectrum according to EN 60904-3.
NMOT: temperature near maximum power point at 800 W·m^{-2} irradiance, 20 °C ambient temperature, 1 m·s^{-1} wind speed.
*Bifaciality coefficient is 70%, rear irradiance is 135 W·m^{-2}.

PACKAGING SPECIFICATIONS

Packaging Specifications@132DF	
Dimensions (L / W / H)	2099 mm / 1133 mm / 30 mm
Weight	30.0 kg
Number of modules per pallet	36
Number of pallets per 40' container*	22
Packaging pallets dimensions (L / W / H)	2115 mm / 1110 mm / 1245 mm
Pallet weight	1128 kg

*Truck transport is prohibited to exceed its maximum load.





Figure@132DF unit: mm

OPERATING CONDITIONS

Max. system voltage	1500 V_{DC}
Max. series fuse rating*	30 A
Operating temperature range	- 40 °C to 85 °C
Snow load, front	5400 Pa
Wind load, back	2400 Pa
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.

CONSTRUCTION MATERIALS

Cell (material / number)	p-type mono-Si / 2 x 6 x 11
Glass (material / thickness)	low-iron semi-tempered glass / 2.0 mm
Frame (type)	anodized aluminium alloy
Cable (length / cross-sectional area)	± 300 mm, can be customized / 4 mm^2
Plug connector (type)	Staubli EVO2 or Yitong YT18-01 or Renhe RHC2
Junction box (type / protection degree)	3 diodes / ≥ IP67

QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE

ISO 9001: 2015, ISO 14001: 2015, BS OHSAS 18001: 2007

· 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 does not refer to a single module and they are not part of the offer, they only serve for comparison to different module types. The company reserves the final right to explain any of the data included here.
· Proudly made in China.

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

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