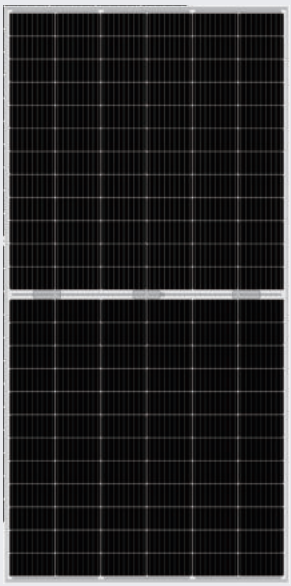
YINGLI SOLAR

400W
YLM GG
144HD



Up to 20.2%
MODULE EFFICIENCY

12 YEAR
PRODUCT WARRANTY

0 to +5 W
POWER SELECTION TOLERANCE

30 Years Linear Warranty

YINGLISOLAR.COM/AU

YINGLI SOLAR
Power Your Life

DOUBLED STRENGTH
FOR MULTIPLIED RELIABILITY

With over two decades of manufacturing experience and millions of PV systems installed worldwide you can trust that our product quality and long term reliability have been proven in the field.

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.

144 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.

Optimal Self-cleaning
Choose our frameless “HDL” module design for optimal self-cleaning.

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

Yingli Green Energy
Founded in 1987, Yingli Green Energy Holding 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.

400W YLM GG 144HD

ELECTRICAL PERFORMANCE

Module type	144HDL (144 half-cell, frameless): YLxxxDG2536L-2 1/2 (xxx=Pmax) 144HDF (144 half-cell, framed): YLxxxDG2536F-2 1/2 (xxx=Pmax)

Electrical Parameters at Standard Test Conditions (STC)			
Power output	P_{max}	W	400
Voltage at P_{max}	V_{mpp}	V	40.95
Current at P_{max}	I_{mpp}	A	9.77
Open-circuit voltage	V_{oc}	V	49.00
Short-circuit current	I_{sc}	A	10.29
Power output tolerance	ΔP_{max}	W	0 / + 5
Module efficiency@144HDL	η_{mpp}	%	19.71
Module efficiency@144HDF	η_{mpp}'	%	19.54
Electrical Parameters at Nominal Module Operating Temperature (NMOT)			
Power output	P_{max}'	W	304
Voltage at P_{max}	V_{mpp}'	V	38.89
Current at P_{max}	I_{mpp}'	A	7.82
Open-circuit voltage	V_{oc}'	V	46.47
Short-circuit current	I_{sc}'	A	8.29
Bifacial Output (Backside Power Gain)			
Power output (power gain 10%)		W	440
Power output (power gain 15%)		W	460
Power output (power gain 25%)		W	500

STC: 1000W·m^{-2} irradiance, 25°C cell temperature, AM1.5 spectrum according to EN 60904-3.
NMOT: temperature near maximum power point at 800W·m^{-2} irradiance, 20°C ambient temperature, 1m·s^{-1} wind speed.
Measurement tolerance of P_{max}, V_{oc} and I_{sc} is ±3%.

THERMAL CHARACTERISTICS

Nominal module operating temperature	NMOT	°C	39±2	Bifaciality			
Temperature coefficient of P_{max}	γ_{Pmax}	% / °C	-0.36	Bifaciality of P_{max}	ϕ_{Pmax}	%	70.0
Temperature coefficient of V_{oc}	β_{Voc}	% / °C	-0.30	Bifaciality of V_{oc}	ϕ_{Voc}	%	99.1
Temperature coefficient of I_{sc}	α_{Isc}	% / °C	0.05	Bifaciality of I_{sc}	ϕ_{Isc}	%	70.0

OPERATING CONDITIONS

Max. system voltage	1500V_{DC}
Max. series fuse rating*	20A
Operating temperature range	-40°C to 85°C
Hailstone impact (diameter / velocity)	25mm / 23m·s^{-1}
Snow load, front (144HDL / 144HDF)	3000Pa / 5400Pa
Wind load, back (144HDL / 144HDF)	2400Pa / 2400Pa

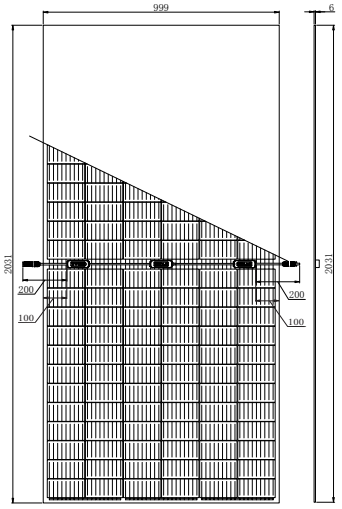
*DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection.

CONSTRUCTION MATERIALS

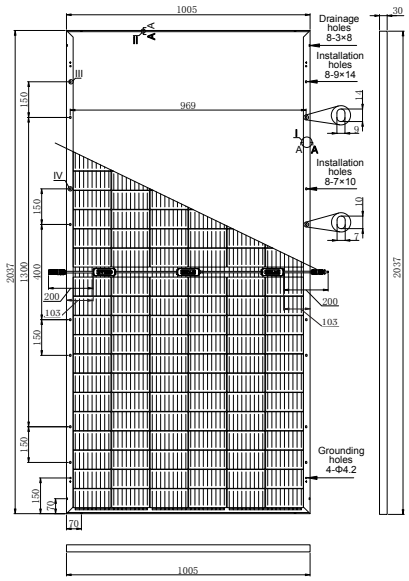
Front and back cover (material / thickness)	high transmission semi -tempered glass / 2.5mm x 2
Cell	p-type monocrystalline silicon multi busbar
Frame (144HDL / 144HDF)	none / anodized aluminium alloy
Cable (length / cross-sectional area)	200mm, longer lengths are available on request / 4mm^2
Junction box (protection degree)	≥ IP67
Plug connector	YT 18-01

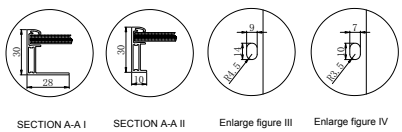
PACKAGING SPECIFICATIONS

Packaging Specifications@144HDL		Packaging Specifications@144HDF	
Dimensions (L / W / H)	2031mm / 999mm / 6mm	Dimensions (L / W / H)	2037mm / 1005mm / 30mm
Weight	28.4kg	Weight	29.8kg
Number of modules per pallet	32	Number of modules per pallet	35
Number of pallets per 40' container	22	Number of pallets per 40' container	22
Packaging pallets dimensions (L / W / H)	2160mm / 1125mm / 1182mm	Packaging pallets dimensions (L / W / H)	2090mm / 1110mm / 1157mm
Pallet weight	984kg	Pallet weight	1087kg



Figure@144HDL unit: mm





Figure@144HDF unit: mm

QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE, ISO 9001: 2015,
ISO 14001: 2015, BS OHSAS 18001: 2007

Certificates are held by Yingli Energy (China) Co., Ltd.,
a wholly owned subsidiary of Yingli Green Energy Holding Co., Ltd.

- 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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