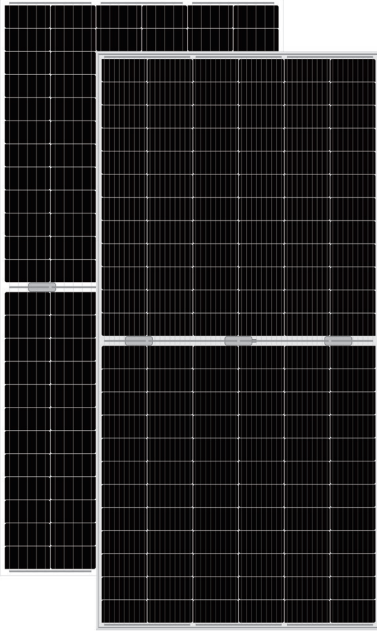


YLM
GG
144HD

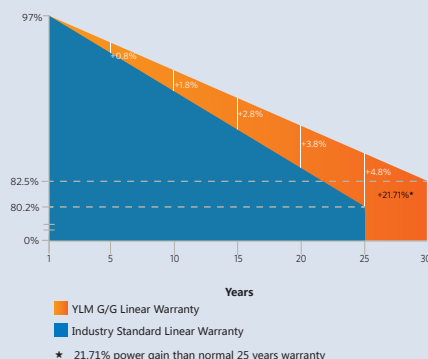


22.0%
CELL EFFICIENCY

10 YEAR
PRODUCT WARRANTY

0-5W
POWER TOLERANCE

30 Years Linear Warranty



YINGLISOLAR.COM

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 ensure in addition the high product quality.



Bifacial Power

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



High Power Output

Multi-busbar half cells and series & parallel electrical structure could reduce CTM loss and increase module output power.



Durability

Durable modules, independently tested for harsh environmental conditions, such as exposure to salt mist, ammonia or dust.



PID Resistant

Tested in accordance to the IEC 62804 standard, YLM GG modules have demonstrated resistance against PID (Potential Induced Degradation), which translates to security for the investment.



Optimal Self-cleaning@DL

Optimal self-cleaning due to frameless module design.



Mechanical Performance@DF

Specially designed aluminium frames enhance the mechanical performance of modules and the installation efficiency of systems.

Yingli Green Energy

Yingli Green Energy Holding Company Limited, known as "Yingli Solar", is one of the world's 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 GG 144HD

ELECTRICAL PERFORMANCE

Module type	144HDL (144 half-cell, frameless): YLxxxDG2536L-2 1/2 144HDF (144 half-cell, framed): YLxxxDG2536F-2 1/2 (xxx=Pmax)									
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Electrical Parameters at Standard Test Conditions (STC)										
Power output	P_{max}	W	410	405	400	395	390	385	380	375
Voltage at P_{max}	V_{mpp}	V	9.66	9.60	41.93	41.67	41.41	41.14	40.87	40.59
Current at P_{max}	I_{mpp}	A	9.61	9.56	9.54	9.48	9.42	9.36	9.30	9.24
Open-circuit voltage	V_{oc}	V	50.17	49.91	49.65	49.39	49.13	48.87	48.61	48.35
Short-circuit current	I_{sc}	A	10.14	10.18	10.12	10.06	10.00	9.94	9.88	9.82
Power output tolerance	ΔP_{max}	W	0 / + 5							
Module efficiency@144HDL	η_{mpp}	%	20.21	19.96	19.71	19.47	19.22	18.98	18.73	18.48
Module efficiency@144HDF	η_{mpp}	%	20.03	19.78	19.54	19.29	19.05	18.81	18.56	18.32

Electrical Parameters at Nominal Module Operating Temperature (NMOT)										
Power output	P_{max}	W	311.52	307.69	303.88	300.10	296.34	292.53	288.75	284.92
Voltage at P_{max}	V_{mpp}	V	40.31	40.06	39.82	39.57	39.32	39.07	38.81	38.54
Current at P_{max}	I_{mpp}	A	7.73	7.68	7.63	7.58	7.54	7.49	7.44	7.39
Open-circuit voltage	V_{oc}	V	47.58	47.34	47.09	46.84	46.60	46.35	46.10	45.86
Short-circuit current	I_{sc}	A	8.25	8.20	8.15	8.10	8.06	8.01	7.96	7.91

Bifacial Output (Backside Power Gain)										
Power output (power gain 10%)	W	451	446	440	435	429	424	418	413	
Power output (power gain 15%)	W	472	466	460	454	449	443	437	431	
Power output (power gain 25%)	W	513	506	500	494	488	481	475	469	

STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5 spectrum according to EN 60904-3.
 NMOT: temperature near maximum power point at 800W/m² irradiance, 20°C ambient temperature, 1m/s² wind speed.

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			

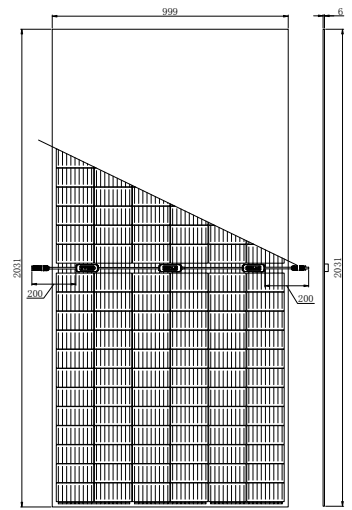
OPERATING CONDITIONS

Max. system voltage	1500V _{DC}	Front and back cover (material / thickness)	low-iron semi-tempered glass / 2.5mm x 2
Max. series fuse rating*	20A	Cell (material / number of busbar)	p-type monocrystalline / 5-12
Operating temperature range	-40°C to 85°C	Frame (144HDL / 144HDF)	none / anodized aluminium alloy
Hailstone impact (diameter / velocity)	25mm / 23m/s ¹	Cable (length / cross-sectional area)	200mm / 4mm ²
Snow load, front (144HDL / 144HDF)	3000Pa / 5400Pa	Junction box (protection degree)	≥ IP67
Wind load, back (144HDL / 144HDF)	2400Pa / 2400Pa	Plug connector (type / protection degree)	RH 05-8 / IP67

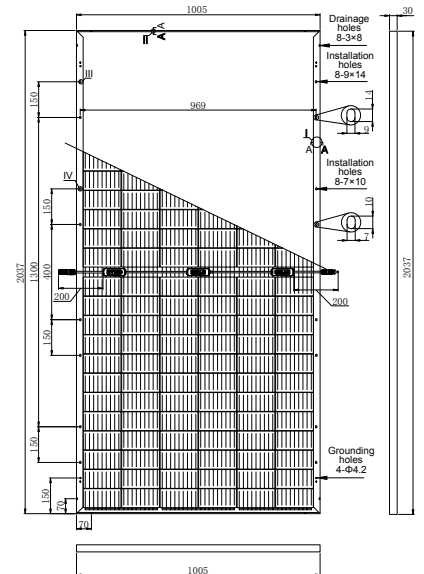
*DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection.

PACKAGING SPECIFICATIONS

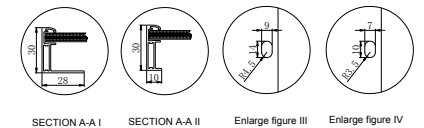
Packaging Specifications@144HDL		Packaging Specifications@144HDF	
Dimensions (L / W / H)	2031mm / 999mm / 6mm	Dimensions (L / W / H)	2037mm / 1005mm / 30mm
Weight	28.4kg	Weight	29.8kg
Number of modules per pallet	32	Number of modules per pallet	35
Number of pallets per 40' container	22	Number of pallets 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



- 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. The company reserves the final right to explain any of the data included here.



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

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