



panda n-type TOPCon Bifacial Module

435-455 W

MAXIMUM MODULE EFFICIENCY

22.8%

POSITIVE POWER TOLERANCE

0 TO +5 W



IDEAL FOR:

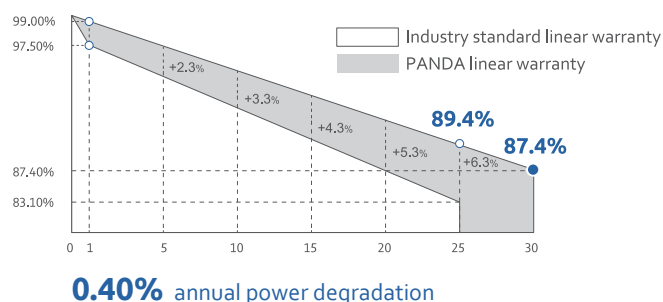
- Residential Projects
- Commercial & Industrial Projects

POWER YOUR LIFE

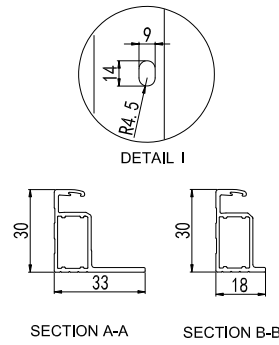
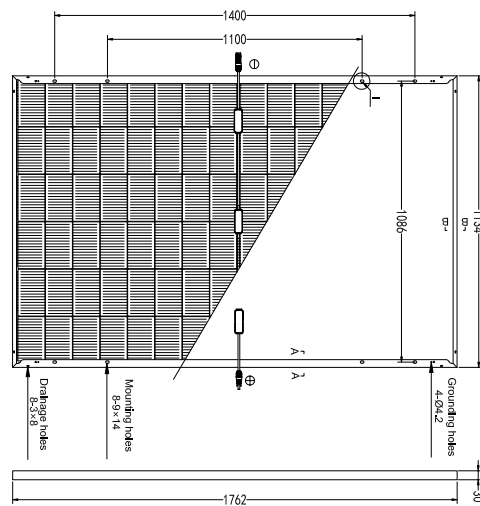
Outstanding Bifaciality | Strong Lightweight Construction | Built for the Australian Environment

QUALIFICATIONS & CERTIFICATES

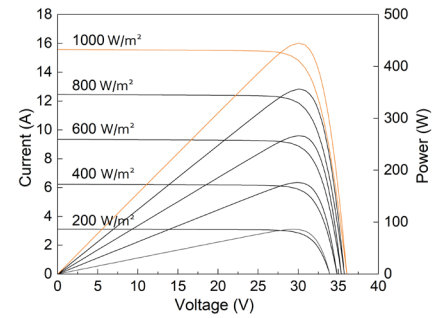
- IEC 61215, IEC 61730, CE
- ISO 9001: Quality management systems
- ISO 14001: Environmental management systems
- IEC 62941: Quality system for PV module manufacturing
- ISO 45001: Occupational health and safety management systems
- SA8000 Standard (Social Accountability International)



BACK VIEW (units: mm)



I-V / P-V CURVES



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

DIMENSIONS 1762 mm / 1134 mm / 30 mm **WEIGHT** 21.0 kg
FIRE RESISTANCE RATING Class C (Class A (Spread of flame test) + Class C (Burning brand test))

Electrical Parameters

	YL435CF48 i/2		YL440CF48 i/2		YL445CF48 i/2		YL450CF48 i/2		YL455CF48 i/2	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Power output-Pmax (W)	435	373	440	378	445	382	450	386	455	391
Power output tolerances-ΔPmax (W)	0 / + 5		0 / + 5		0 / + 5		0 / + 5		0 / + 5	
Module efficiency-ηm (%)	21.8		22.0		22.3		22.5		22.8	
Voltage at Pmax - Vmpp (V)	29.45	31.43	29.68	31.67	29.91	31.92	30.14	32.16	30.37	32.41
Current at Pmax-Impp (A)	14.78	11.88	14.83	11.92	14.88	11.96	14.94	12.01	14.99	12.05
Open-circuit voltage-Voc (V)	35.63	37.39	35.84	37.61	36.05	37.83	36.26	38.05	36.47	38.27
Short-circuit current-Isc (A)	15.46	12.24	15.52	12.29	15.58	12.33	15.64	12.38	15.70	12.43

*STC: 1000 W·m⁻² irradiance, 25°C cell temperature, AM 1.5.

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

Bifacial Electrical Parameters at Standard Test Conditions (BNPI*)

Power output-Pmax (W)	482	488	493	499	504
Voltage at Pmax - Vmpp (V)	29.45	29.68	29.91	30.14	30.37
Current at Pmax-Impp (A)	16.38	16.43	16.49	16.55	16.61
Open-circuit voltage-Voc (V)	35.63	35.84	36.05	36.26	36.47
Short-circuit current-Isc (A)	17.13	17.20	17.26	17.33	17.40

*1000W·m⁻² on the front side and 135W·m⁻² on the back side, 25°C cell temperature, AM 1.5. Bifaciality coefficient is 80% ± 5%.

φPmax = 80%, φIsc = 80% and φVoc = 99% with tolerance ±5% for reference. Measurement tolerance: Pmax ±3%, Voc ±3% and Isc ±3%.

Bifacial Output-Rearside Power Gain

5%	Maximum Power (Pmax)	452	458	463	468	473
	Module Efficiency STC (%)	22.6%	22.9%	23.1%	23.4%	23.7%
15%	Maximum Power (Pmax)	487	493	498	504	510
	Module Efficiency STC (%)	24.4%	24.6%	24.9%	25.2%	25.5%
25%	Maximum Power (Pmax)	522	528	534	540	546
	Module Efficiency STC (%)	26.1%	26.4%	26.7%	27.0%	27.3%

Thermal Characteristics

Nominal operating cell temperature-NOCT(°C)	42±2
Temperature coefficient of Pmax-γ(°C)	-0.29
Temperature coefficient of Voc-β(°C)	-0.24
Temperature coefficient of Isc-α(°C)	0.042

Operating Conditions

Max. system voltage	1500 Vdc
Max. series fuse rating*	30 A
Operating temperature range	-40°C ~ 70°C
Max. static load, front (e.g., snow)	1600 Pa
Max. static load, back (e.g., wind)	1600 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.

Packaging Specifications

Number of modules per pallet	36
Number of pallets per 40' container	26
Packaging box dimensions (L / W / H)	1780 mm / 1110 mm / 1245 mm
Box weight	793 kg

Construction Materials

Cell (material / quantity)	n-type monocrystalline silicon / 6 x 16
Glass (thickness)	1.6 mm / 1.6 mm
Frame (material)	Anodised aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / IP68
Plug connector (type)	Staubli EVO2 or Yitong YT18-01 or Renhe RHC2
Cable (length / cross-sectional area)	±1200 mm / 4 mm ²

- Proudly manufactured in China.
- 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 as a comparison to different module types.

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Note: images are a guide only. Check with the manufacturer before purchasing.

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