



panda n-type TOPCon Bifacial Module

610-630 W

MAXIMUM MODULE EFFICIENCY

23.3%

POSITIVE POWER TOLERANCE

0 TO +5 W



IDEAL FOR:

 Utility Projects

BUILT TO LAST

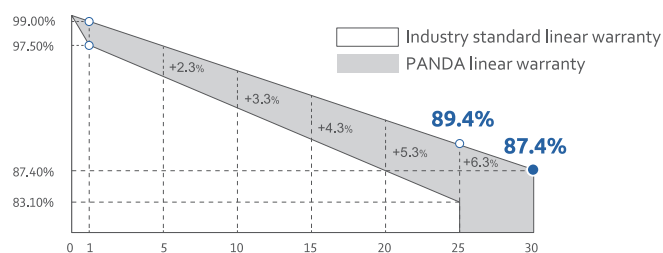
Outstanding Bifaciality | SuperiorYield | Robust Frame

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)

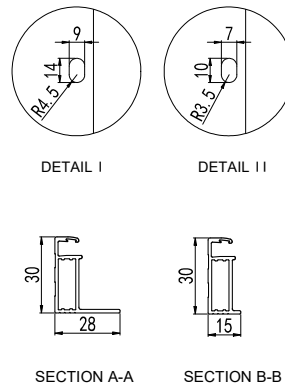
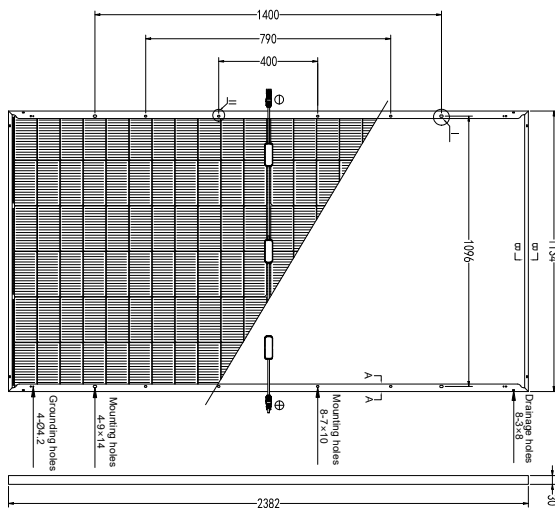


Munich RE

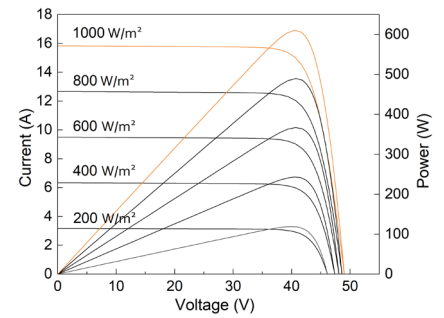


0.40% annual power degradation

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 2382 mm / 1134 mm / 30 mm **WEIGHT** 33.9 kg
FIRE RESISTANCE RATING Class A

Electrical Parameters

	YL610CF66 i/2		YL615CF66 i/2		YL620CF66 i/2		YL625CF66 i/2		YL630CF66 i/2	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Power output-Pmax (W)	610	464	615	468	620	472	625	475	630	479
Power output tolerances-ΔPmax (W)	0 / + 5		0 / + 5		0 / + 5		0 / + 5		0 / + 5	
Module efficiency-ηm (%)	22.6		22.8		23.0		23.1		23.3	
Voltage at Pmax - Vmp (V)	41.03	39.14	41.34	39.44	41.14	39.25	41.31	39.41	41.47	39.56
Current at Pmax-Imp (A)	14.87	11.86	14.88	11.86	15.07	12.02	15.13	12.06	15.19	12.11
Open-circuit voltage-Voc (V)	49.01	46.54	49.31	46.83	49.08	46.61	49.26	46.78	49.44	46.95
Short-circuit current-Isc (A)	15.83	17.54	15.86	17.57	16.04	12.92	16.11	12.98	16.18	13.04

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

*NOCT: open-circuit module operation temperature at $800 \text{ W}\cdot\text{m}^{-2}$ irradiance, 20°C ambient temperature, $1 \text{ m}\cdot\text{s}^{-1}$ wind speed.

Bifacial Electrical Parameters at Standard Test Conditions (BNPI*)

Power output-Pmax (W)	676	681	687	692	698
Voltage at Pmax - Vmpp (V)	41.03	41.34	41.14	41.31	41.47
Current at Pmax-Impp (A)	16.48	16.49	16.70	16.76	16.83
Open-circuit voltage-Voc (V)	49.01	49.31	49.08	49.26	49.44
Short-circuit current-Isc (A)	17.54	17.57	17.77	17.85	17.93

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

$\phi_{P_{max}} = 80\%$, $\phi_{I_{sc}} = 80\%$ and $\phi_{V_{oc}} = 99\%$ with tolerance $\pm 5\%$ for reference. Measurement tolerance: $P_{max} \pm 3\%$, $V_{oc} \pm 3\%$ and $I_{sc} \pm 3\%$.

Bifacial Output-Rearside Power Gain

5%	Maximum Power (Pmax)	634	640	645	650	655
	Module Efficiency STC (%)	23.5%	23.7%	23.9%	24.1%	24.3%
15%	Maximum Power (Pmax)	683	689	694	700	706
	Module Efficiency STC (%)	25.3%	25.5%	25.8%	26.0%	26.2%
25%	Maximum Power (Pmax)	732	738	744	750	756
	Module Efficiency STC (%)	27.1%	27.4%	27.6%	27.8%	28.1%

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	20
Packaging box dimensions (L / W / H)	2400 mm / 1110 mm / 1245 mm
Box weight	1280 kg

Construction Materials

Cell (material / quantity)	n-type monocrystalline silicon / 6 x 22
Glass (thickness)	2.0 mm / 2.0 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)	±1400 mm or customised length / 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 do not refer to a single module and they are not part of the offer, they only serve for comparison to different module types.

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