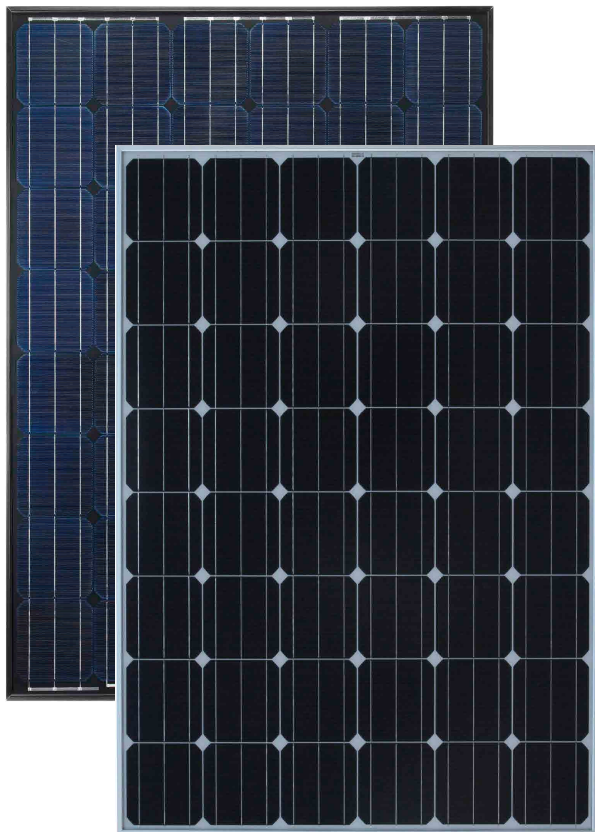


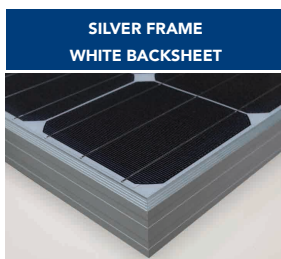
PANDA 48 Cell 40mm SERIES

YL225C-24b
YL220C-24b
YL215C-24b
YL210C-24b
YL205C-24b

panda
Powered by **YINGLI**



BLACK FRAME
BLACK BACKSHEET



SILVER FRAME
WHITE BACKSHEET

ABOUT YINGLI GREEN ENERGY

Yingli Green Energy Holding Company Limited (NYSE: YGE) is one of the world's largest fully vertically integrated PV manufacturers, which markets its products under the brand "Yingli Solar". With over 7.0GW of modules installed globally, we are a leading solar energy company built upon proven product reliability and sustainable performance. We are the first renewable energy company and the first Chinese company to sponsor the FIFA World Cup™.

PERFORMANCE

- Yingli Solar PANDA is a new monocrystalline silicon module technology with n-type solar cells that have average efficiencies higher than 19.5%. Combined with high transmission glass, module efficiencies are up to 17.1%.
- Compared to traditional modules with p-type solar cells, PANDA modules have lower initial degradation and higher performance under both high temperature and low irradiation conditions.
- Tight positive power tolerance of 0W to +5W ensures you receive modules at or above nameplate power and contributes to minimizing module mismatch losses leading to improved system yield.
- Top ranking in the "TÜV Rheinland Energy Yield Test" demonstrates high performance and annual energy production.

RELIABILITY

- Tests by independent laboratories prove that Yingli Solar modules:
 - ✓ Fully conform with certification and regulatory standards.
 - ✓ Withstand wind loads of up to 2.4kPa and snow loads of up to 5.4kPa, confirming mechanical stability.
 - ✓ Successfully endure ammonia and salt-mist exposure at the highest severity level, ensuring their performance in adverse conditions.
- Manufacturing facility certified by TÜV Rheinland to ISO 9001:2008, ISO 14001:2004 and BS OHSAS 18001:2007.

WARRANTIES

- 10-year limited product warranty¹.
- Limited power warranty¹: 1 year at 98% of the minimal rated power output, 10 years at 92% of the minimal rated power output, 25 years at 82% of the minimal rated power output.

¹In compliance with our Warranty Terms and Conditions.

QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, MCS, CE, ISO 9001:2008, ISO 14001:2004, BS OHSAS 18001:2007, PV Cycle, SA 8000



PANDA 48 Cell 40mm SERIES

ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)

Module type			YLxxxC-24b (xxx=P _{max})				
Power output	P _{max}	W	225	220	215	210	205
Power output tolerances	ΔP _{max}	W	0 / + 5				
Module efficiency	η _m	%	17.1	16.7	16.3	15.9	15.6
Voltage at P _{max}	V _{mpp}	V	24.8	24.6	24.4	24.2	23.9
Current at P _{max}	I _{mpp}	A	9.06	8.94	8.81	8.69	8.57
Open-circuit voltage	V _{oc}	V	31.4	31.1	30.9	30.7	30.5
Short-circuit current	I _{sc}	A	9.55	9.48	9.41	9.34	9.27

STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3.
Average relative efficiency reduction of 3.5% at 200W/m² according to EN 60904-1.

Electrical parameters at Nominal Operating Cell Temperature (NOCT)

Power output	P _{max}	W	164.1	160.5	156.8	153.2	149.5
Voltage at P _{max}	V _{mpp}	V	22.6	22.4	22.3	22.0	21.8
Current at P _{max}	I _{mpp}	A	7.25	7.15	7.05	6.95	6.86
Open-circuit voltage	V _{oc}	V	29.1	28.8	28.6	28.4	28.2
Short-circuit current	I _{sc}	A	7.70	7.65	7.59	7.53	7.48

NOCT: open-circuit module operation temperature at 800W/m² irradiance, 20°C ambient temperature, 1m/s wind speed.

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of P _{max}	γ	%/°C	-0.42
Temperature coefficient of V _{oc}	β _{Voc}	%/°C	-0.31
Temperature coefficient of I _{sc}	α _{Isc}	%/°C	0.04
Temperature coefficient of V _{mpp}	β _{Vmpp}	%/°C	-0.41

OPERATING CONDITIONS

Max. system voltage	1000V _{DC}
Max. series fuse rating	15A
Limiting reverse current	15A
Operating temperature range	-40°C to 85°C
Max. static load, front (e.g., snow)	5400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

CONSTRUCTION MATERIALS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	white or black
Cell (quantity / material / dimensions)	48 / monocrystalline silicon / 156mm x 156mm
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material / color / anodization color)	anodized aluminum alloy / silver or black / clear
Junction box (protection degree)	≥ IP65
Cable (length / cross-sectional area)	900mm / 4mm ²
Plug connector (type / protection degree)	MC4 / IP67 or YT08-1 / IP67 or Amphenol H4 / IP68

- 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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YINGLISOLAR.COM

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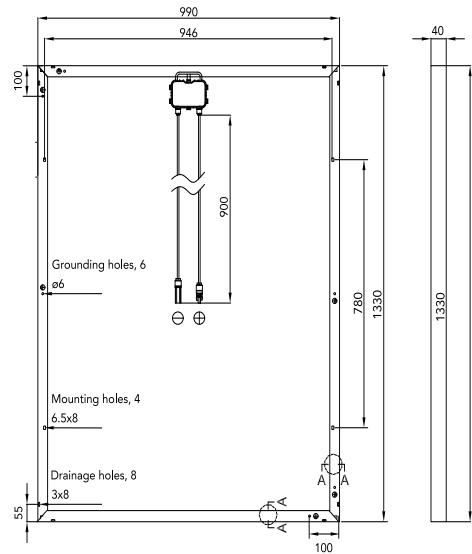
GENERAL CHARACTERISTICS

Dimensions (L / W / H)	1330mm / 990mm / 40mm
Weight	14.9kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	26
Number of pallets per 40' container	32
Packaging box dimensions (L / W / H)	1390mm / 1160mm / 1178mm
Box weight	415kg

Unit: mm



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

Our Partners:

