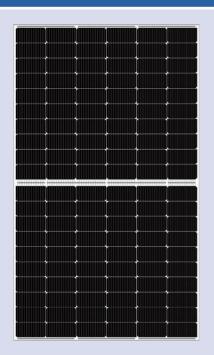


PANDA 3.0 PRO 455-480 W

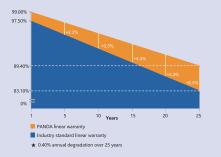


## 120 CELLS

0-5 W POWER TOLERANCE

12-YEAR PRODUCT WARRANTY

#### 25-YEAR POWER WARRANTY



## YINGLISOLAR.COM/AU



PANDA 3.0 modules use the industry's cutting-edge n-type monocrystalline TOPCon cell technology. With high-quality encapsulation materials and classic glass-backsheet structure, PANDA 3.0 modules are perfectly suited to the harsh environment and provide you with high reliability and quality assurance.



# **Ž**

The glass-backsheet structure and layout design have been proven in the market for a long time.

### Superior Yield

**Classic Structure** 

The large cell size enhances the module's power output, with the excellent temperature coefficient, superior low light performance and comprehensive suppression technology allowing the module to generate more energy yield once in use.



#### **Excellent Durability**

The modules meet IEC standard testing requirements and are built to withstand the harsh Australian environment.

#### Wide Applications

The glass-backsheet structure, special material selection and extrastrong frames effectively enhance the mechanical performance of the modules, their compatibility with mainstream trackers and inverters, and their adaptability to harsh environments.

#### Lower Losses

The multi-busbar design effectively reduces the impact of micro-cracks and broken busbars, and the half-cell structure effectively reduces the impact of shadow shading.

#### QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE, IEC 62941:2019 Terrestrial photovoltaic (PV) modules- Quality system for PV module manufacturing, ISO 9001:2015 Quality management systems, ISO 14001:2015 Environmental management systems, ISO 45001:2018 Occupational health and safety management systems



#### Yingli Solar

Headquartered in Baoding, China, Yingli Energy Development Company Limited, known as Yingli Solar, is a leading solar solution provider. Yingli Solar is committed to providing clean, renewable energy through PV power generation technology for homes, factories and utilities around the world. Yingli Solar provides reliable products and services through continuous technological advancement and management innovation.



## PANDA 3.0 PRO

#### Electrical parameters at Standard Test Conditions (STC<sup>\*</sup>)

Module type			YLxxxC-42e 1/2 (xxx=Pmax)   YLxxxC-42e 1500V 1/2 (xxx=Pmax)					
Power output	P <sub>max</sub>	w	455	460	465	470	475	480
Power output tolerances	$\Delta P_{max}$	w			0/	+ 5		
Module efficiency	η"	%	21.08	21.32	21.55	21.78	22.01	22.24
Voltage at P <sub>max</sub>	V <sub>mpp</sub>	V	34.55	34.71	34.88	35.04	35.20	35.37
Current at P <sub>max</sub>	I <sub>mpp</sub>	A	13.17	13.26	13.34	13.42	13.50	13.58
Open-circuit voltage	V <sub>oc</sub>	V	41.87	42.04	42.21	42.37	42.53	42.70
Short-circuit current	I <sub>sc</sub>	A	13.91	13.99	14.06	14.14	14.22	14.30

\*STC: 1000 W-m² irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-3. Measurement tolerance of  $P_{mut}/V_{cc}$  and  $l_{tc}$  is ±3%.

#### Electrical parameters at Nominal Operating Cell Temperature (NOCT\*)

Power output	P <sub>max</sub>	w	345.45	349.43	353.26	357.00	360.77	364.66
Voltage at P <sub>max</sub>	V <sub>mpp</sub>	V	32.90	33.05	33.21	33.37	33.52	33.68
Current at P <sub>max</sub>	I <sub>mpp</sub>	А	10.50	10.57	10.64	10.70	10.76	10.83
Open-circuit voltage	V <sub>oc</sub>	V	39.69	39.85	40.01	40.16	40.32	40.48
Short-circuit current	I <sub>sc</sub>	А	11.22	11.28	11.34	11.40	11.46	11.53
*NOCT: open-circuit module operation temperature at 800 W-m <sup>2</sup> irradiance, 20°C ambient temperature, 1 m-s <sup>-1</sup> wind speed.								

#### THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	42 ± 2
Temperature coefficient of P <sub>max</sub>	γ	%/°C	- 0.30
Temperature coefficient of $V_{oc}$	β	%/°C	- 0.25
Temperature coefficient of I <sub>sc</sub>	α	%/°C	0.046

#### OPERATING CONDITIONS

Max. system voltage	1000 V <sub>DC</sub> / 1500 V <sub>DC</sub>		
Max. series fuse rating*	25A		
Operating temperature range	- 40°C to 85°C		
Max. static load, front (e.g., snow)	5400 Pa		
Max. static load, back (e.g., wind)	2400 Pa		
Max. hailstone impact (diameter / velocity)	25 mm / 23 m·s <sup>1</sup>		

\*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION

#### CONSTRUCTION MATERIALS

Cell (material / quantity)	n-type monocrystalline silicon / 6 x 20
Glass (material / thickness)	low-iron tempered glass / 3.2 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)	± 300 mm or customised length / 4 mm²



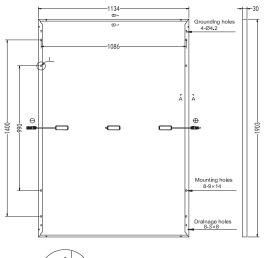
#### GENERAL CHARACTERISTICS

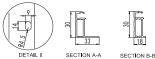
Dimensions (L / W / H)	1903 mm / 1134 mm / 30 mm
Weight	24.2 kg
Fire resistance rating	Class C

#### PACKAGING SPECIFICATIONS

Number of modules per pallet	36
Number of pallets per 40' container	24
Packaging box dimensions (L / W / H)	1920 mm / 1110 mm / 1245 mm
Box weight	921 kg

#### BACK VIEW (units: mm)







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

• 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 only serves as a comparison to different module types.

Proudly manufactured in China.

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## YINGLISOLAR.COM/AU