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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Union Solar Energy Tech Co., Ltd.**

**Poly 20W**

**Poly 20W**

Also available on the web at  
[EnergyPal.com/union-solar-energy-tech-co-ltd-solar-panels/poly-20w](http://EnergyPal.com/union-solar-energy-tech-co-ltd-solar-panels/poly-20w)

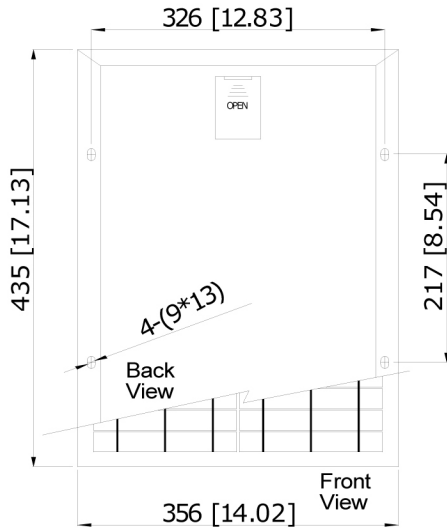
# UNP-20A

## High Efficiency, High Quality PV Module

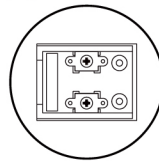
Electrical Characteristics	UNP-20A
Maximum power (Pmax)	20W
Voltage at Pmax (Vmp)	17.6V
Current at Pmax (Imp)	1.16A
Open-circuit voltage (Voc)	22.1V
Short-circuit current (Isc)	1.22A
Temperature coefficient of Voc	$-(0.40 \pm 0.05)\%/^{\circ}\text{C}$
Temperature coefficient of Isc	$(0.065 \pm 0.01)\%/^{\circ}\text{C}$
Temperature coefficient of power	$-(0.5 \pm 0.05)\%/^{\circ}\text{C}$
NOCT (Air 20°C; Sun 0.8kW/m² wind 1m/s)	47±2°C
Operating temperature	-40°C to 85°C
Maximum system voltage	600V DC
Power tolerance	+ 3%
Cells	multicrystalline silicon solar cell
No. of cells and connections	36(2X18)
Module Dimension	435mm[17.13in.]x356mm[14.02in.]x30mm[1.18in.]
Weight	2.2kg[4.85lbs]

\* STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C  
 \* Specifications are subject to change without notice at any time.

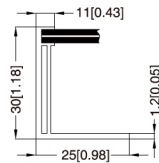
### Module Diagram



Dimensions in brackets are in inches. Un-bracketed dimensions are in millimeters. Unit: mm[in.]

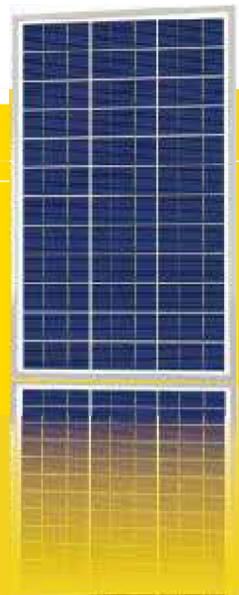
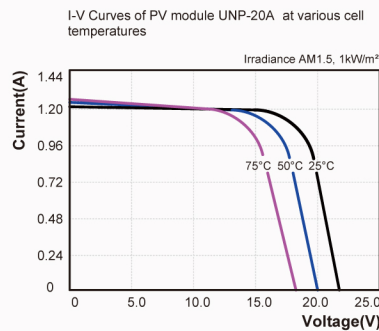
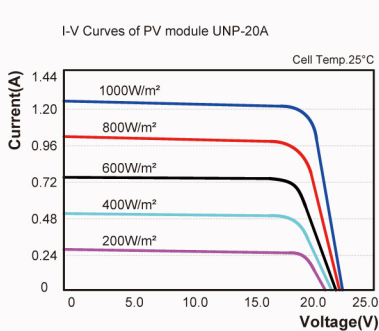


Junction Box  
Top View (Lid open)



Section A-A

### I-V Curves



### Key Features:

- High module efficiency and stable power output
- Based on leading process technology
- Outstanding electrical performance under high temperature conditions or low irradiance conditions
- Easy of installation and all-weather applications
- 5 years product warranty(materials and workmanship)
- 20 years module power output warranty
- Peak power of single module is guaranteed in +3% power tolerance
- Strong framed module, passing loaded test of 5400 Pa (IEC61215 2nd)
- The manufacture is certified for ISO 9001:2008

### Product's Guarantee

- 5 years products life warranty
- 15 years module power output no less 90%
- 20 years module power output no less 80%

### Applications

- Off grid residential roof-tops
- Off grid commercial/industrial roof-tops
- Rural area applications
- Solar power system
- Other off-grid applications

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