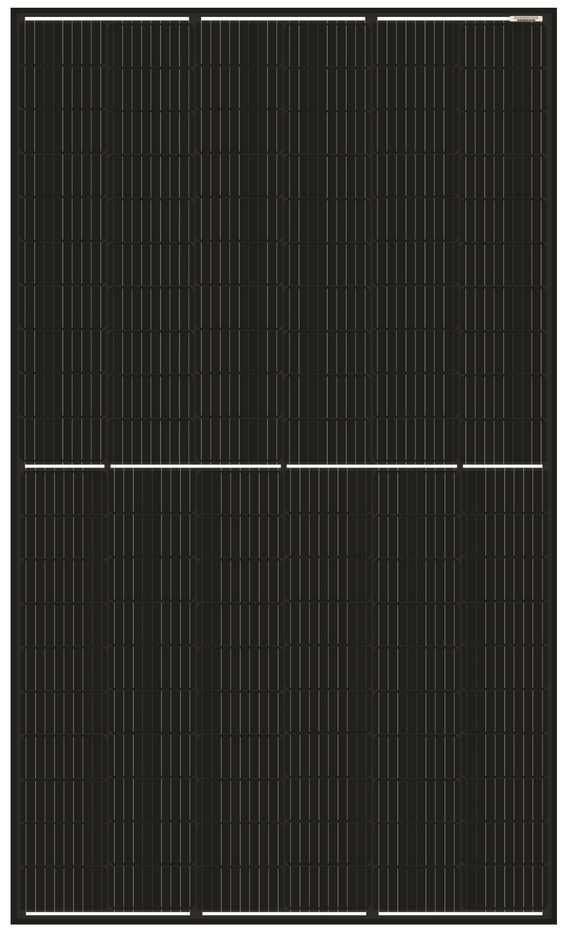
Unite Solar Technology Co., Ltd.
www.unite-solar.com

166 Series MONOCRYSTALLINE

120 Half-Cells Solar Modules

365-385W BLACK



➢ Key Features

® Advanced production equipment, International first-class production technology, Achieved high module conversion efficiency 21.1%

® Excellent performance for resist wind pression and snow load, Full module passed wind pression (2400Pa) and snow load (5400Pa) test

® Excellent weak light performance, Resistant to salt spray and ammonia corrosion

® Passing the certification test of photovoltaic standards

® Application grade: A grade, Safe class: Ⅱ, Fireproofing grade: C

High Power Output

* Reduce BOS cost with higher power bin and 1000V/1500V system voltage
* Back surface field
* Selective emitter

Half-cell design brings higher efficiency

•New cell string layout and split J-box location to reduce the energy loss caused by shading between modules
* Low thermal coefficients for greater energy production at high operating temperatures
* Low cell connection power loss due to half-cell layout (120cells) Monocrystalline

Highly reliable due to stringent quality control

* In-house testing goes well beyond certification requirements (UV, TC, HF, and many more)
* PID resistant

Certified to withstand the most challenging environmental conditions

* 2400 Pa wind load
* 5400 Pa snow load

➢ Comprehensive Products And System Certificates

IEC61215/IEC61730/UL1703/IEC61701 /IEC62716

ISO 9001: Quality Management System

ISO 14001: Enviromental Management System

OHSAS 18001

GB/T 23001 -2017

ELECTRICAL CHARACTERISTICSAT STC					
Maximum Power (P_{max})	365W	370W	375W	380W	385W
Open Circuit Voltage (V_{OC})	41.4V	41.6V	41.8V	42.0V	42.2V
Short Circuit Current (I_{SC})	11.23A	11.30A	11.37A	11.44A	11.51A
Voltage at Maximum Power (V_{mp})	34.4V	34.6V	34.8V	35.0V	35.2V
Current at Maximum Power (I_{mp})	10.62A	10.70A	10.78A	10.86A	10.94A
Module Efficiency (%)	20.01	20.28	20.55	20.83	21.10
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1000V DC/ 1500V DC				
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)				
Maximum Series Fuse Rating	20A				

STC: Irradiance 1000W/m^2 , Cell temperature 25°C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICSAT NOCT					
Maximum Power (P_{max})	271W	275W	279W	283W	287W
Open Circuit Voltage (V_{OC})	38.0V	38.2V	38.4V	38.6V	38.8V
Short Circuit Current (I_{SC})	9.09A	9.15A	9.21A	9.27A	9.33A
Voltage at Maximum Power (V_{mp})	31.4V	31.6V	31.8V	32.0V	32.2V
Current at Maximum Power (I_{mp})	8.64A	8.71A	8.78A	8.85A	8.92A

NOCT: Irradiance 800W/m^2 , Ambient temperature 20°C, Wind Speed 1 m/s

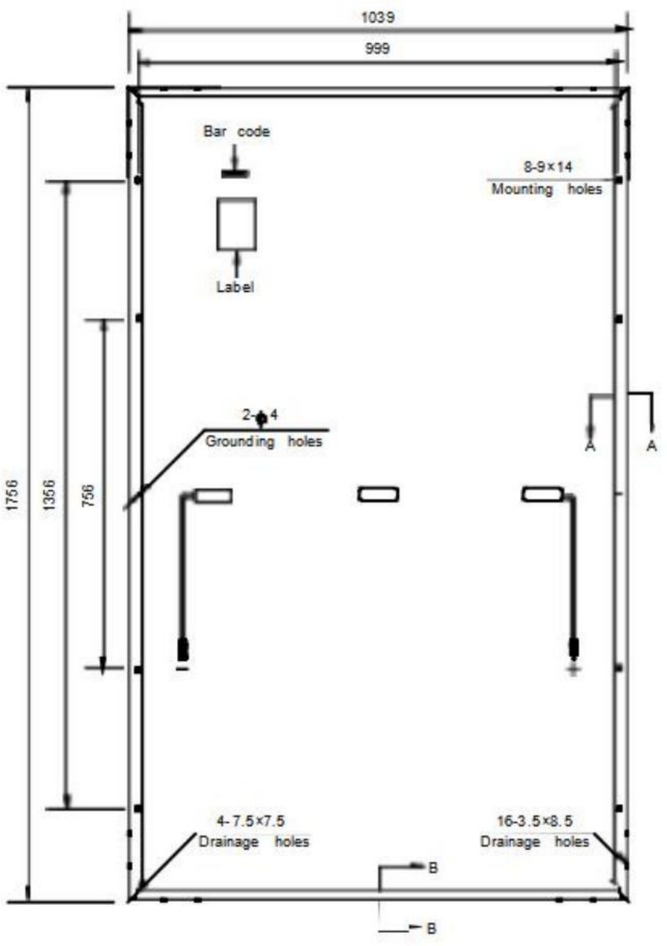
MECHANICAL CHARACTERISTICS	
Cell type	Monocrystalline PERC 166*83mm
Number of cells	120 (6x20)
Module dimensions	1756x1039x30mm (69.13x40.91x1. 18inches)
Weight	20kg (44.1lbs)
Front cover	3.2mm (0. 13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm^2 (0.006inches^2), Length: Portrait: 300mm (11.81inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

TEMPERATURE CHARACTERISTICS	
Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P_{max}	-0.36%/°C
Temperature Coefficients of V_{OC}	-0.28%/°C
Temperature Coefficients of I_{SC}	0.05%/ °C

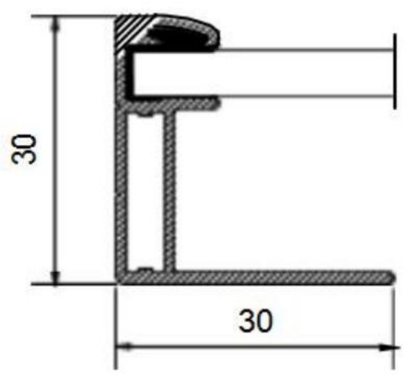
PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20’ container	216pcs
Module quantity per 40’ container	1001pcs

ENGINEERING DRAWINGS

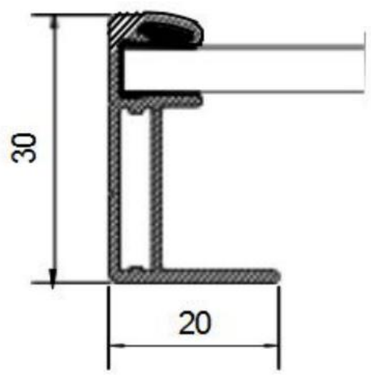
Unit: mm



Rear View

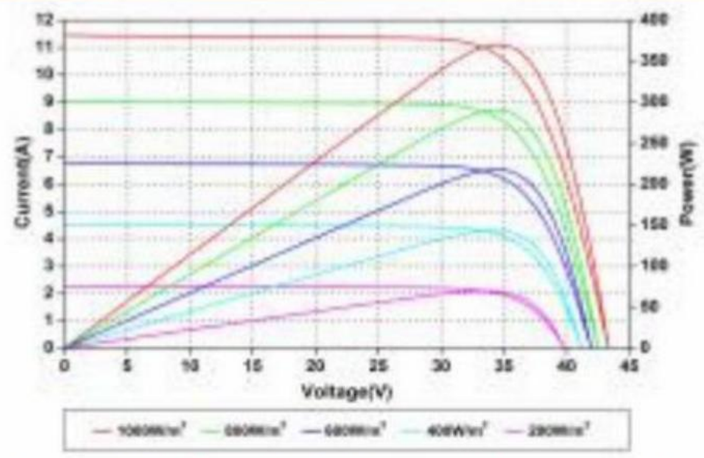


Section A-A

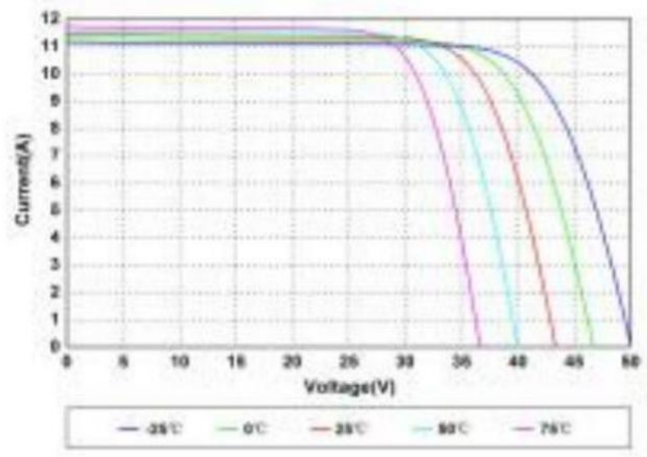


Section B-B

IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current- Voltage Curves at Different Temperatures