# тм 142

## Solar for Innovators

#### **Residential | Commercial**



30 Year	3X IEC	RETC Top	
Warranty	Standards	Performer	



3140 De La Cruz Blvd., Ste 200 Santa Clara, CA 95054 www.aptossolar.com info@aptossolar.com

## **Designed & Engineered in Silicon Valley** 440W | 445W | 450W

Our DNA<sup>™</sup> Split Cell Series impressively combines advanced solar technologies to maximize performance. Our patented Dual Nano Absorber (DNA<sup>™</sup>) Technology allows the panel to operate at high-efficencies in extreme temperatures. Contact our sales team today to learn more about our line of high-efficienty solar panels.



Patented DNA<sup>™</sup> technology boosts power performance & module efficiency

Advanced split cell technology with 9 ultrathin busbars allows for less resistance and more photon capture



Ideal solution for applications affected by shading



All-black design for pristine aesthetics No excessive silver bussing or ribbons



Robust product design is reslient in extreme weather. Up to 5400 Pa snow load and 6200 Pa wind load









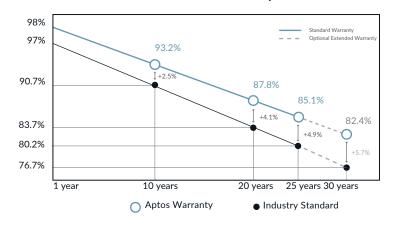
PHOTOVOLTAIC MODULE OVER 600 VOLTS E511348







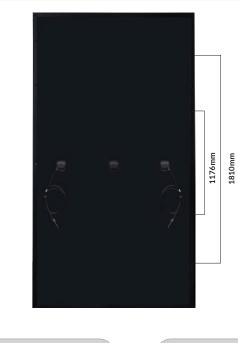
Linear Performance Warranty

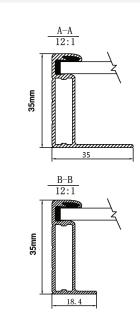


## DNA<sup>TM</sup> 144

### Solar for Innovators







1039mm

Electrical Specifications	DNA-144-MF26-440W	DNA-144-MF26-445W	DNA-144-MF26-450W
STCrated Output P <sub>mpp</sub> (W)	440W	445W	450W
Module Efficiency	20.21%	20.43%	20.66%
Open Circuit Voltage V <sub>voc</sub> (V)	49.9	50.1	50.3
Short Circiut Current I <sub>sc</sub> (A)	11.33	11.40	11.47
Rated Voltage $V_{_{mmp}}$ (V)	41.0	41.2	41.4
Rated Voltage $I_{mmp}$ (A)	10.74	10.81	10.88
Standard Test Conditions for front-face of panel: 1000 W/m², 25°C, measurement uncertainty ≤3%			

**35**mm

#### **Temperature Coefficients**

Temperature Coefficients P <sub>mmp</sub>	-0.38%
Temperature Coefficients I <sub>sc</sub>	+0.05%/°C
Temperature Coefficients V <sub>oc</sub>	-0.29%/°C
Normal Operating Cell Temperature (NOCT)	44°C

#### **Test Operating Conditions**

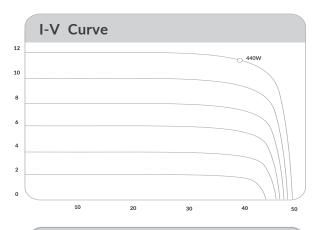
Maximum Series Fuse	20A
Maximum System Voltage	1,000 VDC (UL&IEC)
Maximum Load Capacity (Tested to UL 1703)	5400 Pa Snow Load/ 6200 Pa Wind Load
Fire Performance Class	Class C/Type 1

#### **Packaging Configuration**

Number of Modules per Pallet	30
Number of Pallets per 40ft. Container	22
Pallet Dimensions	2110 X 1120 X 2365
Pallet Weight (kg)	680
Container Weight (kg)	14960

#### **Mechanical Properties**

Cell Type	Monocrystalline
Glass	3.2mm, anti-reflection coating, high transmission, low iron, tempered glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Dimensions	2095 X 1039 X <b>35</b> mm
Output Cable	4mm2 (EU)12AWG,39.37in.(1200mm)
Weight	53.13lbs.(24.1kg)
Cable Length	1200mm
Encapsulant	POE



#### Certifications



