

DNA™ 144 Bifacial

Solar for Innovators

Residential | Commercial | Utility

Designed & Engineered in Silicon Valley

440W | 445W | 450W

Our DNA Split-cell Series impressively combines advanced technologies to maximize performance. Produce up to 30% more energy with the bi-facial rear side generation. Our patented DNA, Dual Nano Absorber, technology allows for panel to harvest energy from all directions and operate exceptionally in high heat temperatures.



Produce up to 30% more energy with rear-side generation



Advanced split cell technology with 9 ultra-thin 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 resilient in extreme weather. Up to 5400 Pa snow load and 6200 Pa Wind Load



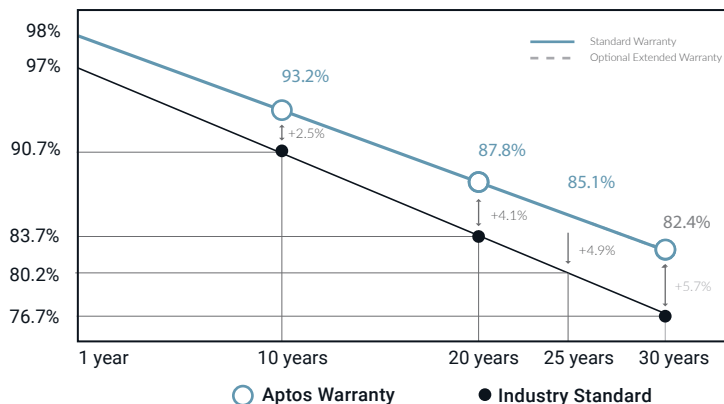
30 Year
Warranty

RETC Top
Performer



2081 Business Center Drive, Ste 100
Irvine, CA 92612
www.aptossolar.com
info@aptossolar.com

Linear Performance Warranty





Electrical Specifications

	DNA-144-BF26-440W	DNA-144-BF26-445W	DNA-144-BF26-450W
STCrated Output P_{mmp} (W)	440W	445W	450W
Module Efficiency	20.24%	20.47%	20.70%
Open Circuit Voltage V_{voc} (V)	49.0	49.2	49.4
Short Circiut Current I_{sc} (A)	11.36	11.44	11.52
Rated Voltage V_{mmp} (V)	40.8	41.0	41.2
Rated Voltage I_{mmp} (A)	10.79	10.86	10.93

Standard Test Conditions for front-face of panel: 1000 W/m², 25°C, measurement uncertainty ≤3%

Temperature Coefficients

Temperature Coefficients P_{mmp}	-0.32%
Temperature Coefficients I_{sc}	+0.05%/°C
Temperature Coefficients V_{oc}	-0.26%/°C
Normal Operating Cell Temperature (NOCT)	45°C

Test Operating Conditions

Maximum Series Fuse	20A
Maximum System Voltage	1,500 VDC (UL&IEC)
Maximum Load Capacity (Per UL 1703)	5400 Pa Snow Load / 6200 Pa Wind Load
Fire Performance Class	Class C/Type 1

Packaging Configuration

Number of Modules per Pallet	31
Number of Pallets per 40ft. Container	22
Pallet Dimensions	2130 X 1125 X 1171mm, 83.8 X 44.2 X 46.1in
Pallet Weight (lbs)	1739.45
Container Weight (lbs)	39292.98

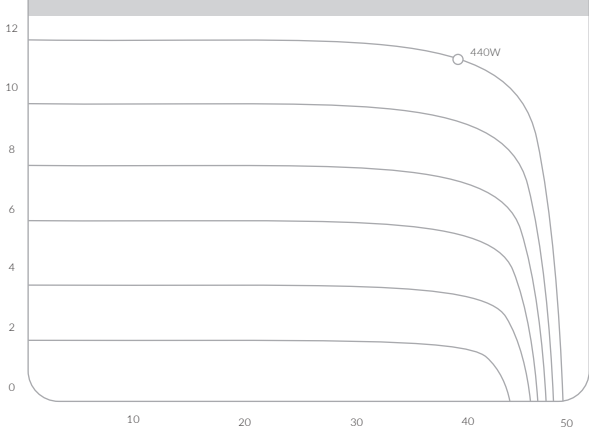
Certifications



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	2094 X 1038 X 35mm, 82.4 X 40.9 X 1.3in
Weight	55.3lbs,24.1kg
Output Cable	4mm2 (EU)12AWG
Cable Length	47.24in1200mm
Encapsulant	POE
Connector Type	Staubli EVO2

I-V Curve



Bifacial Output

P_{mpp} (W) at STC	440	445	450
Bi-facial Boost 5%	462	467	472
Bi-facial Boost 10%	484	490	495
Bi-facial Boost 15%	505	512	518