## DNA<sup>TM</sup> 144 Silver Frame Solar for Innovators

## Commercial I Utility



30 Year Warranty

RETC Top Performer



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

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

Our DNA Split-cell Series impressively combines advanced technologies to maximize performance. Our patented DNA, Dual Nano Absorber, technology allows for panel to harvest energy from all directions and operate exceptionally in high heat temperatures.



Patented DNA Technology boosts power performance and module efficiency



Advanced split cell technology with 9 ultra-thin busbars allows for less resistance and more photon capture



Ideal solution for applications affected by shading



PID Resistant with no performance loss when operating in wet or hot conditions



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



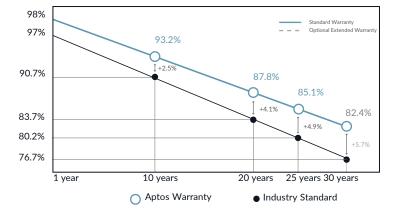


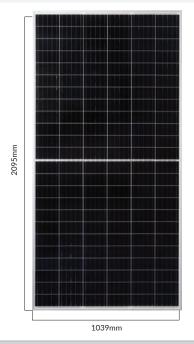


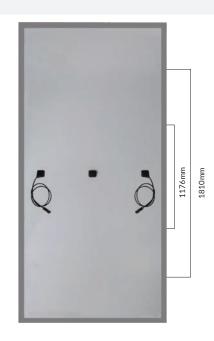


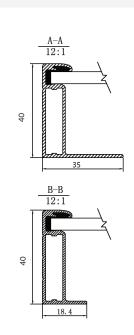


## **Linear Performance Warranty**









Electrical Specifications	DNA-144-MF26-450W	DNA-144-MF26-445W	DNA-144-MF26-440W
STCrated Output P <sub>mpp</sub> (W)	450W	445W	440W
Module Efficiency	20.21%	19.98%	19.76%
Open Circuit Voltage $V_{VOC}$ (V)	49.9	49.7	49.5
Short Circiut Current I <sub>SC</sub> (A)	11.33	11.26	11.19
Rated Voltage V <sub>mmp</sub> (V)	41.0	40.8	40.6
Rated Current I <sub>mmp</sub> (A)	10.74	10.67	10.60
Standard Test Conditions for front-face of panel: 1000 W/m², 25°C, measurement uncertainty <3%			

40mm

	Temperature Coefficients	
	Temperature Coefficients P <sub>mmp</sub>	-0.38%
	Temperature Coefficients $I_{\rm sc}$	+0.05%/°C
	Temperature Coefficients $V_{oc}$	-0.29%/°C
	Normal Operating Cell Temperature (NOCT)	44°C
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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	27
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 40mm	
Output Cable	4mm2 (EU)12AWG,39.37in.(1200mm)	
Weight	53.13lbs.(24.1kg)	
Cable Length	1200mm	
Encapsulant	POE	

