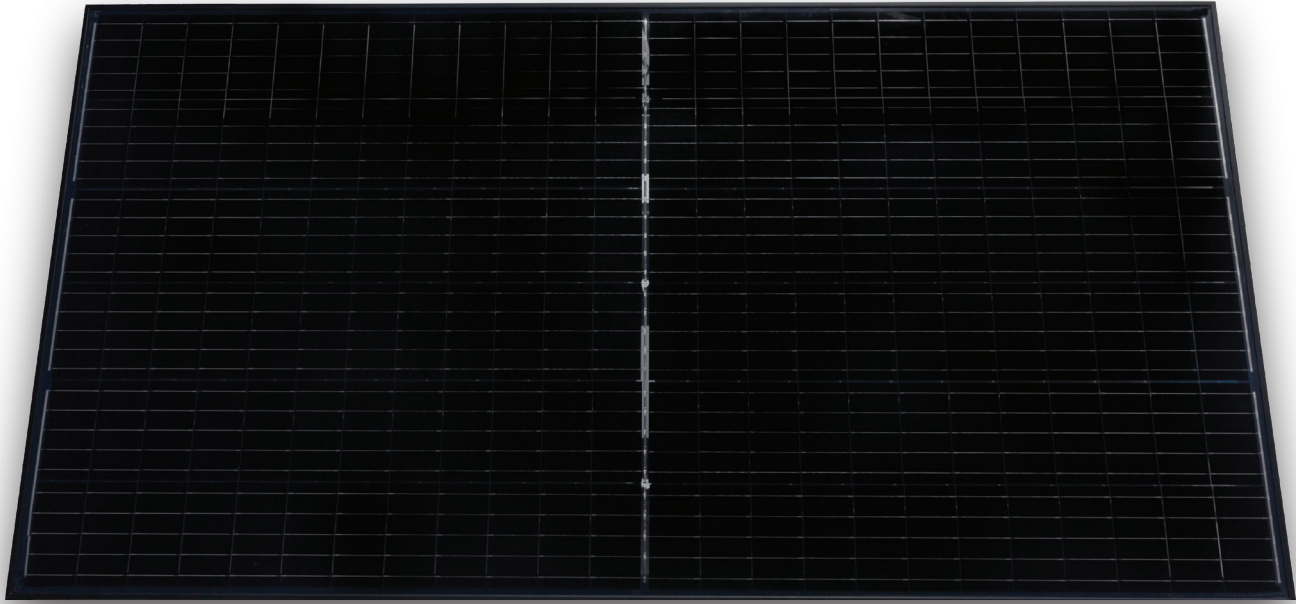



# DNA-144


ALL-BLACK BI-FACIAL DESIGN  
400W | 395W | 390W





## Maximize Energy Production

High-efficiency, Bi-facial half-cut cell panel

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

 Designed & engineered for extreme weather  
5400 Pa snow load  
5400 Pa (210 mph) wind load

 Ideal solution for applications affected by shading

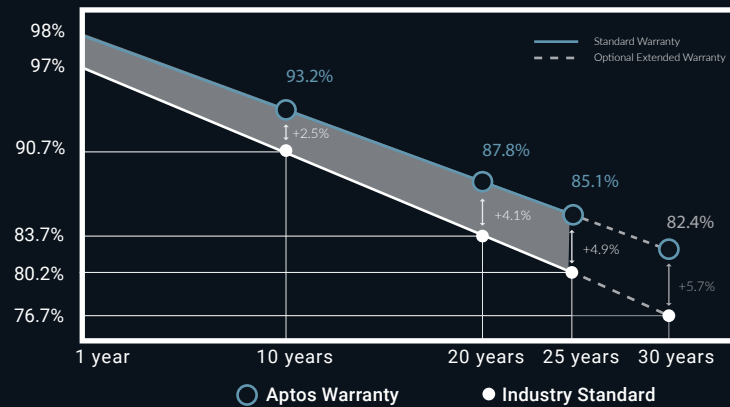
 25 year extended product warranty\*  
30 year extended peak power warranty\*

Our DNA Half-cut 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.

\*Aptos Solar Technology solar panels come with a standard 15 product warranty and 25 year peak power warranty. Customers must select optional warranty upgrade package to qualify extended 25 year product warranty and extended 30 year peak power warranty.

[www.aptosolar.com](http://www.aptosolar.com) | [info@aptosolar.com](mailto:info@aptosolar.com)

### Linear Performance Warranty



### Factory Certifications



### Product Certifications



# DNA-144

BLACK FRAME, TRANSPARENT BACKSHEET  
HIGH EFFICIENCY, BI-FACIAL HALF-CUT CELL PANEL



## ELECTRICAL SPECIFICATIONS (+3%/0%)

	DNA-144-BF23-390W	DNA-144-MB23-395W	DNA-144-BF23-400W
STCrated output $P_{mpp}$ (W)	390	395	400
Module Efficiency	19.28%	19.52%	19.77%
Open Circuit Voltage $V_{oc}$ (V)	48.17	48.26	48.35
Short Circuit Current $I_{sc}$ (A)	10.14	10.23	10.32
Rated Voltage $V_{mmp}$ (V)	39.65	39.83	40.01
Rated Current $I_{mmp}$ (A)	9.84	9.92	10.00

Standard Test Conditions for front-face of panel:  
1000 W/m<sup>2</sup>, 25 °C, measurement uncertainty ≤3%

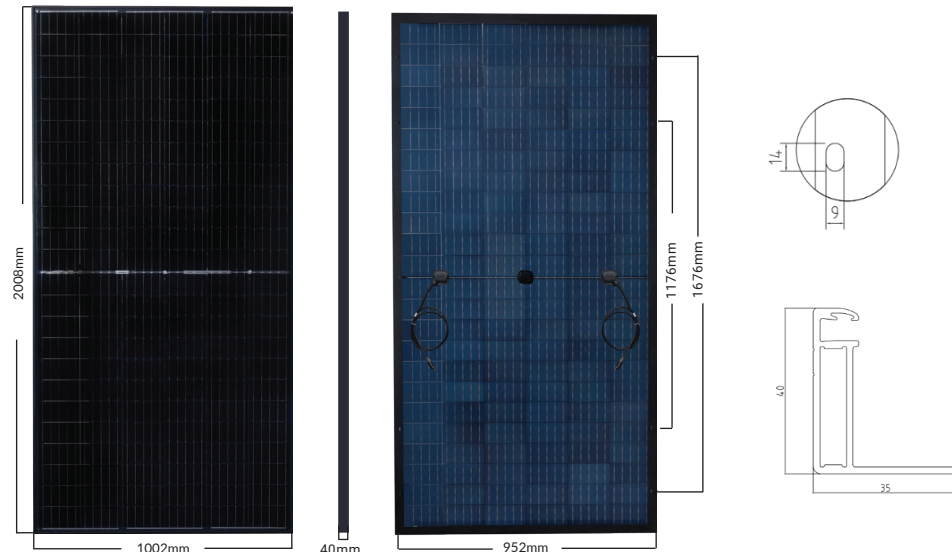
## TEMPERATURE COEFFICIENTS

Temperature Coefficients $P_{mpp}$	-0.36%/°C
Temperature Coefficients $I_{sc}$	+0.046%/°C
Temperature Coefficients $V_{oc}$	-0.306%/°C
Normal Operating Cell Temperature (NOCT)	45°C

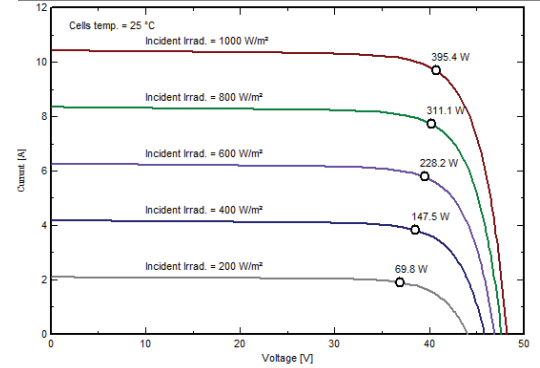
## TEST OPERATING CONDITIONS

Maximum Series Fuse	20A
Maximum System Voltage	1,500 VDC (UL&IEC)
Maximum Load Capacity (Per UL1703)	Front Load: 5400 PA Snow load / 113 PSF / 2444 lbs. Rated Load Rear Load: 5400 PA Wind load / 113 PSF / 210 MPH Rated Load
Fire Performance Class	Class C/Type 1

## MODULE DIMENSIONS



## I-V CURVE



## BI-FACIAL OUTPUT

$P_{mpp}$ (W) at STC	390	395	400
Bi-facial Boost 5%	404	409	414
Bi-facial Boost 10%	418	423	428
Bi-facial Boost 15%	430	436	442

## MECHANICAL PROPERTIES

Cell Type	Monocrystalline
Glass	Low Iron, Tempered
Frame	Anodized Aluminum Alloy
Junction Box	IP67
Dimension	2008 x 1002 x 40mm
Output Cable	4mm <sup>2</sup> (EU)12AWG, 39.37in(1200mm)
Weight	51.4lbs.(23.3kg)
Cable Length	1200mm

## PACKAGING CONFIGURATION

Number of Modules per Pallet	27
Number of Pallets per 40ft HQ Container	22
Pallet Dimensions (mm)	2050 x 1140 x 1140 mm
Pallet weight (kg)	680
Container weight (kg)	14960

Aptos Solar Technology reserves the right to make specification changes without notice

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DNA-144-BF23-XXXW  
RESIDENTIAL | COMMERCIAL | UTILITY