DNA™ 120-Bifacial

Solar for Innovators

aptos™ solar technology

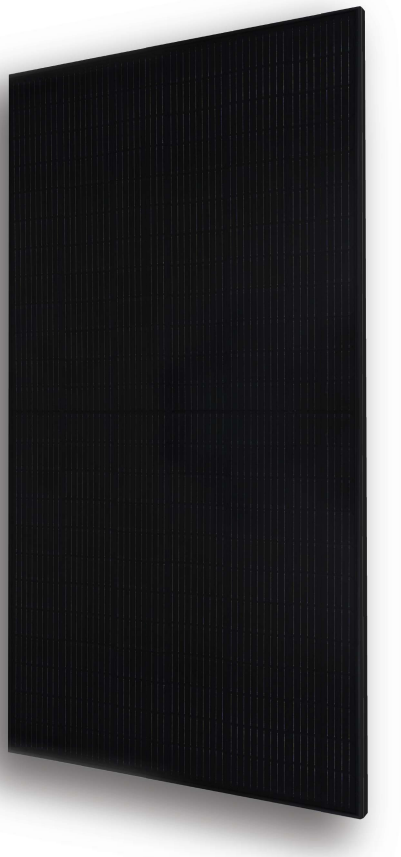
Industry Leading 30 Years Product and Performance Warranty

DNA-120-BF10-460W

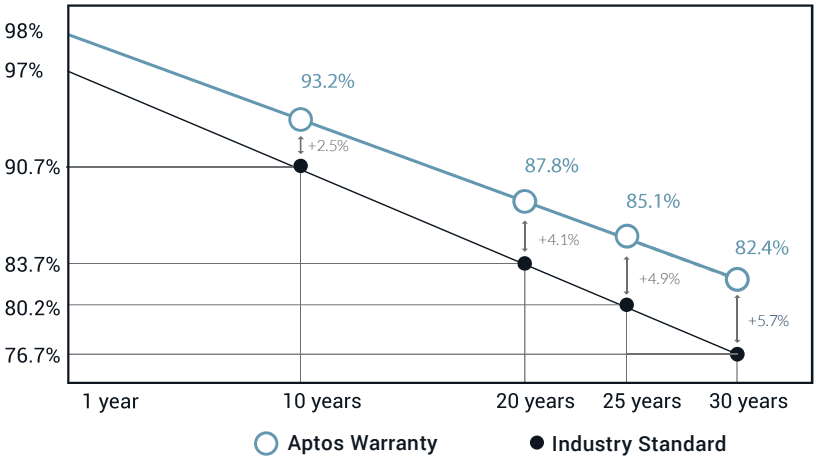
Residential | Commercial

445W | 450W | 455W | 460W

Our DNA Split Cell Series uses advanced selective emitter PERC technology with thin film layers to improve heat tolerance, maximize energy harvest, minimize resistive loss, and use 5% more of the available active area for optimal power performance.



Linear Performance Warranty



Key Features

Advanced Technology

Patented DNA™ technology boosts power performance & module efficiency.

Designed & Engineered In Silicon Valley

Miami-Dade Approved*

Maximum Durability: LEVEL 6 SALT MIST Tested, 5400 Pa Wind Load Certified Panels

Awards

Winners of the Leadership in Solar Energy award for three consecutive years and listed as one of the Top Solar Products from 2021-2022.

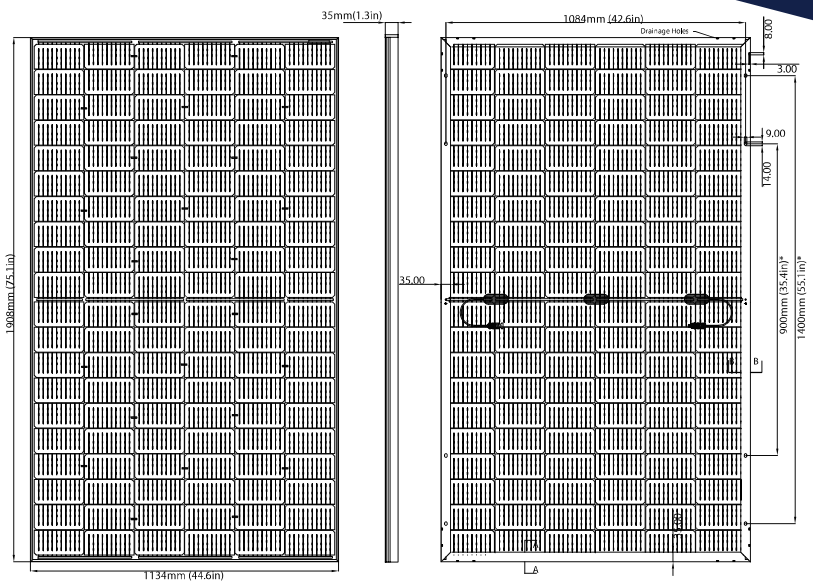
Bankable Investment

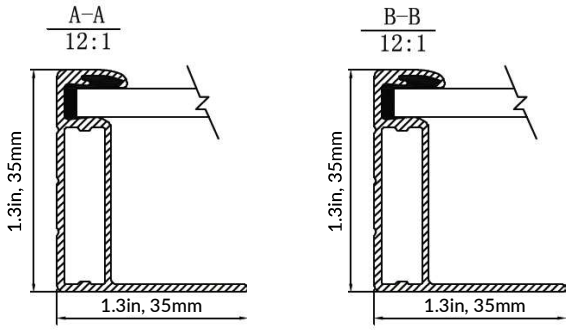
Comprehensive warranty that covers both **30-year product** and **30-year power** performance.

Aesthetics

All black design with advanced split cell technology features 10 ultra-thin busbars that allow for less resistance and greater energy harvest.

DNA™ 120 Bifacial





Electrical Specifications

	DNA-120-BF10-445W		DNA-120-BF10-450W		DNA-120-BF10-455W		DNA-120-BF10-460W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
STC Rated Output P_{mpp} (W)	445W	333W	450W	337W	455W	341W	460W	344W
Open Circuit Voltage V_{VOC} (V)	41.20	39.32	41.30	39.41	41.50	39.50	41.60	38.92
Short Circuit Current I_{SC} (A)	13.79	11.90	13.86	12.01	13.92	12.12	14.01	12.43
Rated Voltage V_{mp} (V)	34.00	32.25	34.20	32.32	34.30	32.39	34.43	32.44
Rated Voltage I_{mp} (A)	13.11	10.33	13.20	10.42	13.27	10.51	13.38	10.60
Module Efficiency	20.57%		20.79%		21.03%		21.26%	

STC for front-face of panel: 1000 W/m², 25°C, measurement uncertainty ≤3%
NOCT for front-face of panel: 800W/m²,45°C, Wind speed 1 m/s

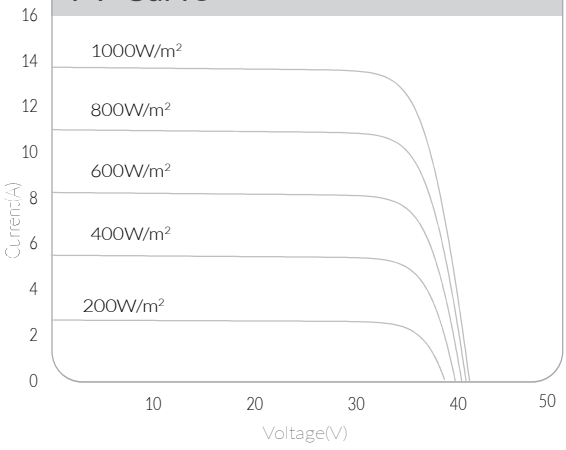
Mechanical Properties

Cell Type	SE-PERC
Glass	3.2mm(0.12in), anti-reflection coating, high transmission, low iron, tempered glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Dimensions	75.1 X 44.6 X 1.3 in, 1908 X 1134 X 35 mm
Weight	51 lbs, 23.13Kg
Output Cable	4mm² (EU)12AWG
Cable Length	47.2in, 1200mm
Connector Type	Staubli EVO2

Bifacial Output-Rearside Power Gain

5%-Maximum Power (Pmax)	467W	473W	478W	483W
5%-Module Efficiency STC(%)	21.60%	21.84%	22.08%	22.32%
15%-Maximum Power (Pmax)	512W	518W	523W	529W
15%-Module Efficiency STC(%)	23.65%	23.92%	24.18%	24.45%
25%-Maximum Power (Pmax)	556W	563W	569W	575W
25%-Module Efficiency STC(%)	25.71%	26.00%	26.29%	26.58%

I-V Curve



Test Operating Conditions

Maximum Series Fuse	30A
Maximum System Voltage	1,500 VDC (UL&IEC)
Maximum Load Capacity (Per UL 1703)	5400 Pa Snow Load / 5400 Pa Wind Load**
Fire Performance Type	Type 1

Temperature Coefficients

Temperature Coefficients P_{mmp}	-0.35%/°C
Temperature Coefficients I_{sc}	+0.0453%/°C
Temperature Coefficients V_{OC}	-0.2738%/°C
Normal Operating Cell Temperature (NOCT)	45°C±2°C

Packaging Configuration

Modules per Pallet	31
Pallets per 40ft. Container	24
Pallet Dimensions	76.29 X 44.48 X 49.76 in, 1938 X 1130 X 1264 mm
Pallet Weight (lbs)	1581lbs, 717.12 Kg
Modules per 40ft. Container	744

Certifications

UL61730-1
UL61730-2

4502 Centerview Dr. Ste. 100
San Antonio, TX 78228
www.aptossolar.com l sales@aptossolar.com

* 1.Mounting hole locations shown may not reflect actual locations. Top mount clamps are recommended.
**2.Applicable only for clamping method, 5400Pa front side/ 2400Pa rear side load capacity for installation with mounting holes.
Aptos Solar Technology reserves the right to make specification changes without notice.

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