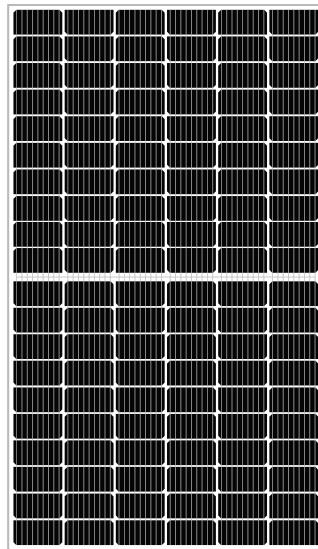
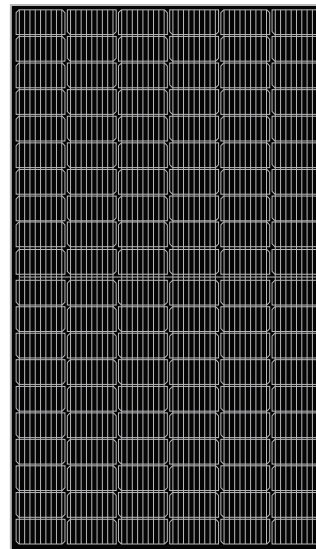
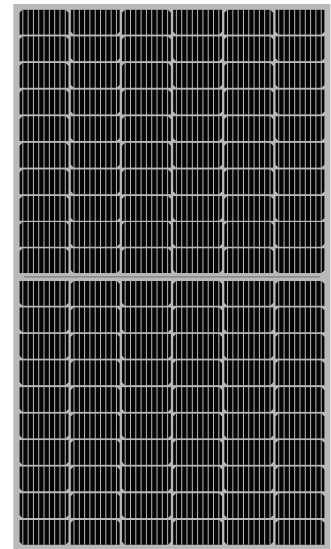


GKA182N120
480W-500W

GKA182N120S
STANDARD

GKA182N120BK
BLACK VERSION

GKA182N120BF
BIFACIAL

KEY FEATURES



M Busbar Solar Cell

M Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



High Efficiency:

Higher module conversion efficiency (up to 23.10%) benefit from N-TOPCon cell technology.



PID Resistance:

Excellent Anti-PID performance guarantee limited power degradation for mass production.



Low-light Performance:

Advanced glass and cell surface textured design ensure excellent performance in low-light environment.



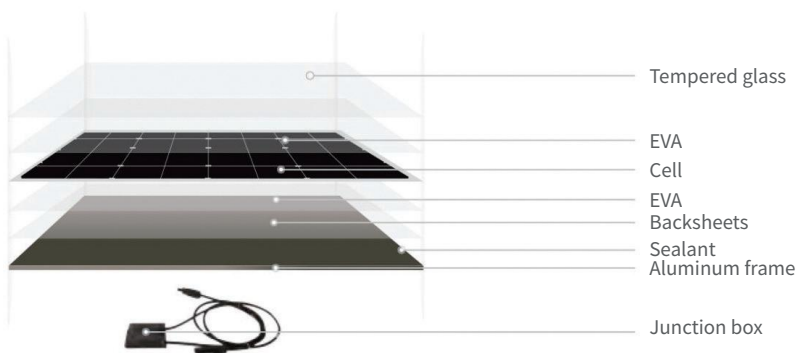
Severe Weather Resilience:

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.



★ ORATEK SOLAR MODULE BOM

CELLS: TIER 1 BRANDS SOLAR CELLS

TEMPERED GLASS: ULTRA-CLEAR

EVA: TRANSPARENCY > 93%

BACKSHEETS: REFLECTIVITY > 80%, TPT

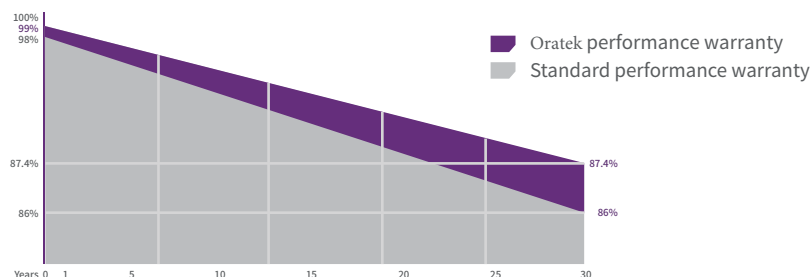
JUNCTION BOX: IP68 MAX 30A

SILICON GEL: UV, AGING-RESISTANT

FRAME: ANODIZED ALUMINUM 6005-T5

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty · 30 Year Linear Power Warranty



★ ORATEK QUALITY CONTROL

- ◆ 2 EL testing avoid cells cracking of each solar module.
- ◆ 2 Power flash testing avoid false welding and insufficient power of each module.
- ◆ Packing tightly with angle protection avoid transportation broken.
- ◆ Oratek official Warranty cover all Oratek solar module 30 years.

GKA182N120

480W-500W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	480W	361W	485W	365W	490W	369W	495W	373W	500W	377W
Open Circuit Voltage (V_{oc})	43.27V	41.17V	43.48V	41.35V	43.69V	41.53V	43.90V	41.71V	44.11V	41.89V
Short Circuit Current (I_{sc})	14.19A	11.44A	14.26A	11.50A	14.33A	11.56A	14.40A	11.62A	14.47A	11.68A
Voltage at Maximum Power (V_{mpp})	36.20V	33.36V	36.38V	33.55V	36.57V	33.73V	36.75V	33.91V	36.93V	34.09V
Current at Maximum Power (I_{mpp})	13.26A	10.82A	13.33A	10.88A	13.40A	10.94A	13.47A	11.00A	13.54A	11.06A
Module Efficiency STC (%)	22.16%		22.39%		22.63%		22.87%		23.10%	

STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5; Tolerance of P_{max} : $\pm 3\%$; Measurement Tolerance: $\pm 3\%$, P_{max} According Oratek's official testing.

NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s; Tolerance of P_{max} : $\pm 3\%$; Measurement Tolerance: $\pm 3\%$, P_{max} According Oratek's official testing.

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

5%	Maximum Power(P_{max})	504W	509W	515W	520W	525W
	Module Efficiency STC (%)	23.28%	23.52%	23.79%	24.02%	24.25%
15%	Maximum power (P_{max})	552W	558W	564W	569W	575W
	Module Efficiency STC (%)	25.50%	25.76%	26.05%	26.28%	26.56%
25%	Maximum Power(P_{max})	600W	606W	613W	619W	625W
	Module Efficiency STC (%)	27.72%	28.00%	28.32%	28.59%	28.87%

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCON 182*91mm
Number of cells	120(6x20)
Module dimensions	1909*1134*30MM
Weight	21kg
Front cover	3.2mm coated tempered glass
Frame	Anodized aluminum alloy
Junction box	IP68 rated (3 by pass diodes)
Cable	4mm ² (0.006inches ²), Portrait: 300mm(11.81inches);
Connector	PV compatible

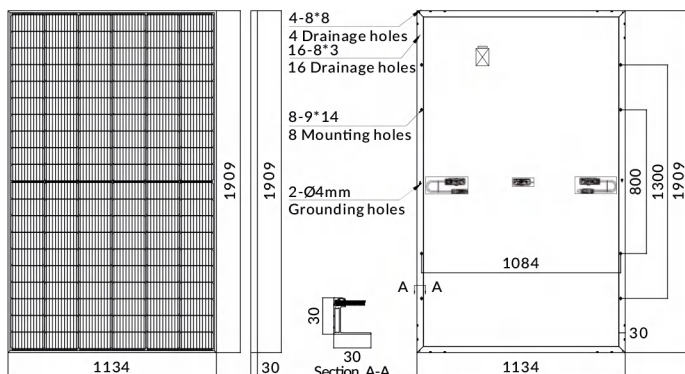
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C $\pm 2^{\circ}\text{C}$
Temperature Coefficients of P_{max}	-0.30%/°C
Temperature Coefficients of V_{oc}	-0.25%/°C
Temperature Coefficients of I_{sc}	-0.046%/°C

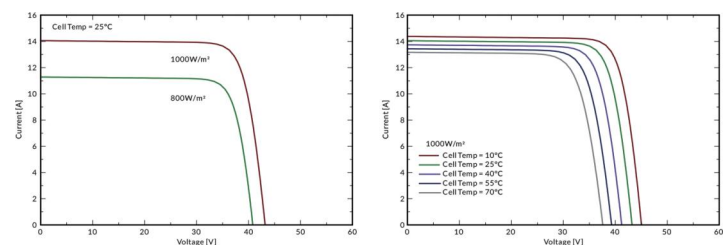
PACKAGING

Standard packaging	36pcs/pallet
Module quantity per 20' container	390pcs
Module quantity per 40' container	864pcs(HQ)

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



Specifications included in this datasheet are subject to change without notice.