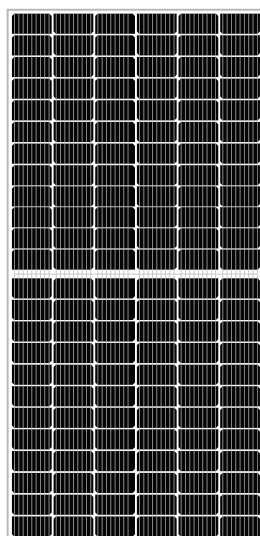
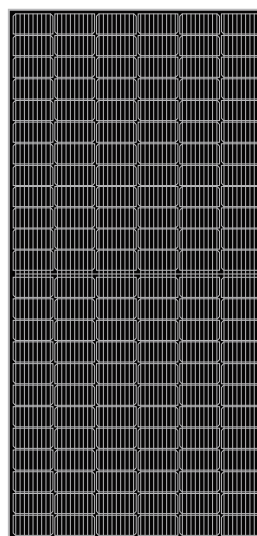
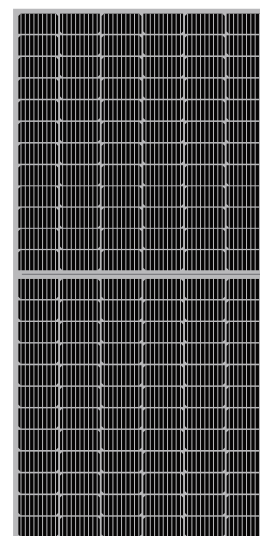


GKA182N144
580W-600W

GKA182N144S
STANDARD

GKA182N144BK
BLACK VERSION

GKA182N144BF
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 23.22%) 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.



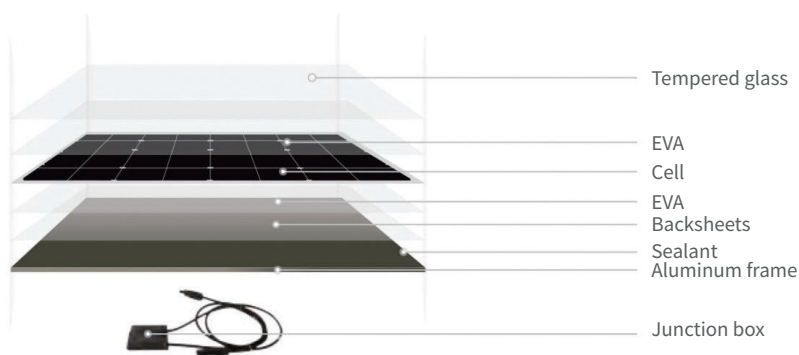
Severe Weather Resilience:

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

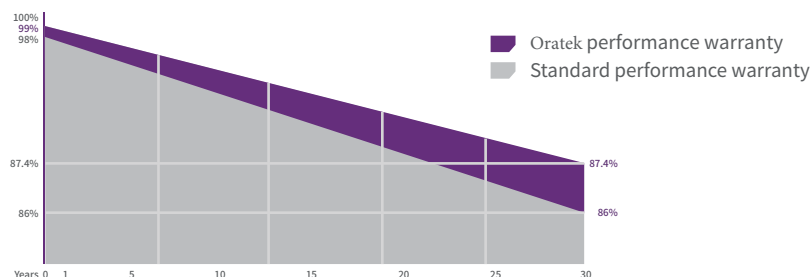
JUNCTION BOX: IP68 MAX 30A

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.

GKA182N144

580W-600W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	580W	437W	585W	441W	590W	445W	595W	449W	600W	453W
Open Circuit Voltage (V_{oc})	51.57V	49.14V	51.71V	49.32V	51.84V	49.50V	51.98V	49.68V	52.11V	49.86V
Short Circuit Current (I_{sc})	14.33A	11.57A	14.40A	11.63A	14.47A	11.69A	14.54A	11.75A	14.61A	11.81A
Voltage at Maximum Power (V_{mpp})	43.09V	39.91V	43.24V	40.02V	43.38V	40.16V	43.53V	40.31V	43.67V	40.45V
Current at Maximum Power (I_{mpp})	13.46A	10.95A	13.53A	11.02A	13.60A	11.08A	13.67A	11.14A	13.74A	10.20A
Module Efficiency STC (%)	22.44%		22.64%		22.83%		23.02%		23.22%	

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})	609W	614W	620W	625W	630W
	Module Efficiency STC (%)	23.56%	23.76%	23.99%	24.18%	24.38%
15%	Maximum power (P_{max})	667W	673W	679W	684W	690W
	Module Efficiency STC (%)	25.81%	26.04%	26.27%	26.47%	26.70%
25%	Maximum Power(P_{max})	725W	731W	738W	744W	750W
	Module Efficiency STC (%)	28.05%	28.29%	28.56%	28.79%	29.02%

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCON 182*91mm
Number of cells	144(6x24)
Module dimensions	2279*1134*30MM
Weight	25kg
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

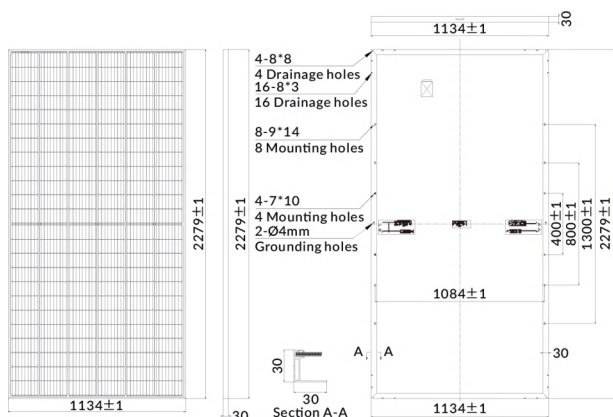
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C $\pm$ 2°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

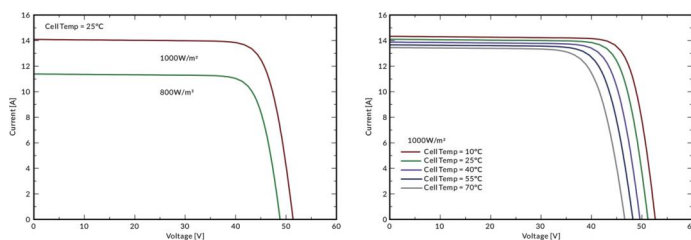
PACKAGING

Standard packaging	36pcs/pallet
Module quantity per 20' container	325pcs
Module quantity per 40' container	720pcs(HQ)

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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