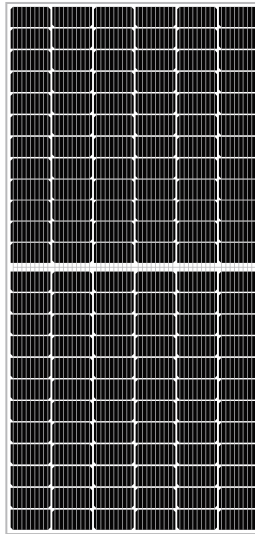
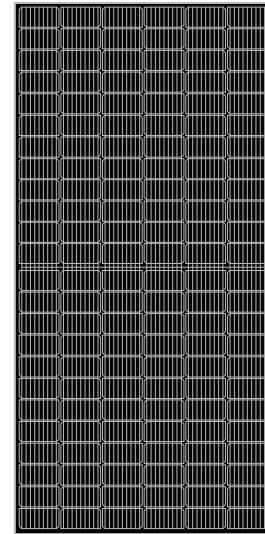


GKA166M144
440W-460W



GKA166M144S
STANDARD



GKA166M144BK
BLACK VERSION

KEY FEATURES

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

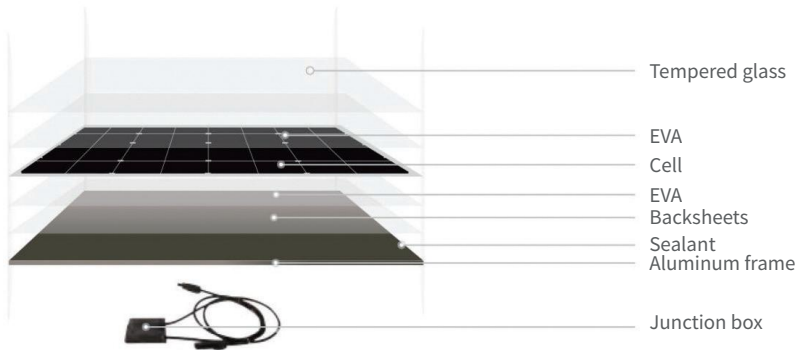
High Efficiency:
Higher module conversion efficiency (up to 21.02%) benefit from Passivated Emitter Rear Contact (PERC) technology.

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.

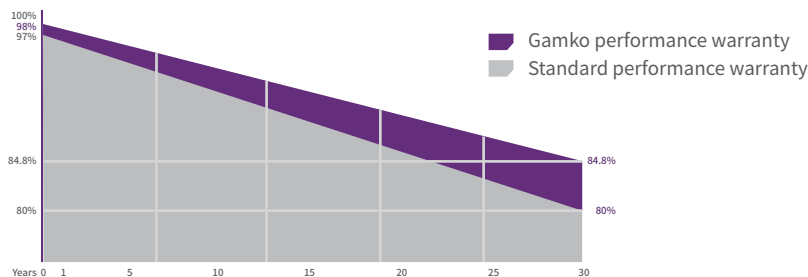


★ GAMKO SOLAR MODULE BOM

- 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



★ GAMKO 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.
- ◆ Gamko official Warranty cover all Gamko solar module 30 years.

GKA166M144
440W-460W



ELECTRICAL CHARACTERISTICS AT STC

Maximum Power(P _{max})	440W	445W	450W	455W	460W
Open Circuit Voltage (V _{oc})	49.60V	49.79V	49.98V	50.17V	50.36V
Short Circuit Current (I _{sc})	11.42A	11.48A	11.54A	11.60A	11.66A
Voltage at Maximum Power (V _{mpp})	41.01V	41.20V	41.40V	41.59V	41.78V
Current at Maximum Power (I _{mpp})	10.73A	10.80A	10.87A	10.94A	11.01A
Module Efficiency (%)	20.11%	20.34%	20.57%	20.79%	21.02%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power(P _{max})	324W	327W	330W	333W	336W
Open Circuit Voltage (V _{oc})	45.51V	45.54V	45.56V	45.59V	45.61V
Short Circuit Current (I _{sc})	9.16A	9.22A	9.29A	9.35A	9.42A
Voltage at Maximum Power (V _{mpp})	37.67V	37.77V	37.88V	37.98V	38.09V
Current at Maximum Power (I _{mpp})	8.60A	8.66A	8.71A	8.77A	8.82A

STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5; Tolerance of P_{max}: ±3%; Measurement Tolerance: ±3%, P_{max} According Gamko's official testing.
 NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s; Tolerance of P_{max}: ±3%; Measurement Tolerance: ±3%, P_{max} According Gamko's official testing.

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 166*83mm
Number of cells	144(6x24)
Module dimensions	2108*1038*30MM
Weight	21kg
Front cover	3.2mm (0.13inches)tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68 rated (3 by pass diodes)
Cable	4mm ² (0.006inches ²),Portrait: 300mm(11.8inches);
Connector	PV compatible

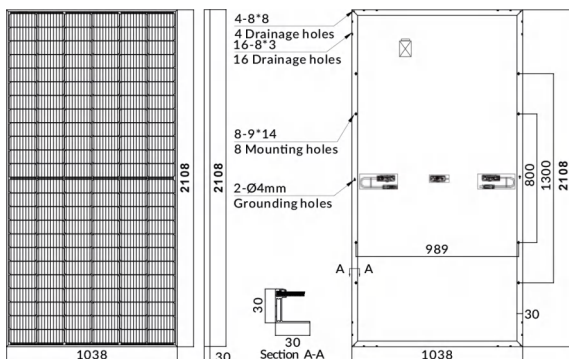
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P _{max}	-0.36%/°C
Temperature Coefficients of V _{oc}	-0.28%/°C
Temperature Coefficients of I _{sc}	-0.05%/°C

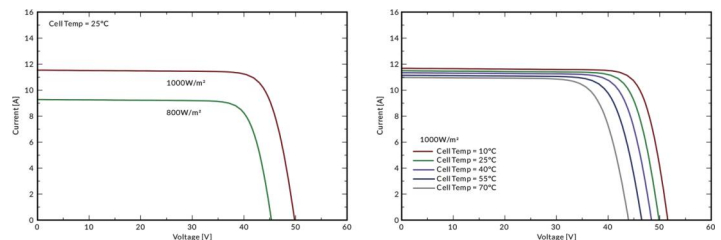
PACKAGING

Standard packaging	36pcs/pallet
Module quantity per 20' container	360pcs
Module quantity per 40' container	792pcs(HQ)

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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