

GKA72M-166

420-450 Watt

MONO CRYSTALLINE MODULE

6BB
166mm

GAMKO SOLAR

KEY FEATURES



6 Busbar Solar Cell:

6 busbar cell design improves module efficiency and offers better aesthetic appearance for rooftop in stallation.



High Efficiency:

Higher module conversion efficiency (up to 24.67%) benefit from Passivated Emmitter Rear Contact (PERC) technology.



PID Resistance:

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



Low-light Performance:

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



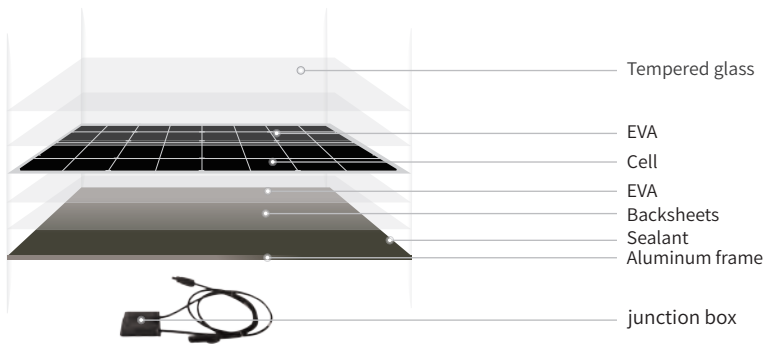
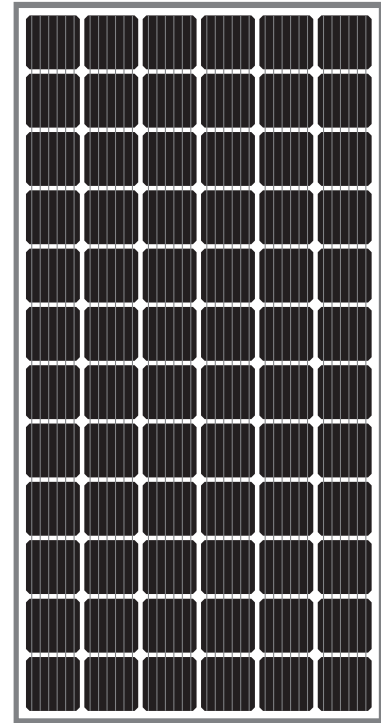
Severe Weather Resilience:

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



DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified by TUV NORD.



GAMKO SOLAR MODULE BOM

CELLS: TIER 1 BRANDS SOLAR CELLS

TEMPERED GLASS: ULTRA-CLEAR

EVA: TRANSPARENCY > 93%

BACKSHEETS: REFLECTIVITY > 80%, TPT

JUNCTION BOX: IP65/IP67 MAX 30A

SILICON GEL: UV, AGING-RESISTANT

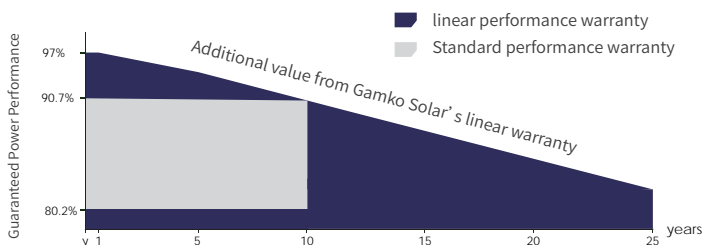
FRAME: ANODIZED ALUMINUM 6005-T5

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.

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty • 30 Year Linear Power Warranty



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ELECTRICAL CHARACTERISTICS AT STC

Nominal Power (P_{max})	420W	430W	440W	445W	450W
Open Circuit Voltage (V_{oc})	50.6V	51.2V	51.8V	51.9V	51.9V
Short Circuit Current (I_{sc})	10.58A	10.70A	10.82A	10.93A	11.04A
Voltage at Nominal Power (V_{mp})	41.5V	42.0V	42.5V	42.5V	42.6V
Current at Nominal Power (I_{mp})	10.13A	10.24A	10.36A	10.46A	10.57A
Module Efficiency (%)	19.29%	19.75%	20.21%	20.43%	20.66%
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1000VDC (IEC)				
Fire Resistance Rating	Type 1(in accordance with 1703)/Class C(IEC61730)				
Maximum Series Fuse Rating	20A				

*STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5

ELECTRICAL CHARACTERISTICS AT NOCT

Nominal Power (P_{max})	311W	318W	326W	329W	333W
Open Circuit Voltage (V_{oc})	46.6V	47.1V	47.7V	47.7V	47.8V
Short Circuit Current (I_{sc})	8.57A	8.67A	8.77A	8.86A	8.95A
Voltage at Nominal Power (V_{mp})	37.8V	38.3V	38.7V	38.8V	38.8V
Current at Nominal Power (I_{mp})	8.20A	8.30A	8.39A	8.48A	8.56A

*NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1 m/s

MECHANICAL CHARACTERISTICS

Cell type	Mono 166x166mm
Number of cells	72(6x12)
Module dimensions	2070x1052x35mm
Weight	25kg
Front cover	3.2mm, Anti-Reflection Coating, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction box	IP67 Rated
Cable	TÜV 1×4.0mm ² , Length:900mm or Customized Length
Connector	PV Connector (compatible)

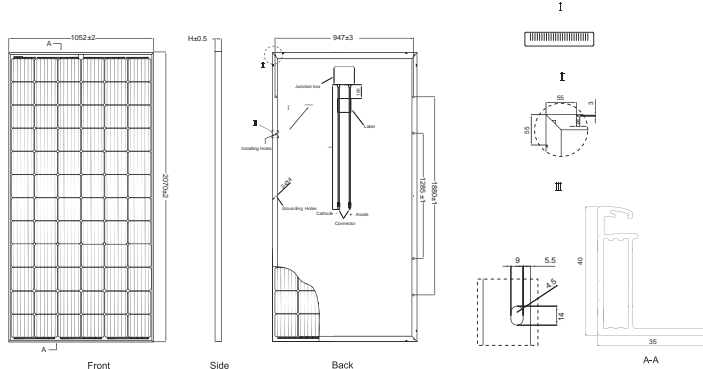
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.39%/°C
Temperature Coefficients of V_{oc}	-0.30%/°C
Temperature Coefficients of I_{sc}	0.06%/°C

PACKAGING

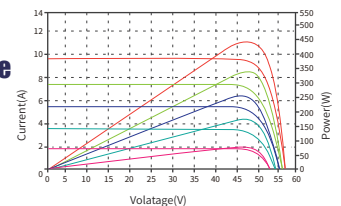
Standard packaging	31pcs/pallet
Module quantity per 20' container	324pcs
Module quantity per 40' container	648pcs(GP)/698pcs(HQ)

ENGINEERING DRAWINGS

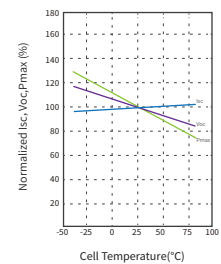


Electrical Performance & Temperature Dependence

Current-Voltage and Power-Voltage Curves (430W)



Temperature Dependence of I_{sc} , V_{oc} , P_{max}



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