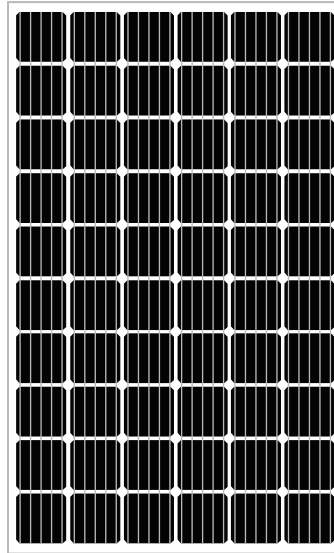
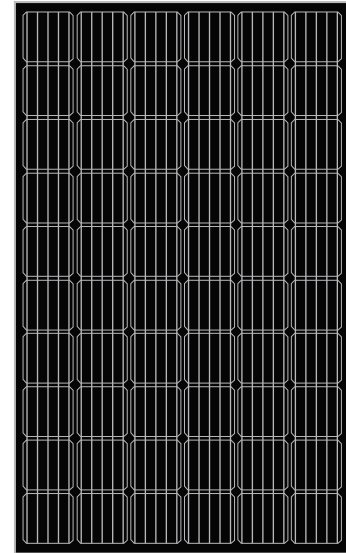


**GKA157M60**  
320W-340W



**GKA157M60S**  
**STANDARD**

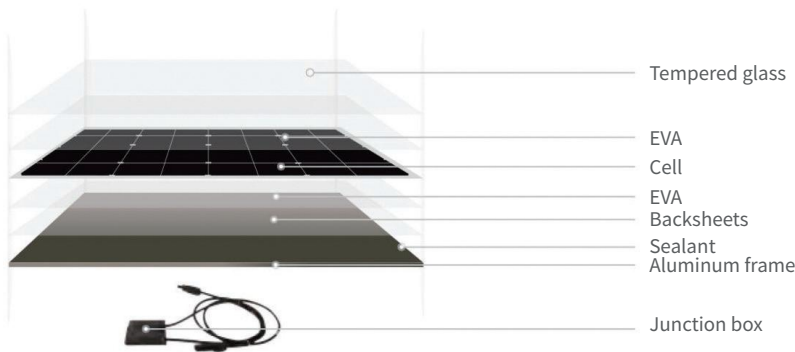


**GKA157M60BK**  
**BLACK VERSION**

**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 20.90%) benefit from Passivated Emmitter 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.

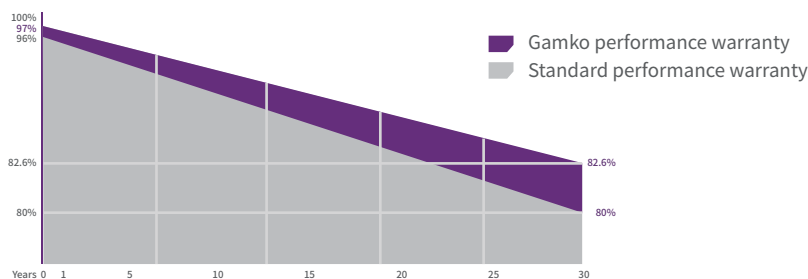


★ **GAMKO SOLAR MODULE BOM**

- CELLS:** TIER 1 BRANDS SOLAR CELLS
- TEMPERED GLASS:** ULTRA-CLEAR
- EVA:** TRANSPARENCY > 93%
- BACKSHEETS:** REFLECTIVITY > 80%, TPT
- JUNCTION BOX:** IP67 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.

**GKA157M60**  
**320W-340W**



**ELECTRICAL CHARACTERISTICS AT STC**

Maximum Power(P <sub>max</sub> )	320W	325W	330W	335W	340W
Open Circuit Voltage (V <sub>oc</sub> )	40.50V	40.70V	40.90V	41.10V	41.40V
Short Circuit Current (I <sub>sc</sub> )	10.07A	10.17A	10.29A	10.39A	10.48A
Voltage at Maximum Power (V <sub>mpp</sub> )	33.20V	33.40V	33.50V	33.70V	33.90V
Current at Maximum Power (I <sub>mpp</sub> )	9.64A	9.73A	9.85A	9.94A	10.03A
Module Efficiency (%)	19.67%	19.98%	20.28%	20.59%	20.90%

**ELECTRICAL CHARACTERISTICS AT NOCT**

Maximum Power(P <sub>max</sub> )	237W	241W	244W	248W	252W
Open Circuit Voltage (V <sub>oc</sub> )	37.30V	37.50V	37.60V	37.80V	38.00V
Short Circuit Current (I <sub>sc</sub> )	8.16A	8.24A	8.34A	8.41A	8.49A
Voltage at Maximum Power (V <sub>mpp</sub> )	30.30V	30.50V	30.60V	30.70V	30.90V
Current at Maximum Power (I <sub>mpp</sub> )	7.81A	7.88A	7.98A	8.05A	8.12A

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5; Tolerance of P<sub>max</sub>: ±3%; Measurement Tolerance: ±3%, P<sub>max</sub> According Gamko's official testing.  
NOCT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1m/s; Tolerance of P<sub>max</sub>: ±3%; Measurement Tolerance: ±3%, P<sub>max</sub> According Gamko's official testing.

**MECHANICAL CHARACTERISTICS**

Cell type	Monocrystalline PERC 157*157mm
Number of cells	60(6x10)
Module dimensions	1640*992*30MM
Weight	17.5kg
Front cover	3.2mm (0.13inches)tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP67 rated (3 by pass diodes)
Cable	4mm <sup>2</sup> (0.006inches <sup>2</sup> ),Portrait: 900mm (35.43inches);
Connector	PV compatible

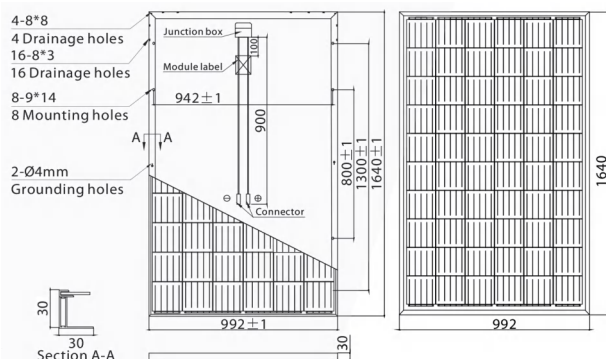
**TEMPERATURE CHARACTERISTICS**

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

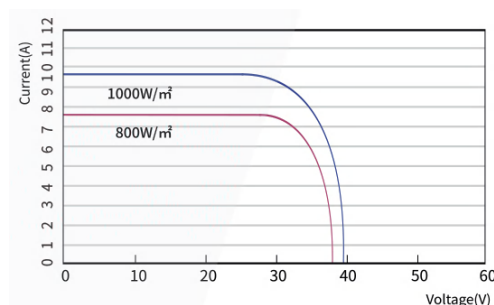
**PACKAGING**

Standard packaging	36pcs/pallet
Module quantity per 20' container	480pcs
Module quantity per 40' container	1120pcs(HQ)

**ENGINEERING DRAWINGS**

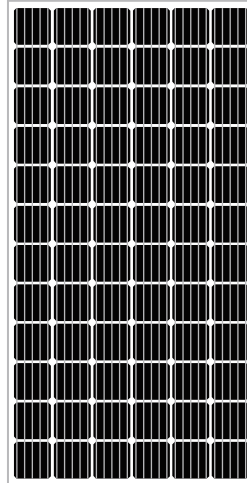


**Electrical Performance & Temperature Dependence**

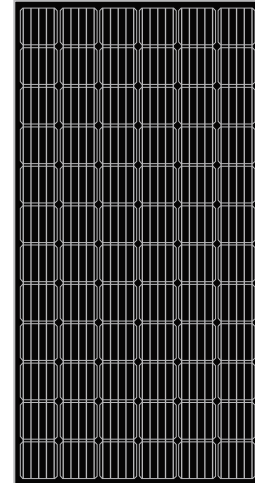


Specifications included in this datasheet are subject to change without notice.

**GKA157M72**  
390W-410W



**GKA157M72S**  
**STANDARD**



**GKA157M72BK**  
**BLACK VERSION**

## KEY FEATURES

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

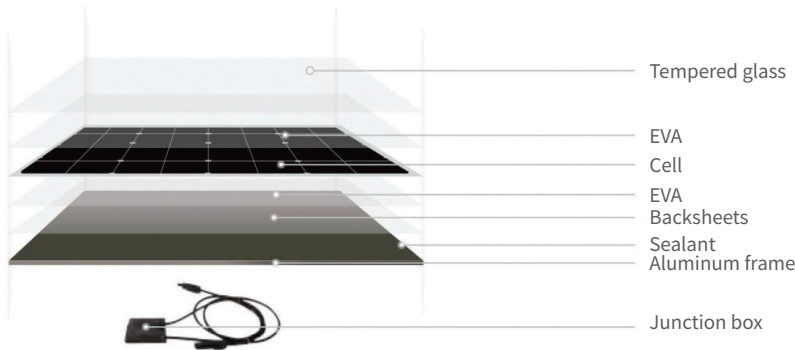
**High Efficiency:**  
Higher module conversion efficiency (up to 21.13%) benefit from Passivated Emitter Rear Contact (PERC) technology.

**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.

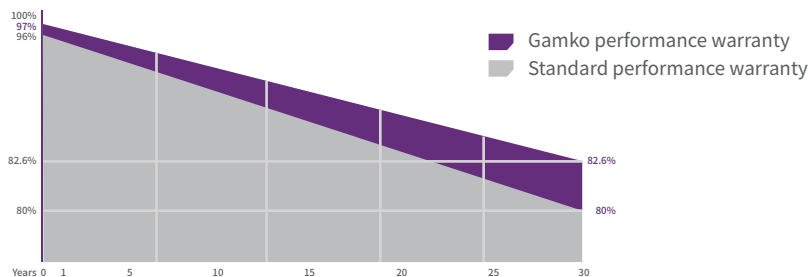


### ★ GAMKO SOLAR MODULE BOM

- CELLS:** TIER 1 BRANDS SOLAR CELLS
- TEMPERED GLASS:** ULTRA-CLEAR
- EVA:** TRANSPARENCY > 93%
- BACKSHEETS:** REFLECTIVITY > 80%, TPT
- JUNCTION BOX:** IP67 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.

**GKA157M72**  
**390W-410W**



**ELECTRICAL CHARACTERISTICS AT STC**

Maximum Power(P <sub>max</sub> )	390W	395W	400W	405W	410W
Open Circuit Voltage (V <sub>oc</sub> )	50.10V	50.40V	50.60V	50.90V	51.60V
Short Circuit Current (I <sub>sc</sub> )	9.92A	9.99A	10.07A	10.15A	10.13A
Voltage at Maximum Power (V <sub>mpp</sub> )	41.10V	41.30V	41.50V	41.70V	42.30V
Current at Maximum Power (I <sub>mp</sub> )	9.49A	9.56A	9.64A	9.71A	9.69A
Module Efficiency (%)	20.10%	20.36%	20.61%	20.87%	21.13%

**ELECTRICAL CHARACTERISTICS AT NOCT**

Maximum Power(P <sub>max</sub> )	289W	292W	296W	300W	303W
Open Circuit Voltage (V <sub>oc</sub> )	46.10V	46.40V	46.60V	46.80V	47.50V
Short Circuit Current (I <sub>sc</sub> )	8.03A	8.10A	8.16A	8.22A	8.20A
Voltage at Maximum Power (V <sub>mpp</sub> )	37.50V	37.70V	37.80V	38.00V	38.60V
Current at Maximum Power (I <sub>mp</sub> )	7.69A	7.75A	7.81A	7.87A	7.85A

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5; Tolerance of P<sub>max</sub>: ±3%; Measurement Tolerance: ±3%, P<sub>max</sub> According Gamko's official testing.  
NOCT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1m/s; Tolerance of P<sub>max</sub>: ±3%; Measurement Tolerance: ±3%, P<sub>max</sub> According Gamko's official testing.

**MECHANICAL CHARACTERISTICS**

Cell type	Monocrystalline PERC 157*157mm
Number of cells	72(6x12)
Module dimensions	1956*992*30MM
Weight	21kg
Front cover	3.2mm (0.13inches)tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP67 rated (3 by pass diodes)
Cable	4mm <sup>2</sup> (0.006inches <sup>2</sup> ),Portrait: 900mm (35.43inches);
Connector	PV compatible

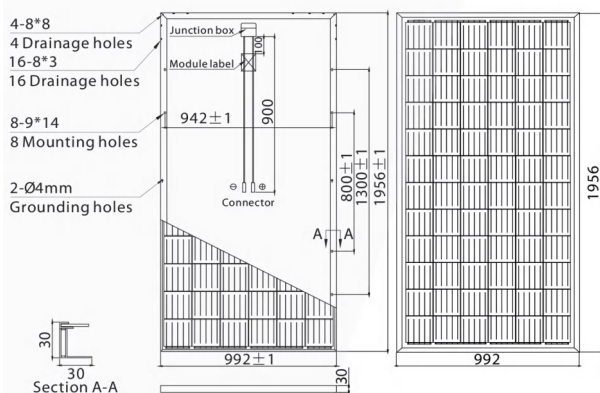
**TEMPERATURE CHARACTERISTICS**

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

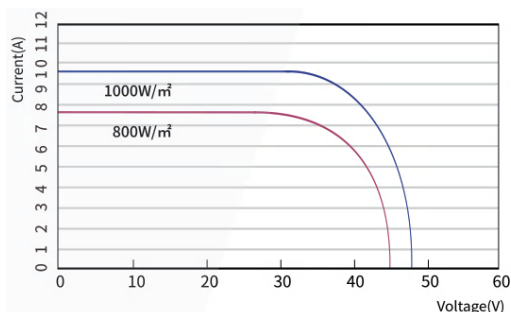
**PACKAGING**

Standard packaging	36pcs/pallet
Module quantity per 20' container	400pcs
Module quantity per 40' container	960pcs(HQ)

**ENGINEERING DRAWINGS**



**Electrical Performance & Temperature Dependence**



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