



NANTONG GAMKO NEW ENERGY CO.,LTD. IS A HIGH-TECH ENTERPRISE INTEGRATING R&D,MANUFACTURING AND SALES,DEDICATED TO THE SOLAR PHOTOVOLTAIC INDUSTRY.OUR MAIN PRODUCTS ARE MONO SOLAR PANEL,POLY SOLAR PANEL,TRANSPARENT SOLAR PANEL,MINI SOLAR PANEL,FLEXIBLE SOLAR PANEL,SOLAR SYSTEM AND SOLAR LIGHT SYSTEMS.

GAMKO ENERGY ANNUAL CAPACITY 2GW, HAVE ADVANCED PRODUCTION TECHNOLOGY AND PRECISE QUALITY INSPECTION SYSTEM. SINCE ITS ESTABLISHMENT IN 2012, GAMKO HAS BEEN COMMITTED TO IMPROXING MODULE POWER AND SINGLE WATT POWER GENERATION THROUGH INNOVATION. OUR MODULES HAVE BECOME ONE OF THE MOST COST-EFFECTIVE PRODUCTS IN THE INDUSTRY.

GAMKO ENERGY HAS PASSED ISO9001 QUALITY CONTROL SYSTEM, AND ALL OUR PRODUCTS HAVE CE, IEC, FCC, ROHS, INMETRO, JPEA, GEMEINSAM TRANSPARENZ SCHAFFEN CERTIFICATIONS. QUALITY ALWAYS THE LIFE OF GAMKO ENERGY. ALL RAW MATERIAL SUPPLIERS OF GAMKO HAVE UNDERGONE STRICT DEVELOPMENT AND SCREENING, AND BASED ON INTERNATIONALLY-USED COMPONENT PERFOR-

MANCE TEST STANDARDS, THEY HAVE DOUBLED THE TEST TIME AND TIGHTENED THE TEST STANDARDS. GAMKO'S PHOTOVOLTAIC PRODUCTS ALREADY USED IN POLAND, VIETNAM, AUSTRALIA, PHILIPPINES, JAPAN, MEXICO ETC 128 COUNTRIES.

MORE INFORMATION PLEASE VISIT OUR WEBSITE: WWW.GAMKOSOLAR.COM OR WWW.GAMKOPOWER.COM



# WORKSHOP ENVIRONMENT























2 GW+

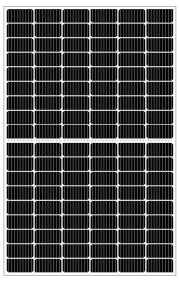
30 Years+ Quality Assurance

26% Efficiency PV 128 Counties+ Projects Served

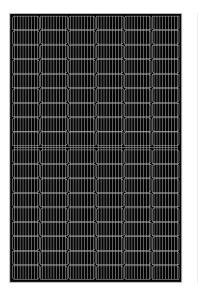


# **GKA182N108** 430W-450W

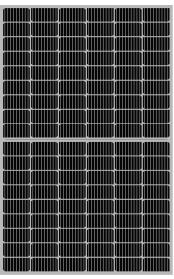




GKA182N108S STANDARD



GKA182N108BK BLACK VERSION



GKA182N108BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency(up to 23.04%) 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.



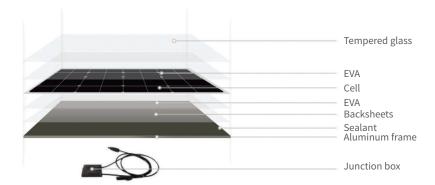
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.

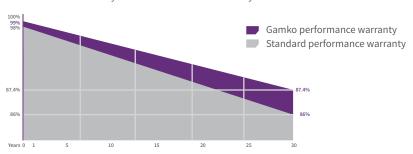


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA182N108** 430W-450W





SPECIFICATION					
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	<b>430W</b> 323W	<b>435W</b> 327W	440W 331W	<b>445W</b> 335W	<b>450W</b> 339W
Open Circuit Voltage (Voc)	39.04V 37.15V	39.27V 37.35V	39.50V 37.55V	39.73V 37.75V	39.96V 37.95V
Short Circuit Current (Isc)	14.10A 11.36A	<b>14.17A</b> 11.42A	14.24A 11.48A	14.31A 11.54A	14.38A 11.60A
Voltage at Maximum Power (V <sub>mpp</sub> )	32.65V 30.07V	32.85V 30.28V	33.06V 30.48V	33.26V 30.68V	33.46V 30.87V
Current at Maximum Power (Impp)	13.17A 10.74A	13.24A 10.80A	13.31A 10.86A	13.38A 10.92A	13.45A 10.98A
Module Efficiency STC (%)	22.02%	22.28%	22.53%	22.79%	23.04%

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

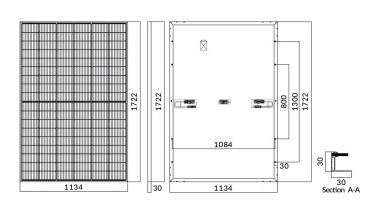
BIFACIAL OUTPUT-REARSIDE POWER GAIN										
5%	Maximum Power(P <sub>max</sub> )	452W	457W	462W	467W	472W				
370	Module Efficiency STC (%)	23.12%	23.39%	23.66%	23.92%	24.17%				
15%	Maximum power (P <sub>max</sub> )	495W	500W	506W	512W	518W				
1370	Module Efficiency STC (%)	25.32%	25.62%	25.91%	26.22%	26.53%				
25%	Maximum Power(P <sub>max</sub> )	538W	544W	550W	556W	563W				
25%	Module Efficiency STC (%)	27.53%	27.85%	28.17%	28.47%	28.83%				

MECHANICAL C	HARACTERISTICS
Cell type	Monocrystalline TOPCON 182*91mm
Number of cells	108(6x18)
Module dimensions	1722*1134*30MM
Weight	20.8/24kg
Front cover	3.2mm (0.13inches)tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68 rated (3 by pass diodes)
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);
Connector	PV compatible

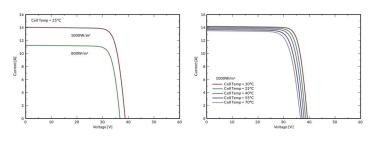
TEMPERATURE CHARACTERISTICS					
Nominal Operating Cell Temperature (NOCT)	45°C±2°C				
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C				
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C				
Temperature Coefficients of Isc	-0.046%/°C				

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	430pcs
Module quantity per 40' container	936pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

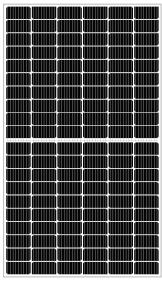


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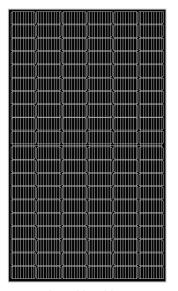


# **GKA182N120** 480W-500W

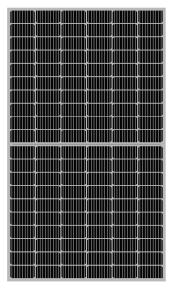




GKA182N120S STANDARD



GKA182N120BK BLACK VERSION



GKA182N120BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  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.

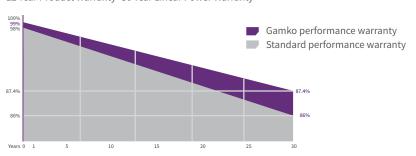


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA182N120** 480W-500W





SPECIFICATION					
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	<b>480W</b> 361W	<b>485W</b> 365W	<b>490W</b> 369W	<b>495W</b> 373W	<b>500W</b> 377W
Open Circuit Voltage (Voc)	43.27V 41.17V	43.48V 41.35V	<b>43.69V</b> 41.53V	43.90V 41.71V	<b>44.11V</b> 41.89V
Short Circuit Current (Isc)	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 <sub>mpp</sub> )	<b>36.20V</b> 33.36V	36.38V 33.55V	36.57V 33.73V	36.75V 33.91V	36.93V 34.09V
Current at Maximum Power (Impp)	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 Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing. NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing.

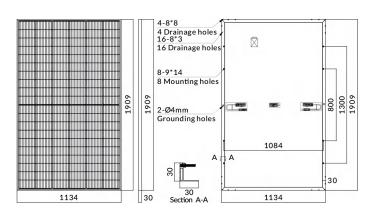
BIFACIAL OUTPUT-REARSIDE POWER GAIN										
5%	Maximum Power(P <sub>max</sub> )	504W	509W	515W	520W	525W				
370	Module Efficiency STC (%)	23.28%	23.52%	23.79%	24.02%	24.25%				
15%	Maximum power (P <sub>max</sub> )	552W	558W	564W	569W	575W				
1370	Module Efficiency STC (%)	25.50%	25.76%	26.05%	26.28%	26.56%				
25%	Maximum Power(P <sub>max</sub> )	600W	606W	613W	619W	625W				
25%	Module Efficiency STC (%)	27.72%	28.00%	28.32%	28.59%	28.87%				

MECHANICAL C	MECHANICAL CHARACTERISTICS							
Cell type	Monocrystalline TOPCON 182*91mm							
Number of cells	120(6x20)							
Module dimensions	1909*1134*30MM							
Weight	22.5/28kg							
Front cover	3.2mm coated tempered glass							
Frame	Anodized aluminum alloy							
Junction box	IP68 rated (3 by pass diodes)							
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);							
Connector	PV compatible							

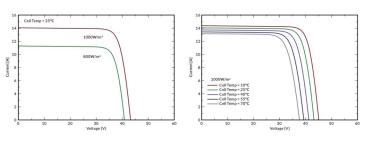
TEMPERATURE CHARACTERISTICS					
Nominal Operating Cell Temperature (NOCT)	45°C±2°C				
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C				
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C				
Temperature Coefficients of Isc	-0.046%/°C				

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

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

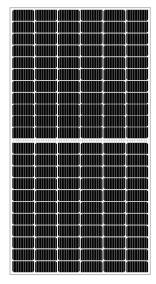


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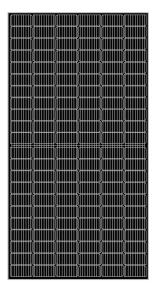


# **GKA182N132** 530W-550W

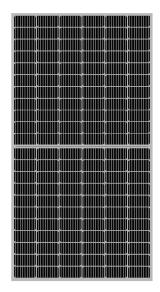




GKA182N132S STANDARD



GKA182N132BK BLACK VERSION



GKA182N132BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency(up to 23.16%) 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.



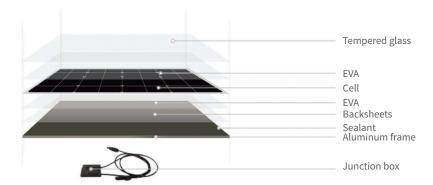
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.

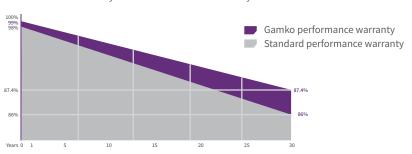


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA182N132** 530W-550W





SPECIFICATION										
	STC N	ОСТ	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P <sub>max</sub> )	530W 3	99W	535W	403W	540W	407W	545W	411W	550W	415W
Open Circuit Voltage (Voc)	47.41V 45	5.05V	47.60V	45.20V	47.79V	45.35V	47.98V	45.50V	48.17V	45.65V
Short Circuit Current (Isc)	14.28A 11	L.52A	14.35A	11.58A	14.42A	11.64A	14.49A	11.70A	14.56A	11.76A
Voltage at Maximum Power (V <sub>mpp</sub> )	39.70V 36	5.61V	39.87V	36.77V	40.03V	36.92V	40.19V	37.09V	40.35V	37.25V
Current at Maximum Power (Impp)	13.35A 10	0.90A	13.42A	10.96A	13.49A	11.02A	13.56A	11.08A	13.63A	11.14A
Module Efficiency STC (%)	22.32%	6	22.5	3%	22.	74%	22.9	95%	23.1	16%

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

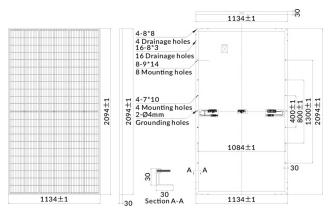
DIEA	BIFACIAL OUTPUT-REARSIDE POWER GAIN									
DIFA	BITACIAL OUTFOT-REAKSIDE FOWER GAIN									
5%	Maximum Power(P <sub>max</sub> )	557W	562W	567W	572W	578W				
370	Module Efficiency STC (%)	23.44%	23.67%	23.88%	24.09%	24.34%				
15%	Maximum power (P <sub>max</sub> )	610W	615W	621W	627W	633W				
1370	Module Efficiency STC (%)	25.67%	25.90%	26.15%	26.40%	26.66%				
25%	Maximum Power(P <sub>max</sub> )	663W	669W	675W	681W	688W				
23%	Module Efficiency STC (%)	27.90%	28.17%	28.43%	28.68%	28.97%				

MECHANICAL CHARACTERISTICS					
Cell type	Monocrystalline TOPCON 182*91mm				
Number of cells	132(6x22)				
Module dimensions	2094*1134*30MM				
Weight	26/30kg				
Front cover	3.2mm coated tempered glass				
Frame	Anodized aluminum alloy				
Junction box	IP68 rated (3 by pass diodes)				
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);				
Connector	PV compatible				

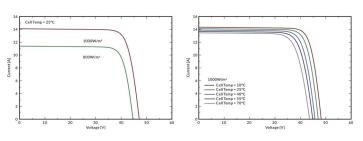
TEMPERATURE CHARACTERISTICS					
Nominal Operating Cell Temperature (NOCT)	45°C±2°C				
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C				
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C				
Temperature Coefficients of Isc	-0.046%/°C				

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	340pcs
Module quantity per 40' container	792pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

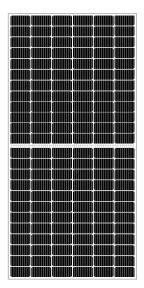


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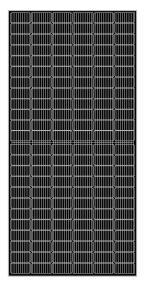


### **GKA182N144** 580W-600W

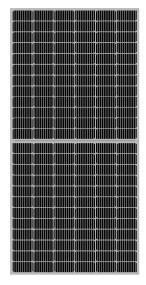




GKA182N144S STANDARD



GKA182N144BK BLACK VERSION



GKA182N144BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  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.



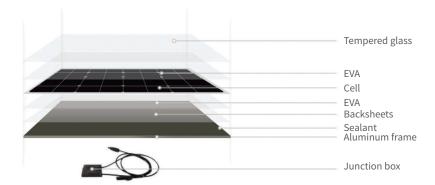
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.



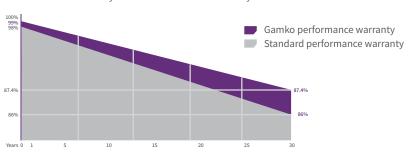
#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA182N144** 580W-600W





SPECIFICATION					
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	580W 437W	585W 441W	<b>590W</b> 445W	<b>595W</b> 449W	600W 453W
Open Circuit Voltage (V₀c)	51.57V 49.14V	<b>51.71V</b> 49.32V	<b>51.84V</b> 49.50V	51.98V 49.68V	52.11V 49.86V
Short Circuit Current (Isc)	14.33A 11.57A	<b>14.40A</b> 11.63A	<b>14.47A</b> 11.69A	<b>14.54A</b> 11.75A	14.61A 11.81A
Voltage at Maximum Power (V <sub>mpp</sub> )	43.09V 39.91V	43.24V 40.02V	43.38V 40.16V	43.53V 40.31V	43.67V 40.45V
Current at Maximum Power (Impp)	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 Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing. NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing.

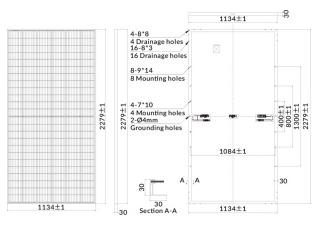
BIFA	BIFACIAL OUTPUT-REARSIDE POWER GAIN						
	Maximum Power(P <sub>max</sub> )	609W	614W	620W	625W	630W	
5%	Module Efficiency STC (%)	23.56%	23.76%	23.99%	24.18%	24.38%	
15%	Maximum power (P <sub>max</sub> )	667W	673W	679W	684W	690W	
15%	Module Efficiency STC (%)	25.81%	26.04%	26.27%	26.47%	26.70%	
25%	Maximum Power(P <sub>max</sub> )	725W	731W	738W	744W	750W	
25%	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	28/32kg				
Front cover	3.2mm coated tempered glass				
Frame	Anodized aluminum alloy				
Junction box	IP68 rated (3 by pass diodes)				
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);				
Connector	PV compatible				

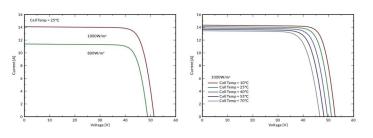
TEMPERATURE CHARACTERISTICS					
Nominal Operating Cell Temperature (NOCT)	45°C±2°C				
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C				
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C				
Temperature Coefficients of Isc	-0.046%/°C				

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

#### **ENGINEERING DRAWINGS**



## Electrical Performance & Temperature Dependence

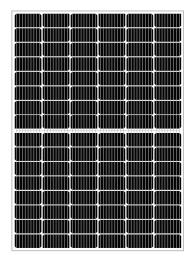


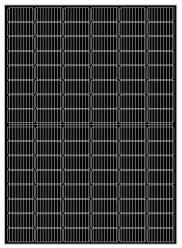
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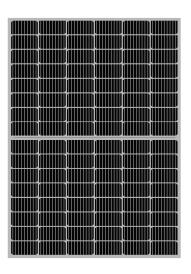


# **GKA96N-PRO** 460W-480W









GKA96N-S STANDARD

GKA96N-BK BLACK VERSION

GKA96N-BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

 $\label{thm:linear} \mbox{Higher module conversion efficiency benefit from N-TOPC on cell technology.}$ 



#### 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.



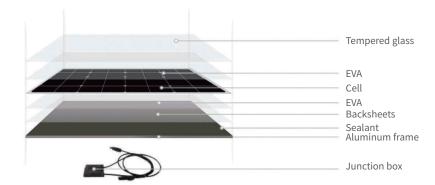
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.



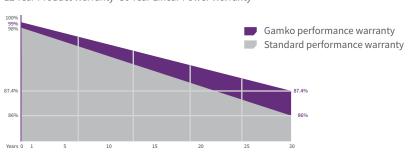
#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



### **GKA96N-PRO** 460W-480W





SPECIFICATION										
	STC	NOCT								
Maximum Power(P <sub>max</sub> )	460W	347W	465W	351W	470W	355W	475W	358W	480W	362W
Open Circuit Voltage (V₀c)	34.40V	32.68V	34.60V	32.88V	34.80V	33.08V	35.00V	33.28V	35.20V	33.48V
Short Circuit Current (Isc)	16.87A	13.51A	16.89A	13.53A	16.91A	13.55A	16.93A	13.57A	16.95A	13.59A
Voltage at Maximum Power (V <sub>mpp</sub> )	28.59V	26.87V	28.79V	27.07V	28.99V	27.27V	29.19V	27.47V	29.39V	27.67V
Current at Maximum Power (Impp)	16.09A	12.90A	16.15A	12.95A	16.21A	13.00A	16.27A	13.05A	16.33A	13.09A
Module Efficiency STC (%)	23.0	02%	23.2	27%	23.	52%	23.	77%	24.0	02%

STC: Irradiance 1000W/m2, Cell temperature 25°C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing.

NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%, Pmax According Gamko's official testing.

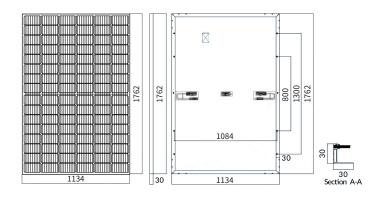
BIFACIAL OUTPUT-REARSIDE POWER GAIN								
5%	Maximum Power(P <sub>max</sub> )	483W	488W	494W	499W	504W		
370	Module Efficiency STC (%)	24.17%	24.43%	24.70%	24.96%	25.22%		
15%	Maximum power (P <sub>max</sub> )	529W	535W	541W	546W	552W		
1370	Module Efficiency STC (%)	26.47%	26.76%	27.05%	27.34%	27.85%		
25%	Maximum Power(P <sub>max</sub> )	575W	581W	588W	594W	600W		
25%	Module Efficiency STC (%)	28.78%	29.09%	29.40%	29.71%	30.03%		

MECHANICAL CHARACTERISTICS					
Cell type	Monocrystalline TOPCON 182*105mm				
Number of cells	108(6x18)				
Module dimensions	1762*1134*30MM				
Weight	21/24.5kg				
Front cover	3.2mm (0.13inches)tempered glass with AR coating				
Frame	Anodized aluminum alloy				
Junction box	IP68 rated (3 by pass diodes)				
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);				
Connector	PV compatible				

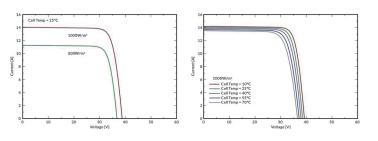
TEMPERATURE CHARACTERISTICS				
Nominal Operating Cell Temperature (NOCT)	45°C±2°C			
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C			
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C			
Temperature Coefficients of I <sub>sc</sub> -0.046%/°C				

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	400pcs
Module quantity per 40' container	936pcs(HQ)

#### **ENGINEERING DRAWINGS**



### **Electrical Performance & Temperature Dependence**

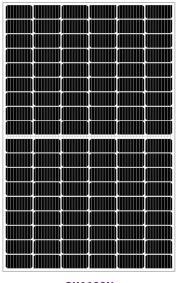


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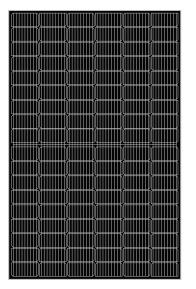


# **GKA108N-PRO** 510W-530W

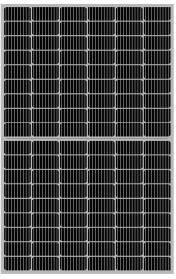




GKA108N STANDARD



GKA108N-BK BLACK VERSION



GKA108N-BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency 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 (5400Pascal).



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.

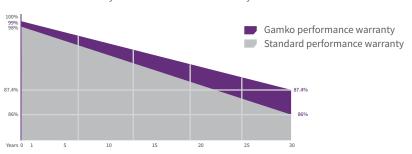


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA108N-PRO** 510W-530W





SPECIFICATION					
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	<b>510W</b> 383W	<b>515W</b> 387W	<b>520W</b> 391W	<b>525W</b> 395W	530W 340W
Open Circuit Voltage (V₀c)	<b>41.10V</b> 38.94V	41.30V 39.14V	<b>41.50V</b> 39.34V	<b>41.70V</b> 39.54V	41.90V 39.74V
Short Circuit Current (Isc)	15.67A 12.74A	15.69A 12.76A	15.71A 12.78A	15.73A 12.80A	15.75A 12.82A
Voltage at Maximum Power (V <sub>mpp</sub> )	<b>34.50V</b> 31.91V	<b>34.70V</b> 32.11V	<b>34.90V</b> 32.31V	<b>35.10V</b> 32.51V	35.30V 32.71V
Current at Maximum Power (Impp)	<b>14.79A</b> 12.01A	14.85A 12.06A	14.91A 12.11A	14.97A 12.16A	15.03A 12.22A
Module Efficiency STC (%)	22.95%	23.17%	23.40%	23.62%	23.85%

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

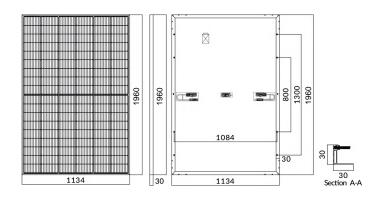
			•	<u> </u>					
BIFA	BIFACIAL OUTPUT-REARSIDE POWER GAIN								
5%	Maximum Power(P <sub>max</sub> )	536W	541W	546W	551W	557W			
370	Module Efficiency STC (%)	24.10%	24.33%	24.57%	24.80%	25.04%			
15%	Maximum power (P <sub>max</sub> )	587W	592W	598W	604W	610W			
1370	Module Efficiency STC (%)	26.39%	26.65%	26.91%	27.16%	27.43%			
25%	Maximum Power(P <sub>max</sub> )	638W	644W	650W	656W	663W			
23%	Module Efficiency STC (%)	28.69%	28.96%	29.25%	29.53%	29.81%			

MECHANICAL C	HARACTERISTICS					
Cell type	Monocrystalline TOPCON 182*105mm					
Number of cells	108(6x18)					
Module dimensions	1960*1134*30MM					
Weight	23.5/25kg					
Front cover	3.2mm (0.13inches) tempered glass with AR coating					
Frame	Anodized aluminum alloy					
Junction box	IP68 rated (3 by pass diodes)					
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);					
Connector	PV compatible					

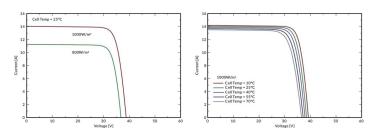
TEMPERATURE CHARACTERISTICS						
Nominal Operating Cell Temperature (NOCT)	45°C±2°C					
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C					
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C					
Temperature Coefficients of Isc	-0.046%/°C					

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	384pcs
Module quantity per 40' container	864pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

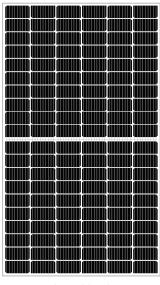


 $Specifications\ included\ in\ this\ data sheet\ are\ subject\ to\ change\ without\ notice.$ 

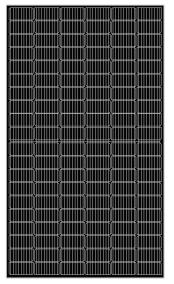


# **GKA120N-PRO** 570W-590W

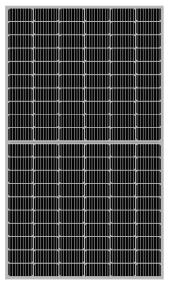




GKA120N-S STANDARD



GKA120N-BK BLACK VERSION



GKA120N-BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency 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.



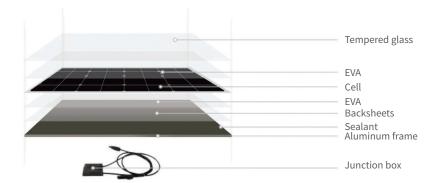
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.



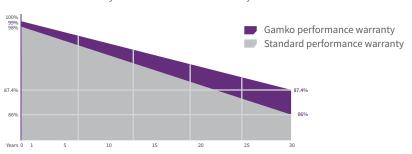
#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA120N-PRO** 570W-590W





SPECIFICATION					
	STC NOCT	STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	<b>570W</b> 429W	<b>575W</b> 433W	580W 437W	585W 442W	<b>590W</b> 446W
Open Circuit Voltage (Voc)	42.90V 40.75V	43.10V 40.95V	43.20V 41.15V	<b>43.30V</b> 41.35V	43.50V 41.55V
Short Circuit Current (Isc)	16.90A 13.52A	16.92A 13.54A	16.94A 13.56A	16.96A 13.58A	16.98A 13.60A
Voltage at Maximum Power (V <sub>mpp</sub> )	35.61V 33.46V	35.81V 33.66V	36.01V 33.86V	36.21V 34.06V	36.41V 34.26V
Current at Maximum Power (Impp)	16.01A 12.84A	16.06A 12.88A	16.12A 12.92A	16.18A 12.97A	16.24A 13.02A
Module Efficiency STC (%)	23.01%	23.22%	23.42%	23.62%	23.82%

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

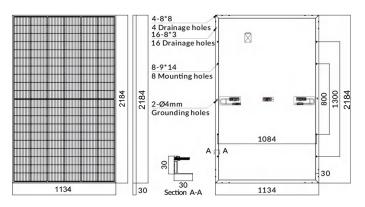
BIFACIAL OUTPUT-REARSIDE POWER GAIN								
5%	Maximum Power(P <sub>max</sub> )	599W	604W	609W	614W	620W		
370	Module Efficiency STC (%)	24.16%	24.38%	24.59%	24.80%	25.01%		
15%	Maximum power (P <sub>max</sub> )	656W	661W	667W	673W	679W		
15%	Module Efficiency STC (%)	26.46%	26.70%	26.93%	27.16%	27.39%		
25%	Maximum Power(P <sub>max</sub> )	713W	719W	725W	731W	738W		
25%	Module Efficiency STC (%)	28.76%	29.03%	29.28%	29.53%	29.78%		

MECHANICAL C	MECHANICAL CHARACTERISTICS						
Cell type	Monocrystalline TOPCON 182*105mm						
Number of cells	120(6x20)						
Module dimensions	2184*1134*30MM						
Weight	26.7/30.7kg						
Front cover	3.2mm coated tempered glass						
Frame	Anodized aluminum alloy						
Junction box	IP68 rated (3 by pass diodes)						
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);						
Connector	PV compatible						

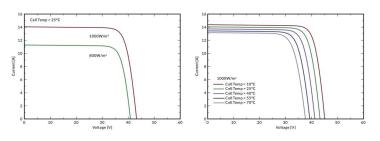
TEMPERATURE CHARACTERISTICS						
Nominal Operating Cell Temperature (NOCT)	45°C±2°C					
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C					
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C					
Temperature Coefficients of Isc	-0.046%/°C					

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	332pcs
Module quantity per 40' container	720pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

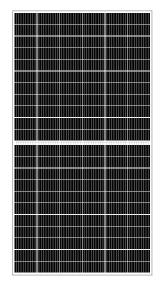


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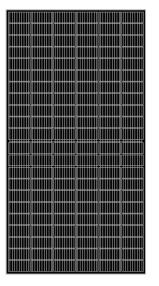


# **GKA132N-PRO** 630W-650W

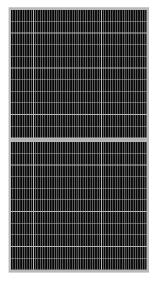




GKA132N-S STANDARD



GKA132N-BK
BLACK VERSION



GKA132N-BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency 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.



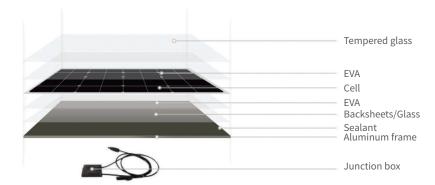
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.

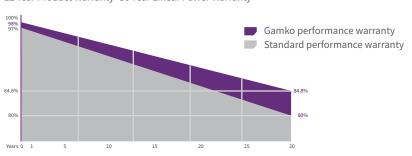


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA132N-PRO** 630W-650W





SPECIFICATION										
	STC	NOCT								
Maximum Power(P <sub>max</sub> )	630W	473W	635W	477W	640W	482W	645W	487W	650W	491W
Open Circuit Voltage (V₀c)	49.71V	47.24V	49.91V	47.44V	50.11V	47.64V	50.31V	47.84V	50.51V	48.04V
Short Circuit Current (Isc)	16.08A	12.87A	16.13A	12.92A	16.18A	12.97A	16.23A	13.03A	16.28A	13.09A
Voltage at Maximum Power (V <sub>mpp</sub> )	41.50V	38.89V	41.70V	39.09V	41.90V	39.29V	42.10V	39.49V	42.30V	39.69V
Current at Maximum Power (Impp)	15.20A	12.16A	15.25A	12.21A	15.30A	12.26A	15.35A	12.32A	15.40A	12.37A
Module Efficiency STC (%)	23.1	L8%	23.5	51%	23.0	69%	23.8	38%	24.0	06%

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

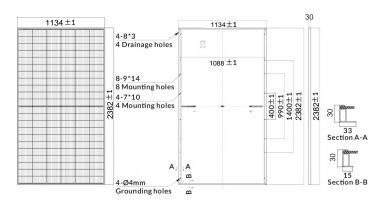
BIFACIAL OUTPUT-REARSIDE POWER GAIN							
5%	Maximum Power(P <sub>max</sub> )	662W	667W	672W	677W	683W	
370	Module Efficiency STC (%)	24.49%	24.69%	24.97%	25.07%	25.26%	
15%	Maximum power (P <sub>max</sub> )	725W	730W	736W	742W	748W	
1370	Module Efficiency STC (%)	26.82%	27.04%	27.24%	27.46%	27.67%	
250%	Maximum Power(P <sub>max</sub> )	788W	794W	800W	806W	813W	
25%	Module Efficiency STC (%)	29.15%	29.39%	29.61%	29.85%	30.08%	

MECHANICAL C	MECHANICAL CHARACTERISTICS				
Cell type	Monocrystalline TOPCON 182*105mm				
Number of cells	132(6x22)				
Module dimensions	2382*1134*30MM				
Weight	28.2/33.5kg				
Front cover	3.2mm (0.13inches)tempered glass with AR coating				
Frame	Anodized aluminum alloy				
Junction box	IP68 rated (3 by pass diodes)				
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);				
Connector	PV compatible				

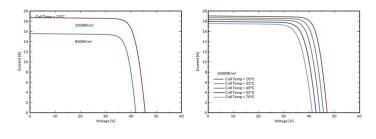
TEMPERATURE CHARACTERISTICS				
Nominal Operating Cell Temperature (NOCT)	43°C±2°C			
Temperature Coefficients of P <sub>max</sub>	-0.34%/°C			
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C			
Temperature Coefficients of I <sub>sc</sub> -0.04%/°C				

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	256pcs
Module quantity per 40' container	720pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**

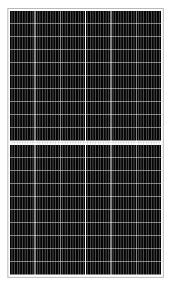


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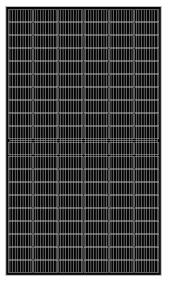


## **GKA210N120** 660W-680W

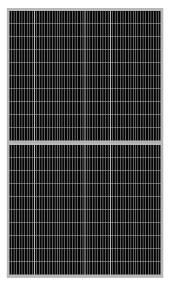




GKA210N120S STANDARD



GKA210N120BK BLACK VERSION



GKA210N120BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency(up to 24.03%) 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 (5400Pascal).



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.



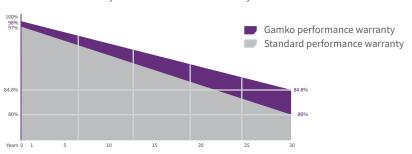
### ★ GAMKO SOLAR MODULE BOM

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

**CELLS: TIER 1 BRANDS SOLAR CELLS** 

#### LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty  $\cdot$  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 module30 years.



# **GKA210N120** 660W-680W





SPECIFICATION										
	STC	NOCT								
Maximum Power(P <sub>max</sub> )	660W	495W	665W	499W	670W	503W	675W	506W	680W	510W
Open Circuit Voltage (Voc)	42.95V	40.87V	43.18V	41.12V	43.42V	41.36V	43.64V	41.53V	43.90V	41.77V
Short Circuit Current (Isc)	19.36A	15.60A	19.40A	15.63A	19.45A	15.66A	19.49A	15.69A	19.52A	15.72A
Voltage at Maximum Power (V <sub>mpp</sub> )	35.79V	32.91V	35.98V	33.11V	36.18V	33.31V	36.37V	33.44V	36.58V	33.64V
Current at Maximum Power (Impp)	18.44A	15.04A	18.48A	15.07A	18.52A	15.10A	18.56A	15.13A	18.59A	15.16A
Module Efficiency STC (%)	23.3	32%	23.5	50%	23.0	67%	23.8	85%	24.0	)3%

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

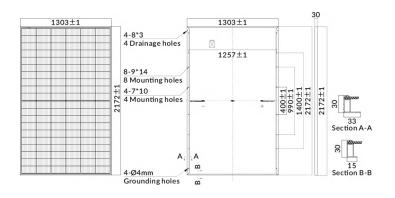
BIFACIAL OUTPUT-REARSIDE POWER GAIN							
5%	Maximum Power(P <sub>max</sub> )	693W	698W	704W	709W	714W	
370	Module Efficiency STC (%)	24.49%	24.68%	24.85%	25.04%	25.23%	
15%	Maximum power (P <sub>max</sub> )	759W	765W	771W	776W	782W	
15%	Module Efficiency STC (%)	26.82%	27.03%	27.22%	27.43%	27.63%	
25%	Maximum Power(P <sub>max</sub> )	825W	831W	838W	844W	850W	
	Module Efficiency STC (%)	29.15%	29.38%	29.59%	29.81%	30.04%	

MECHANICAL C	MECHANICAL CHARACTERISTICS					
Cell type	Monocrystalline TOPCON 210*105mm					
Number of cells	120(6x20)					
Module dimensions	2172*1303*30MM					
Weight	29.9/35kg					
Front cover	3.2mm (0.13inches)tempered glass with AR coating					
Frame	Anodized aluminum alloy					
Junction box	IP68 rated (3 by pass diodes)					
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);					
Connector	PV compatible					

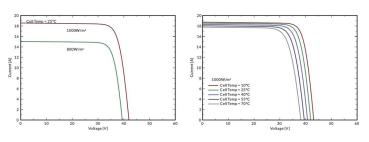
TEMPERATURE CHARACTERISTICS				
Nominal Operating Cell Temperature (NOCT)	43°C±2°C			
Temperature Coefficients of P <sub>max</sub>	-0.34%/°C			
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C			
Temperature Coefficients of I <sub>sc</sub> -0.04%/°C				

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	288pcs(no pallet)
Module quantity per 40' container	648pcs(HQ)

#### **ENGINEERING DRAWINGS**



### **Electrical Performance & Temperature Dependence**

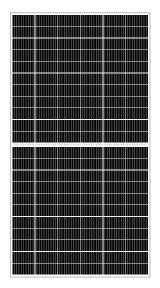


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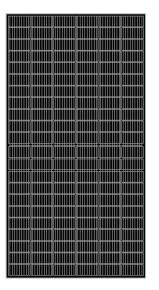


# **GKA210N132** 730W-750W

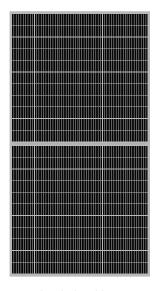




GKA210N132S STANDARD



GKA210N132BK BLACK VERSION



GKA210N132BF BIFACIAL

### **KEY FEATURES**



#### M Busbar Solar Cell

 ${\sf M}$  Busbar Solar Cell design improves module efficiency and offers better aesthetic appearance for rooftop installation.



#### High Efficiency:

Higher module conversion efficiency(up to 24.14%) 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.



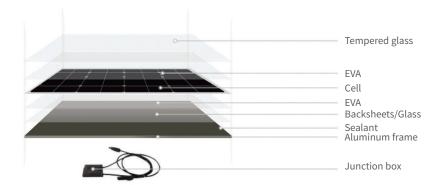
#### Severe Weather Resilience:

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



#### DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:

High salt mist and ammonia resistance certified.

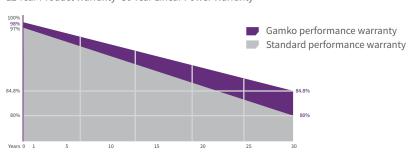


#### ★ GAMKO SOLAR MODULE BOM

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  $\cdot$  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 module30 years.



# **GKA210N132** 730W-750W





SPECIFICATION					
	STC NOC	T STC NOCT	STC NOCT	STC NOCT	STC NOCT
Maximum Power(P <sub>max</sub> )	730W 548	N 735W 551W	<b>740W</b> 555W	<b>745W</b> 559W	<b>750W</b> 563W
Open Circuit Voltage (Voc)	<b>47.51V</b> 45.3	OV 47.72V 45.40V	47.95V 45.61V	48.17V 45.82V	48.41V 46.02V
Short Circuit Current (Isc)	19.36A 15.5	9A <b>19.40A</b> 15.63A	19.45A 15.67A	19.49A 15.71A	19.52A 15.75A
Voltage at Maximum Power (V <sub>mpp</sub> )	39.59V 36.4	39.77V 36.56V	39.96V 36.73V	40.14V 36.90V	40.34V 37.06V
Current at Maximum Power (Impp)	18.44A 15.0	3A <b>18.48A</b> 15.07A	18.52A 15.11A	18.56A 15.15A	18.59A 15.19A
Module Efficiency STC (%)	23.50%	23.66%	23.82%	23.98%	24.14%

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

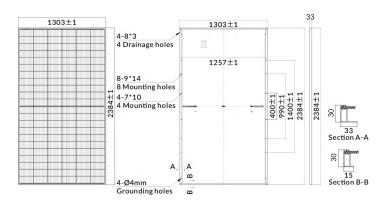
BIFA	BIFACIAL OUTPUT-REARSIDE POWER GAIN							
5%	Maximum Power(P <sub>max</sub> )	767W	772W	777W	782W	788W		
370	Module Efficiency STC (%)	24.68%	24.84%	25.01%	25.18%	25.35%		
15%	Maximum power (P <sub>max</sub> )	840W	845W	851W	857W	863W		
15%	Module Efficiency STC (%)	27.03%	27.21%	27.39%	27.58%	27.76%		
25%	Maximum Power(P <sub>max</sub> )	913W	919W	925W	931W	938W		
25%	Module Efficiency STC (%)	29.38%	29.58%	29.78%	29.98%	30.18%		

MECHANICAL C	MECHANICAL CHARACTERISTICS					
Cell type	Monocrystalline TOPCON 210*105mm					
Number of cells	132(6x22)					
Module dimensions	2384*1303*33MM					
Weight	32.9/38kg					
Front cover	3.2mm (0.13inches)tempered glass with AR coating					
Frame	Anodized aluminum alloy					
Junction box	IP68 rated (3 by pass diodes)					
Cable	4mm2(0.006inches2),Portrait: 300mm(11.81inches);					
Connector	PV compatible					

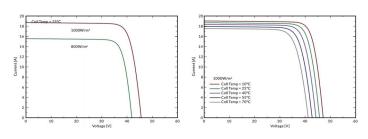
TEMPERATURE CHARACTERISTICS	
Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P <sub>max</sub>	-0.34%/°C
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C
Temperature Coefficients of Isc	-0.04%/°C

PACKAGING	
Standard packaging	33pcs/pallet
Module quantity per 20' container	190pcs
Module quantity per 40' container	594pcs(HQ)

#### **ENGINEERING DRAWINGS**



## **Electrical Performance & Temperature Dependence**



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







## GAMKO SYSTEM



## GAMKO CERTIFICATION





# RELATED COMPONENTS





































### SOLAR SYSTEM











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