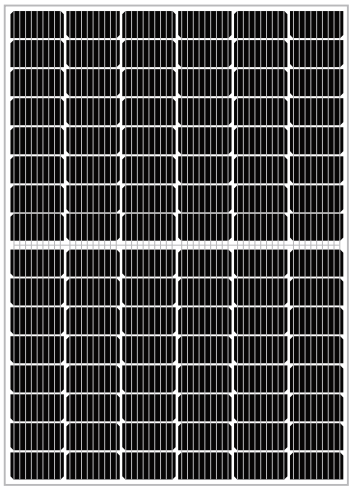
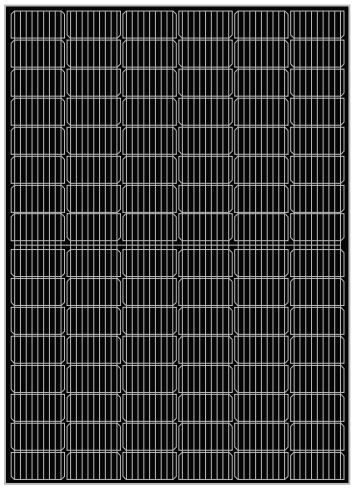
GAMKO NEW ENERGY

182*210MM

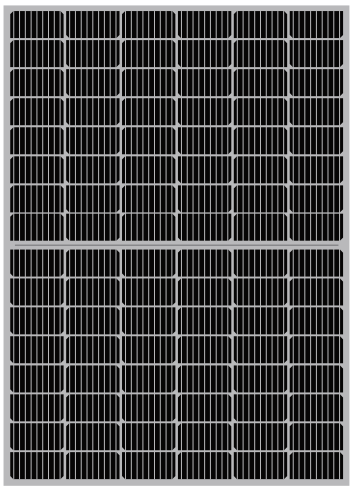
GKA96N-PRO
460W-480W



GKA96N-S
STANDARD



GKA96N-BK
BLACK VERSION



GKA96N-BF
BIFACIAL

KEY FEATURES

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

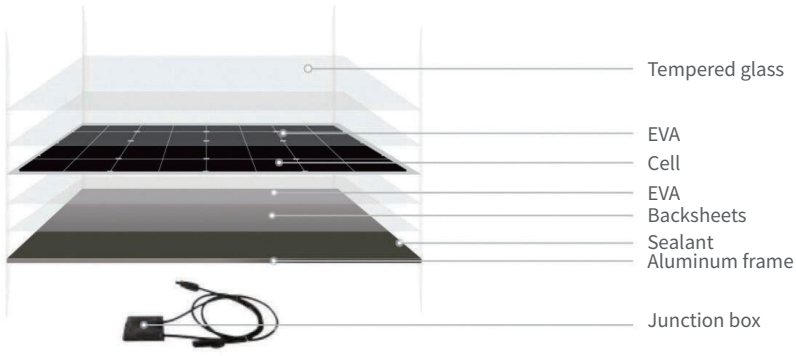
High Efficiency:
Higher module conversion efficiency benefit from N-TOPCon cell technology.

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.

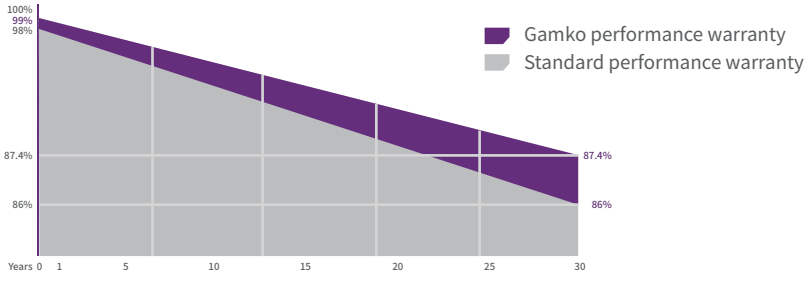


★ GAMKO SOLAR MODULE BOM

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 · 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.

GAMKO NEW ENERGY

182*210MM

GKA96N-PRO
460W-480W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	460W	347W	465W	351W	470W	355W	475W	358W	480W	362W
Open Circuit Voltage (V_{oc})	34.40V	32.68V	34.60V	32.88V	34.80V	33.08V	35.00V	33.28V	35.20V	33.48V
Short Circuit Current (I_{sc})	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_{mpp})	28.59V	26.87V	28.79V	27.07V	28.99V	27.27V	29.19V	27.47V	29.39V	27.67V
Current at Maximum Power (I_{mpp})	16.09A	12.90A	16.15A	12.95A	16.21A	13.00A	16.27A	13.05A	16.33A	13.09A
Module Efficiency STC (%)	23.02%		23.27%		23.52%		23.77%		24.02%	

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_{max})	483W	488W	494W	499W	504W
	Module Efficiency STC (%)	24.17%	24.43%	24.70%	24.96%	25.22%
15%	Maximum power (P_{max})	529W	535W	541W	546W	552W
	Module Efficiency STC (%)	26.47%	26.76%	27.05%	27.34%	27.85%
25%	Maximum Power(P_{max})	575W	581W	588W	594W	600W
	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	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	4mm2(0.006inches2),Portrait: 300mm(11.81inches);
Connector	PV compatible

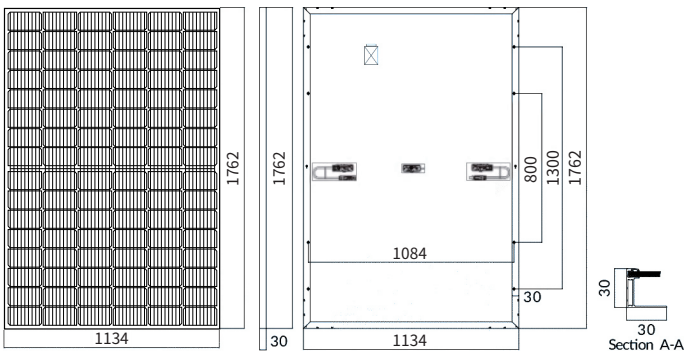
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.30%/°C
Temperature Coefficients of V_{oc}	-0.25%/°C
Temperature Coefficients of I_{sc}	-0.046%/°C

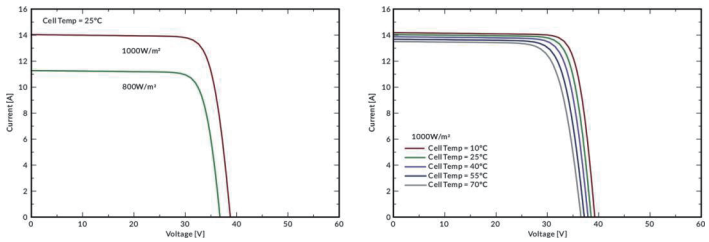
PACKAGING

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

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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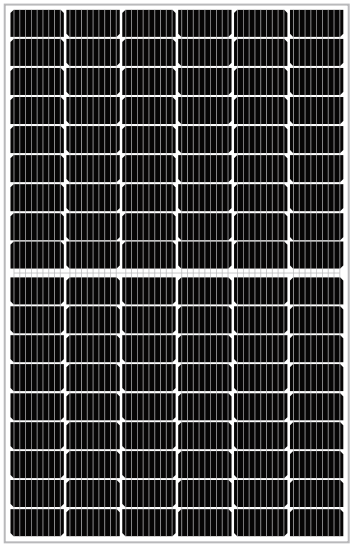
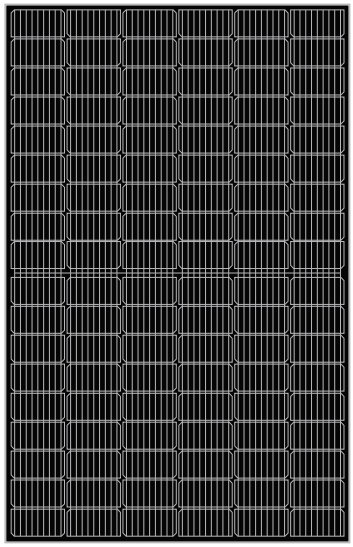
GAMKO NEW ENERGY

182*210MM

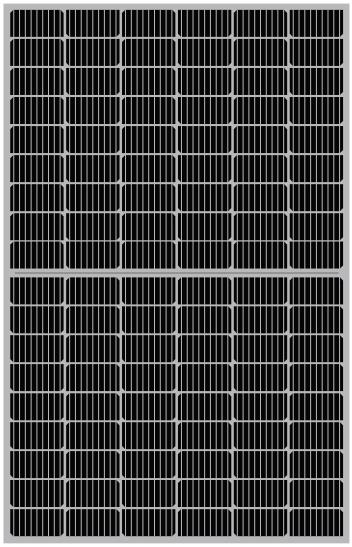
GKA108N-PRO
510W-530W



GKA108N
STANDARD



GKA108N-BK
BLACK VERSION



GKA108N-BF
BIFACIAL

KEY FEATURES

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High Efficiency:
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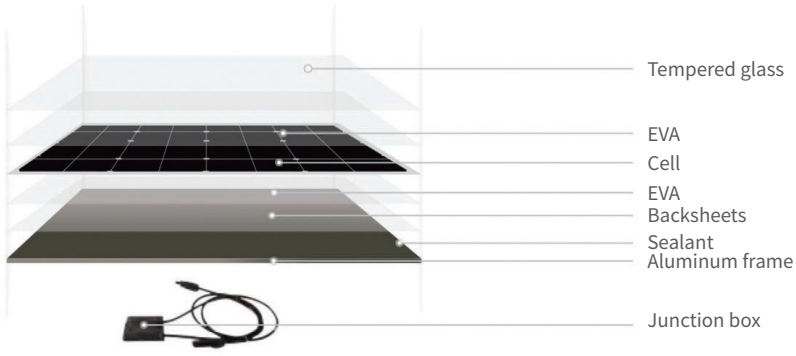
PID Resistance:
Excellent Anti-PID performance guarantee limited power degradation for mass production.

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.

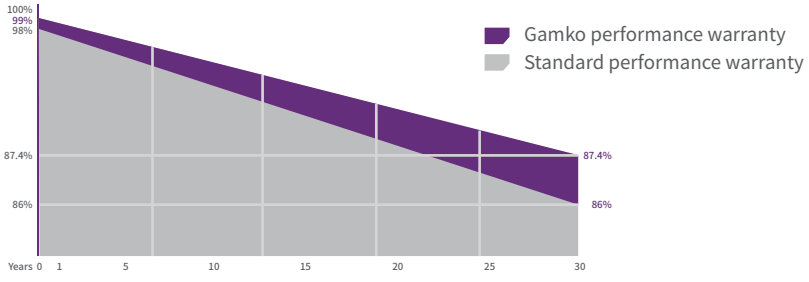


★ GAMKO SOLAR MODULE BOM

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 · 30 Year Linear Power Warranty



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- 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.

GAMKO NEW ENERGY

182*210MM

GKA108N-PRO
510W-530W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	510W	383W	515W	387W	520W	391W	525W	395W	530W	340W
Open Circuit Voltage (V_{oc})	41.10V	38.94V	41.30V	39.14V	41.50V	39.34V	41.70V	39.54V	41.90V	39.74V
Short Circuit Current (I_{sc})	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_{mpp})	34.50V	31.91V	34.70V	32.11V	34.90V	32.31V	35.10V	32.51V	35.30V	32.71V
Current at Maximum Power (I_{mpp})	14.79A	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.

BIFACIAL OUTPUT-REARSIDE POWER GAIN

5%	Maximum Power(P_{max})	536W	541W	546W	551W	557W
	Module Efficiency STC (%)	24.10%	24.33%	24.57%	24.80%	25.04%
15%	Maximum power (P_{max})	587W	592W	598W	604W	610W
	Module Efficiency STC (%)	26.39%	26.65%	26.91%	27.16%	27.43%
25%	Maximum Power(P_{max})	638W	644W	650W	656W	663W
	Module Efficiency STC (%)	28.69%	28.96%	29.25%	29.53%	29.81%

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCON 182*105mm
Number of cells	108(6x18)
Module dimensions	1960*1134*30MM
Weight	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

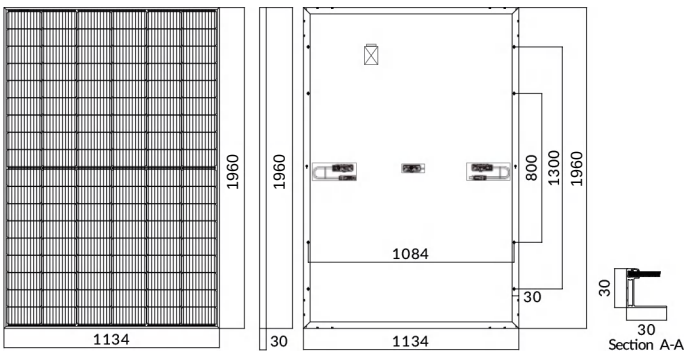
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.30%/°C
Temperature Coefficients of V_{oc}	-0.25%/°C
Temperature Coefficients of I_{sc}	-0.046%/°C

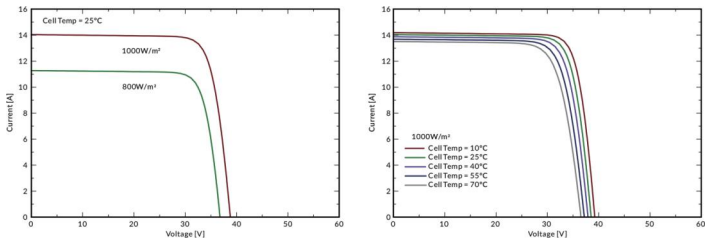
PACKAGING

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

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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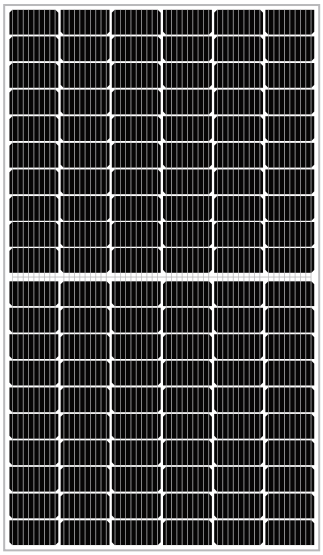
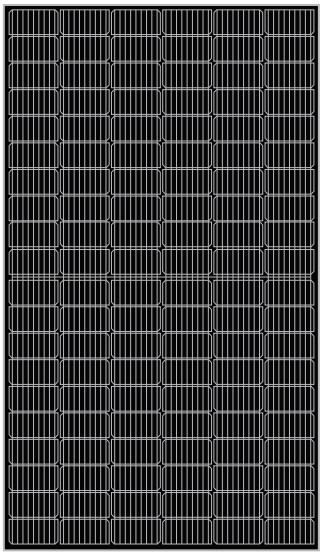
GAMKO NEW ENERGY

182*210MM

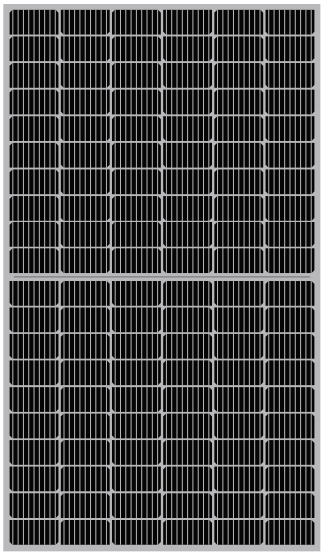
GKA120N-PRO
570W-590W



GKA120N-S
STANDARD



GKA120N-BK
BLACK VERSION



GKA120N-BF
BIFACIAL

KEY FEATURES

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

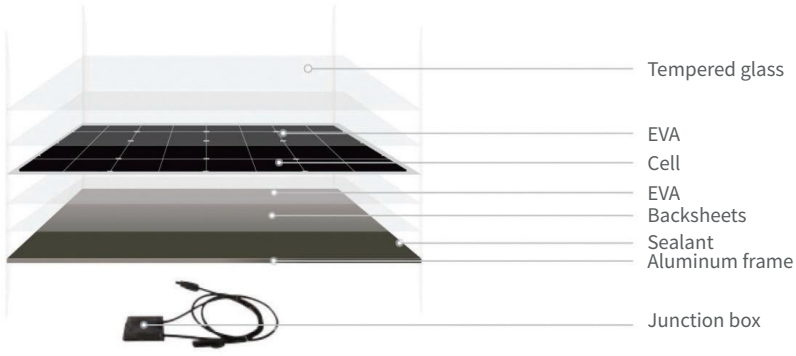
High Efficiency:
Higher module conversion efficiency benefit from N-TOPCon cell technology.

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.

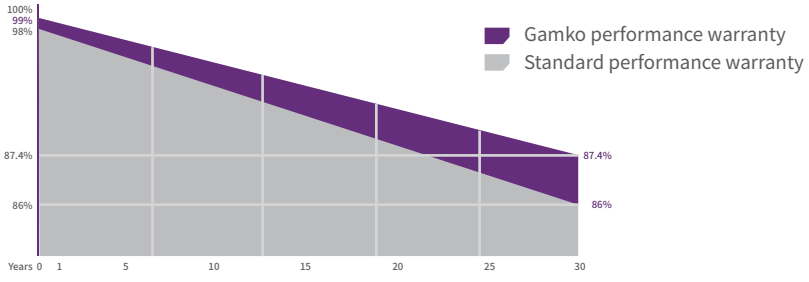


★ GAMKO SOLAR MODULE BOM

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 · 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.

GAMKO N TYPE TOPCON 182*210MM SOLAR CELL MONO SOLAR PANEL

GAMKO NEW ENERGY

182*210MM

GKA120N-PRO
570W-590W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	570W	429W	575W	433W	580W	437W	585W	442W	590W	446W
Open Circuit Voltage (V_{oc})	42.90V	40.75V	43.10V	40.95V	43.20V	41.15V	43.30V	41.35V	43.50V	41.55V
Short Circuit Current (I_{sc})	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_{mpp})	35.61V	33.46V	35.81V	33.66V	36.01V	33.86V	36.21V	34.06V	36.41V	34.26V
Current at Maximum Power (I_{mpp})	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_{max})	599W	604W	609W	614W	620W
	Module Efficiency STC (%)	24.16%	24.38%	24.59%	24.80%	25.01%
15%	Maximum power (P_{max})	656W	661W	667W	673W	679W
	Module Efficiency STC (%)	26.46%	26.70%	26.93%	27.16%	27.39%
25%	Maximum Power(P_{max})	713W	719W	725W	731W	738W
	Module Efficiency STC (%)	28.76%	29.03%	29.28%	29.53%	29.78%

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCON 182*105mm
Number of cells	120(6x20)
Module dimensions	2184*1134*30MM
Weight	26.7kg
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

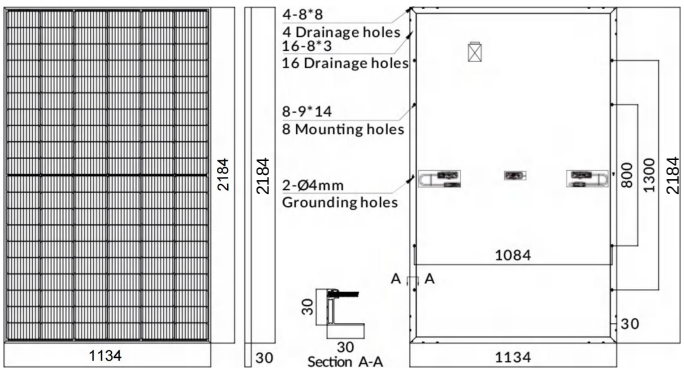
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.30%/°C
Temperature Coefficients of V_{oc}	-0.25%/°C
Temperature Coefficients of I_{sc}	-0.046%/°C

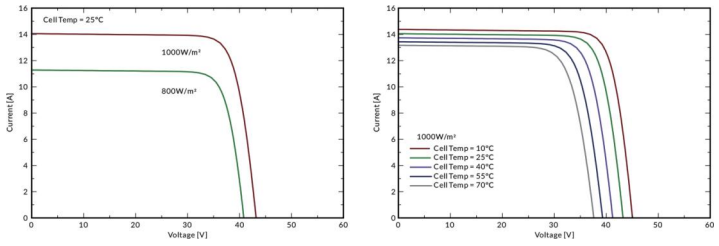
PACKAGING

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

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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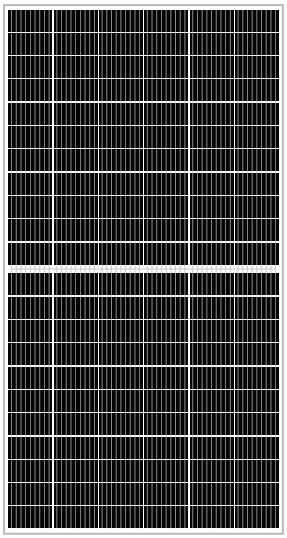
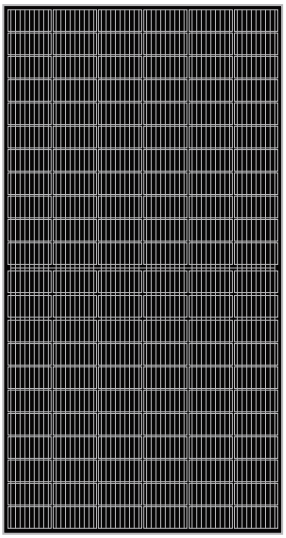
GAMKO NEW ENERGY

182*210MM

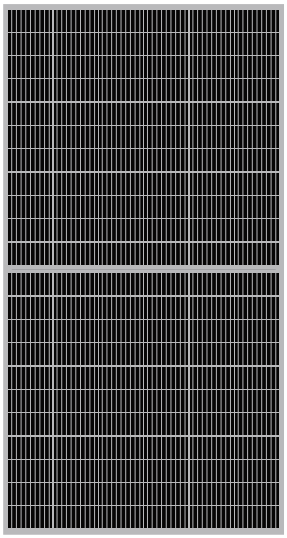
GKA132N-PRO
630W-650W



GKA132N-S
STANDARD



GKA132N-BK
BLACK VERSION



GKA132N-BF
BIFACIAL

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Low-light Performance:
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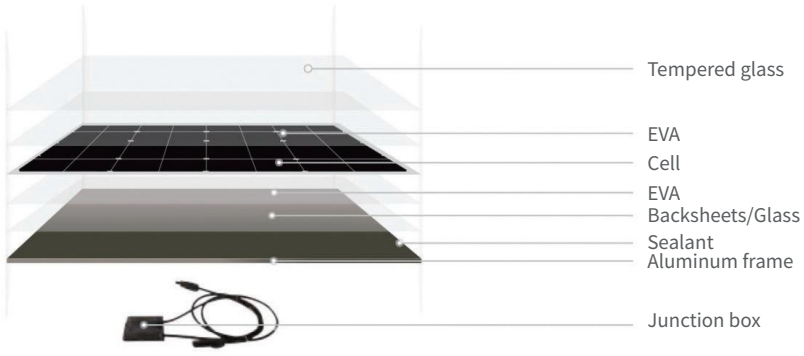
Severe Weather Resilience:
Certified to withstand: wind load (2400 Pascal) and snow load (5400Pascal).

DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS:
High salt mist and ammonia resistance certified.



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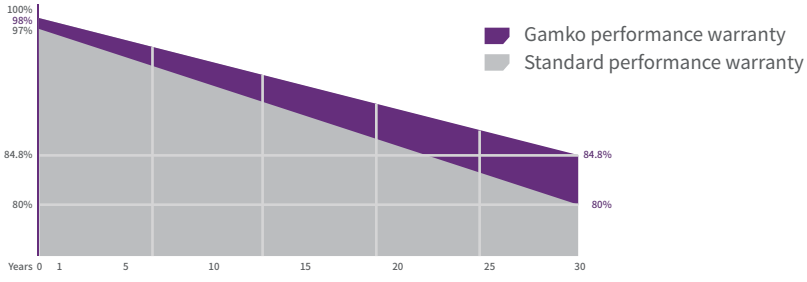
CELLS: TIER 1 BRANDS SOLAR CELLS
TEMPERED GLASS: ULTRA-CLEAR
EVA:TRANSPARENCY>93%
BACKSHEETS: REFLECTIVITY>80%, TPT
JUNCTION BOX: IP68 MAX 30A
SILICON GEL: UV,AGING-RESISTANT
FRAME: ANODIZED ALUMINUM 6005-T5

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty · 30 Year Linear Power Warranty



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- Packing tightly with angle protection avoid transportation broken.
- Gamko official Warranty cover all Gamko solar module30 years.

GAMKO N TYPE TOPCON 210MM SOLAR CELL MONO SOLAR PANEL

GAMKO NEW ENERGY

182*210MM

GKA132N-PRO
630W-650W

SPECIFICATION

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(P_{max})	630W	473W	635W	477W	640W	482W	645W	487W	650W	491W
Open Circuit Voltage (V_{oc})	49.71V	47.24V	49.91V	47.44V	50.11V	47.64V	50.31V	47.84V	50.51V	48.04V
Short Circuit Current (I_{sc})	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_{mpp})	41.50V	38.89V	41.70V	39.09V	41.90V	39.29V	42.10V	39.49V	42.30V	39.69V
Current at Maximum Power (I_{mpp})	15.20A	12.16A	15.25A	12.21A	15.30A	12.26A	15.35A	12.32A	15.40A	12.37A
Module Efficiency STC (%)	23.18%		23.51%		23.69%		23.88%		24.06%	

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_{max})	662W	667W	672W	677W	683W
	Module Efficiency STC (%)	24.49%	24.69%	24.97%	25.07%	25.26%
15%	Maximum power (P_{max})	725W	730W	736W	742W	748W
	Module Efficiency STC (%)	26.82%	27.04%	27.24%	27.46%	27.67%
25%	Maximum Power(P_{max})	788W	794W	800W	806W	813W
	Module Efficiency STC (%)	29.15%	29.39%	29.61%	29.85%	30.08%

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCON 182*105mm
Number of cells	132(6x22)
Module dimensions	2382*1134*30MM
Weight	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

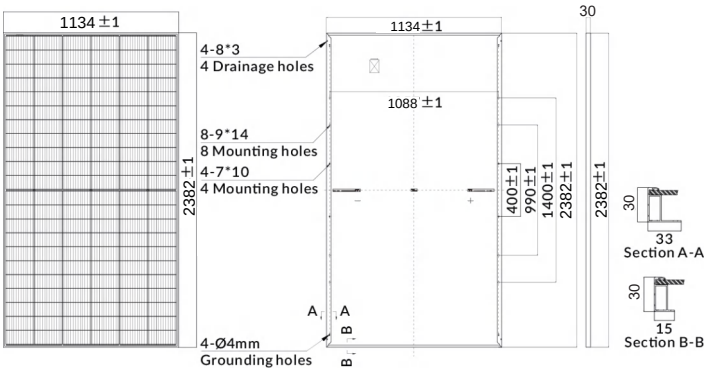
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P_{max}	-0.34%/°C
Temperature Coefficients of V_{oc}	-0.25%/°C
Temperature Coefficients of I_{sc}	-0.04%/°C

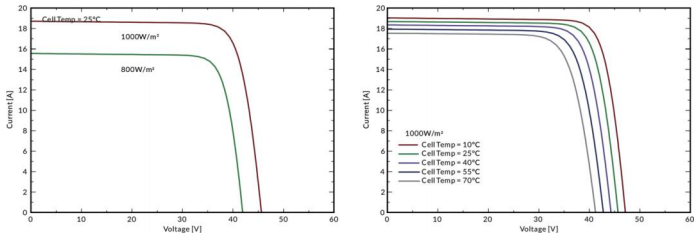
PACKAGING

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

ENGINEERING DRAWINGS



Electrical Performance & Temperature Dependence



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