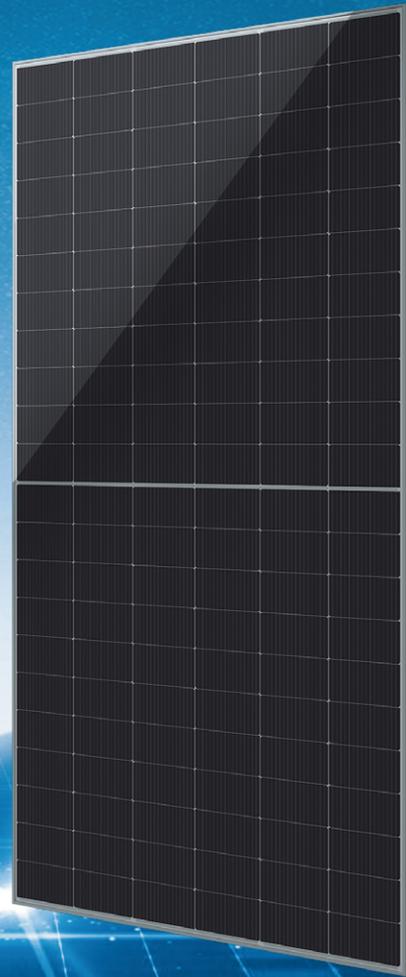


Gokin

FLAMINGO G12R/132D

590-620W



Supreme Quality



High Efficiency

Module efficiency up to 23.0% based on N-Type wafer and TOPCon technology



Anti-degradation

Unsusceptible to LID, LeTID and less annual degradation due to special characteristics of N-Type



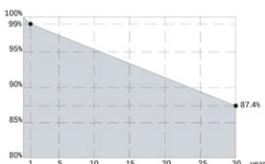
Excellent Energy Yield

More power output in field operation due to better thermal behaviors, weak-light performance and bifaciality



Quality Guarantee

High module quality ensures long-term reliability



At least 87.4% of nominal power up to 30 years

Module Characteristics

12^{Year}

12 Years Product Warranty

30^{Year}

30 Years Linear Power Warranty

1%

1% First Year Degradation

0.4%

0.4% Annual Power Degradation

Comprehensive Certification

IEC 61215(2021) / IEC 61730(2023)

ISO 9001: 2015: ISO Quality Management System

Anti-PID / Ammonia / Salt-mist / Dust and sand



620W

Maximum Power

23.0%

Highest Conversion Efficiency

1%

First Year Degradation

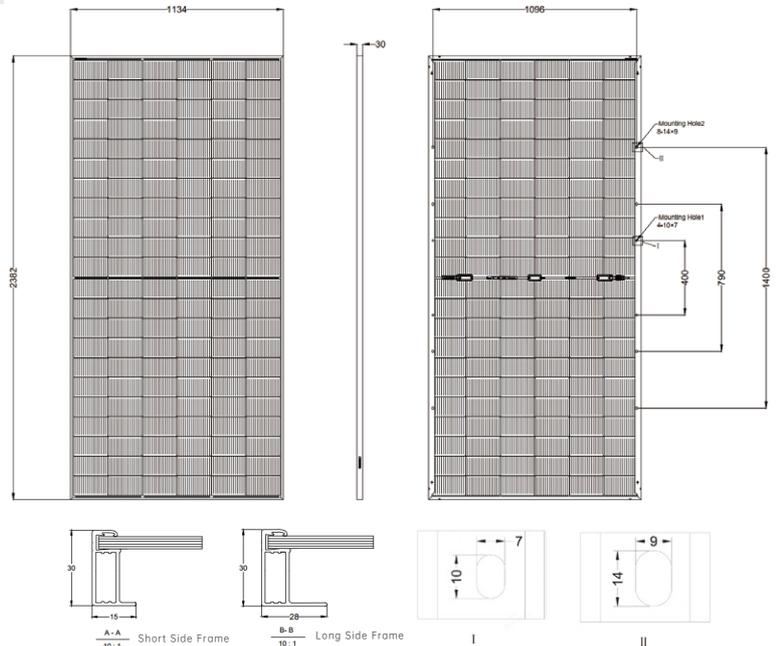
0.4%

2-30 Years Annual Power Attenuation

Mechanical Parameters

Cell Type	N-Type TOPCon
No. of cells	132 (2×66)
Output Cables	TÜV 1×4mm ²
	(+)300mm,(-)200mm in length or customized length
Glass	Front: 2.0mm, AR-coating, semi-tempered
	Rear: 2.0mm, semi-tempered
Frame	Anodized aluminum alloy frame
Weight	32.4 kg (71.43 lbs)
Dimension	2382×1134×30mm
Packaging	36 pcs per pallet
	Package size(mm): 2405×1120×1259 144 pcs per 20' HC, 720 pcs per 40' HC
Protection Class	Class II

Engineering Drawings



* Length:±2mm Width:±2mm Height:±1mm Row Pitch:±2mm

Electrical Characteristics (STC Test)

Module Type	GK-4-66HTBD-590M		GK-4-66HTBD-595M		GK-4-66HTBD-600M		GK-4-66HTBD-605M		GK-4-66HTBD-610M		GK-4-66HTBD-615M		GK-4-66HTBD-620M	
	STC	NOCT												
Testing Condition	STC	NOCT												
Maximum Power (Pmax/W)	590	447	595	450	600	454	605	458	610	462	615	466	620	469
Open-circuit Voltage (Voc/V)	47.32	44.81	47.49	44.96	47.66	45.16	47.83	45.28	48.00	45.49	48.17	45.65	48.34	45.81
Short-circuit Current (Isc/A)	15.79	12.73	15.86	12.80	15.93	12.86	16.00	12.92	16.07	12.96	16.14	13.02	16.21	13.16
Maximum Power Voltage (Vmp/V)	39.67	37.55	39.81	37.65	39.95	37.78	40.09	37.91	40.22	38.06	40.35	38.16	40.48	38.31
Maximum Power Current (Imp/A)	14.88	11.90	14.96	11.97	15.03	12.03	15.10	12.08	15.18	12.16	15.25	12.20	15.33	12.27
Module Efficiency (%)	21.8		22.0		22.2		22.4		22.6		22.8		23.0	

Note: 1. STC: Irradiance 1000W/M², Cell Temperature 25°C, AM=1.5 2. NOCT: Irradiance 800W/M², Ambient Temperature 20°C, AM=1.5, Wind Speed 1M/S

Different Rearside Power Gain (Reference to 605W)

Rearside Power Gain	5%	10%	20%
Maximum Power at STC (Pmax)	635.3	665.5	726.0
Open-circuit Voltage (Voc/V)	47.8	47.8	47.8
Short-circuit Current (Isc/A)	16.8	17.6	19.2
Maximum Power Voltage (Vmp/V)	40.1	40.1	40.1
Maximum Power Current (Imp/A)	15.9	16.6	18.1
Module Efficiency (%)	23.5	24.6	26.9

*The above data is for reference only. When signing a contract, the latest version of the product specification shall prevail.

Working Parameters

Operating Temperature	-40°C~ +85°C
Power Tolerance	0~ +5W
Maximum System Voltage	1500V(IEC)
NMOT	45±2°C
Maximum Series Fuse Rating	35A
Bifacial Factor	80±5%
Junction Box	IP68

Temperature Ratings (STC)

Temperature coefficient of Isc	+ 0.045%/°C
Temperature coefficient of Voc	- 0.25%/°C
Temperature coefficient of Pmax	- 0.29%/°C

Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm hailstone at 23m/s

Gokin



Gokin Solar Co., Ltd.

https://www.gokinsolar.com
gk@gokinsolar.com

Office 1102, No. 58 Huajin Street, Hengqin Free Trade Zone, Zhuhai City, Guangdong Province, China.

Product data is updated as of May 2024. Gokin Solar Co., Ltd. reserves the right to change specifications.