Gokin

# FLAMINGO M10/144D

# 575-605W



## Supreme Quality

### High Efficiency

Module efficiency up to 23.4% based on N-Type wafer and TOPCon technology

### Excellent Energy Yield

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

### Anti-degradation

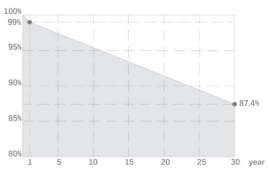
Unsusceptible to LID, LeTID and less annual degradation due to special charateristics of N-Type

### Quality Guarantee

High module quality ensures long-term reliability

## Module Characteristics

| 12-Year | 30-Year | 1% | 0.4% |
|---|---|---|---|
| Product Warranty | Linear Power Warranty | First Year Degradation | Annual Power Degradation |




At least 87.4% of nominal power up to 30 years

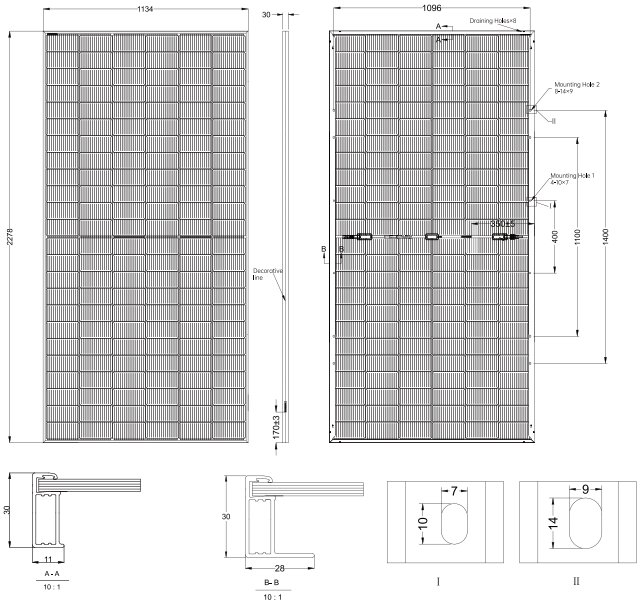
IEC 61215(2021) / IEC 61730(2023)
ISO 9001: 2015: ISO Quality Management System
Anti-PID / Ammonia / Salt-mist / Dust and sand
Made in China

| 605W | 23.4% | 1% | 0.4% |
|---|---|---|---|
| Maximum Power | Highest Conversion Efficiency | First Year Degradation | 2-30 Years Annual Power Attenuation |

## Mechanical Parameters

| | |
|---|---|
| Cell Type | N-Type TOPCon |
| No. of cells | 144 (2×72) |
| Output Cables | TüV 1×4mm² |
| | (+)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 | 31.0kg (68.34lbs) |
| Dimension | 2278×1134×30mm |
| Packaging | 37 pcs per pallet |
| | 148 pcs per 20' GP, 740 pcs per 40' HC |
| Protection Class | Class II |
| Fire Rating | IEC Class C |

## Engineering Drawings




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

## Electrical Characteristics (STC Test)

| Module Type | GK-1-72HTBD-575M | | GK-1-72HTBD-580M | | GK-1-72HTBD-585M | | GK-1-72HTBD-590M | | GK-1-72HTBD-595M | | GK-1-72HTBD-600M | | GK-1-72HTBD-605M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testing Condition | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Maximum Power (Pmax/W) | 575 | 434 | 580 | 438 | 585 | 442 | 590 | 446 | 595 | 450 | 600 | 454 | 605 | 458 |
| Open-circuit Voltage (Voc/V) | 51.27 | 48.56 | 51.47 | 48.73 | 51.67 | 48.92 | 51.87 | 49.12 | 52.07 | 49.26 | 52.27 | 49.44 | 52.47 | 49.62 |
| Short-circuit Current (Isc/A) | 14.31 | 11.54 | 14.37 | 11.59 | 14.43 | 11.64 | 14.49 | 11.69 | 14.55 | 11.74 | 14.61 | 11.79 | 14.67 | 11.84 |
| Maximum Power Voltage (Vmp/V) | 42.44 | 40.14 | 42.59 | 40.30 | 42.74 | 40.45 | 42.89 | 40.58 | 43.04 | 40.72 | 43.19 | 40.86 | 43.36 | 41.00 |
| Maximum Power Current (Imp/A) | 13.55 | 10.81 | 13.62 | 10.87 | 13.69 | 10.93 | 13.76 | 10.99 | 13.83 | 11.06 | 13.90 | 11.12 | 13.96 | 11.17 |
| Module Efficiency (%) | 22.3 | | 22.5 | | 22.7 | | 22.8 | | 23.0 | | 23.2 | | 23.4 | |

Note: 1、STC: Irradiance 1000W/M², Cell Temperature25℃, AM=1.5 2、NOCT: Irradiance 800W/M², Ambient Temperature 20℃, AM=1.5, Wind Speed 1M/S

## Different Rearside Power Gain ( (Reference to 585W)

| Rearside Power Gain | 5% | 10% | 20% |
|---|---|---|---|
| Maximum Power at STC (Pmax) | 614.3 | 643.5 | 702.0 |
| Open-circuit Voltage (Voc/V) | 51.7 | 51.7 | 51.7 |
| Short-circuit Current (Isc/A) | 15.2 | 15.9 | 17.3 |
| Maximum Power Voltage (Vmp/V) | 42.7 | 42.7 | 42.7 |
| Maximum Power Current (Imp/A) | 14.4 | 15.1 | 16.4 |
| Module Efficiency (%) | 23.8 | 24.9 | 27.2 |

*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℃~ +85℃ |
| Power Tolerance | 0~ +5W |
| Maximum System Voltage | 1500V(IEC) |
| NMOT | 45±2℃ |
| Maximum Series Fuse Rating | 35A |
| Bifacial Factor | 80±5% |
| Junction Box | IP68 |

## Temperature Ratings (STC)

| | |
|---|---|
| Temperature coefficient of Isc | + 0.045%/℃ |
| Temperature coefficient of Voc | - 0.25%/℃ |
| Temperature coefficient of Pmax | - 0.29%/℃ |

## Mechanical Loading

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

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GK-1-72HTBD-SF-DG-F2 EN

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Note: Please read the safety and installation manual before using the product. We reserve the right of final interpretation. The specifications in this datasheet are subject to change without notice.

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