

Mono

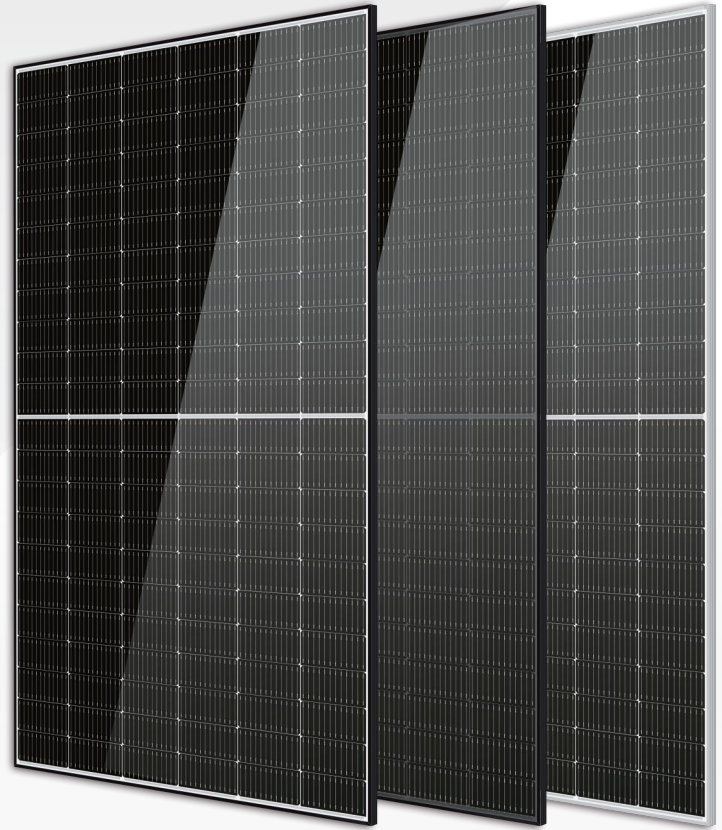
Bifacial

# HORAY

## Solar Galaxy

### 640–660 Watt MONO-FACIAL MODULE

- IEC61215: 2021
- IEC61730: 2016
- TUV Rheinland Standard
- Lloyd'S Ariel Re
- Solar Performance Insurance
- ISO9001: 2015
- Quality Management System
- ISO14001:
- Environmental Management System
- CE: Europe Standard
- Inmetro Certificate
- Japan JP-AC



#### KEY FEATURES



##### 12BB Cell

More uniform current collection capability, reducing the current heat loss of the internal cells.



##### Low Light Features

Higher performance under low light environment.



##### Higher Output Power

The output power of 132 half-cells Monocrystalline modules is up to 660W.



##### PID Protection

Ensure the attenuation probability caused by PID phenomenon is minimized.



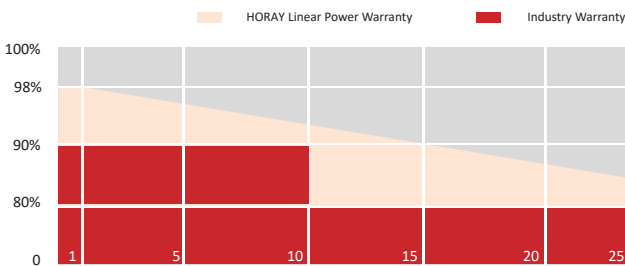
##### Harsh Environmental Adaptability

Strict salt spray and ammonia corrosion test by the third party.



##### Load Capacity

Mechanical load tests including wind load 2400 Pa and snow load 5400 Pa done by TUV.



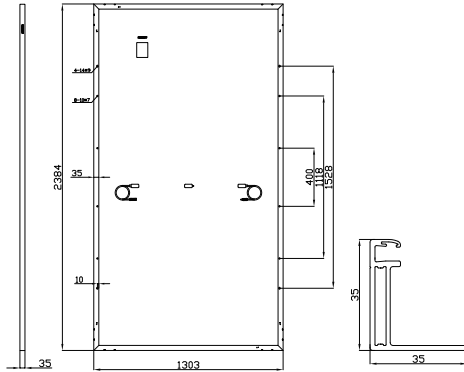
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## MECHANICAL DIAGRAMS



## SPECIFICATIONS

Weight	34kg
Dimension	2384mm*1303mm*35mm
Cell Dimension	210*105mm
Cell Amount	66*2 pcs
Maximum System Voltage	1500V
Junction Box	IP68
Frame	Aluminum Alloy
Cable	4mm <sup>2</sup> ,+300,-300mm/±1300mm Length can be customized
Connector	MC4 compatible
Application Level	Class A

## ELECTRICAL PARAMETERS AT STC

Module Type	HS640-MHG	HS645-MHG	HS650-MHG	HS655-MHG	HS660-MHG
Power	640W	645W	650W	655W	660W
Open Circuit Voltage	45.18V	45.38V	45.58V	45.78V	45.98V
Short Circuit Current	18.06A	18.11A	18.16A	18.21A	18.26A
Maximum Power Voltage	37.21V	37.41V	37.61V	37.81V	38.01V
Maximum Power Current	17.20A	17.24A	17.28A	17.32A	17.36A
Module Efficiency	20.60%	20.76%	20.92%	21.09%	21.25%

\* Under Standard Test Conditions (STC) of irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C.

## ELECTRICAL PARAMETERS AT NMOT

Power	483W	487W	491W	495W	499W
Open Circuit Voltage	41.93V	42.11V	42.3V	42.48V	42.67V
Short Circuit Current	14.81A	14.85A	14.89A	14.93A	14.97A
Maximum Power Voltage	34.49V	34.68V	34.86V	35.05V	35.24V
Maximum Power Current	14.03A	14.06A	14.09A	14.13A	14.16A
Module Efficiency	15.55%	15.68%	15.82%	15.94%	16.06%

\* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

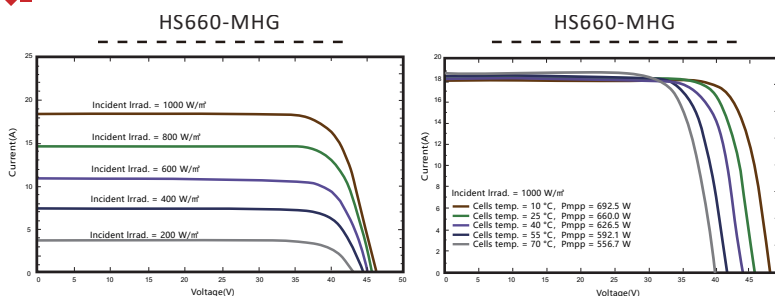
## TEMPERATURE CHARACTERISTICS

NMOT	45±2°C	Temp Coefficient of ISC	+0.05%/°C
Temp Coefficient of VOC	-0.28%/°C	Temp Coefficient of Pmax	-0.34%/°C

## PACKING CONFIGURATION

Modules/Pallet	31 Pieces	Modules/40' Container	558 Pieces
Packaging Description	18 Pallets, Total=(31+31)x9=558 Pieces		

## IV CHARACTERISTICS



## MAXIMUM RATING

Power selection	0~+5W
Measuring uncertainty of P <sub>m</sub>	0~±3%
Operating Temperature	-40°C~+85°C
Wind Load/Snow Load	2400pa/5400pa
Fuse Current	30A

15 YEARS

Quality  
Warranty

25 YEARS

Power  
Warranty

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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