

Mono

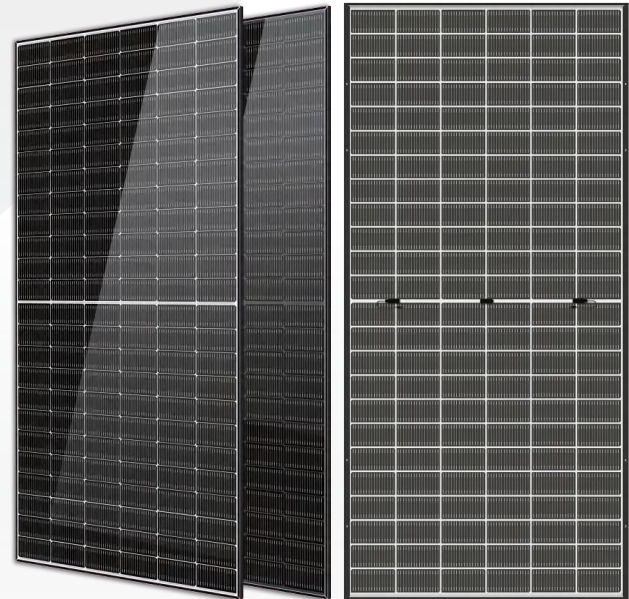
Bifacial

# HORAY

## Solar Galaxy

### 590–620 Watt TOPCon MONO-BIFACIAL 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



##### SMBB 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 144 half-cells Monocrystalline modules is up to 620W.



##### LID Free

N-type solar cell has no LID naturally which can increase power generation.



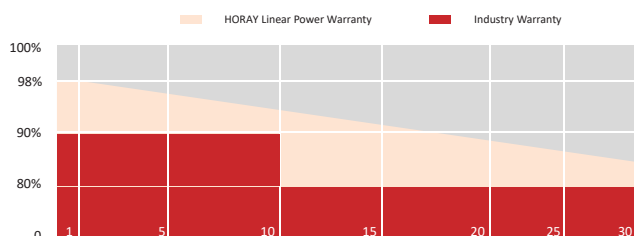
##### Harsh Environmental Adaptability

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.



HEADQUARTER: HORAY SOLAR CO., LTD.

GLOBAL MARKETING AND SERVICE: HORAY SOLAR GMBH

✉ sales@horaysolar.com 🌐 www.horaysolar.com ☎ +86-510 83580688  
 📍 NO.30-5, East Yanxin Road, Huishan District, Wuxi 214177 Jiangsu P.R China

✉ info@horaysolar.com 🌐 www.horaysolar.com  
 📍 Robert-Bosch-Str. 29,Langen, Frankfurt am Main, Germany

## SPECIFICATIONS

Weight	33.6kg
Dimension	2384mm*1134mm*30mm
Cell Dimension	182.2*95.8mm
Cell Amount	72*2 pcs
Maximum System Voltage	1500V
Junction Box	IP68
Type of the front glass	2.0mm Coated ultra clear glass
Type of the back glass	2.0mm Heat-strengthened glass
Frame	Aluminum Alloy
Cable	4mm <sup>2</sup> ,+300,-300mm;Length can be customized
Connector	MC4 compatible
Application Level	Class A

## ELECTRICAL PARAMETERS AT STC

Module Type	HS590TC-MHB-D	HS595TC-MHB-D	HS600TC-MHB-D	HS605TC-MHB-D	HS610TC-MHB-D	HS615TC-MHB-D	HS620TC-MHB-D
Power	590W	595W	600W	605W	610W	615W	620W
Open Circuit Voltage	51.4V	51.6V	51.8V	52V	52.2V	52.4V	52.6V
Short Circuit Current	14.42A	14.48A	14.54A	14.6A	14.66A	14.72A	14.78A
Maximum Power Voltage	43.6V	43.8V	44V	44.2V	44.4V	44.6V	44.8V
Maximum Power Current	13.54A	13.59A	13.64A	13.69A	13.74A	13.79A	13.84A
Module Efficiency	21.80%	22.00%	22.20%	22.40%	22.60%	22.80%	23.00%

\* 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 BNPI

Power	649W	655W	660W	666W	671W	677W	682W
Open Circuit Voltage	51.4V	51.6V	51.8V	52V	52.2V	52.4V	52.6V
Short Circuit Current	15.86A	15.93A	15.99A	16.06A	16.13A	16.19A	16.26A
Maximum Power Voltage	43.6V	43.8V	44V	44.2V	44.4V	44.6V	44.8V
Maximum Power Current	14.89A	14.95A	15.00A	15.06A	15.11A	15.17A	15.22A

\*Rear side power gain:The additional gain from the rear side compared to the power of the front side at the standard test condition.It depends on mounting (structure,height,tilt angle etc.)and albedo of the ground.

## ELECTRICAL PARAMETERS AT NMOT

Power	495W	499W	503W	507W	511W	515W	520W
Open Circuit Voltage	51.4V	51.6V	51.8V	52V	52.2V	52.4V	52.6V
Short Circuit Current	10.99A	11.03A	11.08A	11.13A	11.17A	11.22A	11.26A
Maximum Power Voltage	43.6V	43.8V	44V	44.2V	44.4V	44.6V	44.8V
Maximum Power Current	10.32A	10.36A	10.39A	10.43A	10.47A	10.51A	10.55A

\* 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.

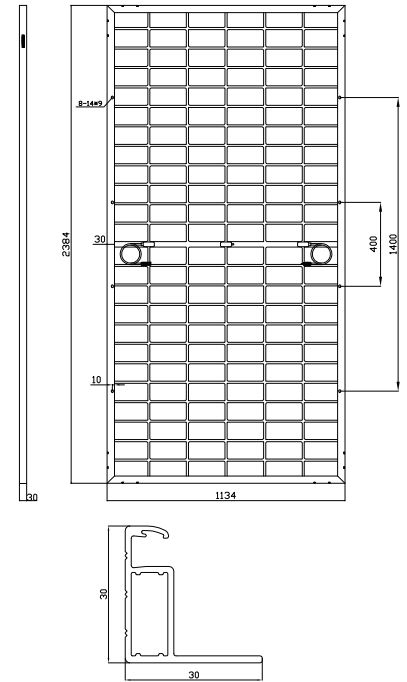
## TEMPERATURE CHARACTERISTICS

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

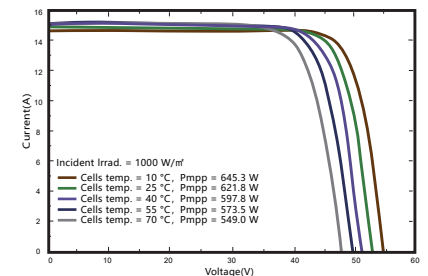
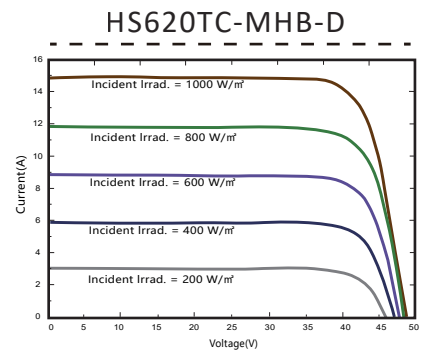
## PACKING CONFIGURATION

Modules/Pallet	36 Pieces
Packaging Description	20 Pallets, Total=(36+36)x10=720 Pieces
Modules/40' Container	720 Pieces

## MECHANICAL DIAGRAMS



## IV CHARACTERISTICS



## MAXIMUM RATING

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

**30 YEARS** Quality Warranty

**30 YEARS** Power Warranty

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

©2024 Horay Solar Co.,Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.

Version number: MHB\_D\_EN\_2024\_A