

Mono

Bifacial

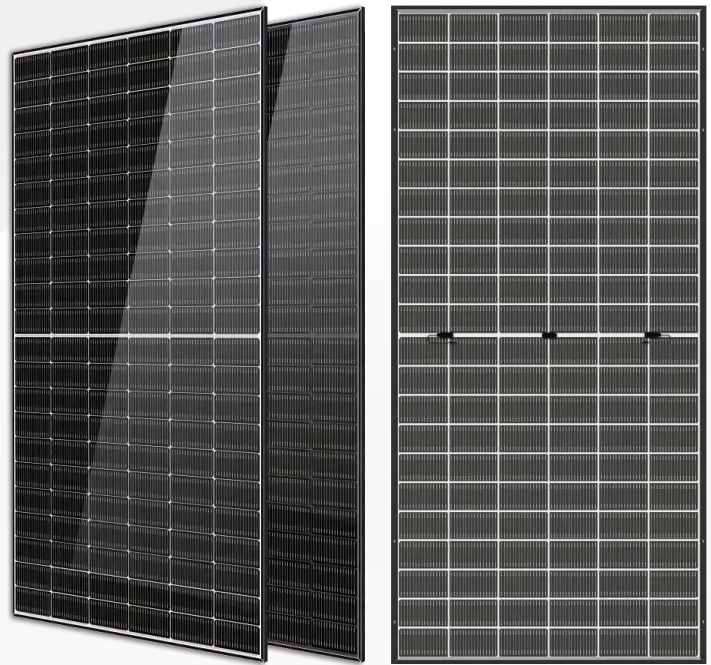
# HORAY

## Solar Galaxy

### 610–630 Watt N-Type

#### MONO-BIFACIAL MODULE

- IEC61215: 2021
- IEC61730: 2023
- 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
- China Quality Certification Centre
- Solar product certification



#### 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 132 half-cells Monocrystalline modules is up to 630W.



##### LID Free

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



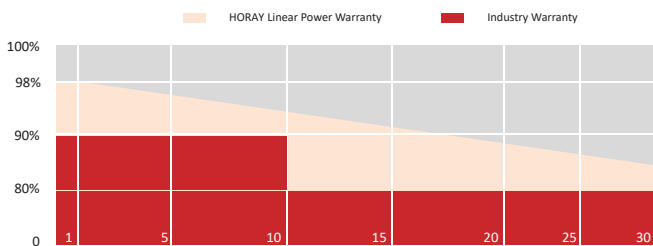
##### Harsh Environmental Adaptability

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.



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## SPECIFICATIONS

Weight	33.7kg
Dimension	2384mm*1134mm*30mm
Cell Dimension	182*105mm
Cell Amount	66*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	HS610TC-MHC-D	HS615TC-MHC-D	HS620TC-MHC-D	HS625TC-MHC-D	HS630TC-MHC-D
Power	610W	615W	620W	625W	630W
Open Circuit Voltage	48.92V	49.16V	49.40V	49.63V	49.87V
Short Circuit Current	15.85A	15.90A	15.95A	16.00A	16.05A
Maximum Power Voltage	40.66V	40.85V	41.05V	41.25V	41.45V
Maximum Power Current	15.00A	15.05A	15.10A	15.15A	15.20A
Module Efficiency	22.56%	22.75%	22.93%	23.12%	23.30%

\* 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	671W	677W	682W	688W	693W
Open Circuit Voltage	48.92V	49.16V	49.40V	49.63V	49.87V
Short Circuit Current	17.43A	17.49A	17.55A	17.60A	17.66A
Maximum Power Voltage	40.66V	40.85V	41.05V	41.25V	41.45V
Maximum Power Current	16.50A	16.56A	16.61A	16.67A	16.72A

\*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	465W	469W	472W	476W	480W
Open Circuit Voltage	46.47V	46.70V	46.92V	47.15V	47.38V
Short Circuit Current	12.80A	12.84A	12.88A	12.92A	12.96A
Maximum Power Voltage	37.86V	38.05V	38.23V	38.42V	38.60V
Maximum Power Current	12.28A	12.32A	12.36A	12.40A	12.44A

\* 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.

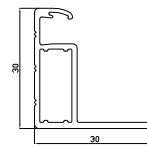
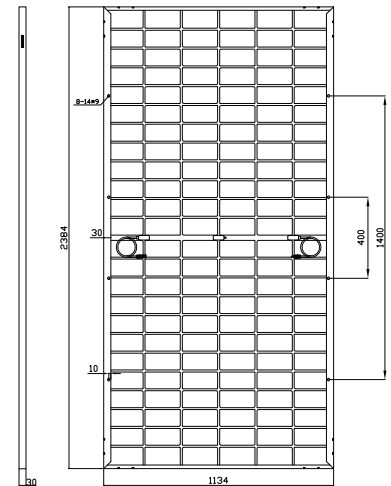
## TEMPERATURE CHARACTERISTICS

NMOT	45±2°C
Temp Coefficient of ISC	+0.04%/°C
Temp Coefficient of VOC	-0.23%/°C
Temp Coefficient of Pmax	-0.28%/°C

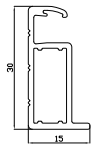
## PACKING CONFIGURATION

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

## MECHANICAL DIAGRAMS

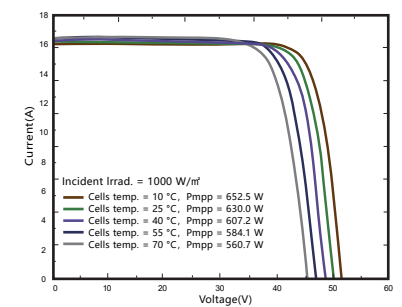
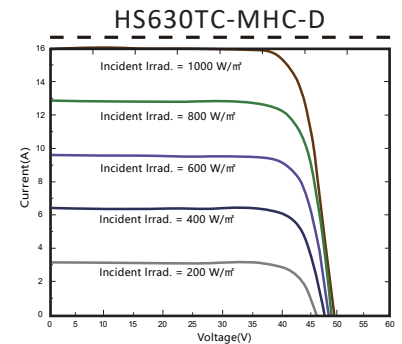


Section diagram of long frame profile



Section diagram of short frame profile

## 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

**15 YEARS** Quality Warranty

**30 YEARS** Power Warranty