

Mono

Bifacial

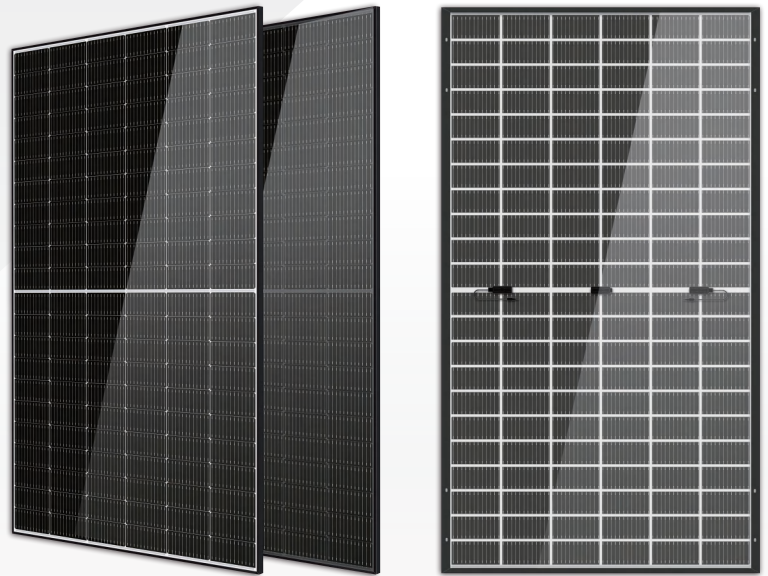
HORAY

Solar Galaxy

640–660 Watt

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



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.



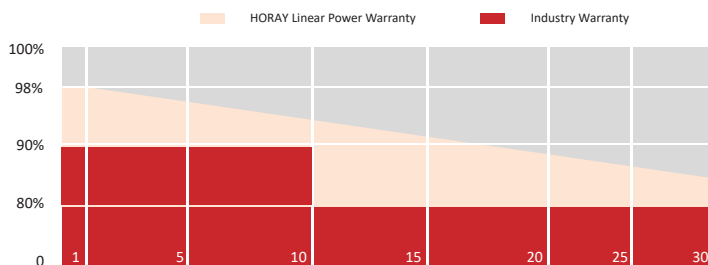
Harsh Environmental Adaptability

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.



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
 📍 Lurgiallee 10-12 Frankfurt am Main 60439 Germany

SPECIFICATIONS

Weight	40.0kg
Dimension	2384mm*1303mm*35mm
Cell Dimension	210*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 ² ,+300,-300mm/±1300mm Length can be customized
Connector	MC4 compatible
Application Level	Class A

ELECTRICAL PARAMETERS AT STC

Module Type	HS640-MHG-D	HS645-MHG-D	HS650-MHG-D	HS655-MHG-D	HS660-MHG-D
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/m², spectrum AM 1.5 and cell temperature of 25°C.

ELECTRICAL PARAMETERS AT BNPI

Power	701W	706W	712W	717W	723W
Open Circuit Voltage	45.18V	45.38V	45.58V	45.78V	45.98V
Short Circuit Current	19.39A	19.45A	19.53A	19.58A	19.66A
Maximum Power Voltage	37.21V	37.41V	37.61V	37.81V	38.01V
Maximum Power Current	18.84A	18.87A	18.93A	18.96A	19.02A

*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	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/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

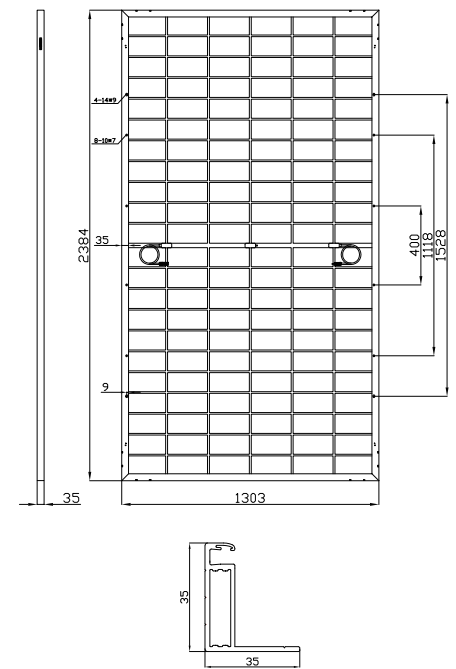
TEMPERATURE CHARACTERISTICS

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

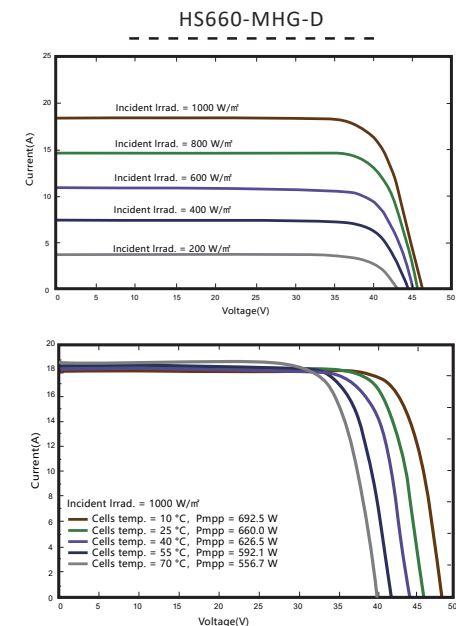
PACKING CONFIGURATION

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

15 YEARS

Quality Warranty

30 YEARS

Power Warranty

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

©2023 Horay Solar Co.,Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.

Version number: MHO_D_EN_2023_A