

## BIFACIAL MODULE WITH DUAL GLASS

# RS41-430~450NBG-E3

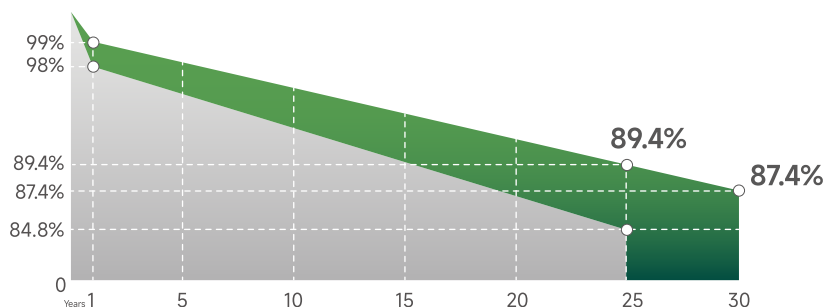
N-Type /Positive power tolerance of  $\pm 3\%$ /Max module efficiency 23.04%

- Suitable for ground power plants and distributed projects
- Advanced module technology delivers superior module efficiency
  - Non destructive cutting · MBB half-cut
- Excellent power generation performance
  - Excellent IAM and low irradiation performance · Lower temperature coefficient
  - 0.40% linear Power decline
- High module quality ensures long-term reliability
  - Strict selected material · Advanced technology · Leading standard
- Enhanced Mechanical Load
  - Mechanical performance up to 5400pa positive load and 2400pa negative load



Complete System  
and IEC Product Certification

IEC 61215:2021, IEC 61730:2023, ISO9001  
2015: Quality Management System ISO14001:  
2015: Environment Management System  
ISO45001:2018: Occupational Health  
and Safety Management System



30-Year Excess Linear Power Output Warranty

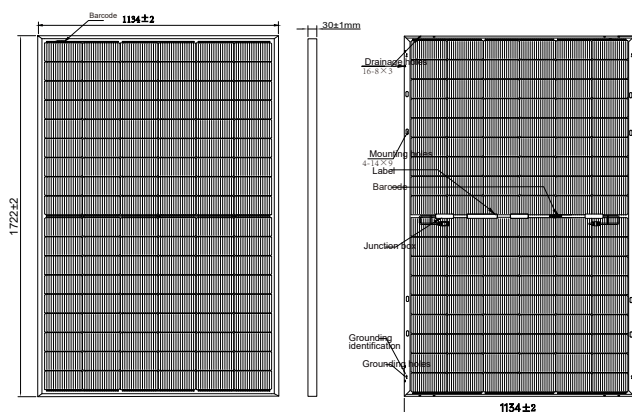
The power performance warranty is for front side only.

BLOOMBERG  
**TIER 1**  
Global  
Leading Brand

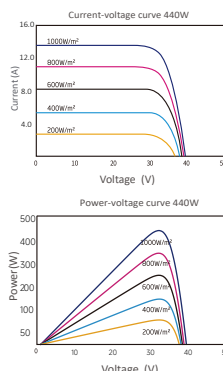


# RS41-430~450NBG-E3

BIFACIAL MODULE WITH DUAL GLASS



Drawing Only for Reference



| Electrical Characteristics STC | RS41-430NBG-E3 | RS41-435NBG-E3 | RS41-440NBG-E3 | RS41-445NBG-E3 | RS41-450NBG-E3 |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| Maximum Power (Pmax)           | 430W           | 435W           | 440W           | 445W           | 450W           |
| Power Tolerance                | 0~+5W          | 0~+5W          | 0~+5W          | 0~+5W          | 0~+5W          |
| Module Efficiency              | 22.02%         | 22.28%         | 22.53%         | 22.79%         | 23.04%         |
| Maximum Power Current (Imp)    | 13.17A         | 13.24A         | 13.31A         | 13.38A         | 13.45A         |
| Maximum Power Voltage (Vmp)    | 32.65V         | 32.85V         | 33.06V         | 33.26V         | 33.46V         |
| Short Circuit Current (Isc)    | 13.69A         | 13.77A         | 13.85A         | 13.93A         | 14.01A         |
| Open Circuit Voltage (Voc)     | 39.51V         | 39.74V         | 39.96V         | 40.18V         | 40.40V         |

Values at Standard Test Conditions STC(AM1.5, Irradiance 1000W/m², Cell Temperature25°C)  
Tolerance of Power/Voc/ISC : ±3%/±3%/±3%

| Electrical Characteristics BNPI/BSI | RS41-430NBG-E3 | RS41-435NBG-E3 | RS41-440NBG-E3 | RS41-445NBG-E3 | RS41-450NBG-E3 |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
|                                     | BNPI           | BNPI           | BNPI           | BNPI           | BNPI           |
| Maximum Power (Pmax)                | 476W           | 482W           | 488W           | 493W           | 499W           |
| Maximum Power Current (Imp)         | 14.59A         | 14.67A         | 14.75A         | 14.83A         | 14.90A         |
| Maximum Power Voltage (Vmp)         | 32.65V         | 32.85V         | 33.06V         | 33.26V         | 33.46V         |
| Short Circuit Current (Isc)         | 15.17A         | 15.26A         | 15.35A         | 15.43A         | 15.52A         |
| Short Circuit Current ( BSI Isc)    | 16.98A         | 17.07A         | 17.17A         | 17.27A         | 17.37A         |
| Open Circuit Voltage (Voc)          | 39.51V         | 39.74V         | 39.96V         | 40.18V         | 40.40V         |

BNPI: Irradiance: Front 1000W/m², Rear 135W/m², Ambient Temperature 25°C, AM=1.5, Power Bifaciality:80±5%,  
Short-circuit current bifaciality coefficient:(80±5)% ; Open circuit voltage bifaciality coefficient:(98±5)% ; Maximum power bifaciality coefficient:(80±5)% ;

| Electrical Characteristics rear side power gain | RS41-430NBG-E3 | RS41-435NBG-E3 | RS41-440NBG-E3 | RS41-445NBG-E3 | RS41-450NBG-E3 |
|-------------------------------------------------|----------------|----------------|----------------|----------------|----------------|
|                                                 | 5% 10%         | 5% 10%         | 5% 10%         | 5% 10%         | 5% 10%         |
| Backside Power Gain                             |                |                |                |                |                |
| Maximum Power (Pmax)                            | 452W 473W      | 457W 479W      | 462W 484W      | 467W 490W      | 473W 495W      |
| Maximum Power Current (Imp)                     | 13.83A 14.49A  | 13.90A 14.56A  | 13.98A 14.64A  | 14.05A 14.72A  | 14.12A 14.80A  |
| Maximum Power Voltage (Vmp)                     | 32.65V 32.65V  | 32.85V 32.85V  | 33.06V 33.06V  | 33.26V 33.26V  | 33.46V 33.46V  |
| Short Circuit Current (Isc)                     | 14.37A 15.06A  | 14.46A 15.15A  | 14.54A 15.24A  | 14.63A 15.32A  | 14.71A 15.41A  |
| Open Circuit Voltage (Voc)                      | 39.51V 39.51V  | 39.74V 39.74V  | 39.96V 39.96V  | 40.18V 40.18V  | 40.40V 40.40V  |

Module Temperature rating [T98] max of 70°C

## Mechanical Characteristics

|                            |                                                        |
|----------------------------|--------------------------------------------------------|
| Cell Type                  | Mono N-Type,108(6×18) Half-Cut cells                   |
| Glass                      | 2mm+2mm,High Transmission,Low Iron,Semi-Tempered glass |
| Frame                      | Anodized Aluminum Alloy                                |
| Juction Box                | IP68 Rated                                             |
| Dimension                  | 1722x1134x30mm                                         |
| Output Cable               | 4mm2(EU),+200mm,-300mm or Customized                   |
| Weight                     | 23.5kg                                                 |
| Installation Hole Location | See Drawing Above                                      |

## Packing Information

|                       |        |
|-----------------------|--------|
| Container             | 40' HQ |
| Pallets per Container | 26     |
| Pieces per Container  | 962    |

## Characteristics

|                                          |            |
|------------------------------------------|------------|
| Temperature Coefficient of Voc           | -0.25%/°C  |
| Temperature Coefficient of Isc           | +0.045%/°C |
| Temperature Coefficient of Pmax          | -0.29%/°C  |
| Nominal Operating Cell Temperature(NOCT) | 43±2°C     |
| Fire Performance                         | Class C    |

Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

## Maximum Ratings

|                            |             |
|----------------------------|-------------|
| Operating Temperature      | -40°C~+85°C |
| Maximum System Voltage     | 1500VDC     |
| Maximum Series Fuse Rating | 30A         |

