

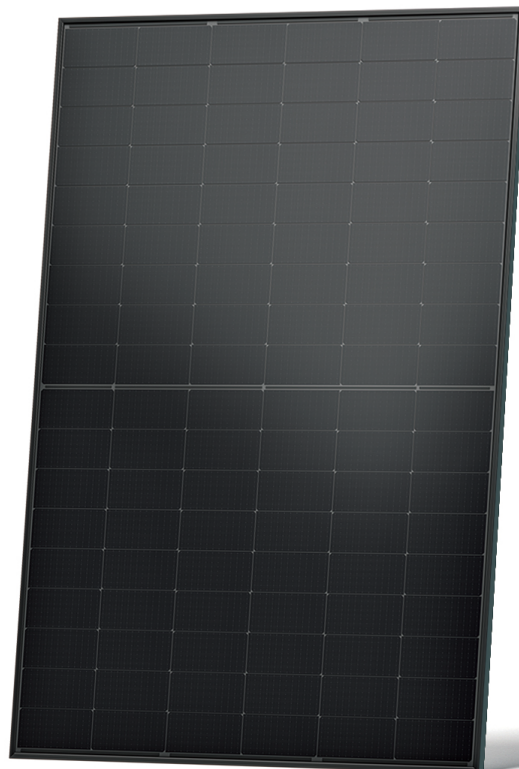
# TIGER Neo

## 54HL4R-BDB

### 425-450 Watt

ALL BLACK BIFACIAL MODULE WITH DUAL GLASS

### N-type



### N-Type Technology

N-Type modules with Tunnel Oxide Passivating Contacts (TOPcon) technology offer lower LID/LeTID degradation and better low light performance.



### HOT 3.0 Technology

N-type modules with JinkoSolar's HOT 3.0 technology offer better reliability and efficiency.



### Dual-Sided Power Generation

Dual-sided power generation gain increases with backside exposure to light, significantly reducing LCOE.



### Mechanical Load Enhanced

Certified to withstand:  
6000 Pa front side max static test load  
4000 Pa rear side max static test load



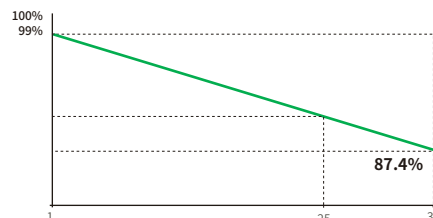
### SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



### Anti-PID guarantee

Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control.



|                                    |   |                                     |   |
|------------------------------------|---|-------------------------------------|---|
| <b>25 Year</b><br>Product Warranty | <b>30 Year</b><br>Linear Power Warranty | <b>1%</b><br>First-year Degradation | <b>0.4%</b><br>Annual Degradation Over 30 Years |
|------------------------------------|---|-------------------------------------|---|

- IEC61215:2021 / IEC61730:2023
- IEC61701 / IEC62716 / IEC60068 / IEC62804
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018: Occupational health and safety management systems



EU-JKM425-450N-54HL4R-BDB-F4-EN

# 54HL4R-BDB 425-450 Watt

## Mechanical Characteristics

|                  |   |
|------------------|---|
| Cell Type        | N -type Mono-crystalline  |
| No. of cells     | 108 (54×2)  |
| Dimensions       | 1762×1134×30 mm   |
| Weight           | 24.5 kg   |
| Front Glass      | 2.0 mm, Anti-Reflection Coating                                       |
| Back Glass       | 2.0 mm, Heat Strengthened Glass                                       |
| Frame            | Anodized Aluminium Alloy  |
| Junction Box     | IP68 Rated  |
| Protection Class | Class II  |
| IEC Fire Type    | Class C   |
| Output Cables    | 4.0 mm <sup>2</sup><br>(+): 400 mm , (-): 200 mm or Customized Length |

## Packaging Configuration

|   |  |
|---|--|
| Pallet Dimensions                         | 1792×1140×1249 mm  |
| Packing detail<br>(Two pallets=One stack) | 37 pcs/pallets, 74 pcs/stack,<br>962 pcs/40'HQ Container |

## Specifications (STC)

|                                  |            |       |       |       |       |       |
|----------------------------------|------------|-------|-------|-------|-------|-------|
| Maximum Power – Pmax [Wp]        | 425        | 430   | 435   | 440   | 445   | 450   |
| Maximum Power Voltage – Vmp [V]  | 32.90      | 33.08 | 33.26 | 33.44 | 33.61 | 33.79 |
| Maximum Power Current – Imp [A]  | 12.92      | 13.00 | 13.08 | 13.16 | 13.24 | 13.32 |
| Open-circuit Voltage – Voc [V]   | 39.23      | 39.43 | 39.63 | 39.83 | 40.03 | 40.23 |
| Short-circuit Current – Isc [A]  | 13.77      | 13.84 | 13.91 | 13.98 | 14.05 | 14.12 |
| Module Efficiency STC [%]        | 21.27      | 21.52 | 21.77 | 22.02 | 22.27 | 22.52 |
| Power Tolerance                  | 0 ~ + 3 %  |       |       |       |       |       |
| Temperature Coefficients of Pmax | -0.29 %/°C |       |       |       |       |       |
| Temperature Coefficients of Voc  | -0.25 %/°C |       |       |       |       |       |
| Temperature Coefficients of Isc  | 0.045 %/°C |       |       |       |       |       |

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Specifications BNPI

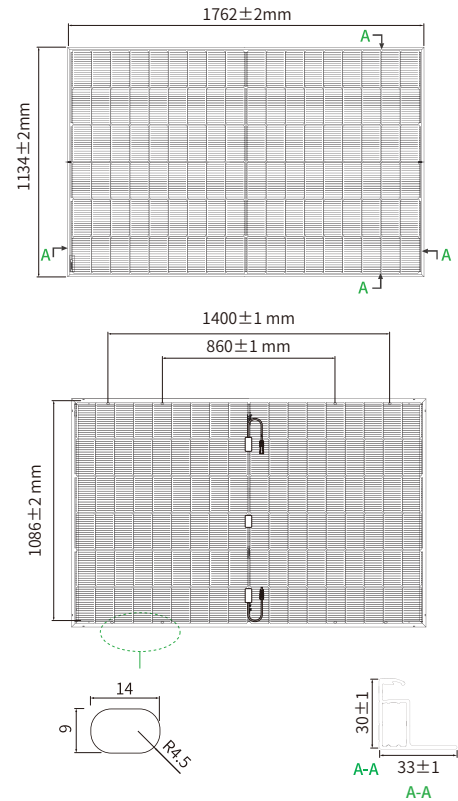
|                                 |       |       |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Maximum Power – Pmax [Wp]       | 469   | 474   | 480   | 485   | 491   | 496   |
| Maximum Power Voltage – Vmp [V] | 32.91 | 33.06 | 33.26 | 33.41 | 33.61 | 33.76 |
| Maximum Power Current – Imp [A] | 14.25 | 14.34 | 14.43 | 14.52 | 14.60 | 14.69 |
| Open-circuit Voltage – Voc [V]  | 39.23 | 39.43 | 39.63 | 39.83 | 40.03 | 40.23 |
| Short-circuit Current – Isc [A] | 15.16 | 15.24 | 15.32 | 15.40 | 15.48 | 15.56 |

BNPI: Irradiance front 1000W/m<sup>2</sup>, rear 135 W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Application Conditions

|                            |   |
|----------------------------|---|
| Operating Temperature      | -40 °C ~ +70 °C                           |
| Maximum System Voltage     | 1500 VDC (IEC)                            |
| Maximum Series Fuse Rating | 30 A                                      |
| Bifaciality Coefficient    | φVoc: 98±5 %, φIsc: 80±5 %, φPmax: 80±5 % |

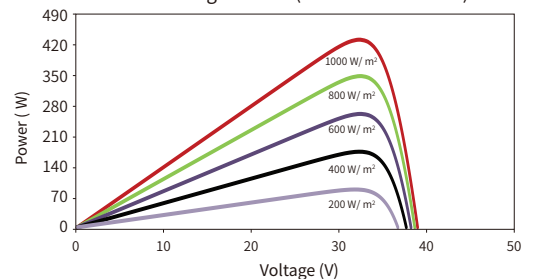
## Engineering Drawings



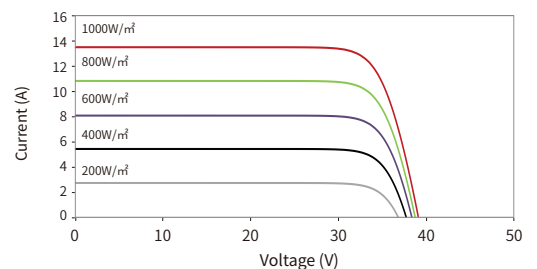
**Note:** For specific dimensions and tolerance ranges, please refer to the corresponding detailed module drawings.

## Electrical Performance

Power-Voltage Curves (54HL4R-BDB 440W)



Current-Voltage Curves (54HL4R-BDB 440W)



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**Note:** Please read the safety and installation manual before using the product. We reserve the right of final interpretation. The specifications in this datasheet are subject to change without notice.

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