

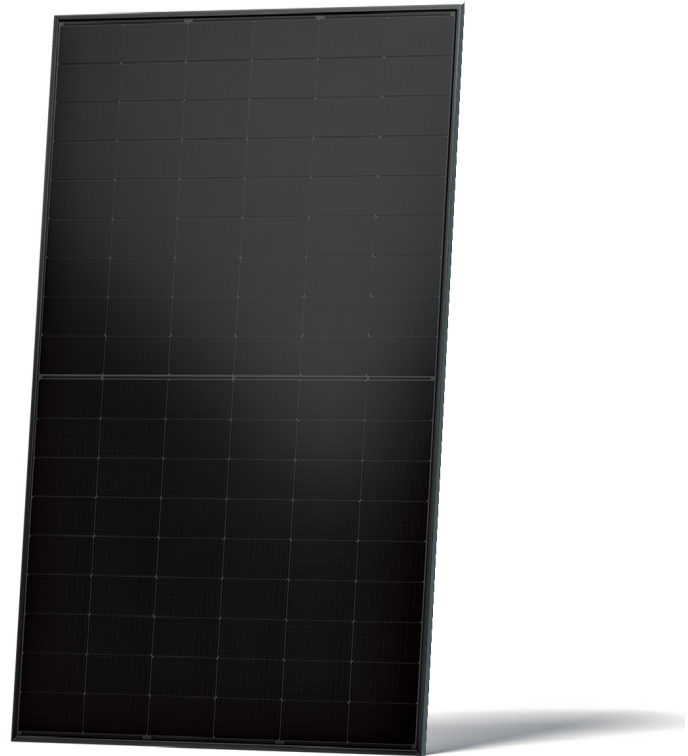
# Neo Green

## 54HL4R-BDB

### 425-450 Watt

ALL BLACK BIFACIAL MODULE WITH DUAL GLASS

### N-type



### Zero Carbon Manufacturing

Manufacturing facilities producing Neo Green modules have been awarded the "Zero Carbon Factory" certification.



### Dual-Sided Power Generation

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



### SMBB Technology

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



### HOT 3.0 Technology

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



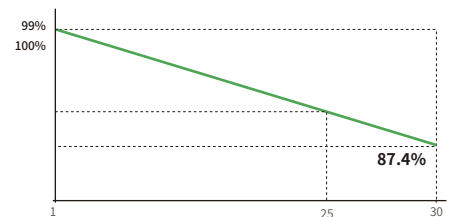
### Mechanical Load Enhanced

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



### Anti-PID Guarantee

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



<b>25</b> Year Product Warranty	<b>30</b> Year Linear Power Warranty	<b>1</b> % First-year Degradation	<b>0.40</b> % Annual Degradation Over 30 Years
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- 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



**JKM425-450N-54HL4R-BDB-G3-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
Connector Type	JK03M/MC4/Others
Output Cables	4.0 mm <sup>2</sup> (+): 400 mm , (-): 200 mm or Customized Length

## Packaging Configuration

Pallet Dimensions	1792×1140×1249 mm
Packing Detail (Two pallets = One stack)	37 pcs/pallets, 74 pcs/stack, 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)

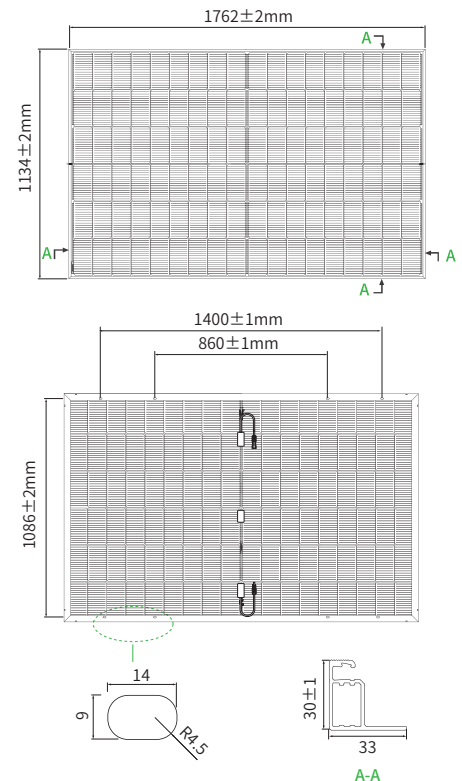
Maximum Power - Pmax [Wp]	469	474	480	485	491	496
Maximum Power Voltage - Vmp [V]	32.91	33.06	33.26	33.41	33.61	33.76
Maximum Power Current - Imp [A]	14.25	14.34	14.43	14.52	14.60	14.69
Open-circuit Voltage - Voc [V]	39.23	39.43	39.63	39.83	40.03	40.23
Short-circuit Current - Isc [A]	15.16	15.24	15.32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

BNPI: Irradiance: front 1000W/m<sup>2</sup>, rear 135W/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 %

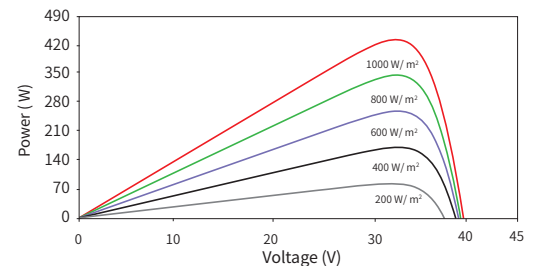
## Engineering Drawings



\*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)

