

# DHN-60R18/DG(BB)

# 495~520W

High Efficiency Double Glass PV Module

## Comprehensive Products & System Certificates

IEC 61215 / IEC 61730 / CE / INMETRO  
ISO 45001  
2018/International standards for occupational health & safety  
ISO 14001  
2015/Standards for environmental management system  
ISO 9001  
2015/Quality management system

 25 Material & technology warranty

 30 Linear power output warranty



Rectangular cells (182mm x 191.6mm) with higher power



TOPCon cells double-sided rate up to 85% and more back power generation by 5-25%



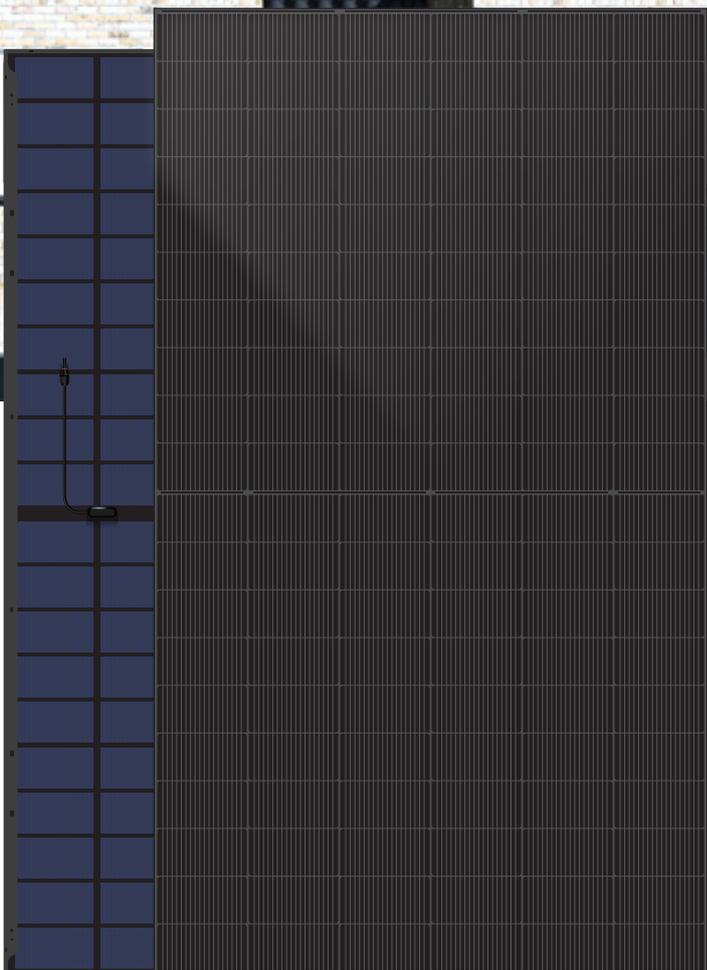
Double-glass Technology, higher encapsulation blocking and mechanical strength



Higher performance in anti hidden cracking, acid and alkali, salt spray, water vapor, UV, PID

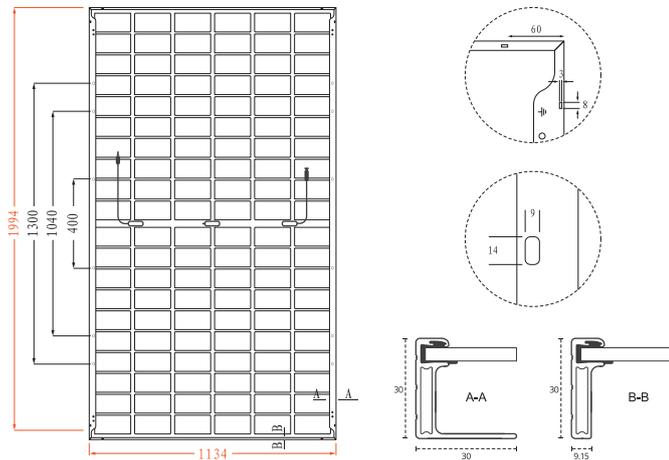


TOPCon cells, lower attenuation, better temperature coefficient & dim light performance

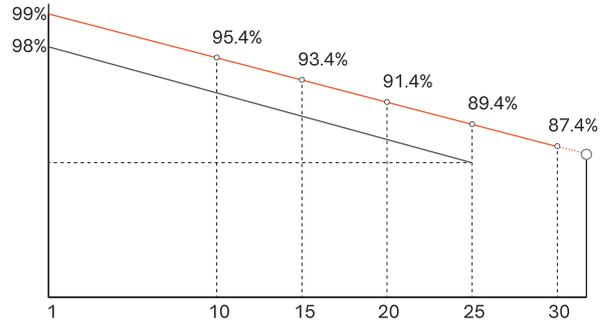


# DHN-60R18/DG(BB) 495~520W

## Design



## 30-Year Linear Power Output Warranty



- DAH Solar linear power output guarantee
- Standard linear power output guarantee

## Mechanical Specification

|                   |                           |
|-------------------|---------------------------|
| No. of Cells      | 120 (6×20)                |
| Weight            | 27.0kg                    |
| Cells Type        | N-type 182×95.8mm         |
| Dimension (L×W×T) | 1994×1134×30mm            |
| Packing           | 36pcs/Pallet, 792pcs/40HQ |

|                            |  |
|----------------------------|--|
| Cable(Including connector) | 4.0mm <sup>2</sup> , 300/200mm in length, length can be customized |
| Glass                      | 2.0mm High Transmission, Antireflection Coating                    |
| Junction Box               | IP68, 3 Bypass Diodes  |
| Connector                  | MC4 Compatible   |

## Electrical Characteristics

| Module Type                                | DHN-60R18/DG(BB) |       |        |       |        |       |        |       |        |       |        |       |
|--|------------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
|  | STC              |       | NOCT   |       | STC    |       | NOCT   |       | STC    |       | NOCT   |       |
| Test conditions                            | STC              | NOCT  | STC    | NOCT  | STC    | NOCT  | STC    | NOCT  | STC    | NOCT  | STC    | NOCT  |
| Maximum Power (P <sub>max</sub> /W)        | 495              | 372   | 500    | 376   | 505    | 380   | 510    | 384   | 515    | 387   | 520    | 391   |
| Open-circuit Voltage (V <sub>oc</sub> /V)  | 43.5             | 41.3  | 43.7   | 41.5  | 43.9   | 41.7  | 44.1   | 41.9  | 44.3   | 42.1  | 44.5   | 42.3  |
| Maximum Power Voltage (V <sub>mp</sub> /V) | 36.9             | 35.1  | 37.1   | 35.2  | 37.3   | 35.4  | 37.5   | 35.6  | 37.7   | 35.8  | 37.9   | 36.0  |
| Short-circuit Current (I <sub>sc</sub> /A) | 14.42            | 11.64 | 14.48  | 11.69 | 14.54  | 11.74 | 14.60  | 11.79 | 14.66  | 11.84 | 14.72  | 11.88 |
| Maximum Power Current (I <sub>mp</sub> /A) | 13.41            | 10.62 | 13.48  | 10.67 | 13.54  | 10.72 | 13.60  | 10.77 | 13.66  | 10.81 | 13.72  | 10.86 |
| Module Efficiency (STC)                    | 21.89%           |       | 22.11% |       | 22.33% |       | 22.55% |       | 22.78% |       | 23.00% |       |
| Refer Bifacial Factor                      | 80±5%            |       |        |       |        |       |        |       |        |       |        |       |

STC-Standard Test Environment: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, Spectrum AM1.5

NOCT-Standard Test Environment: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

## Double-Sided Power Generation Parameters (Rear gain)

| Gain | Parameter                         | 520   | 525   | 530   | 536   | 541   | 546   |
|------|-----------------------------------|-------|-------|-------|-------|-------|-------|
| 5%   | Maximum Power (P <sub>max</sub> ) | 520   | 525   | 530   | 536   | 541   | 546   |
|      | Module Efficiency (%)             | 23.0  | 23.2  | 23.4  | 23.7  | 23.9  | 24.1  |
| 15%  | Maximum Power (P <sub>max</sub> ) | 569.3 | 575.0 | 580.8 | 586.5 | 592.3 | 598.0 |
|      | Module Efficiency (%)             | 25.2  | 25.4  | 25.7  | 25.9  | 26.2  | 26.4  |
| 25%  | Maximum Power (P <sub>max</sub> ) | 618.8 | 625.0 | 631.3 | 637.5 | 643.8 | 650.0 |
|      | Module Efficiency (%)             | 27.4  | 27.6  | 27.9  | 28.2  | 28.5  | 28.7  |

## Operating Parameters

|                                    |             |
|------------------------------------|-------------|
| Maximum System Voltage             | 1500V DC    |
| Operating Temperature              | -40 ~ +85°C |
| Maximum Series Fuse Rating         | 30A         |
| Nominal Operating Cell Temperature | 45°C±2°C    |
| Application Level                  | Class A     |

## Temperature Coefficient

|   |               |
|---|---------------|
| Temperature Coefficient of I <sub>sc</sub> (ΔI <sub>sc</sub> )  | 0.046%/°C     |
| Temperature Coefficient of V <sub>oc</sub> (βV <sub>oc</sub> )  | -0.25%/°C     |
| Temperature Coefficient of P <sub>max</sub> (γP <sub>mp</sub> ) | -0.29%/°C     |
| Snow load, frontside / Wind load, backside                      | 5400Pa/2400Pa |