

**DBB**

**DHN-60R20/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



No-Busbar(OBB) Technology, shorten 40% of the transmission distance.  
Reduces losses & improving conversion efficiency



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 power, longer service life, linear power warranty for 30 years

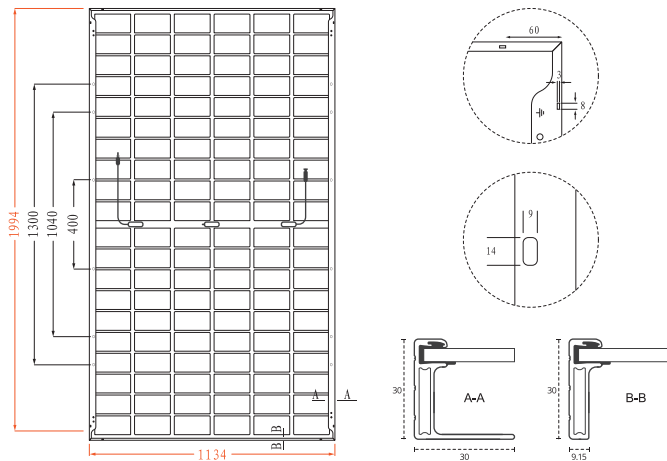


TOPCon cells, lower attenuation,  
better temperature coefficient & dim light performance

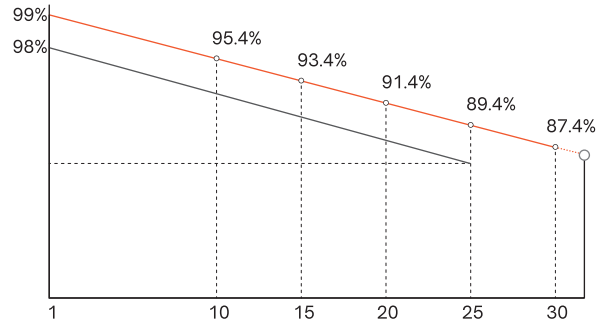


# DHN-60R20/DG(BB) 495~520W

## 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	4.0mm <sup>2</sup> , 300/200mm in length, (Including connector) 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-60R20/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)

Angle	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