

DBB


DHN-54R20/FS(BW) 450~470W

Full-Screen Single Glass PV Module

Comprehensive Products & System Certificates

IIEC 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

 Material & technology warranty

 Linear power output warranty



No-Busbar(0BB) Technology, shorten 40% of the transmission distance.
Reduces losses & improving conversion efficiency



Frameless design, installable both vertically & horizontally,
No water, no dust, snow slide fast, power generation increased by 6-15%



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

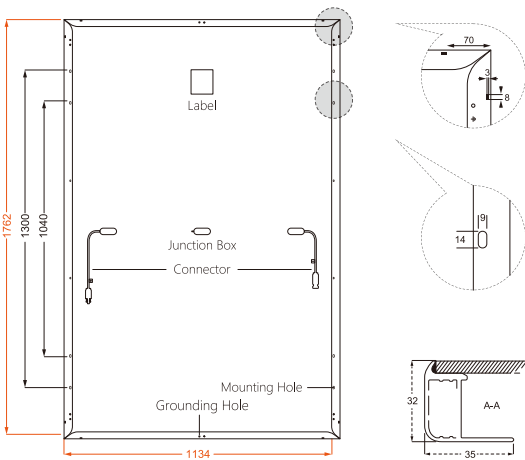


TOPCon cells, lower attenuation,
better temperature coefficient & dim ligh performance

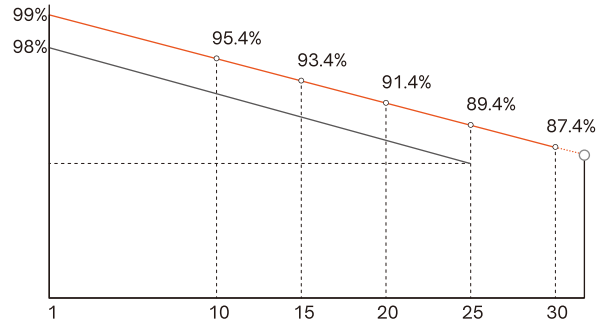


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Design



30-Year Linear Power Output Warranty



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

Mechanical Specification

No. of Cells	108 (6×18)
Weight	19.6kg
Cells Type	N-type 182×95.8mm
Dimension (L×W×T)	1762×1134×32mm
Packing	34pcs/Pallet, 884pcs/40HQ

Cable	4.0mm ² , 300/200mm in length, length can be customized
Glass	3.2mm High Transmission, Antireflection Coating
Junction Box	IP68, 3 Bypass Diodes
Connector	MC4 Compatible

STC-Electrical Characteristics

Module Type	DHN-54R20/FS(BW)				
		450	455	460	465
Maximum Power (P _{max} /W)	450	455	460	465	470
Open-circuit Voltage (V _{oc} /V)	39.4	39.6	39.8	40.0	40.2
Maximum Power Voltage (V _{mp} /V)	33.5	33.7	33.9	34.1	34.3
Short-circuit Current (I _{sc} /A)	14.42	14.48	14.54	14.60	14.66
Maximum Power Current (I _{mp} /A)	13.43	13.50	13.57	13.64	13.70
Module Efficiency (%)	22.52	22.77	23.02	23.27	23.52

STC-Standard Test Environment: Irradiance 1000W/m², Cell temperature 25°C, Spectrum AM1.5

NOCT-Electrical Characteristics

Maximum Power (P _{max} /W)	338	342	346	350	353
Open-circuit Voltage (V _{oc} /V)	37.4	37.6	37.8	38.0	38.2
Maximum Power Voltage (V _{mp} /V)	31.8	32.0	32.2	32.4	32.6
Short-circuit Current (I _{sc} /A)	11.64	11.69	11.74	11.79	11.84
Maximum Power Current (I _{mp} /A)	10.63	10.69	10.74	10.79	10.85

NOCT-Standard Test Environment: Irradiance 800W/m², Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

Operating Parameters

Maximum System Voltage	1500V DC
Operating Temperature	-40 ~ +85°C
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45°C±2°C
Application Level	Class A

Temperature Coefficient

Temperature Coefficient of I _{sc} (α _{Isc})	0.046%/°C
Temperature Coefficient of V _{oc} (β _{Voc})	-0.25%/°C
Temperature Coefficient of P _{max} (γ _{Pmp})	-0.29%/°C
Snow load, frontside / Wind load, backside	5400Pa/2400Pa