

DBB


DHN-54R20/DG/FS(BW)-445W

Full-Screen 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

 Material & technology warranty

 Linear power output warranty



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



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



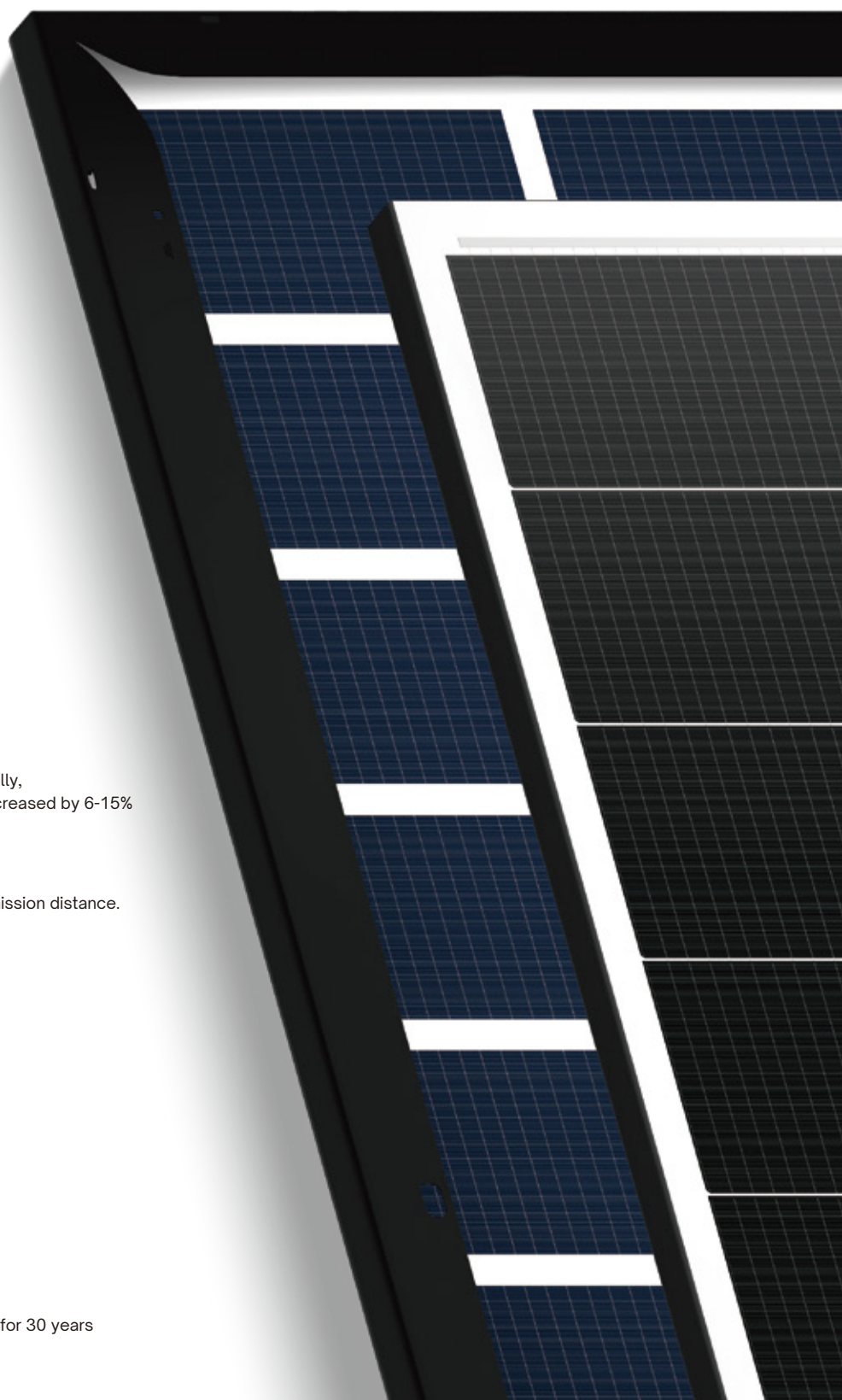
TOPCon cells double-sided rate up to 85% and
more back power generation by 5-25%



Double-glass Technology,
higher encapsulation blocking and mechanical strength

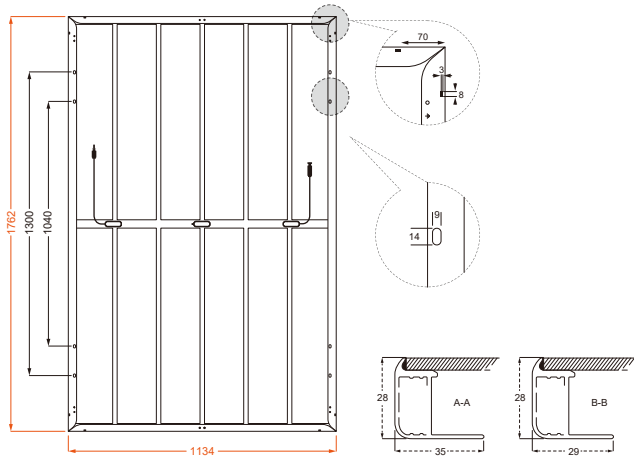


Higher power, longer service life, linear power warranty for 30 years

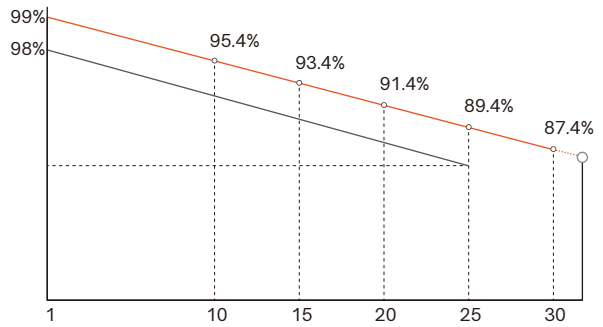


DHN-54R20/DG/FS(BW)-445W

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	24.4kg
Cells Type	N-type 182×95.8mm
Dimension (L×W×T)	1762×1134×28mm
Packing	36pcs/pallet, 864pcs/40HQ

Cable	4.0mm ² , 300/200mm in length, length can be customized
Glass	2.0mm High Transmission, Antireflection Coating
Junction Box	IP68, 3 Bypass Diodes
Connector	PV5e, Changshu Friends Connector Technology Co.,Ltd Customized Connectors

Electrical Characteristics

Module Type	DHN-54R20/DG/FS(BW)-445W	
	STC	NOCT
Test conditions	STC	NOCT
Maximum Power (P _{max} /W)	445	335
Open-circuit Voltage (V _{oc} /V)	39.2	37.2
Maximum Power Voltage (V _{mp} /V)	33.3	31.6
Short-circuit Current (I _{sc} /A)	14.36	11.59
Maximum Power Current (I _{mp} /A)	13.36	10.58
Module Efficiency (STC)	22.27%	
Refer Bifacial Factor	80±5%	

STC-Standard Test Environment: Irradiance 1000W/m², Cell temperature 25°C, Spectrum AM1.5 Tolerance: P_{max}=±3%, V_{oc}=±3%, I_{sc}=±3%
 NOC-Standard Test Environment: Irradiance 800W/m², Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

Electrical ratings at irradiance level at BNPI

Rated V _{oc} at STC (V) / tolerance ±3%	39.4
Rated I _{sc} at STC (A) / tolerance ±3%	15.85
Rated V _{mp} at STC (V)	33.5
Rated I _{mp} at STC (A)	14.78
Rated P _{max} at STC (W) / tolerance±3%	495

Bifaciality coefficient with tolerance: φ_{Isc} = 80%±5%, φ_{Voc} = 98%±2%, φ_{Pmax} = 80%±5%

Electrical ratings at irradiance level at aBSI

Rated I _{sc} at aBSI (A) / tolerance ±3%	17.67
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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
Power sorting tolerance	0 ~ 5W

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
Fire class	CLASS A
Snow load, frontside / Wind load, backside	5400Pa/2400Pa