DAH Solar
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TOP PERFORMER 2025 kiwa PV MODULE RELIABILITY SCORECARD

TIER 1 BloombergNEF

DHN-54Z16/DG(BB)

490~520W

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

Bifacial Rate Up to 85% and More Back Power Generation by 5-25%

Double-glass Technology, higher encapsulation blocking and mechanical strength

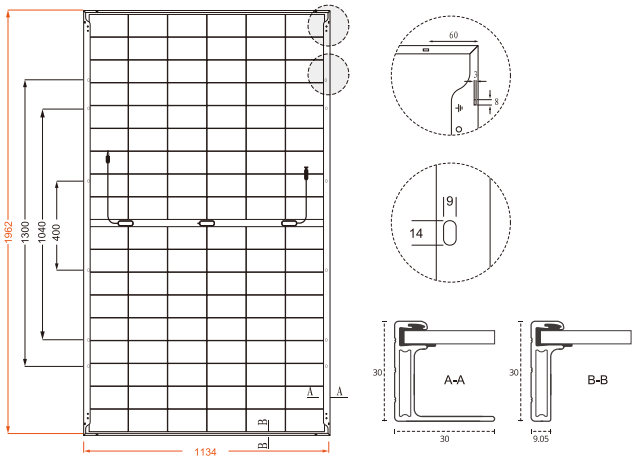
Higher performance in anti hidden cracking, acid and alkali, salt spray, water vapor, UV, PID

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

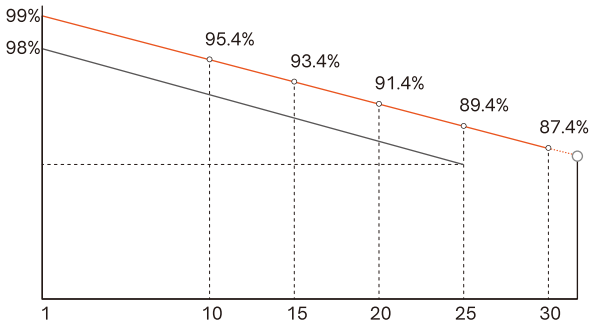
LECO laser assisted sintering technology, reduces contact resistance and improves efficiency by 0.2% -0.5%

DHN-54Z16/DG(BB) 490~520W

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	26.6kg
Cells Type	N-type 182×105mm
Dimension (L×W×T)	1962×1134×30mm
Packing	36pcs/Pallet, 864pcs/40HQ

Cable(Including connector)	4.0mm², 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-54Z16/DG(BB)													
Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	490	368	495	372	500	376	505	380	510	384	515	387	520	391
Open-circuit Voltage (Voc/V)	39.5	37.5	39.7	37.7	39.9	37.9	40.1	38.1	40.3	38.3	40.5	38.5	40.7	38.7
Maximum Power Voltage (Vmp/V)	33.5	31.8	33.7	32.0	33.9	32.2	34.1	32.4	34.3	32.6	34.5	32.8	34.7	33.0
Short-circuit Current (Isc/A)	15.58	12.58	15.64	12.63	15.70	12.68	15.76	12.72	15.82	12.77	15.88	12.82	15.94	12.87
Maximum Power Current (Imp/A)	14.63	11.58	14.69	11.63	14.75	11.68	14.81	11.72	14.87	11.77	14.93	11.82	14.99	11.86
Module Efficiency (STC)	22.02		22.25		22.47		22.70		22.92		23.15		23.37	
Refer Bifacial Factor	80±5%													

STC-Standard Test Environment: Irradiance 1000W/m², Cell temperature 25°C, Spectrum AM1.5
NOCT-Standard Test Environment: Irradiance 800W/m², Ambient temperature 20°C, Spectrum AM1.5, Wind speed 1m/s

Double-Sided Power Generation Parameters (Rear gain)

5%	Maximum Power (Pmax)	515	520	525	530	536	541	546
	Module Efficiency (%)	23.1	23.4	23.6	23.8	24.1	24.3	24.5
15%	Maximum Power (Pmax)	563.5	569.3	575.0	580.8	586.5	592.3	598.0
	Module Efficiency (%)	25.3	25.6	25.8	26.1	26.4	26.6	26.9
25%	Maximum Power (Pmax)	612.5	618.8	625.0	631.3	637.5	643.8	650.0
	Module Efficiency (%)	27.5	27.8	28.1	28.4	28.7	28.9	29.2

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 Isc (αIsc)	0.046%/°C
Temperature Coefficient of Voc (βVoc)	-0.25%/°C
Temperature Coefficient of Pmax (γPmp)	-0.29%/°C
Snow load, frontside / Wind load, backside	5400Pa/2400Pa

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