

DHN-72X16/DG-590w


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

 15 Material & technology warranty

 30 Linear power output warranty



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, water vapor, UV



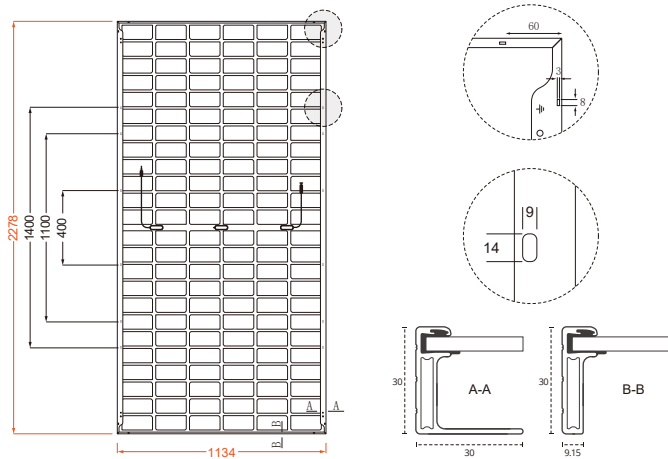
TOPCon cells, lower attenuation, better temperature coefficient & dim light performance



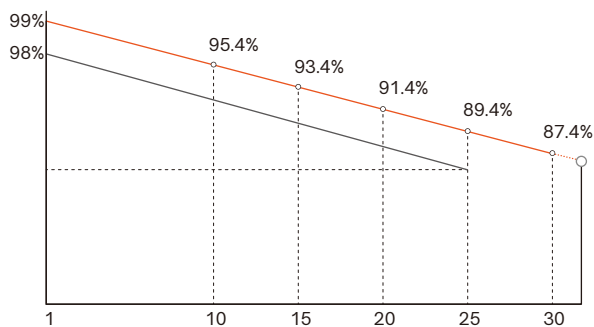
LECO laser assisted sintering technology, reduces contact resistance and improves efficiency by 0.2% -0.5%

DHN-72X16/DG-590W

Design



30-Year Linear Power Output Warranty



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

Mechanical Specification

No. of Cells	144 (6×24)
Weight	31.2kg
Cells Type	N-type 182×91mm
Dimension (L×W×T)	2278×1134×30mm
Packing	36pcs/Pallet, 720pcs/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-72X16/DG-590W	
	STC	NOCT
Test conditions	STC	NOCT
Maximum Power (P _{max} /W)	590	444
Open-circuit Voltage (V _{oc} /V)	51.8	49.2
Maximum Power Voltage (V _{mp} /V)	44.0	41.8
Short-circuit Current (I _{sc} /A)	14.26	11.51
Maximum Power Current (I _{mp} /A)	13.41	10.61
Module Efficiency (STC)	22.84%	
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%
 NOCT-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%	52.0
Rated I _{sc} at STC (A) / tolerance ±3%	15.77
Rated V _{mp} at STC (V)	44.2
Rated I _{mp} at STC (A)	14.82
Rated P _{max} at STC (W) / tolerance±3%	655

Bifaciality coefficient with tolerance: φI_{sc} = 80%±5%, φV_{oc} = 98%±2%, φP_{max} = 80%±5%

Electrical ratings at irradiance level at aBSI

Rated I _{sc} at aBSI (A) / tolerance ±3%	17.61
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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} (αI _{sc})	0.046%/°C
Temperature Coefficient of V _{oc} (βV _{oc})	-0.25%/°C
Temperature Coefficient of P _{max} (γP _{mp})	-0.29%/°C

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