

(182mm mono TOPCon half-cell, high-efficiency bifacial, full black module)

410-440W 0-5W Positive Tolerance



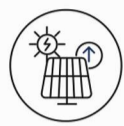
Full black Aesthetic Design

Paired with full-black module frame and backsheet, ensuring high stability and consistency of black aesthetic module in color tone, brightness, and uniformity.



MBB&SMBB Half-cut Cell Technology

New circuit design, lower internal current, and lower Rs loss.



High Power Density

A new generation of monocrystalline products with reduced resistive losses for greater power output.



Mechanical Properties

An aluminum frame in special design for better mechanical properties and more efficient installation.



4 Times 100% EL Detection

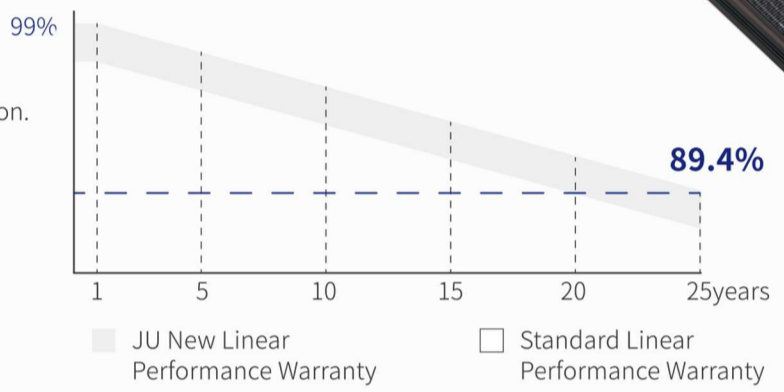
Guarantee no micro cracks

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Excellent Weather Resistance

The solar modules can meet the IEC standard requirements with strong resistant to risks such as salt spray, ammonia gas, dust, snail marks and electric potential induced attenuation.



PRODUCT QUALITY SYSTEM & CERTIFICATION



12years Material & process Warranty

25years Linear Performance Warranty

1% Linear Power Degradation in the First Year

0.4% Linear Power Degradation Every Year

ELECTRICAL PROPERTIES

SM-182T-54HBG(black) 108PCS

STC : irradiance, 1000W/m²; cell temperature, 25°C; spectral range, AM1.5

NOCT: irradiance, 800 W/m²; ambient temperature, 20 °C; spectral range, AM1.5; wind speed, 1m/s

	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Max power - P _{mp} (W)	410	313.5	415	317.3	420	321.1	425	325	430	328.7	435	333	440	337
Open-circuit voltage - V _{oc} (V)	38.20	36.30	38.33	36.40	38.46	36.50	38.59	36.60	38.72	36.80	38.85	36.92	38.98	37.05
Short-circuit current - I _{sc} (A)	13.93	11.23	14.01	11.30	14.09	11.36	14.17	11.42	14.25	11.49	14.33	11.55	14.41	11.62
Max operating voltage - V _{mp} (V)	31.59	29.60	31.78	29.70	31.96	29.90	32.15	30.00	32.33	30.20	32.51	30.37	32.69	30.54
Max operating current - I _{mp} (A)	12.98	10.60	13.06	10.68	13.14	10.75	13.22	10.82	13.30	10.89	13.38	10.96	13.46	11.02
Module conversion efficiency - η _m	21.00%		21.25%		21.51%		21.76%		22.00%		22.28%		22.53%	

ELECTRICAL PROPERTIES VERSUS POWER GAINS FROM THE REAR (TAKING A IRRADIANCE OF 420W)

	5%	15%	25%
Power gain			
Max power - P _{mp} (W)	441	483	525
Open-circuit voltage - V _{oc} (V)	38.50	38.50	38.60
Short-circuit current - I _{sc} (A)	14.79	16.20	17.61
Max operating voltage - V _{mp} (V)	32	32	32.1
Max operating current - I _{mp} (A)	13.80	15.11	16.43
Bifaciality	80±5%		

ABSOLUTE RATING

Power tolerance (W)	(0, +5)
Mechanical load	Front5400Pa/Back2400Pa
Max system voltage (V)	1500
Max series fuse rating (A)	25
Operating temperature	-40~+85°C

MECHANICAL PROPERTIES

Module dimensions(L*W*H)	1722 x 1134 x 30mm
Weight	24.9kg
Cell quantity	108PCS
Cell model	N-type TOPCon Monocrystalline182 x 91mm
Glass	2.0mm AR, High Transmission, semi-tempered glass
Frame	Anodized aluminium alloy
Junction box	IP68 Rated
Output line	4.0mm ² , wire length 300mm
Connector	MC4 Compatible

TEMPERATURE CHARACTERISTIC

Temperature coefficient (P _{max})	-0.30% / °C
Temperature coefficient (V _{oc})	-0.25% / °C
Temperature coefficient (I _{sc})	+0.046% / °C
NMOT	43±2°C

PACKAGING

Container	40HQ
PCS / Pallet	36
PCS / Container	936

PRODUCT ASSEMBLY DRAWING(mm)

