



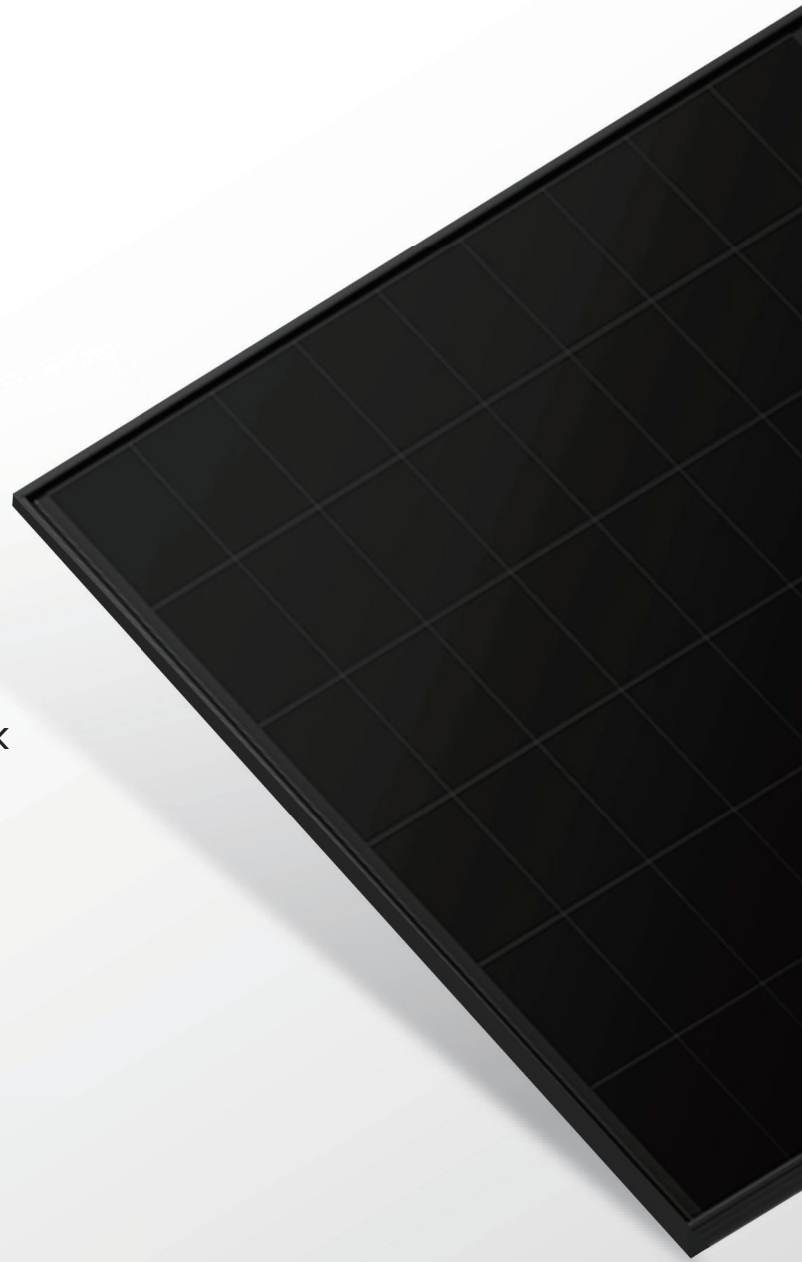
SP-5-54HGD**b**

445-485W

 GBC Module with Dual Glass All Black

24.3%

Module Efficiency up to



Superior Temperature coefficient



Higher Generated Energy



Higher Reliability



Lower BOS



Excellent Micro-crack Resistance



High Temperature Restriction



Partial Shading Optimisation



Extraordinary Aesthetic Design

≤1% First-year Degradation

≤0.35% Annual Degradation



Product Warranty



Linear Power Warranty

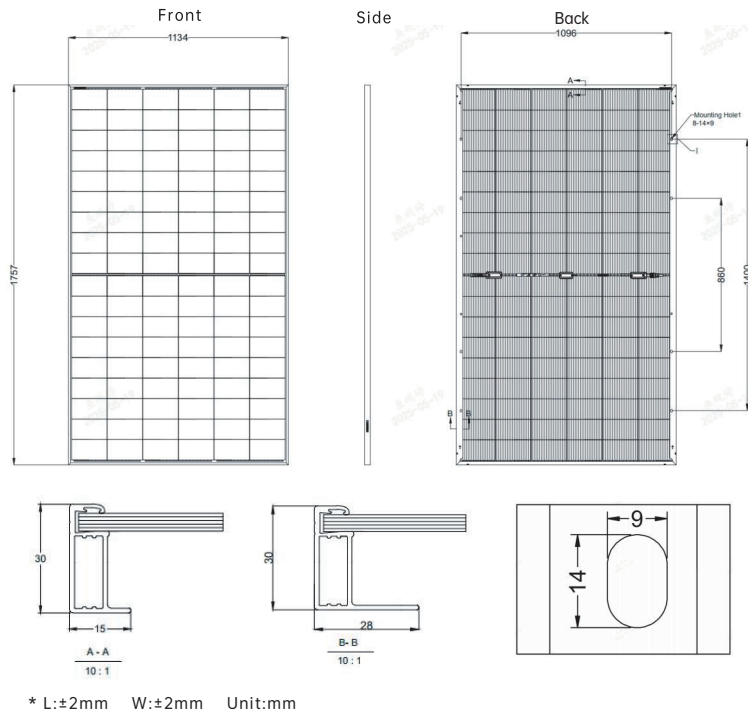


- Operating Temperature **-40°C ~ +85°C**
- Power Tolerance **0~+3%**
- Junction Box **IP68**
- NOCT **45±2°C**
- Maximum Series Fuse Rating **25A**
- Bifacial Factor **70±5%**
- Maximum System Voltage **1500V(IEC)**

Mechanical Parameters

Cell Type	GBC
No. of cells	108 (6×18)
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black anodized aluminum
Output Cables	TüV 1×4mm , (+)300mm, (-)200mm or Customized Length
Weight	24.3 kg (53.57 lbs)
Dimension	1757×1134×30mm
Connector	MC4 Compatible/MC4-Evo2
Packaging	37 pcs per pallet 222 pcs per 20' GP 962 pcs per 40' HC
Protection Class	Class II
Fire Rating	IEC Class A

Engineering Drawings

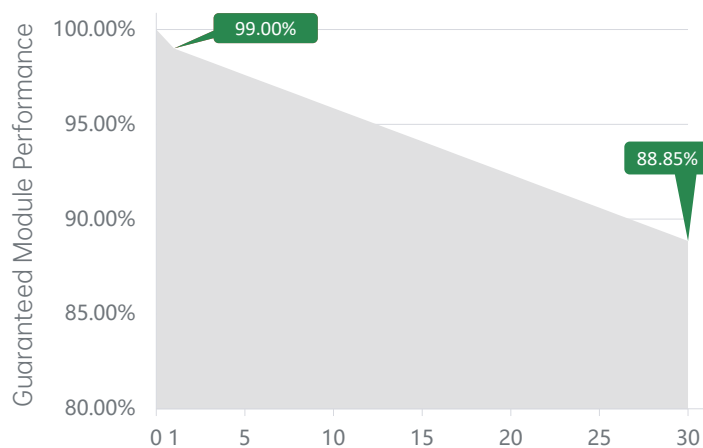


Electrical Characteristics (STC Test)

Module Type	SP-5-54HGDb-445M		SP-5-54HGDb-450M		SP-5-54HGDb-455M		SP-5-54HGDb-460M		SP-5-54HGDb-465M		SP-5-54HGDb-470M		SP-5-54HGDb-475M		SP-5-54HGDb-480M		SP-5-54HGDb-485M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	445	335	450	339	455	343	460	346	465	350	470	354	475	358	480	362	485	366
Open-circuit Voltage (Voc/V)	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.89	41.24	38.95	41.30	39.01	41.36	39.07
Maximum Power Voltage (Vmp/V)	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.81	34.80	32.86	34.86	32.92	34.92	32.98
Short-circuit Current (Isc/A)	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.58	14.36	11.62	14.41	11.66	14.47	11.70
Maximum Power Current (Imp/A)	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.80	13.66	10.90	13.78	11.00	13.90	11.10
Module Efficiency (%)	22.3		22.6		22.8		23.1		23.3		23.6		23.8		24.1		24.3	

1. STC: Irradiance 1000W/M², Cell Temperature 25°C, AM=1.5

2. NOCT: Irradiance 800W/M², Ambient Temperature 20°C, AM=1.5, Wind Speed 1M/S



Temperature Ratings (stc)

Temperature Coefficient of Isc	+0.05%/°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Pmax	-0.26%/°C

Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25 mm diameter hail at 23 m/s