

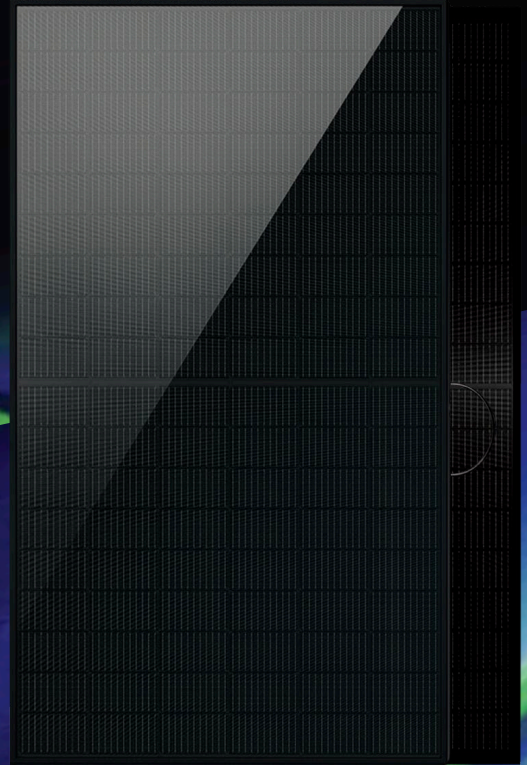


Bifacial Series  
Full Black



# 395~415W

## HY-P10/54BGDF



Module Efficiency up to 21.3%



SMBB + Half-cell tech, reduce internal current loss, improve module efficiency, minimize micro-crack impacts, and improve module reliability



Non-destructive Slicing Tech, reduce micro-crack risk



Bifaciality rate up to 70%, and up to 25% power gain from back side (depending on albedo)



Resistant to harsh environments



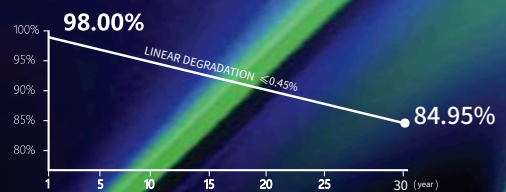
Anti PID



More energy yield, lower BOS and LCOE



All black Aesthetics Module



✓ 15-YEAR PRODUCT WORKMANSHIP WARRANTY

✓ 30-YEAR LINEAR POWER WARRANTY

### Comprehensive Products and System Certificates

IEC 61215, IEC 61730  
ISO 9001:2015 Quality management systems  
ISO 14001:2015 Environmental management systems  
ISO 45001:2018 Occupational health and safety management systems



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## Electrical performance parameters

\*STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25° C, AM=1.5

	395	400	405	410	415
Rated output (P <sub>mpp</sub> / Wp)	395	400	405	410	415
Rated voltage (V <sub>mpp</sub> / V)	31.03	31.21	31.38	31.57	31.74
Rated current (I <sub>mpp</sub> / A)	12.73	12.82	12.91	12.99	13.08
Open circuit voltage (V <sub>oc</sub> / V)	36.78	36.93	37.08	37.23	37.38
Short-circuit current (I <sub>sc</sub> / A)	13.68	13.78	13.88	13.98	14.08
Module efficiency	20.2%	20.5%	20.7%	21.0%	21.3%
Power tolerance	0~+5W				

NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

	297.9	301.7	305.5	309.3	313.1
Rated output (P <sub>mpp</sub> / Wp)	297.9	301.7	305.5	309.3	313.1
Rated voltage (V <sub>mpp</sub> / V)	28.89	29.06	29.21	29.39	29.55
Rated current (I <sub>mpp</sub> / A)	10.31	10.38	10.46	10.52	10.59
Open circuit voltage (V <sub>oc</sub> / V)	34.43	34.57	34.71	34.85	34.99
Short-circuit current (I <sub>sc</sub> / A)	11.08	11.16	11.24	11.32	11.40

## Different rear power gains (410W as an example)

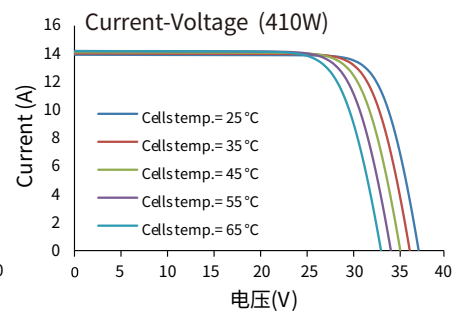
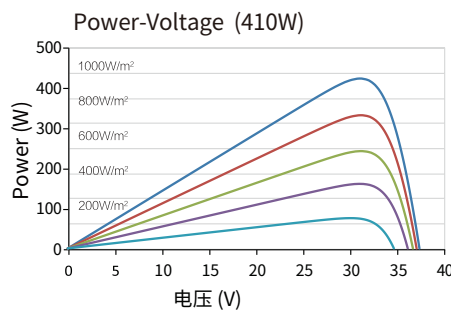
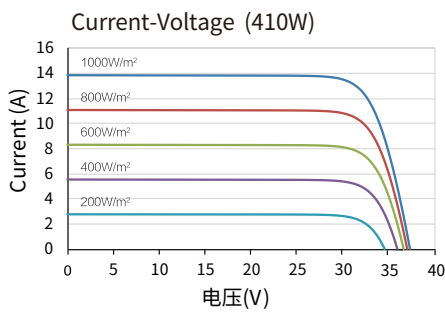
Power gains	P <sub>mpp</sub> /Wp	V <sub>mpp</sub> /V	I <sub>mpp</sub> /A	V <sub>oc</sub> /V	I <sub>sc</sub> /A
5%	431	31.57	13.64	37.23	14.68
15%	472	31.57	14.94	37.23	16.08
25%	513	31.57	16.23	37.23	17.48

## Temperature coefficient

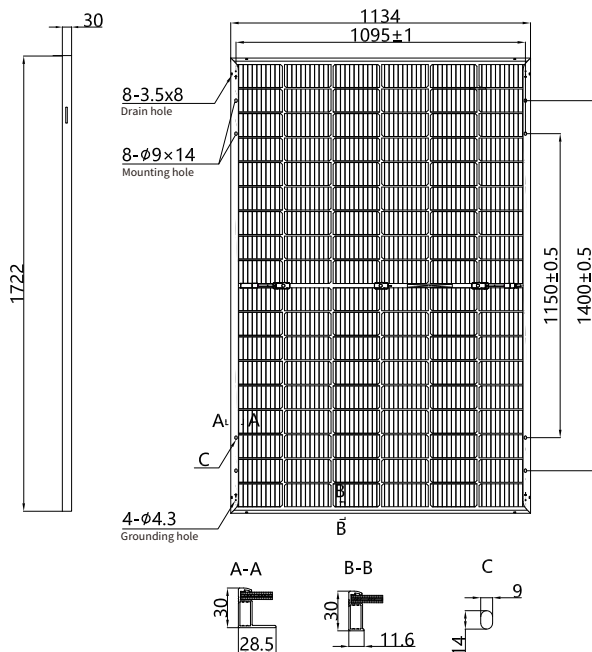
Temperature coefficient (P <sub>mpp</sub> )	-0.34%/°C
Temperature coefficient (I <sub>sc</sub> )	+0.05%/°C
Temperature coefficient (V <sub>oc</sub> )	-0.26%/°C
Nominal module operating temperature (NMOT)	42±2°C

## Operating parameters

Max. system voltage (IEC)	1500V <sub>dc</sub>
Number of diodes	3
Junction box protection rating	IP 68
Max. series fuse rating	30 A
Operational temperature	-40~+85°C



## Mechanical parameters



Outer dimensions (L x W x H)	1722 x 1134 x 30 mm
Cell	P type mono-crystalline
Number of cells	108 (6*18)
Frame Type	Aluminum, black anodized
Glass thickness	2.0+2.0 mm
Cable length (including connector)	Portrait: (+)300 mm, (-)300 mm; Customized length
Cable cross-sectional area (IEC)	4 mm <sup>2</sup> / 12 AWG
<sup>①</sup> Maximum test mechanical load	5400Pa (front) / 2400Pa (rear)
Connector type (IEC)	MC4 EVO2 compatible/MC4 EVO2
Module weight	23.7 kg
Packaging unit	36 pcs / box
Weight of packing unit	896 kg / box
Modules per 40' HQ container	936 pcs

<sup>①</sup> Please refer to the installation manual or contact us to confirm.  
The maximum test mechanical load = 1.5 × maximum design mechanical load.

\*The data above is for reference only and the actual data is in accordance with the practical testing. Power Measurement Tolerance ±3% under STC standard.