

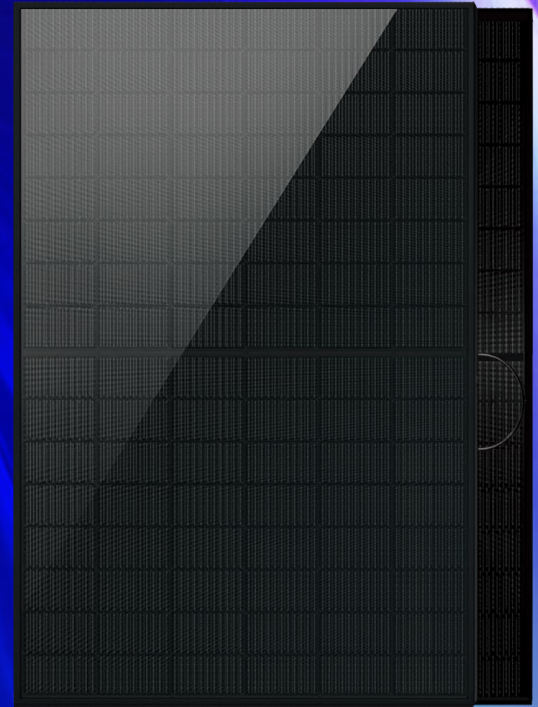


Bifacial Series
Full Black

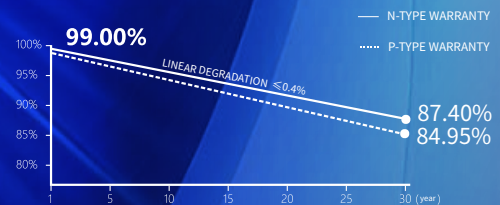


420~440W

HY-NT11/48BGDF



- Module Efficiency up to 22.0%
- Zero LID
- 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
- Lower temperature coefficient (-0.29%/°C), lower operating temperature, increase the power generation
- Excellent low irradiance performance, higher power output
- Bifaciality rate up to 80-85%, and up to 30% power gain from back side (depending on albedo)
- Resistant to harsh environments
- Anti PID
- More energy yield, lower BOS and LCOE



- 30-YEAR PRODUCT WORKMANSHIP WARRANTY
- 30-YEAR LINEAR POWER WARRANTY

Subject to the terms and conditions contained in the applicable HY Solar Limited Warranty Statement. Also this 30-year limited product warranty is available only for products installed and operating on residential rooftops in certain regions.

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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The product specifications are subject to change without prior notice.
Please use our latest version.

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Electrical performance parameters

*STC: Irradiance 1000W/m², Cell Temperature 25° C, AM=1.5

Rated output (P _{mpp} / Wp)	420	425	430	435	440
Rated voltage (V _{mpp} / V)	28.66	28.86	29.06	29.26	29.46
Rated current (I _{mpp} / A)	14.66	14.73	14.80	14.87	14.94
Open circuit voltage (V _{oc} / V)	34.24	34.44	34.64	34.84	35.04
Short-circuit current (I _{sc} / A)	15.55	15.62	15.69	15.76	15.83
Module efficiency	21.0%	21.3%	21.5%	21.8%	22.0%
Power tolerance	0~+5W				

NMOT: Irradiance 800W/m², Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

Rated output (P _{mpp} / Wp)	319.9	323.9	328.0	332.0	336.1
Rated voltage (V _{mpp} / V)	26.84	27.04	27.24	27.44	27.64
Rated current (I _{mpp} / A)	11.92	11.98	12.04	12.10	12.16
Open circuit voltage (V _{oc} / V)	32.33	32.53	32.73	32.93	33.13
Short-circuit current (I _{sc} / A)	12.53	12.59	12.65	12.71	12.77

Different rear power gains (440W as an example)

Power gains P _{mpp} /Wp	V _{mpp} /V	I _{mpp} /A	V _{oc} /V	I _{sc} /A	
5%	462	29.46	15.68	35.04	16.62
15%	506	29.46	17.18	35.04	18.20
25%	550	29.46	18.67	35.04	19.79

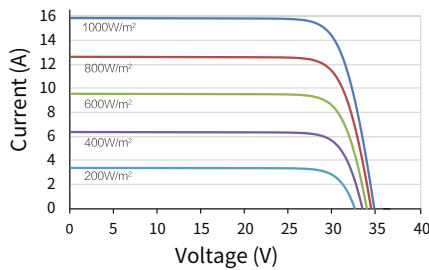
Temperature coefficient

Temperature coefficient (P _{mpp})	-0.29%/°C
Temperature coefficient (I _{sc})	+0.043%/°C
Temperature coefficient (V _{oc})	-0.24%/°C
Nominal module operating temperature (NMOT)	42±2°C

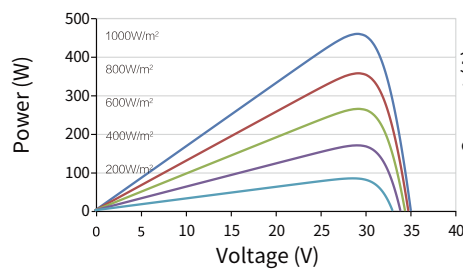
Operating parameters

Max. system voltage (IEC)	1500V _{oc}
Number of diodes	3
Junction box protection rating	IP 68
Max. series fuse rating	30 A
Operational temperature	-40~+85°C
Bifaciality rate	80±5%

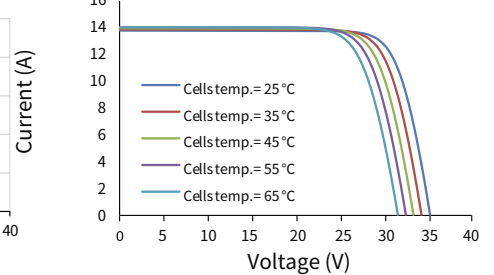
Current-Voltage (440W)



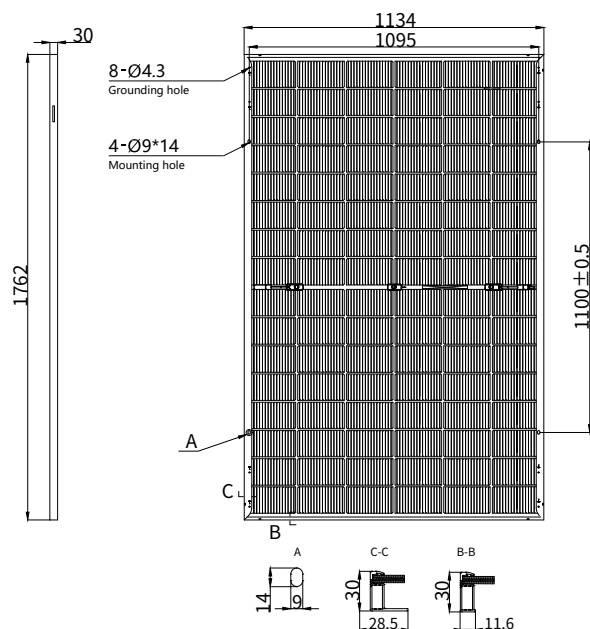
Power-Voltage (440W)



Current-Voltage (440W)



Mechanical parameters



Outer dimensions (L x W x H)	1762×1134×30mm
Cell	N type mono-crystalline
Number of cells	96 (6*16)
Frame Type	Aluminum, black anodized
Glass thickness	1.6+1.6 mm (rear glass glazed in black)
Cable length (including connector)	Portrait: (+)300 mm, (-)300 mm; Customized length
Cable cross-sectional area (IEC)	4 mm ² / 12 AWG
① Maximum test mechanical load	4800Pa (front) /2400Pa(rear)
Connector type (IEC)	PV-HYC11xyz(standard)/MC4 EVO2(optional)
Module weight	21.0 kg
Packaging unit	36 pcs / box
Weight of packing unit	802 kg / box
Modules per 40' HQ container	864 pcs

① 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.