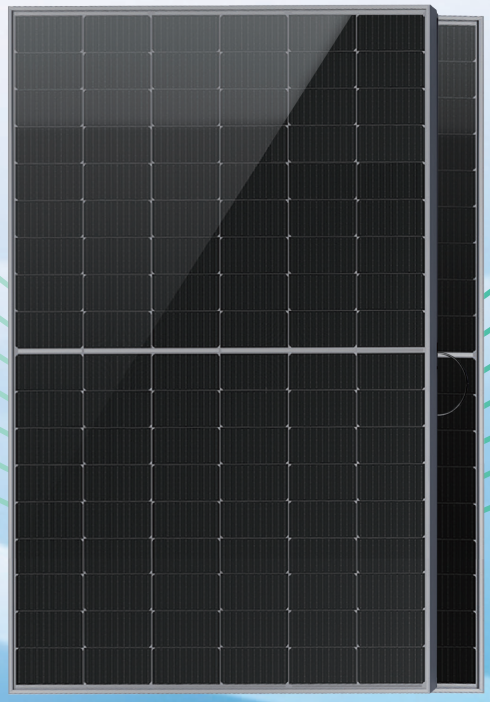
HY SOLAR

HT 182 TOPCon Bifacial Series

445~465W

HY-NT10/54GDF



Main Features

N-TYPE TOPCON TECH
- Lower LID
- Excellent Low Irradiance Performance

SMBB + HALF-CELL TECH NON-DESTRUCTIVE CUTTING
- Reduced Internal Current Loss
- Minimized Micro-Crack Impact

HIGH RELIABILITY
- Salt Mist Resistance, Ammonia Resistance, Sand & Dust Resistance
- Anti-PID

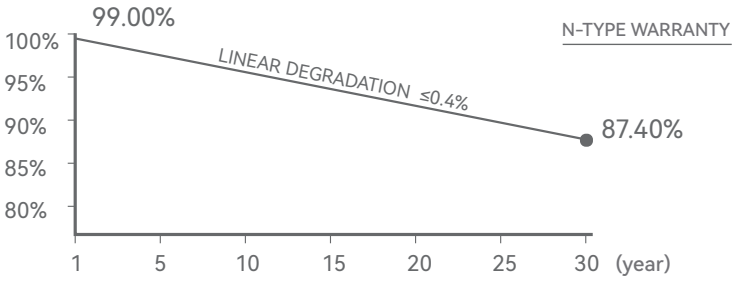
HIGH CONVERSION EFFICIENCY
- Module Conversion Efficiency Up to 23.3%
- Bifaciality Rate Up to 80-85%

SUPERIOR POWER GENERATION PERFORMANCE
- Low Temperature Coefficient: -0.29%/°C
- Lower Operating Temperature

LOWER LEVELIZED COST OF ELECTRICITY
- Lower BOS and LCOE
- Higher ROI

Comprehensive Products and System Certificates

- IEC 61215, IEC 61730
- ISO 9001:2015
- ISO 14001:2015
- ISO 45001:2018



30 YEAR Product Workmanship Warrant

30 YEAR Linear Power Warranty

≤1% First - year power attenuation

≤0.4% Linear power attenuation

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Please use our latest version.
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N-Type Bifacial Series HY-NT10/54GDF	445~465W POWER RANGE	23.3% EFFICIENCY	0~+5W POWER SORTING

ELECTRICAL PERFORMANCE PARAMETERS

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

Rated output (Pmpp/Wp)	445	450	455	460	465
Rated voltage (Vmpp/V)	32.71	32.89	33.07	33.24	33.43
Rated current (Impp/A)	13.61	13.67	13.76	13.84	13.91
Open circuit voltage (Voc/V)	39.19	39.39	39.57	39.77	39.95
Short-circuit current (Isc/A)	14.36	14.44	14.52	14.60	14.69
Module efficiency	22.3%	22.5%	22.8%	23.0%	23.3%

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

Rated output (Pmpp/Wp)	336.1	339.8	343.5	347.2	351.1
Rated voltage (Vmpp/V)	30.75	30.92	31.09	31.25	31.43
Rated current (Impp/A)	10.93	10.99	11.05	11.11	11.17
Open circuit voltage (Voc/V)	36.93	37.12	37.29	37.47	37.64
Short-circuit current (Isc/A)	11.53	11.59	11.66	11.72	11.79

DIFFERENT REAR POWER GAINS (450W)

Power gains	Pmpp/Wp	Vmpp/V	Impp/A	Voc/V	Isc/A
5%	473	32.89	14.37	39.39	15.16
15%	518	32.89	15.73	39.39	16.61
25%	563	32.89	17.10	39.39	18.05

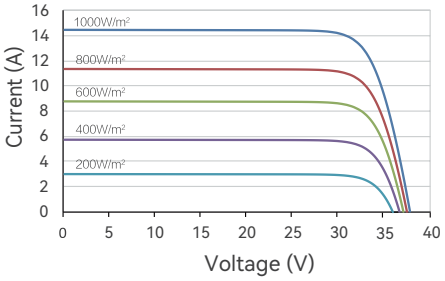
TEMPERATURE COEFFICIENT

Temperature coefficient (Pmpp)	-0.29%/℃
Temperature coefficient (Isc)	+0.043%/℃
Temperature coefficient (Voc)	-0.24%/℃
Nominal module operating temperature (NMOT)	42±2℃

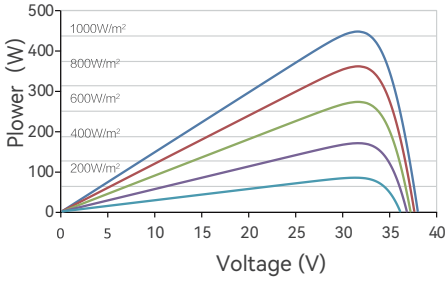
OPERATING PARAMETERS

Max. system voltage (IEC)	1500VDC
Number of diodes	3
Junction box protection rating	IP 68
Max. series fuse rating	30A
Operational temperature	-40~+85℃
Bifaciality rate	80±5%

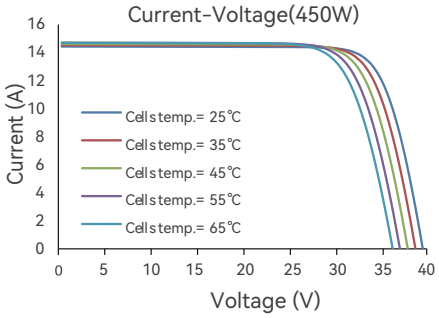
Current-Voltage(450W)



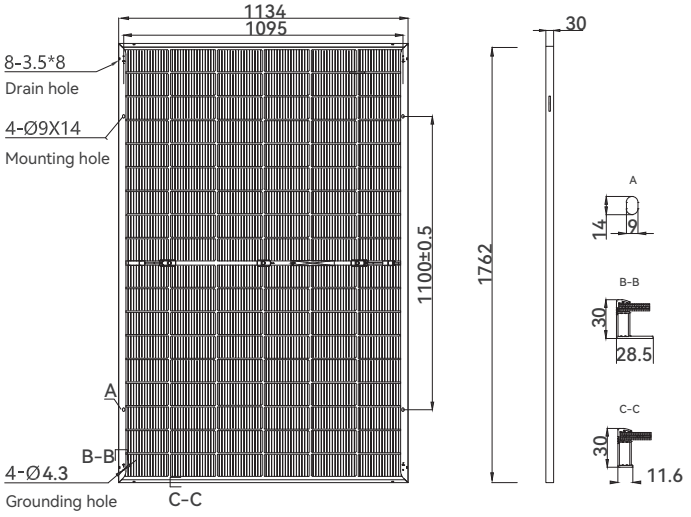
Power-Voltage(450W)



Current-Voltage(450W)



MECHANICAL PARAMETERS



Outer dimensions (L x W x H)	1762 x 1134 x 30 mm
Cell	N type mono-crystalline
Number of cells	108 (6*18)
Frame Type	Aluminum, silver/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 mm² / 12 AWG
①Maximum test mechanical load	5400Pa (front) /2400Pa(rear)
Connector type (IEC)	PV-HYC11xyz(standard)/MC4 EVO2(optional)
Module weight	24.5 kg
Packaging unit	36 pcs / box
Weight of packing unit	928 kg / box
Modules per 40' HQ container	936 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 pratical testing. Power Measurement Tolerance ±3% under STC standard.