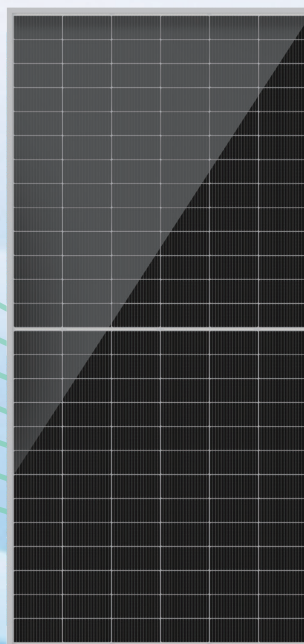


HT¹⁸² TOPCon

Bifacial Series

640~660W

HY-NT10/78GDF



Main Features

N-TYPE TOPCON TECH

- Lower LID
- Excellent Low Irradiance Performance

SMBB + 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 23.6%
- Bifaciality Rate Up to 80±5%

SUPERIOR POWER GENERATION PERFORMANCE

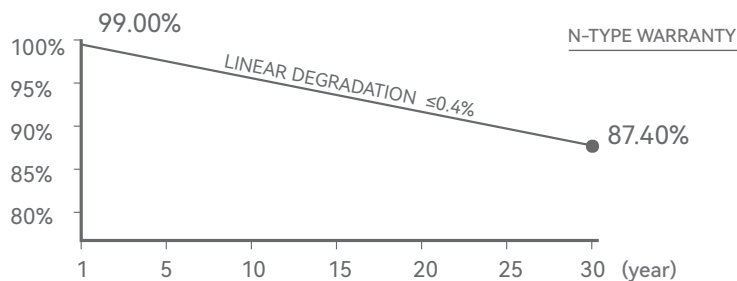
- Low Temperature Coefficient: $-0.28/^{\circ}\text{C}$
- Lower Operating Temperature

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



15 YEAR

Product Workmanship Warranty

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-NT10/78GDF

640~660W
POWER RANGE

23.6%
EFFICIENCY

0~+5W
POWER SORTING

ELECTRICAL PERFORMANCE PARAMETERS

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

Rated output (Pmax/W)	640	645	650	655	660
Rated voltage (Vmpp/V)	46.95	47.15	47.35	47.55	47.75
Rated current (Impp/A)	13.64	13.68	13.73	13.78	13.83
Open circuit voltage (Voc/V)	56.81	57.01	57.21	57.41	57.61
Short-circuit current (Isc/A)	14.21	14.25	14.29	14.33	14.37
Module efficiency	22.9%	23.1%	23.3%	23.4%	23.6%

BNPI : Front irradiance1000W/m², Back irradiance135W/m², Cell Temperature 25° C, AM=1.5

Rated output (Pmax/W)	703.0	708.1	713.9	719.3	725.2
Rated voltage (Vmpp/V)	46.90	47.11	47.31	47.51	47.71
Rated current (Impp/A)	14.99	15.03	15.09	15.14	15.20
Open circuit voltage (Voc/V)	56.76	56.96	57.16	57.36	57.56
Short-circuit current (Isc/A)	15.62	15.66	15.70	15.75	15.79

DIFFERENT REAR POWER GAINS (650W)

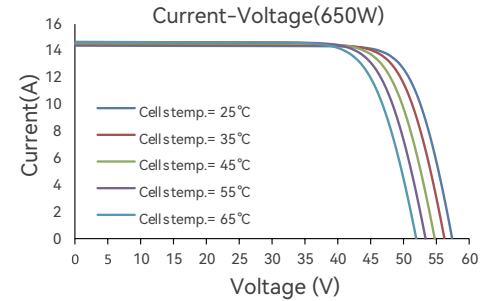
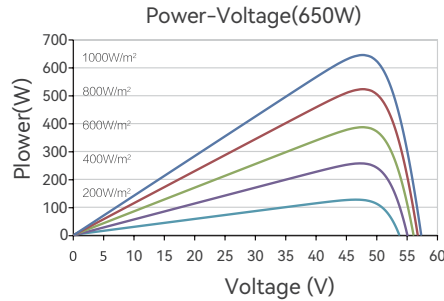
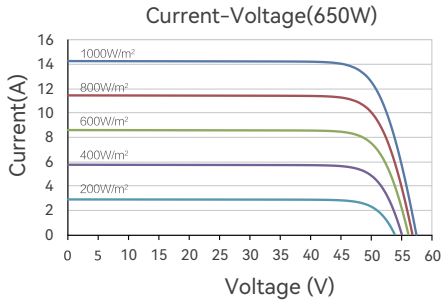
Power gains	Pmpp/Wp	Vmpp/V	Impp/A	Voc/V	Isc/A
5%	683	47.35	14.41	57.21	15.00
15%	748	47.35	15.79	57.21	16.43
25%	813	47.35	17.16	57.21	17.86

TEMPERATURE COEFFICIENT

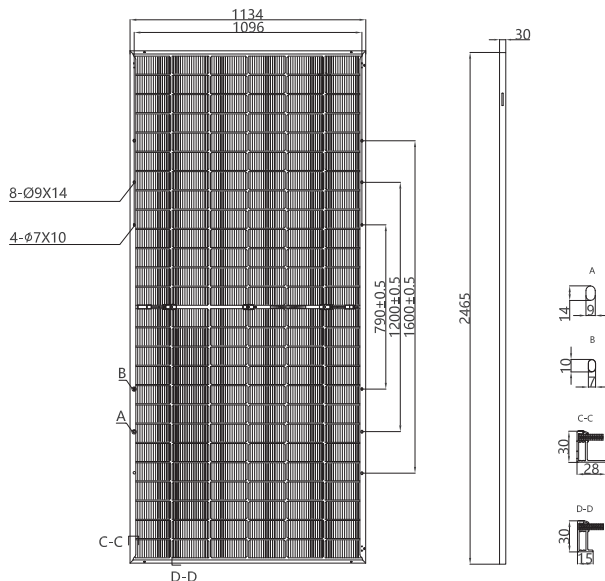
Temperature coefficient (Pmpp)	-0.28%/°C
Temperature coefficient (Isc)	+0.043%/°C
Temperature coefficient (Voc)	-0.24%/°C
Nominal module operating temperature (NMOT)	42±2°C

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°C
Bifaciality rate	80±5%



MECHANICAL PARAMETERS



Outer dimensions (L x W x H)	2465 x 1134 x 30 mm
Cell	N type mono-crystalline
Number of cells	156 (6*26)
Frame Type	Aluminum, silver anodized
Glass thickness	2.0±0.2 mm
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	5400Pa (front) /2400Pa(rear)
Connector type (IEC)	PV-HYC11xyz(standard)/MC4 EVO2(optional)
Module weight	34.7 kg
Packaging unit	36 pcs / box
Weight of packing unit	1302 kg / box
Modules per 40' HQ container	576 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.