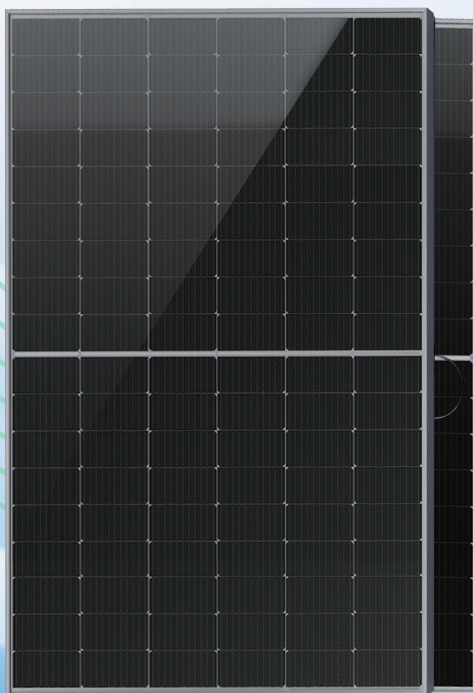


# HT<sup>182</sup> TOPCon

## 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

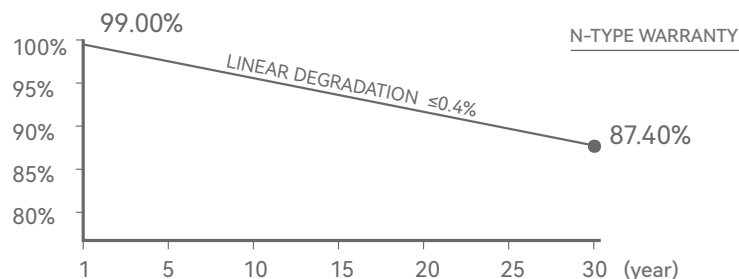
- Low Temperature Coefficient:  $-0.29\%/^{\circ}\text{C}$
- Lower Operating Temperature

#### 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



Munich RE

**30** YEAR

Product Workmanship Warranty

**30** YEAR

Linear Power Warranty

**≤1%**

First - year power attenuation

**≤0.4%**

Linear power attenuation



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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/m<sup>2</sup>, 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/m<sup>2</sup>, 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 |

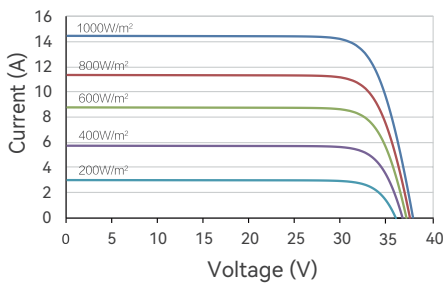
## TEMPERATURE COEFFICIENT

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

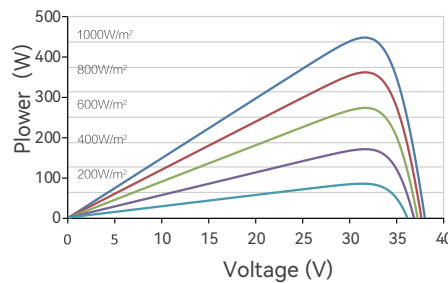
## OPERATING PARAMETERS

|                                |           |
|--------------------------------|-----------|
| 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%     |

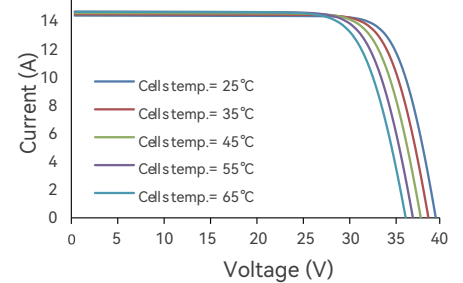
Current-Voltage(450W)



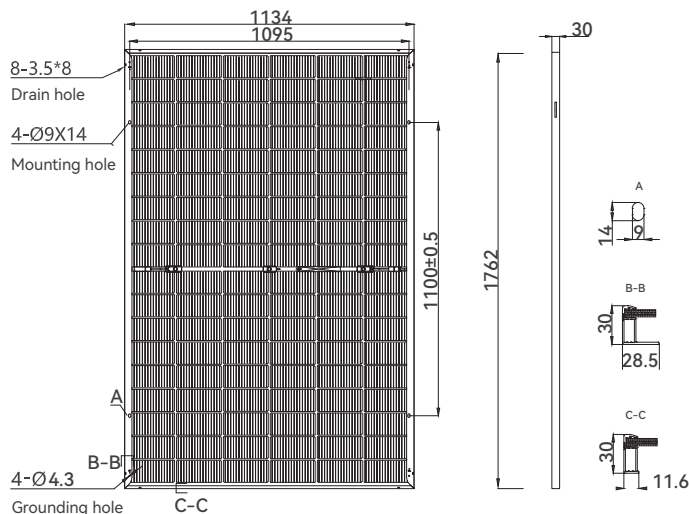
Power-Voltage(450W)



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;<br>Customized length |
| Cable cross-sectional area (IEC)   | 4 mm <sup>2</sup> / 12 AWG                              |
| ① Maximum 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 practical testing. Power Measurement Tolerance ±3% under STC standard.