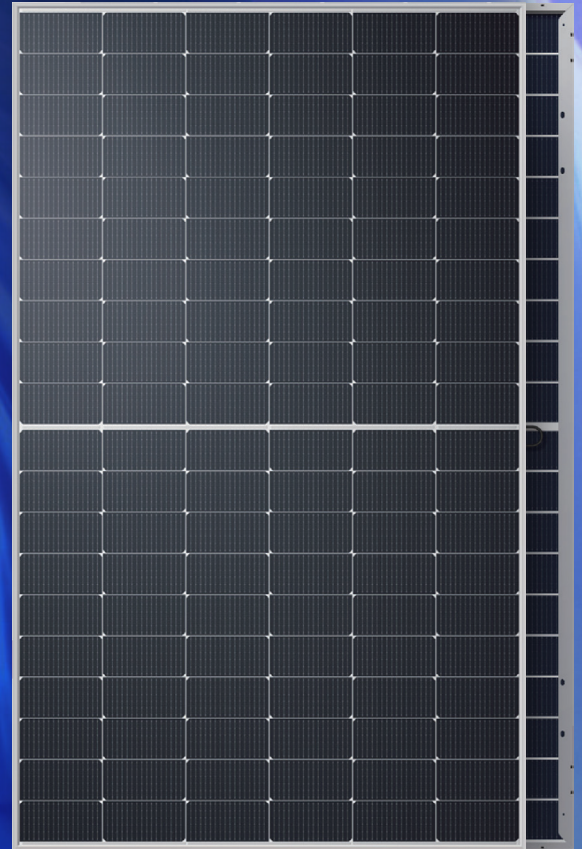










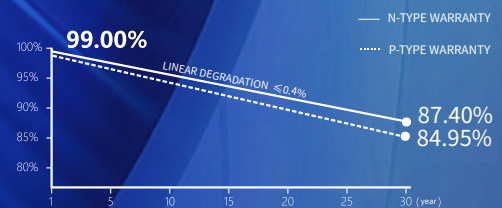




630~650W

HY-NT12/60GDF



-  Module Efficiency up to 23.0%
-  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



-  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



Electrical performance parameters

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

| | 630 | 635 | 640 | 645 | 650 |
|---|-------|-------|-------|-------|-------|
| Rated output (P _{mpp} / Wp) | 630 | 635 | 640 | 645 | 650 |
| Rated voltage (V _{mpp} / V) | 36.20 | 36.40 | 36.60 | 36.80 | 37.00 |
| Rated current (I _{mpp} / A) | 17.45 | 17.50 | 17.55 | 17.60 | 17.65 |
| Open circuit voltage (V _{oc} / V) | 43.78 | 43.98 | 44.18 | 44.38 | 44.58 |
| Short-circuit current (I _{sc} / A) | 18.18 | 18.22 | 18.26 | 18.30 | 18.34 |
| Module efficiency | 22.3% | 22.4% | 22.6% | 22.8% | 23.0% |
| Power tolerance | 0~+5W | | | | |

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

| | 479.2 | 483.4 | 487.6 | 491.8 | 496.1 |
|---|-------|-------|-------|-------|-------|
| Rated output (P _{mpp} / Wp) | 479.2 | 483.4 | 487.6 | 491.8 | 496.1 |
| Rated voltage (V _{mpp} / V) | 34.11 | 34.31 | 34.51 | 34.71 | 34.91 |
| Rated current (I _{mpp} / A) | 14.05 | 14.09 | 14.13 | 14.17 | 14.21 |
| Open circuit voltage (V _{oc} / V) | 41.65 | 41.85 | 42.05 | 42.25 | 42.45 |
| Short-circuit current (I _{sc} / A) | 14.70 | 14.74 | 14.78 | 14.82 | 14.86 |

Different rear power gains (630W as an example)

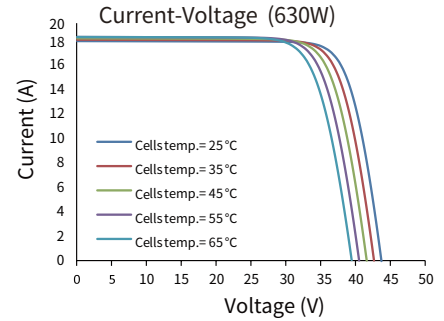
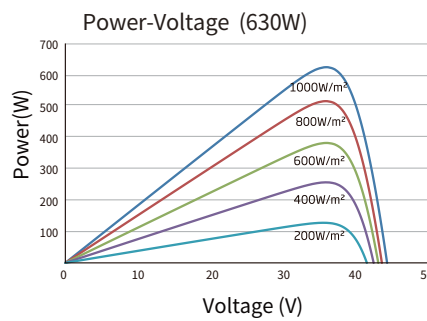
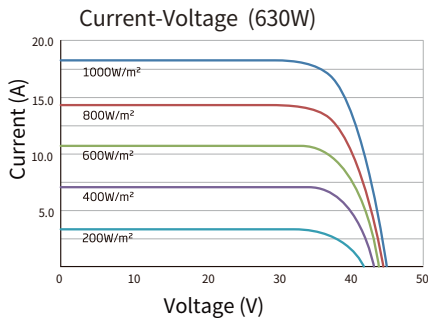
| Power gains P _{mpp} /Wp | V _{mpp} /V | I _{mpp} /A | V _{oc} /V | I _{sc} /A | |
|----------------------------------|---------------------|---------------------|--------------------|--------------------|-------|
| 5% | 662 | 36.20 | 18.27 | 43.78 | 19.09 |
| 15% | 725 | 36.20 | 20.01 | 43.78 | 20.91 |
| 25% | 788 | 36.20 | 21.75 | 43.78 | 22.73 |

Temperature coefficient

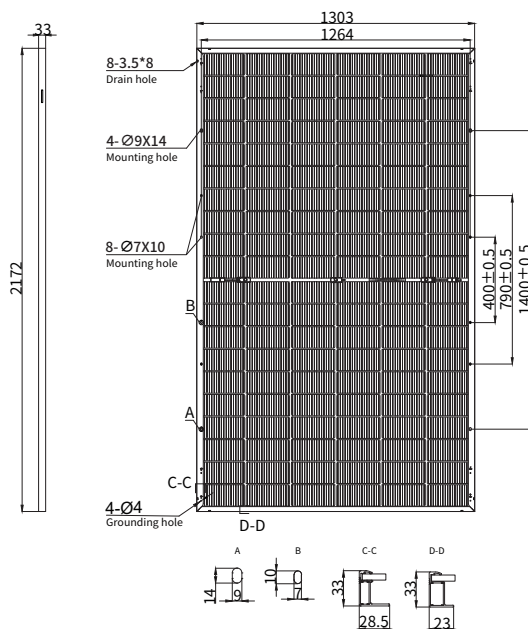
| | |
|---|------------|
| Temperature coefficient (P _{mpp}) | -0.29%/°C |
| Temperature coefficient (I _{sc}) | +0.043%/°C |
| Temperature coefficient (V _{oc}) | -0.24%/°C |
| Nominal module operating temperature (NMOT) | 42±2°C |

Operating parameters

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



Mechanical parameters



| | |
|------------------------------------|--|
| Outer dimensions (L x W x H) | 2172 x 1303 x 33 mm |
| Cell | N type mono-crystalline |
| Number of cells | 120 (6*20) |
| Frame type | Aluminum, silver 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 ² / 12 AWG |
| ①Maximum test mechanical load | 5400Pa (front) /2400Pa(rear) |
| Connector type (IEC) | PV-HYC11xyz(standard)/MC4 EVO2(optional) |
| Module weight | 34.9 kg |
| Packaging unit | 33 pcs / box |
| Weight of packing unit | 1212 kg / box |
| Modules per 40' HQ container | 594 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.