



## YCxxxPDF 54 M10/2

The best quality p-type mono cells and production process.  
Professional technology, reliable quality and power generation guarantee.



### Higher Durability

The multi-busbar design can decrease the risk of the cell micro-cracks and fingers broken.



### High Power Density

High conversion efficiency and more power output per square meter, by lower series resistance and improved light harvesting.



### Half-cell Design

Less energy loss caused by shading due to new cell string layout and split J-box, and lower cell connection power loss due to half-cell design.



### Bifacial Power

Bifacial panel, High generation revenue



### Large size cell

The large cell design effectively increases module peak power and effectively reduces BOS costs, thereby reducing system costs.

**21.55%**

Module Efficiency

**12YEAR**

Product Warranty

**0~+5W**

Power tolerance

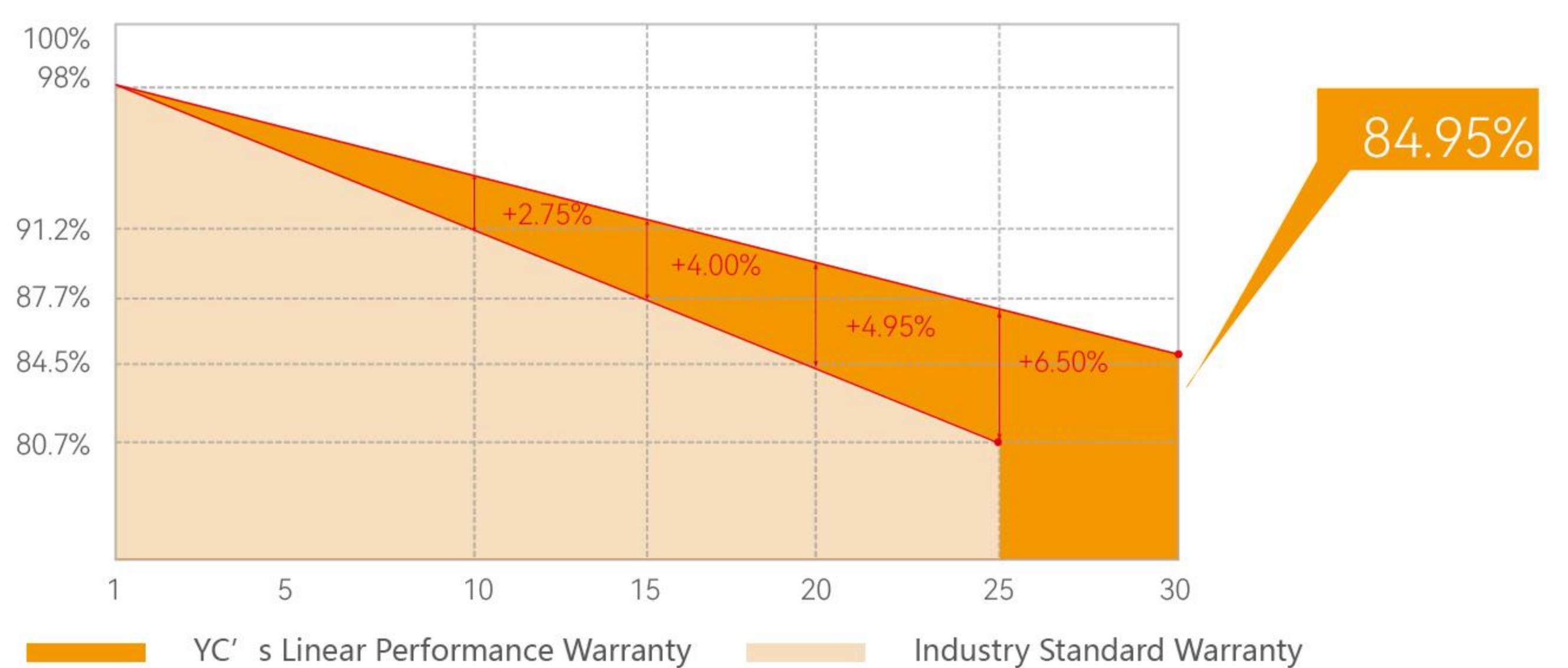
### QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, IEC 62941: 2019, CE,  
ISO 9001:2015, ISO 14001:2015,  
ISO 45001:2018

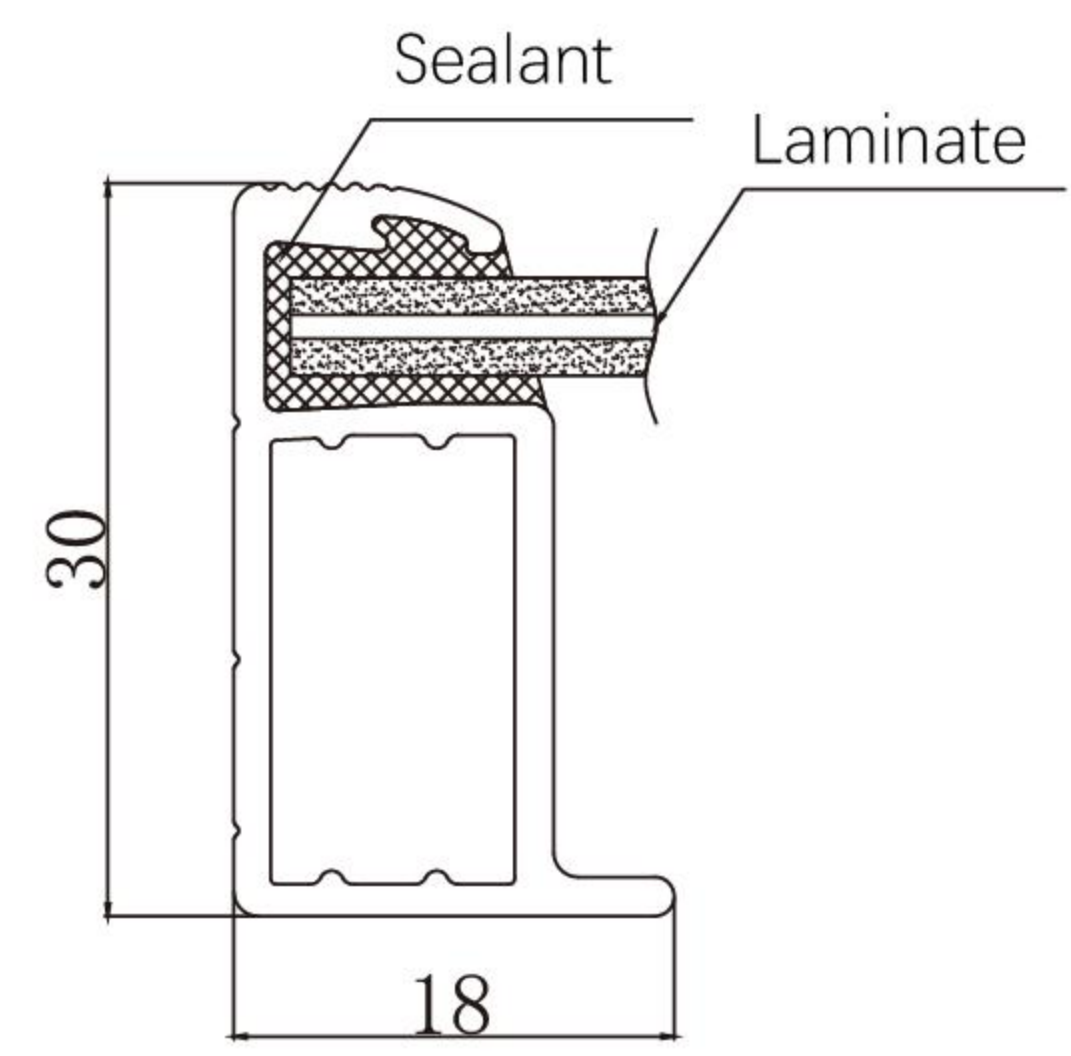
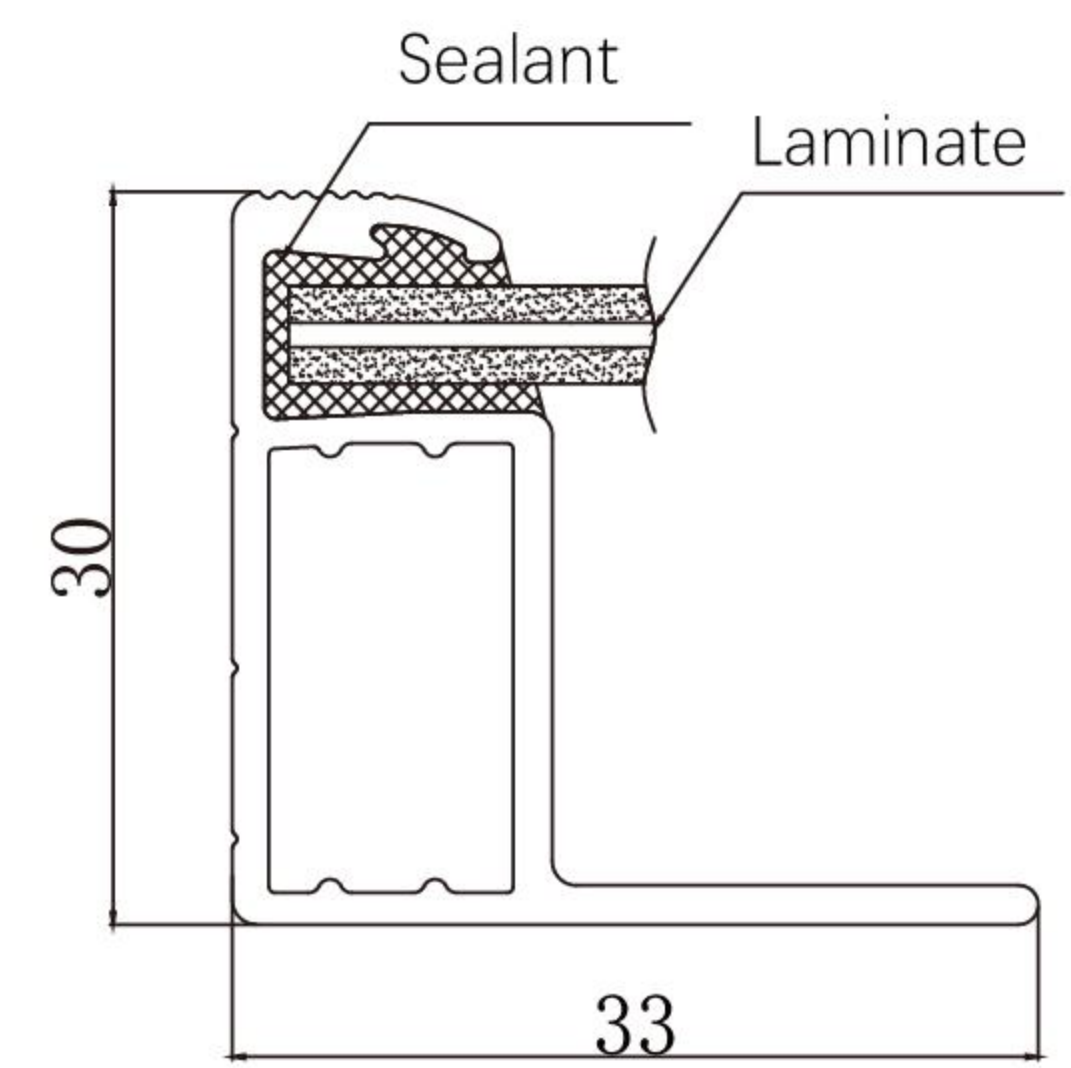
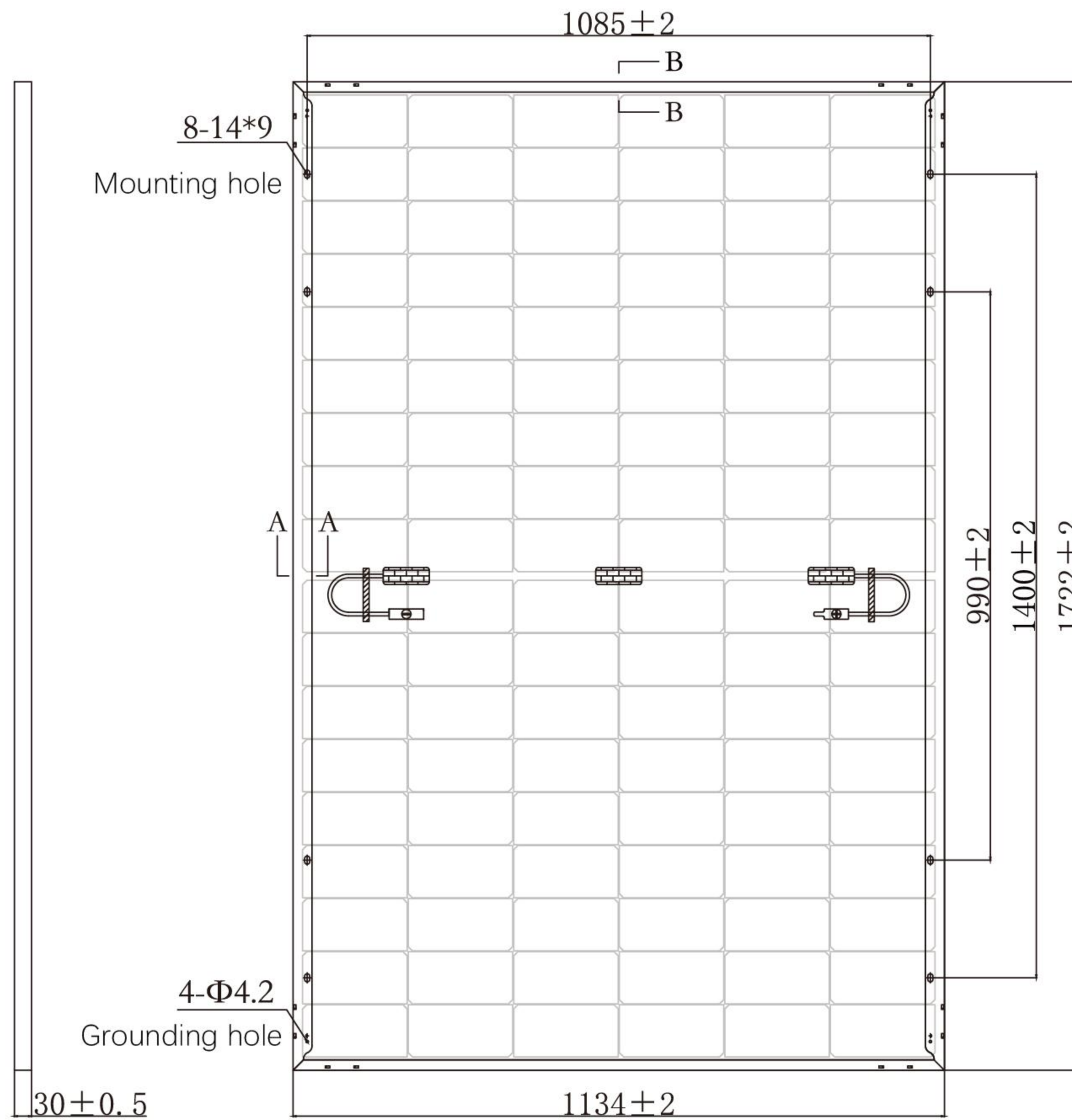
### Linear Warranty

First year attenuation  $\leq 2\%$ , 2-30 year anual attenuation  $\leq 0.45\%$

#### Linear Performance Warranty of YC Solar







## ELECTRICAL PERFORMANCE

### Electrical parameters at Standard Test Conditions (STC)

| Module type             | YCxxxPSF54M10/2 (xxx=Pmax) |   |       |       |       |       |       |
|-------------------------|----------------------------|---|-------|-------|-------|-------|-------|
| Power output            | $P_{max}$                  | W | 400   | 405   | 410   | 415   | 420   |
| Power output tolerances | $\Delta P_{max}$           | W | 0/+5  |       |       |       |       |
| Module efficiency       | $\eta_m$                   | % | 20.50 | 20.80 | 21.00 | 21.30 | 21.55 |
| Voltage at Pmax         | $V_{mpp}$                  | V | 30.65 | 30.80 | 30.95 | 31.10 | 31.25 |
| Current at Pmax         | $I_{mpp}$                  | A | 13.06 | 13.15 | 13.25 | 13.35 | 13.45 |
| Open-circuit voltage    | $V_{oc}$                   | V | 37.06 | 37.17 | 37.28 | 37.39 | 37.50 |
| Short-circuit current   | $I_{sc}$                   | A | 13.78 | 13.86 | 13.94 | 14.02 | 14.10 |

STC: 1000W/m<sup>2</sup> irradiance, 25°C module temperature, AM1.5g spectrum according to EN 60904-3.  
Average relative efficiency reduction of 3.3% at 200W/m<sup>2</sup> according to EN 60904-1.  
Max test power tolerance  $\pm 3\%$

### Electrical parameters at Nominal Operating Cell Temperature (NOCT)

|                       |           |   |       |       |       |       |       |
|-----------------------|-----------|---|-------|-------|-------|-------|-------|
| Power output          | $P_{max}$ | W | 297.6 | 301.3 | 305.0 | 308.8 | 312.5 |
| Voltage at Pmax       | $V_{mpp}$ | V | 28.50 | 28.60 | 28.80 | 28.90 | 29.05 |
| Current at Pmax       | $I_{mpp}$ | A | 10.45 | 10.52 | 10.60 | 10.68 | 10.76 |
| Open-circuit voltage  | $V_{oc}$  | V | 34.70 | 34.80 | 34.90 | 35.00 | 35.10 |
| Short-circuit current | $I_{sc}$  | A | 11.13 | 11.20 | 11.26 | 11.33 | 11.40 |

NOCT: open-circuit module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C ambient temperature, 1m/s wind speed.

## THERMAL CHARACTERISTICS

|                                 |                |      |        |
|---------------------------------|----------------|------|--------|
| Temperature coefficient of Pmax | $\gamma$       | %/°C | -0.350 |
| Temperature coefficient of Voc  | $\beta_{Voc}$  | %/°C | -0.270 |
| Temperature coefficient of Isc  | $\alpha_{Isc}$ | %/°C | +0.045 |

## OTHER INFORMATIONS

|                  |   |
|------------------|---|
| Cell Orientation | 108 (18×6)  |
| J-Box            | IP68, three diodes  |
| Cable            | 4mm <sup>2</sup> , positive 300mm/negative 300mm,length can be customized |
| Glass            | Dual Glass,2.0mm coated tempered glass                                    |
| Frame            | Anodized aluminum alloy   |
| Weight           | 24.1kg  |
| Dimensions       | 1722×1134×30mm  |
| Packaging        | 36 modules per pallet/26 pallets per 40HQ                                 |

## OPERATING CONDITIONS

|                                    |                     |
|------------------------------------|---------------------|
| Operating temperature range        | -40°C to 85°C       |
| Power tolerance                    | 0 ~ +5W             |
| Voc & Isc tolerance                | $\pm 3\%$           |
| Max. system voltage                | 1500V <sub>DC</sub> |
| Max. series fuse rating            | 30A                 |
| Nominal operating cell temperature | 45 $\pm 2$ °C       |
| Protection Class                   | Class II            |
| Bifacial Rate                      | 70 $\pm 5\%$        |

DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection

## MECHANICAL LOADING

|   |            |
|---|------------|
| Max. static load, front (e.g., snow)        | 5400Pa     |
| Max. static load, back (e.g., wind)         | 2400Pa     |
| Max. hailstone impact (diameter / velocity) | 25mm/23m/s |