

## YCxxxPSF 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.



### Power guarantee

First year attenuation  $\leq 2\%$ , 2-25 year annual attenuation  $\leq 0.55\%$



### 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**

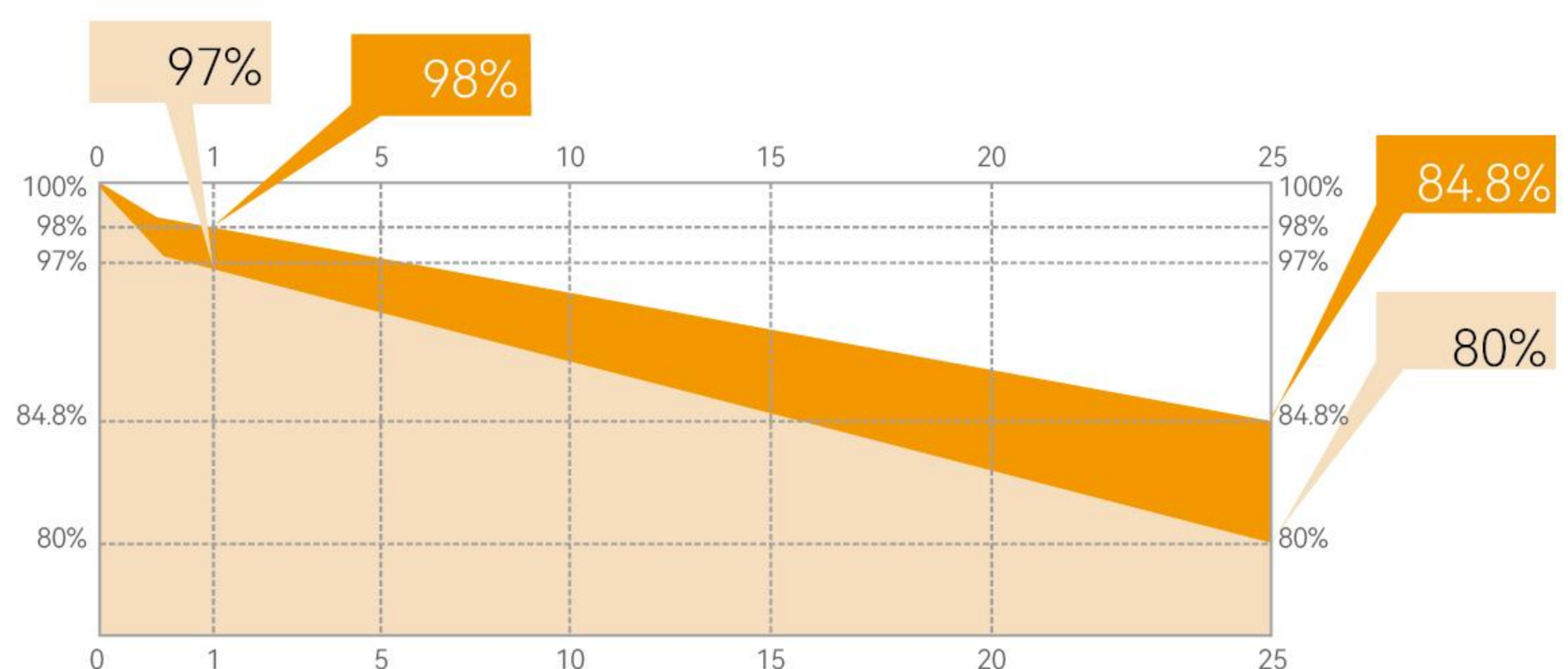
Power tolerance

### QUALIFICATIONS & CERTIFICATES

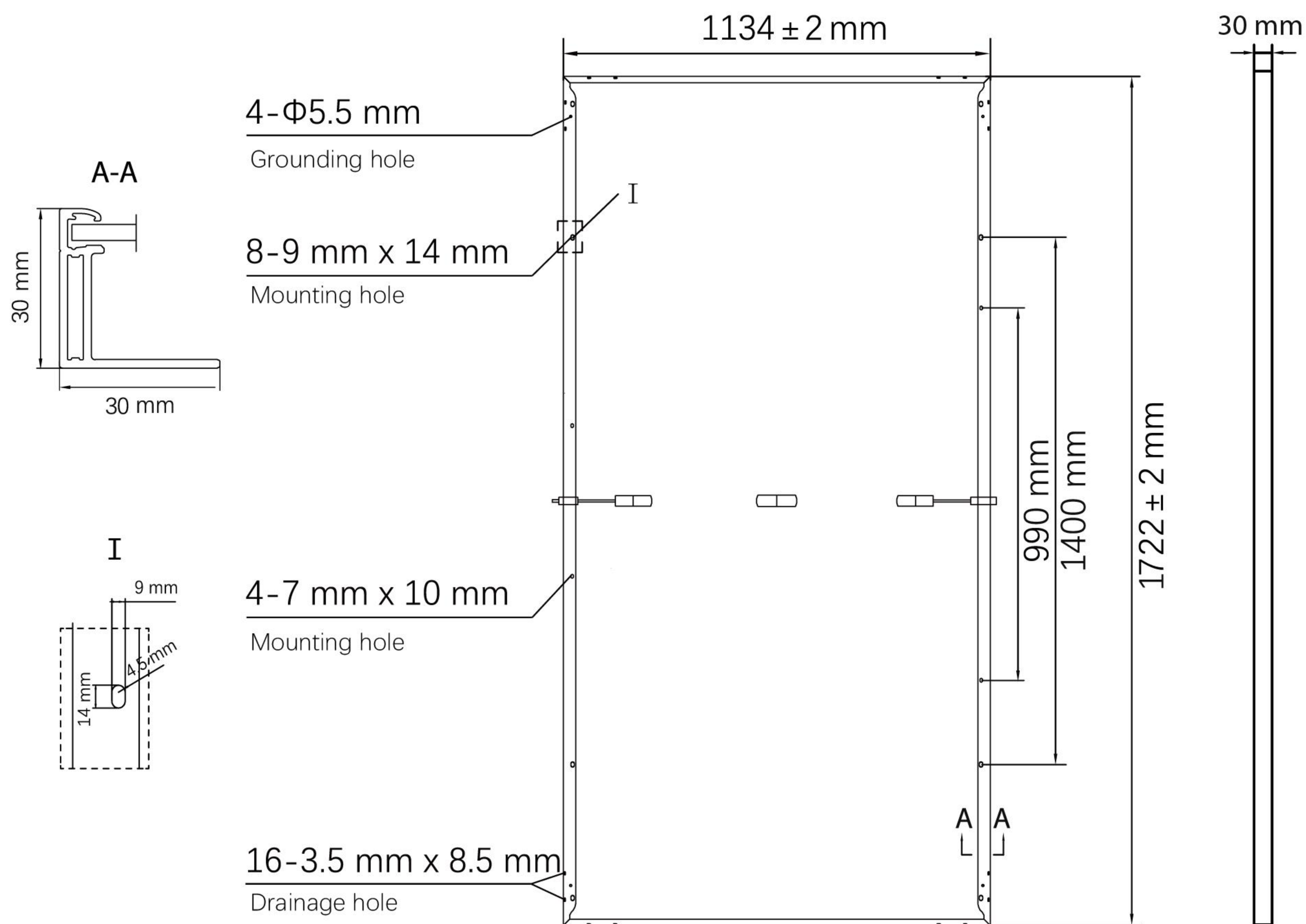
IEC 61215, IEC 61730, IEC 62941: 2019, CE,  
ISO 9001:2015, ISO 14001:2015,  
ISO 45001:2018

### Linear Warranty

First year attenuation  $\leq 2\%$ , 2-25 year annual attenuation  $\leq 0.55\%$



— YC's Linear Performance Warranty — Industry Standard Warranty



## 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 ± 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 500mm/negative 500mm,length can be customized
Glass	3.2mm tempered glass
Frame	Black anodized aluminum alloy
Weight	21.5kg
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	±3%
Max. system voltage	1500V <sub>DC</sub>
Max. series fuse rating	25A
Nominal operating cell temperature	45±2°C
Protection Class	Class II

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