



## YC xxx PSF 60 G12/2

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.

21.4%

Module Efficiency

12YEAR

Product Warranty

0~+5W

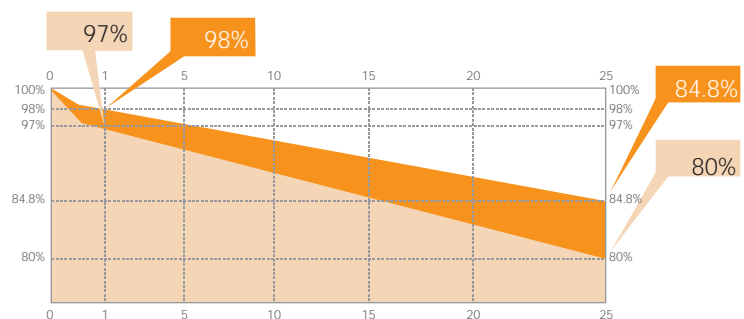
Power tolerance

### QUALIFICATIONS & CERTIFICATES

IEC 61215, IEC 61730, CE, ISO 9001:2015,  
ISO 14001:2015, ISO450012018

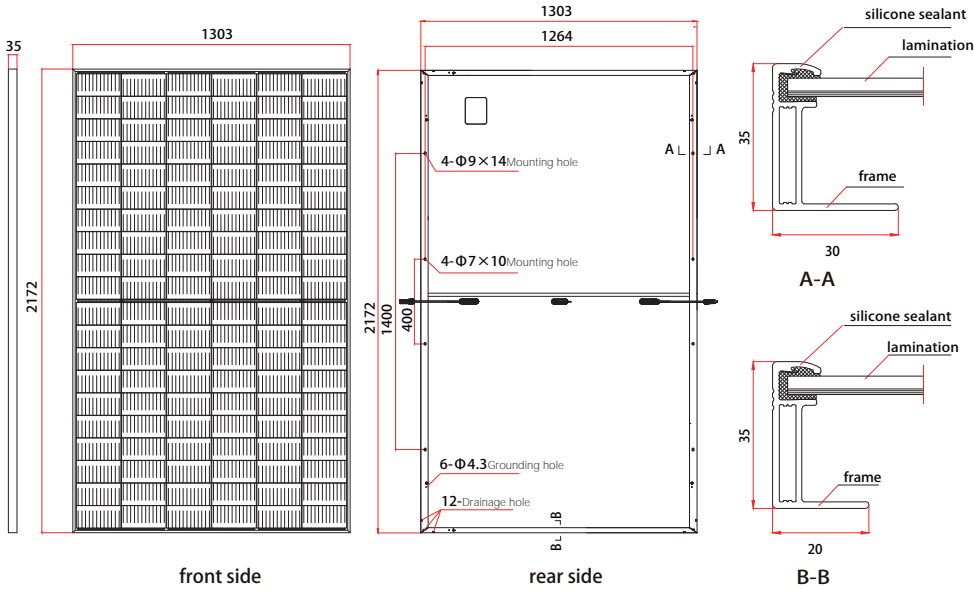
### Linear Warranty

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



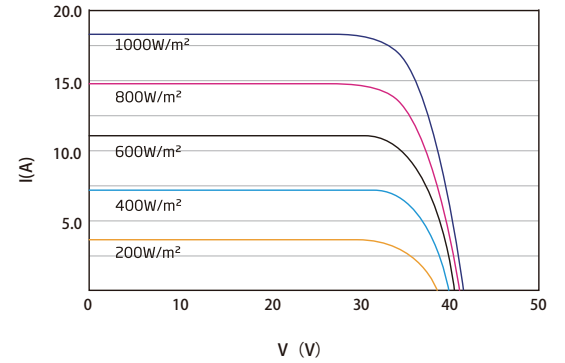
YC's Linear Performance Warranty Industry Standard Warranty

# YC xxx PSF 60 G12/2

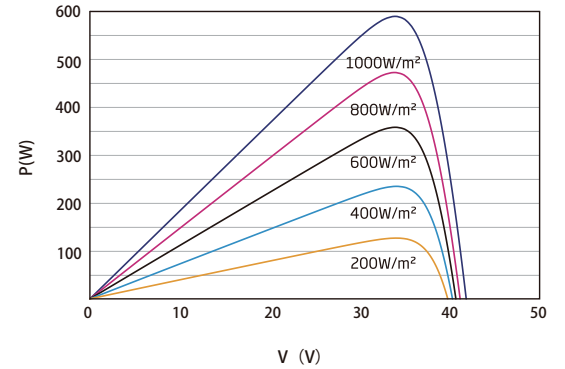


## Characteristic curve

I-V Curve (595W)



P-V Curve (595W)



## ELECTRICAL PERFORMANCE

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

Module type	YC xxx PSF 60 G12/2 (xxx=Pmax)							
	YC xxx PSF 60 G12/2-1500V (xxx=Pmax)							
Power output	$P_{max}$	W	580	585	590	595	600	605
Power output tolerances	$\Delta P_{max}$	W	0/+5					
Module efficiency	$\eta_m$	%	20.50	20.70	20.80	21.00	21.20	21.40
Voltage at Pmax	$V_{mpp}$	V	33.60	33.80	34.00	34.20	34.40	34.60
Current at Pmax	$I_{mpp}$	A	17.26	17.31	17.35	17.40	17.44	17.49
Open-circuit voltage	$V_{oc}$	V	40.70	40.90	41.10	41.30	41.50	41.70
Short-circuit current	$I_{sc}$	A	18.32	18.37	18.42	18.47	18.52	18.57

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	440	443	447	451	454	458
Voltage at Pmax	$V_{mpp}$	V	31.40	31.50	31.70	31.90	32.00	32.20
Current at Pmax	$I_{mpp}$	A	14.01	14.05	14.09	14.13	14.18	14.22
Open-circuit voltage	$V_{oc}$	V	38.30	38.50	38.70	38.90	39.10	39.30
Short-circuit current	$I_{sc}$	A	14.77	14.81	14.85	14.88	14.92	14.96

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

## OTHER INFORMATIONS

Cell Orientation	120 (20×6)
J-Box	IP68, three diodes
Cable	4mm <sup>2</sup> , positive 400mm/negative 200mm,length can be customized
Glass	3.2mm tempered glass
Frame	Anodized aluminum alloy
Weight	30.9kg
Dimensions	2172×1303×35mm
Packaging	31 modules per pallet/18 pallets per 40' container

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	$\gamma$	%/°C	-0.350
Temperature coefficient of Voc	$\beta_{Voc}$	%/°C	-0.284
Temperature coefficient of Isc	$\alpha_{Isc}$	%/°C	+0.050

## OPERATING CONDITIONS

Operating temperature range	-40°C to 85°C
Power tolerance	0 ~ +5W
Voc & Isc tolerance	$\pm 3\%$
Max. system voltage	1000V <sub>DC</sub> /1500V <sub>DC</sub>
Max. series fuse rating	30A
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



Warning: Read the Installation and User Manual in its entirety before handling, installing and operating YC Solar modules.