Holder of Certificate：Shanghai JA Solar Technology Co．，Ltd．
No．118，Lane 3111
West Huancheng Road
Fengxian District
201401 Shanghai
PEOPLE＇S REPUBLIC OF CHINA

## Certification Mark：



Product：
Crystalline Silicon Terrestrial Photovoltaic（PV）Modules Mono－Crystalline Silicon Photovoltaic Module

The product was tested on a voluntary basis and complies with the essential requirements．The certification mark shown above can be affixed on the product．It is not permitted to alter the certification mark in any way．In addition，the certification holder must not transfer the certificate to third parties．This certificate is valid until the listed date，unless it is cancelled earlier．All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied．For details see：www．tuvsud．com／ps－cert

Test report no．：
704061900211－15

Valid until：
2027－01－25

$$
\text { Date, } \quad 2022-01-26
$$


（ Zhulin Zhang ）

## CERTIFICATE

No．Z2 0720920300 Rev． 15

Model（s）：
Maximum System Voltage： 1000 V DC
JAM6（K）－72－xxx／PR，$x x x=345$ to 370 in step of 5
JAM6（K）－60－xxx／PR，$x x x=285$ to 310 in step of 5
JAM6（K）－72－xxx／4BB，$x x x=320$ to 345 in step of 5
JAM6（K）－60－xxx／4BB，xxx $=265$ to 285 in step of 5 JAM72S01－xxx／SC／1000V，$x x x=320$ to 365 in step of 5 JAM60S01－xxx／SC／1000V，xxx＝265 to 305 in step of 5 JAM72S01－xxx／PR／1000V，$x x x=345$ to 390 in step of 5 JAM60S01－xxx／PR／1000V， $\mathbf{x x x}=285$ to 325 in step of 5 JAM72S03－xxx／PR／1000V，$x x x=360$ to 395 in step of 5 JAM60S03－xxx／PR／1000V，$x x x=300$ to 330 in step of 5 JAM72S09－xxx／PR／1000V，$x x x=370$ to 405 in step of 5 JAM60S09－xxx／PR／1000V， $\mathbf{x x x}=310$ to 335 in step of 5 JAM72S09－xxx／BP／1000V，$x x x=375$ to 385 in step of 5 JAM60S09－xxx／BP／1000V，$x x x=315$ to 320 in step of 5 JAM72S10－xxx／PR／1000V，$x x x=380$ to 410 in step of 5 JAM60S10－xxx／PR／1000V，$x x x=315$ to 345 in step of 5 JAM72S10－xxx／BP／1000V，$x x x=385$ to 400 in step of 5 JAM60S10－xxx／BP／1000V，$x x x=320$ to 330 in step of 5 JAM72S10－xxx／MR／1000V，$x x x=390$ to 430 in step of 5 JAM60S10－xxx／MR／1000V，xxx＝325 to 355 in step of 5 JAM78S10－xxx／MR／1000V，xxx＝435 to 465 in step of 5 JAM66S10－xxx／MR／1000V，$x x x=345$ to 390 in step of 5 JAM72S17－xxx／MR／1000V，xxx＝ 390 to 430 in step of 5 JAM60S17－xxx／MR／1000V，$x x x=315$ to 355 in step of 5 JAM72S10－xxx／MB／1000V，$x x x=395$ to 415 in step of 5 JAM60S10－xxx／MB／1000V，$x x x=330$ to 345 in step of 5 JAM72S20－xxx／MR／1000V，$x x x=430$ to 470 in step of 5 JAM60S20－xxx／MR／1000V，$x x x=355$ to 390 in step of 5 JAM72S30－xxx／MR／1000V，$x x x=510$ to 555 in step of 5 JAM66S30－xxx／MR／1000V，xxx＝ 470 to 505 in step of 5 JAM60S30－xxx／MR／1000V，xxx＝ 435 to 460 in step of 5 JAM60S21－xxx／MR／1000V，$x x x=355$ to 390 in step of 5 JAM54S30－xxx／MR／1000V，$x x x=390$ to 415 in step of 5 JAM72S20－xxx／MB／1000V，xxx＝450 to 465 in step of 5 JAM60S20－xxx／MB／1000V，xxx＝375 to 390 in step of 5 JAM76S11－xxxPR（B）／1000V，$x x x=395$ to 415 in step of 5 JAM78S30－xxx／GR／1000V，xxx＝575 to 600 in step of 5 JAM72S30－xxx／GR／1000V，$x x x=535$ to 555 in step of 5 JAM66S30－xxx／GR／1000V，xxx＝500 to 505 in step of 5 JAM60S30－xxx／GR／1000V，$x x x=445$ to 460 in step of 5 JAM54S30－xxx／GR／1000V，$x x x=400$ to 415 in step of 5 JAM78S31－xxx／GR／1000V，$x x x=570$ to 590 in step of 5 JAM72S31－xxx／GR／1000V，xxx＝525 to 545 in step of 5 JAM66S31－xxx／GR／1000V，xxx＝480 to 500 in step of 5 JAM60S31－xxx／GR／1000V，$x x x=435$ to 450 in step of 5 JAM54S31－xxx／GR／1000V，$x x x=395$ to 405 in step of 5 JAM72S31－xxx／MR／1000V，$x x x=510-545$ in step of 5 JAM66S31－xxx／MR／1000V，$x x x=470-500$ in step of 5 JAM60S31－xxx／MR／1000V，xxx＝425－450 in step of 5 JAM54S31－xxx／MR／1000V，$x x x=385-405$ in step of 5 JAM78S30－xxx／MR／1000V，xxx＝580 to 605 in step of 5 JAM72S17－xxx／GR／1000V，$x x x=385$ to 400 in step of 5

Maximum System Voltage： 1500 V DC
JAM72D00－xxx／BP／1500V，$x x x=330$ to 385 in step of 5 JAM72D00－xxx／BP，$x x x=330$ to 385 in step of 5 JAM60D00－xxx／BP／1500V，xxx＝275 to 320 in step of 5 JAM60D00－xxx／BP，$x x x=275$ to 320 in step of 5 JAM72D00－xxx／PR／1500V，xxx＝340 to 385 in step of 5 JAM72D00－xxx／PR，$x x x=340$ to 385 in step of 5 JAM60D00－xxx／PR／1500V，$x x x=285$ to 320 in step of 5

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#### Abstract

JAM60D00-xxx/PR, $x x x=285$ to 320 in step of 5 JAM72D09-xxx/BP/1500V, $x x x=360$ to 400 in step of 5 JAM72D09-xxx/BP, $x x x=360$ to 400 in step of 5 JAM60D09-xxx/BP/1500V, $x x x=300$ to 340 in step of 5 JAM60D09-xxx/BP, $x x x=300$ to 340 in step of 5 JAM72D10-xxx/MB/1500V, $x x x=385$ to 430 in step of 5 JAM72D10-xxx/MB, $x x x=385$ to 430 in step of 5 JAM60D10-xxx/MB/1500V, $x x x=320$ to 355 in step of 5 JAM60D10-xxx/MB, $\mathbf{x x x}=320$ to 355 in step of 5 JAM72D10-xxx/BP/1500V, $x x x=385$ to 415 in step of 5 JAM72D10-xxx/BP, $x x x=385$ to 415 in step of 5 JAM60D10-xxx/BP/1500V, xxx=320 to 345 in step of 5 JAM60D10-xxx/BP, $x x x=320$ to 345 in step of 5 JAM66D10-xxx/MB, $x x x=360$ to 380 in step of 5 JAM66D10-xxx/MB/1500V, xxx=360 to 380 in step of 5 JAM78D10-xxx/MB, $x x x=435$ to 455 in step of 5 JAM78D10-xxx/MB/1500V, xxx=435 to 455 in step of 5 JAM72D20-xxx/MB, $x x x=430$ to 465 in step of 5 JAM72D20-xxx/MB/1500V, xxx=430 to 465 in step of 5 JAM60D20-xxx/MB, $\mathbf{x x x}=355$ to 385 in step of 5 JAM60D20-xxx/MB/1500V, xxx=355 to 385 in step of 5 JAM6(K)-72-xxx/PR/1500V, $x x x=345$ to 370 in step of 5 JAM6(K)-60-xxx/PR/1500V, xxx=285 to 310 in step of 5 JAM6(K)-72-xxx/4BB/1500V, $x x x=320$ to 345 in step of 5 JAM6(K)-60-xxx/4BB/1500V, $x x x=265$ to 285 in step of 5 JAM72S01-xxx/SC/1500V, $x x x=320$ to 365 in step of 5 JAM60S01-xxx/SC/1500V, xxx=265 to 305 in step of 5 JAM72S01-xxx/PR, xxx=345 to 390 in step of 5 JAM60S01-xxx/PR/1500V, xxx=285 to 325 in step of 5 JAM72S03-xxx/PR/1500V, $\mathbf{x x x}=360$ to 395 in step of 5 JAM60S03-xxx/PR/1500V, $x x x=300$ to 330 in step of 5 JAM72S09-xxx/PR/1500V, $x x x=370$ to 405 in step of 5 JAM60S09-xxx/PR/1500V, $x x x=310$ to 335 in step of 5 JAM72S10-xxx/PR/1500V, $x x x=380$ to 410 in step of 5 JAM60S10-xxx/PR/1500V, $x x x=315$ to 345 in step of 5 JAM78S10-xxx/MR/1500V, xxx=435 to 465 in step of 5 JAM66S10-xxx/MR/1500V, $x x x=345$ to 390 in step of 5 JAM72S09-xxx/BP/1500V, $x x x=375$ to 385 in step of 5 JAM60S09-xxx/BP/1500V, $\mathbf{x x x = 3 1 5}$ to 320 in step of 5 JAM72S10-xxx/BP/1500V, $x x x=385$ to 400 in step of 5 JAM60S10-xxx/BP/1500V, $x x x=320$ to 330 in step of 5 JAM72S10-xxx/MB/1500V, $x x x=395$ to 415 in step of 5 JAM60S10-xxx/MB/1500V, $x x x=330$ to 345 in step of 5 JAM72S20-xxx/MR/1500V, xxx=430 to 470 in step of 5 JAM60S20-xxx/MR/1500V, $x x x=355$ to 390 in step of 5 JAM72S30-xxx/MR/1500V, xxx=510 to 555 in step of 5 JAM66S30-xxx/MR/1500V, $x x x=470$ to 505 in step of 5 JAM60S30-xxx/MR/1500V, xxx= 435 to 460 in step of 5 JAM60S21-xxx/MR/1500V, xxx= 355 to 390 in step of 5 JAM72D30-xxx/MB, xxx= 505 to 545 in step of 5 JAM72D30-xxx/MB/1500V, xxx= 505 to 545 in step of 5 JAM66D30-xxx/MB, $x x x=465$ to 500 in step of 5 JAM66D30-xxx/MB/1500V, xxx= 465 to 500 in step of 5 JAM60D30-xxx/MB, $x x x=435$ to 455 in step of 5 JAM60D30-xxx/MB/1500V, xxx= 435 to 455 in step of 5 JAM54S30-xxx/MR/1500V, xxx= 390 to 415 in step of 5 JAM54D30-xxx/MB, $x x x=390$ to 410 in step of 5 JAM54D30-xxx/MB/1500V, xxx= 390 to 410 in step of 5 JAM72S20-xxx/MB/1500V, $x x x=450$ to 465 in step of 5 JAM60S20-xxx/MB/1500V, $x x x=375$ to 390 in step of 5 JAM76S11-xxxPR(B)/1500V, $x x x=395$ to 415 in step of 5 JAM78D30-xxx/GB, JAM78D30-xxx/GB/1500V,


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xxx＝585 to 595 in step of 5
JAM72D30－xxx／GB，JAM72D30－xxx／GB／1500V， xxx＝540 to 550 in step of 5
JAM66D30－xxx／GB，JAM66D30－xxx／GB／1500V， xxx＝495 to 500 in step of 5 JAM60D30－xxx／GB，JAM60D30－xxx／GB／1500V， xxx＝450 to 455 in step of 5
JAM54D30－xxx／GB，JAM54D30－xxx／GB／1500V， xxx＝405 to 410 in step of 5
JAM78S30－xxx／GR／1500V，xxx＝575 to $\mathbf{6 0 0}$ in step of 5 JAM72S30－xxx／GR／1500V，xxx＝535 to 555 in step of 5 JAM66S30－xxx／GR／1500V，$x x x=500$ to 505 in step of 5 JAM60S30－xxx／GR／1500V，$x x x=445$ to 460 in step of 5 JAM54S30－xxx／GR／1500V，xxx＝400 to 415 in step of 5 JAM78S31－xxx／GR／1500V，xxx＝570 to 590 in step of 5 JAM72S31－xxx／GR／1500V，xxx＝525 to 545 in step of 5 JAM66S31－xxx／GR／1500V，xxx＝480 to 500 in step of 5 JAM60S31－xxx／GR／1500V，xxx＝435 to 450 in step of 5 JAM54S31－xxx／GR／1500V，xxx＝395 to 405 in step of 5 JAM72S10－xxx／MR／1500V，$x x x=380-430$ in step of 5 JAM60S10－xxx／MR／1500V，$x x x=315-355$ in step of 5 JAM72S17－xxx／MR／1500V，$x x x=390-430$ in step of 5 JAM60S17－xxx／MR／1500V，$x x x=315-355$ in step of 5 JAM72S31－xxx／MR／1500V，$x x x=510-545$ in step of 5 JAM66S31－xxx／MR／1500V，xxx＝470－500 in step of 5 JAM60S31－xxx／MR／1500V，$x x x=425-450$ in step of 5 JAM54S31－xxx／MR／1500V，xxx＝385－405 in step of 5 JAM78S30－xxx／MR／1500V，$x x x=580$ to 605 in step of 5 JAM72S17－xxx／GR／1500V，$x x x=385$ to 400 in step of 5 JAM78D30－xxx／MB，JAM78D30－xxx／MB／1500V， xxx＝580 to 605 in step of 5 JAM72D30－xxx／HB，JAM72D30－xxx／HB／1500V， $\mathrm{xxx}=530$ to 560 in step of 5

> Maximum System Voltage： 1000 or 1500 V DC JAM72S01－xxx／SC，xxx＝320 to 365 in step of 5 JAM60S01－xxx／SC， $\mathbf{x x x}=265$ to 305 in step of 5 JAM60S01－xxx／PR，xxx＝285 to 325 in step of 5 JAM72S03－xxx／PR，$x x x=360$ to 395 in step of 5 JAM60S03－xxx／PR，$x x x=300$ to 330 in step of 5 JAM72S09－xxx／PR，$x x x=370$ to 405 in step of 5 JAM60S09－xxx／PR，$x x x=310$ to 335 in step of 5 JAM72S10－xxx／PR，$x x x=380$ to 410 in step of 5 JAM60S10－xxx／PR，$x x x=315$ to 345 in step of 5 JAM72S10－xxx／MR，$x x x=390$ to 430 in step of 5 JAM60S10－xxx／MR，$x x x=325$ to 355 in step of 5 JAM78S10－xxx／MR，$x x x=435$ to 465 in step of 5 JAM66S10－xxx／MR，$x x x=345$ to 390 in step of 5 JAM72S09－xxx／BP，$x x x=375$ to 385 in step of 5 JAM60S09－xxx／BP，$x x x=315$ to 320 in step of 5 JAM72S10－xxx／BP，$x x x=385$ to 400 in step of 5 JAM60S10－xxx／BP，$x x x=320$ to 330 in step of 5 JAM72S10－xxx／MB，$x x x=395$ to 415 in step of 5 JAM60S10－xxx／MB，$x x x=330$ to 345 in step of 5 JAM72S20－xxx／MR，$x x x=430$ to 470 in step of 5 JAM60S20－xxx／MR，$x x x=355$ to 390 in step of 5 JAM78S10－xxx／MR－J，xxx $=435$ to 465 in step of 5 JAM72S30－xxx／MR，xxx＝ 510 to 555 in step of 5 JAM66S30－xxx／MR，xxx＝ 470 to 505 in step of 5 JAM60S30－xxx／MR，$x x x=435$ to 460 in step of 5 JAM60S21－xxx／MR，$x x x=355$ to 390 in step of 5 JAM54S30－xxx／MR，$x x x=390$ to 415 in step of 5

## CERTIFICATE

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#### Abstract

JAM68S11－xxx／PR（B），$x x x=345$ to 365 in step of 5 JAM72S20－xxx／MB，$x x x=450$ to 465 in step of 5 JAM60S20－xxx／MB，$x x x=375$ to 390 in step of 5 JAM76S11－xxxPR（B），$x x x=395$ to 415 in step of 5 JAM78S30－xxx／GR，$x x x=575$ to 600 in step of 5 JAM72S30－xxx／GR，$x x x=535$ to 555 in step of 5 JAM66S30－xxx／GR，xxx＝500 to 505 in step of 5 JAM60S30－xxx／GR，$x x x=445$ to 460 in step of 5 JAM54S30－xxx／GR，$x x x=400$ to 415 in step of 5 JAM78S31－xxx／GR，$x x x=570$ to 575 in step of 5 JAM72S31－xxx／GR，$x x x=525$ to 530 in step of 5 JAM66S31－xxx／GR，$x x x=480$ to 485 in step of 5 JAM60S31－xxx／GR，$x x x=435$ to 440 in step of 5 JAM54S31－xxx／GR，xxx＝395 to 400 in step of 5 JAM72S31－xxx／MR，$x x x=510-545$ in step of 5 JAM66S31－xxx／MR，$x x x=470-500$ in step of 5 JAM60S31－xxx／MR，$x x x=425-450$ in step of 5 JAM54S31－xxx／MR，$x x x=385-405$ in step of 5 JAM72S17－xxx／MR，$x x x=390$ to 430 in step of 5 JAM60S17－xxx／MR，xxx＝ 315 to 355 in step of 5 JAM78S30－xxx／MR，$x x x=580$ to 605 in step of 5 JAM72S17－xxx／GR，xxx＝ 385 to 400 in step of 5 xxx is standing for rated output power at STC


Parameters：

| Construction： | Framed or Frameless， with Junction box， cable and Connectors． |
| :---: | :---: |
| Fire Safety Class： | Class C or Class A according to UL790． |
| Safety Class： | Class II |
| Maximum System Voltage： | 1000 V DC or 1500V DC |
| PID Test Condition： | $\pm 1000$ V DC， $96 \mathrm{~h}, 60^{\circ} \mathrm{C}$ ， <br> $85 \%$ RH or $96 h, 85^{\circ} \mathrm{C}, 85 \%$ RH |
| PID testing method accor | $\pm 1500$ V DC， $96 \mathrm{~h}, 85^{\circ} \mathrm{C}, 85 \% \mathrm{RH}$ g to IEC TS 62804－1：2015 |

## Tested

 according to：IEC 61215－1（ed．1）
IEC 61215－1－1（ed．1）
IEC 61215－2（ed．1）
IEC 61730－1（ed．2）
IEC 61730－2（ed．2）
PPP 58042B：2015

