

ist Hersteller und verantwortlich für:

Konformitätserklärung / Declaration of Conformity

Produkt-Typ:	Plug & Play Photovoltaik-Set für Netzparallelbetrieb steckbar mittels Haushaltsstecker in Endstromkreis
Modell:	420 Wp Plug & Play (CN), 1 Panel / Hoymiles
Komponenten:	<ul style="list-style-type: none"> • 1x JA Solar JAM54S30-420/GR / 420 Wp / IP-67 / Schutzklasse II • 1x Hoymiles HM-400 mit N/A Schutz und eingebauter RCMU / IP67 Schutzart / Schutzklasse II / Input max. 60VDC, Output max. 230VAC, 50-60Hz, 400VA, 1,74A • 1x Anschlusskabel vorkonfektioniert mit Betteri Buchse IP67, 5m, 10m, 15m oder 20m / 3x1,5mm² Leitung / AC Seitig CH-Typ 13 Stecker IP 55

Konform nach ESTI-Mitteilung 07/2014 und in Übereinstimmung mit der Verordnung über elektrische Niederspannungserzeugnisse (NEV; SR 734.26) (Stand 08.11.2024).

Dazu angewandte Normen:

JA Solar JAM54S30-420/GR	N 61215-1:2016, EN 61215-1-1:2016, IEC 61215-2:2016, EN 61215-2:2017, IEC 61730-1:2016, EN IEC 61730-1:2018, EN IEC 61730-1:2018/AC:2018-06, IEC 61730-2:2016, EN IEC 61730-2:2018, EN IEC 61730-2:2018/AC:2018-06
Hoymiles HMS-400W-1T	VDE-ARN-N 4105: 2018-11, VDE V 0124-100:2019 & EN50549-1:2019, VFR 2019 IEC/EN 62109-1:2010/-2:2011, IEC/EN 61000-6-1:2019;EN 61000-6-2:200; EN 61000-6-3:2007+A1:2011; EN 61000-6-4:2019; EN 61000-3-2:2019; EN 61000-3-3:2013+A1:2019, IEC/EN 62311:2008 NEMA (IP67) Gehäuse; 6000 V Stromstossschutz
Hoymiles Anschlusskabel vorkonfektioniert in 5m, 10m, 15m oder 20m	Betteri Buchse Wechselrichterseite, Schutzart IEC EN 60529 IP67, Anschlusskabel 5m oder 10m H07RN-F, EN 50525-2-21: 2011, Stecker CH Typ 13: IEC 60884-1 (Ed 4.0): 2022 / SN 441011-1: 2019 +Corr2019 / SN 441011-2-1:2021, IP55
ROHS Konformität	Gesamtes Set konform gemäss IEC EN 63000: 2018

Michael Sebel, Geschäftsführung
 erneuer.bar services GmbH



420 Wp Plug & Play (CN), 1 Panel / Hoymiles / Version 1.6 / Datum: 08.11.2024



Product Service

CERTIFICATE

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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.: 704061604115-78

Valid until: 2028-07-30

Date, 2023-08-01

(Zhulin Zhang)

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT

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Model(s):

1500 V DC Maximum System Voltage, Double Glass Modules:

JAM72D00-xxx/BP/1500V, JAM72D00-xxx/BP, xxx= 330 to 385 in steps of 5;
 JAM60D00-xxx/BP/1500V, JAM60D00-xxx/BP, xxx= 275 to 320 in steps of 5;
 JAM60D00-xxx/PR/1500V, JAM60D00-xxx/PR, xxx= 285 to 320 in steps of 5;
 JAM72D00-xxx/PR/1500V, JAM72D00-xxx/PR, xxx= 340 to 385 in steps of 5;
 JAM60D00-xxx/MB/1500V, JAM60D00-xxx/MB, xxx= 310 to 315 in steps of 5;
 JAM72D00-xxx/MB/1500V, JAM72D00-xxx/MB, xxx= 370 to 380 in steps of 5;
 JAM72D09-xxx/BP/1500V, JAM72D09-xxx/BP, xxx= 360 to 400 in steps of 5;
 JAM60D09-xxx/BP/1500V, JAM60D09-xxx/BP, xxx= 300 to 345 in steps of 5;
 JAM72D10-xxx/MB/1500V, JAM72D10-xxx/MB, xxx= 385 to 430 in steps of 5;
 JAM60D10-xxx/MB/1500V, JAM60D10-xxx/MB, xxx= 320 to 355 in steps of 5;
 JAM72D10-xxx/BP/1500V, JAM72D10-xxx/BP, xxx= 385 to 415 in steps of 5;
 JAM60D10-xxx/BP/1500V, JAM60D10-xxx/BP, xxx= 320 to 345 in steps of 5;
 JAM66D10-xxx/MB/1500V, JAM66D10-xxx/MB, xxx= 360 to 380 in steps of 5;
 JAM78D10-xxx/MB/1500V, JAM78D10-xxx/MB, xxx= 435 to 455 in steps of 5;
 JAM72D20-xxx/MB/1500V, JAM72D20-xxx/MB, xxx= 430 to 465 in steps of 5;
 JAM60D20-xxx/MB/1500V, JAM60D20-xxx/MB, xxx= 355 to 385 in steps of 5;
 JAM72D10-xxx/TB/1500V, JAM72D10-xxx/TB, xxx= 400 to 420 in steps of 5;
 JAM60D10-xxx/TB/1500V, JAM60D10-xxx/TB, xxx= 335 to 350 in steps of 5;
 JAM78D30-xxx/MB/1500V, JAM78D30-xxx/MB, xxx= 580 to 605 in steps of 5;
 JAM72D30-xxx/MB/1500V, JAM72D30-xxx/MB, xxx=505 to 555 in steps of 5;
 JAM72D30-xxx/MB/F/1500V, JAM72D30-xxx/MB/F,
 xxx=505 to 555 in steps of 5;
 JAM66D30-xxx/MB/1500V, JAM66D30-xxx/MB, xxx=465 to 505 in steps of 5;
 JAM66D30-xxx/MB/F/1500V, JAM66D30-xxx/MB/F,
 xxx=465 to 505 in steps of 5;
 JAM60D30-xxx/MB/1500V, JAM60D30-xxx/MB, xxx=435 to 460 in steps of 5;
 JAM54D30-xxx/MB/1500V, JAM54D30-xxx/MB, xxx= 390 to 415 in steps of 5;
 JAM54D31-xxx/MB/1500V, JAM54D31-xxx/MB, xxx= 395 to 400 in steps of 5;
 JAM50D40-xxx/MB/1500V, JAM50D40-xxx/MB, xxx= 485 to 500 in steps of 5;
 JAM78D30-xxx/GB/1500V, JAM78D30-xxx/GB, xxx= 585 to 610 in steps of 5;
 JAM72D30-xxx/GB/1500V, JAM72D30-xxx/GB, xxx= 540 to 560 in steps of 5;
 JAM66D30-xxx/GB/1500V, JAM66D30-xxx/GB, xxx= 495 to 510 in steps of 5;
 JAM60D30-xxx/GB/1500V, JAM60D30-xxx/GB, xxx= 450 to 470 in steps of 5;
 JAM54D30-xxx/GB/1500V, JAM54D30-xxx/GB, xxx= 405 to 420 in steps of 5;
 JAM54D31-xxx/GB/1500V, JAM54D31-xxx/GB, xxx= 410 to 420 in steps of 5;
 JAM72D30-xxx/HB/1500V, JAM72D30-xxx/HB, xxx= 530 to 560 in steps of 5;
 JAM78D40-xxx/MB/1500V, JAM78D40-xxx/MB, xxx= 580 to 630 in steps of 5;
 JAM72D40-xxx/MB/1500V, JAM72D40-xxx/MB, xxx= 540 to 585 in steps of 5;
 JAM66D40-xxx/MB/1500V, JAM66D40-xxx/MB, xxx= 500 to 535 in steps of 5;
 JAM60D40-xxx/MB/1500V, JAM60D40-xxx/MB, xxx= 455 to 485 in steps of 5;
 JAM54D40-xxx/MB/1500V, JAM54D40-xxx/MB, xxx= 405 to 440 in steps of 5;
 JAM78D40-xxx/GB/1500V, JAM78D40-xxx/GB, xxx= 580 to 635 in steps of 5;
 JAM72D40-xxx/GB/1500V, JAM72D40-xxx/GB, xxx= 540 to 585 in steps of 5;
 JAM66D40-xxx/GB/1500V, JAM66D40-xxx/GB, xxx= 500 to 535 in steps of 5;
 JAM60D40-xxx/GB/1500V, JAM60D40-xxx/GB, xxx= 455 to 485 in steps of 5;
 JAM54D40-xxx/GB/1500V, JAM54D40-xxx/GB, xxx= 405 to 440 in steps of 5;
 JAM54D41-xxx/GB/1500V, JAM54D41-xxx/GB, xxx= 415 to 435 in steps of 5;
 JAM66D35-xxx/MB/1500V, JAM66D35-xxx/MB, xxx= 650 to 665 in steps of 5;
 JAM60D35-xxx/MB/1500V, JAM60D35-xxx/MB, xxx= 590 to 605 in steps of 5;
 JAM72D30-xxx /TB/1500V, JAM72D30-xxx /TB, xxx= 540 to 580 in steps of 5;
 JAM72D40-xxx/LB/1500V, JAM72D40-xxx/LB, xxx= 575 to 600 in steps of 5;
 JAM54D40-xxx/LB/1500V, JAM54D40-xxx/LB, xxx= 420 to 450 in steps of 5;
 JAM54D41-xxx/LB/1500V, JAM54D41-xxx/LB, xxx= 420 to 440 in steps of 5;
 JAM72D42-xxx/LB/1500V, JAM72D42-xxx/LB, xxx= 605 to 630 in steps of 5;
 JAM54D42-xxx/LB/1500V, JAM54D42-xxx/LB, xxx= 455 to 470 in steps of 5;
 JAM72D30-xxx/LB/1500V, JAM72D30-xxx/LB, xxx= 555 to 575 in steps of 5;
 JAM54D30-xxx/LB/1500V, JAM54D30-xxx/LB, xxx= 420 to 430 in steps of 5;
 JAM66D45-xxx/LB/1500V, JAM66D45-xxx/LB, xxx= 585 to 605 in steps of 5;

1000 V DC Maximum System Voltage, Single Glass Modules:

JAM6(K)-72-xxx/PR, xxx= 345 to 370 in steps of 5;
 JAM6(K)-60-xxx/PR, xxx= 285 to 310 in steps of 5;
 JAM6(K)-72-xxx/4BB, xxx= 320 to 345 in steps of 5;
 JAM6(K)-60-xxx/4BB, xxx= 265 to 285 in steps of 5;
 JAM72S01-xxx/SC/1000V, xxx= 320 to 365 in steps of 5;
 JAM60S01-xxx/SC/1000V, xxx= 265 to 305 in steps of 5;
 JAM72S01-xxx/PR/1000V, xxx= 345 to 390 in steps of 5;
 JAM60S01-xxx/PR/1000V, xxx= 285 to 325 in steps of 5;
 JAM72S01-xxx/MR/1000V, xxx= 365 to 385 in steps of 5;

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JAM60S01-xxx/MR/1000V, xxx= 305 to 320 in steps of 5;
JAM72S03-xxx/PR/1000V, xxx= 360 to 395 in steps of 5;
JAM60S03-xxx/PR/1000V, xxx= 300 to 330 in steps of 5;
JAM72S09-xxx/PR/1000V, xxx= 370 to 405 in steps of 5;
JAM60S09-xxx/PR/1000V, xxx= 310 to 335 in steps of 5;
JAM72S10-xxx/PR/1000V, xxx= 380 to 410 in steps of 5;
JAM60S10-xxx/PR/1000V, xxx= 315 to 345 in steps of 5;
JAM72S10-xxx/MR/1000V, xxx= 390 to 430 in steps of 5;
JAM60S10-xxx/MR/1000V, xxx= 325 to 355 in steps of 5;
JAM60S10-xxx/MR-L/1000V, xxx= 325 to 355 in steps of 5;
JAM78S10-xxx/MR/1000V, xxx= 435 to 465 in steps of 5;
JAM66S10-xxx/MR/1000V, xxx= 345 to 390 in steps of 5;
JAM72S09-xxx/BP/1000V, xxx= 375 to 385 in steps of 5;
JAM60S09-xxx/BP/1000V, xxx= 315 to 320 in steps of 5;
JAM72S10-xxx/BP/1000V, xxx= 385 to 400 in steps of 5;
JAM60S10-xxx/BP/1000V, xxx= 320 to 330 in steps of 5;
JAM72S02-xxx/PR/1000V, xxx= 345 to 390 in steps of 5;
JAM60S02-xxx/PR/1000V, xxx= 285 to 325 in steps of 5;
JAM72S02-xxx/SC/1000V, xxx= 320 to 365 in steps of 5;
JAM60S02-xxx/SC/1000V, xxx= 265 to 305 in steps of 5;
JAM72S02-xxx/MR/1000V, xxx= 365 to 385 in steps of 5;
JAM60S02-xxx/MR/1000V, xxx= 305 to 320 in steps of 5;
JAM72S08-xxx/PR/1000V, xxx= 360 to 395 in steps of 5;
JAM60S08-xxx/PR/1000V, xxx= 300 to 330 in steps of 5;
JAM72S12-xxx/PR/1000V, xxx= 365 to 385 in steps of 5;
JAM60S12-xxx/PR/1000V, xxx= 305 to 330 in steps of 5;
JAM72S17-xxx/PR/1000V, xxx= 380 to 390 in steps of 5;
JAM60S17-xxx/PR/1000V, xxx= 315 to 325 in steps of 5;
JAM72S17-xxx/MR/1000V, xxx= 390 to 430 in steps of 5;
JAM60S17-xxx/MR/1000V, xxx= 315 to 355 in steps of 5;
JAM72S10-xxx/MB/1000V, xxx= 395 to 415 in steps of 5;
JAM60S10-xxx/MB/1000V, xxx= 330 to 345 in steps of 5;
JAM72S20-xxx/MR/1000V, xxx= 430 to 470 in steps of 5;
JAM60S20-xxx/MR/1000V, xxx= 355 to 390 in steps of 5;
JAM78S30-xxx/MR/1000V, xxx= 580 to 605 in steps of 5;
JAM72S30-xxx/MR/1000V, xxx=510 to 555 in steps of 5;
JAM66S30-xxx/MR/1000V, xxx=470 to 505 in steps of 5;
JAM60S30-xxx/MR/1000V, xxx=435 to 460 in steps of 5;
JAM54S30-xxx/MR/1000V, xxx= 390 to 425 in steps of 5;
JAM60S21-xxx/MR/1000V, xxx= 355 to 390 in steps of 5;
JAM50S40-xxx/MR/1000V, xxx= 490 to 500 in steps of 5;
JAM72S20-xxx/MB/1000V, xxx= 450 to 465 in steps of 5;
JAM60S20-xxx/MB/1000V, xxx= 375 to 390 in steps of 5;
JAM72S31-xxx/MR/1000V, xxx= 510 to 545 in steps of 5;
JAM66S31-xxx/MR/1000V, xxx= 470 to 500 in steps of 5;
JAM60S31-xxx/MR/1000V, xxx= 425 to 450 in steps of 5;
JAM54S31-xxx/MR/1000V, xxx= 385 to 405 in steps of 5;
JAM76S11-xxx/PR(B)/1000V, xxx= 395 to 415 in steps of 5;
JAM78S30-xxx/GR/1000V, xxx= 575 to 610 in steps of 5;
JAM72S30-xxx/GR/1000V, xxx= 535 to 560 in steps of 5;
JAM66S30-xxx/GR/1000V, xxx= 500 to 510 in steps of 5;
JAM60S30-xxx/GR/1000V, xxx= 445 to 470 in steps of 5;
JAM54S30-xxx/GR/1000V, xxx= 400 to 420 in steps of 5;
JAM78S31-xxx/GR/1000V, xxx= 570 to 590 in steps of 5;
JAM72S31-xxx/GR/1000V, xxx= 525 to 545 in steps of 5;
JAM66S31-xxx/GR/1000V, xxx= 480 to 500 in steps of 5;
JAM60S31-xxx/GR/1000V, xxx= 430 to 450 in steps of 5;
JAM54S31-xxx/GR/1000V, xxx= 395 to 415 in steps of 5;
JAM72S17-xxx/GR/1000V, xxx= 385 to 400 in steps of 5;
JAM72S40-xxx/GR/1000V, xxx= 540 to 575 in steps of 5;
JAM66S40-xxx/GR/1000V, xxx= 495 to 525 in steps of 5;
JAM60S40-xxx/GR/1000V, xxx= 450 to 480 in steps of 5;
JAM54S40-xxx/GR/1000V, xxx= 405 to 430 in steps of 5;
JAM72S41-xxx/GR/1000V, xxx= 540 to 570 in steps of 5;
JAM66S41-xxx/GR/1000V, xxx= 495 to 525 in steps of 5;
JAM60S41-xxx/GR/1000V, xxx= 450 to 475 in steps of 5;
JAM54S41-xxx/GR/1000V, xxx= 405 to 430 in steps of 5;
JAM66S35-xxx/MR/1000V, xxx= 650 to 670 in steps of 5;
JAM60S35-xxx/MR/1000V, xxx= 590 to 610 in steps of 5;
JAM72S30-xxx/LR/1000V, xxx= 555 to 580 in steps of 5;

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JAM54S30-xxx/LR/1000V, xxx= 415 to 435 in steps of 5;
 JAM54S31-xxx/LR/1000V, xxx= 415 to 420 in steps of 5;

1000 V DC or 1500 V DC Maximum System Voltage,
 Single Glass Modules:

JAM72S01-xxx/SC, xxx= 320 to 365 in steps of 5;
 JAM60S01-xxx/SC, xxx= 265 to 305 in steps of 5;
 JAM60S01-xxx/PR, xxx= 285 to 325 in steps of 5;
 JAM72S01-xxx/MR, xxx= 365 to 385 in steps of 5;
 JAM60S01-xxx/MR, xxx= 305 to 320 in steps of 5;
 JAM72S03-xxx/PR, xxx= 360 to 395 in steps of 5;
 JAM60S03-xxx/PR, xxx= 300 to 330 in steps of 5;
 JAM72S09-xxx/PR, xxx= 370 to 405 in steps of 5;
 JAM60S09-xxx/PR, xxx= 310 to 335 in steps of 5;
 JAM72S10-xxx/PR, xxx= 380 to 410 in steps of 5;
 JAM60S10-xxx/PR, xxx= 315 to 345 in steps of 5;
 JAM72S10-xxx/MR, xxx= 390 to 430 in steps of 5;
 JAM60S10-xxx/MR, xxx= 325 to 355 in steps of 5;
 JAM60S10-xxx/MR-L, xxx= 325 to 355 in steps of 5;
 JAM78S10-xxx/MR, xxx= 435 to 465 in steps of 5;
 JAM66S10-xxx/MR, xxx= 345 to 390 in steps of 5;
 JAM72S09-xxx/BP, xxx= 375 to 385 in steps of 5;
 JAM60S09-xxx/BP, xxx= 315 to 320 in steps of 5;
 JAM72S10-xxx/BP, xxx= 385 to 400 in steps of 5;
 JAM60S10-xxx/BP, xxx= 320 to 330 in steps of 5;
 JAM72S02-xxx/PR, xxx= 345 to 390 in steps of 5;
 JAM60S02-xxx/PR, xxx= 285 to 325 in steps of 5;
 JAM72S02-xxx/SC, xxx= 320 to 365 in steps of 5;
 JAM60S02-xxx/SC, xxx= 265 to 305 in steps of 5;
 JAM72S02-xxx/MR, xxx= 365 to 385 in steps of 5;
 JAM60S02-xxx/MR, xxx= 305 to 320 in steps of 5;
 JAM72S08-xxx/PR, xxx= 360 to 395 in steps of 5;
 JAM60S08-xxx/PR, xxx= 300 to 330 in steps of 5;
 JAM72S12-xxx/PR, xxx= 365 to 385 in steps of 5;
 JAM60S12-xxx/PR, xxx= 305 to 330 in steps of 5;
 JAM72S17-xxx/PR, xxx= 380 to 390 in steps of 5;
 JAM60S17-xxx/PR, xxx= 315 to 325 in steps of 5;
 JAM72S17-xxx/MR, xxx= 390 to 430 in steps of 5;
 JAM60S17-xxx/MR, xxx= 315 to 355 in steps of 5;
 JAM72S10-xxx/MB, xxx= 395 to 415 in steps of 5;
 JAM60S10-xxx/MB, xxx= 330 to 345 in steps of 5;
 JAM72S20-xxx/MR, xxx= 430 to 470 in steps of 5;
 JAM60S20-xxx/MR, xxx= 355 to 390 in steps of 5;
 JAM78S10-xxx/MR-J, xxx= 435 to 465 in steps of 5;
 JAM78S30-xxx/MR, xxx= 580 to 605 in steps of 5;
 JAM72S30-xxx/MR, xxx= 510 to 555 in steps of 5;
 JAM66S30-xxx/MR, xxx= 470 to 505 in steps of 5;
 JAM60S30-xxx/MR, xxx= 435 to 460 in steps of 5;
 JAM54S30-xxx/MR, xxx= 390 to 425 in steps of 5;
 JAM60S21-xxx/MR, xxx= 355 to 390 in steps of 5;
 JAM50S40-xxx/MR, xxx= 490 to 500 in steps of 5;
 JAM72S20-xxx/MB, xxx= 450 to 465 in steps of 5;
 JAM60S20-xxx/MB, xxx= 375 to 390 in steps of 5;
 JAM68S11-xxx/PR, xxx= 355 to 365 in steps of 5;
 JAM68S11-xxx/PR(B), xxx= 345 to 365 in steps of 5;
 JAM72S31-xxx/MR, xxx= 510 to 545 in steps of 5;
 JAM66S31-xxx/MR, xxx= 470 to 500 in steps of 5;
 JAM60S31-xxx/MR, xxx= 425 to 450 in steps of 5;
 JAM54S31-xxx/MR, xxx= 385 to 405 in steps of 5;
 JAM76S11-xxx/PR(B), xxx= 395 to 415 in steps of 5;
 JAM78S30-xxx/GR, xxx= 575 to 610 in steps of 5;
 JAM72S30-xxx/GR, xxx= 535 to 560 in steps of 5;
 JAM66S30-xxx/GR, xxx= 500 to 510 in steps of 5;
 JAM60S30-xxx/GR, xxx= 445 to 470 in steps of 5;
 JAM54S30-xxx/GR, xxx= 400 to 420 in steps of 5;
 JAM78S31-xxx/GR, xxx= 570 to 590 in steps of 5;
 JAM72S31-xxx/GR, xxx= 525 to 545 in steps of 5;
 JAM66S31-xxx/GR, xxx= 480 to 500 in steps of 5;
 JAM60S31-xxx/GR, xxx= 435 to 450 in steps of 5;
 JAM54S31-xxx/GR, xxx= 395 to 415 in steps of 5;

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JAM72S17-xxx/GR, xxx= 385 to 400 in steps of 5;
 JAM72S40-xxx/GR, xxx= 540 to 575 in steps of 5;
 JAM66S40-xxx/GR, xxx= 495 to 525 in steps of 5;
 JAM60S40-xxx/GR, xxx= 450 to 480 in steps of 5;
 JAM54S40-xxx/GR, xxx= 405 to 430 in steps of 5;
 JAM72S41-xxx/GR, xxx= 540 to 570 in steps of 5;
 JAM66S41-xxx/GR, xxx= 495 to 525 in steps of 5;
 JAM60S41-xxx/GR, xxx= 450 to 475 in steps of 5;
 JAM54S41-xxx/GR, xxx= 405 to 430 in steps of 5;
 JAM66S35-xxx/MR, xxx= 650 to 670 in steps of 5;
 JAM60S35-xxx/MR, xxx= 590 to 610 in steps of 5;
 JAM72S30-xxx/LR, xxx= 555 to 580 in steps of 5;
 JAM54S30-xxx/LR, xxx= 415 to 435 in steps of 5;
 JAM54S31-xxx/LR, xxx= 415 to 420 in steps of 5;

1500 V DC Maximum System Voltage, Single Glass Modules:

JAM6(K)-72-xxx/PR/1500V, xxx= 345 to 370 in steps of 5;
 JAM6(K)-60-xxx/PR/1500V, xxx= 285 to 310 in steps of 5;
 JAM6(K)-72-xxx/4BB/1500V, xxx= 320 to 345 in steps of 5;
 JAM6(K)-60-xxx/4BB/1500V, xxx= 265 to 285 in steps of 5;
 JAM72S01-xxx/SC/1500V, xxx= 320 to 365 in steps of 5;
 JAM60S01-xxx/SC/1500V, xxx= 265 to 305 in steps of 5;
 JAM72S01-xxx/PR, xxx= 345 to 390 in steps of 5;
 JAM60S01-xxx/PR/1500V, xxx= 285 to 325 in steps of 5;
 JAM72S01-xxx/MR/1500V, xxx= 365 to 385 in steps of 5;
 JAM60S01-xxx/MR/1500V, xxx= 305 to 320 in steps of 5;
 JAM72S03-xxx/PR/1500V, xxx= 360 to 395 in steps of 5;
 JAM60S03-xxx/PR/1500V, xxx= 300 to 330 in steps of 5;
 JAM72S09-xxx/PR/1500V, xxx= 370 to 405 in steps of 5;
 JAM60S09-xxx/PR/1500V, xxx= 310 to 335 in steps of 5;
 JAM72S10-xxx/PR/1500V, xxx= 380 to 410 in steps of 5;
 JAM60S10-xxx/PR/1500V, xxx= 315 to 345 in steps of 5;
 JAM72S10-xxx/MR/1500V, xxx= 390 to 430 in steps of 5;
 JAM60S10-xxx/MR/1500V, xxx= 325 to 355 in steps of 5;
 JAM60S10-xxx/MR-L/1500V, xxx= 325 to 355 in steps of 5;
 JAM78S10-xxx/MR/1500V, xxx= 435 to 465 in steps of 5;
 JAM66S10-xxx/MR/1500V, xxx= 345 to 390 in steps of 5;
 JAM72S09-xxx/BP/1500V, xxx= 375 to 385 in steps of 5;
 JAM60S09-xxx/BP/1500V, xxx= 315 to 320 in steps of 5;
 JAM72S10-xxx/BP/1500V, xxx= 385 to 400 in steps of 5;
 JAM60S10-xxx/BP/1500V, xxx= 320 to 330 in steps of 5;
 JAM72S02-xxx/PR/1500V, xxx= 345 to 390 in steps of 5;
 JAM60S02-xxx/PR/1500V, xxx= 285 to 325 in steps of 5;
 JAM72S02-xxx/SC/1500V, xxx= 320 to 365 in steps of 5;
 JAM60S02-xxx/SC/1500V, xxx= 265 to 305 in steps of 5;
 JAM72S02-xxx/MR/1500V, xxx= 365 to 385 in steps of 5;
 JAM60S02-xxx/MR/1500V, xxx= 305 to 320 in steps of 5;
 JAM72S08-xxx/PR/1500V, xxx= 360 to 395 in steps of 5;
 JAM60S08-xxx/PR/1500V, xxx= 300 to 330 in steps of 5;
 JAM72S12-xxx/PR/1500V, xxx= 365 to 385 in steps of 5;
 JAM60S12-xxx/PR/1500V, xxx= 305 to 330 in steps of 5;
 JAM72S17-xxx/PR/1500V, xxx= 380 to 390 in steps of 5;
 JAM60S17-xxx/PR/1500V, xxx= 315 to 325 in steps of 5;
 JAM72S17-xxx/MR/1500V, xxx= 390 to 430 in steps of 5;
 JAM60S17-xxx/MR/1500V, xxx= 315 to 355 in steps of 5;
 JAM72S10-xxx/MB/1500V, xxx= 395 to 415 in steps of 5;
 JAM60S10-xxx/MB/1500V, xxx= 330 to 345 in steps of 5;
 JAM72S20-xxx/MR/1500V, xxx= 430 to 470 in steps of 5;
 JAM60S20-xxx/MR/1500V, xxx= 355 to 390 in steps of 5;
 JAM78S30-xxx/MR/1500V, xxx= 580 to 605 in steps of 5;
 JAM72S30-xxx/MR/1500V, xxx= 510 to 555 in steps of 5;
 JAM66S30-xxx/MR/1500V, xxx= 470 to 505 in steps of 5;
 JAM60S30-xxx/MR/1500V, xxx= 435 to 460 in steps of 5;
 JAM54S30-xxx/MR/1500V, xxx= 390 to 425 in steps of 5;
 JAM60S21-xxx/MR/1500V, xxx= 355 to 390 in steps of 5;
 JAM50S40-xxx/MR/1500V, xxx= 490 to 500 in steps of 5;
 JAM72S20-xxx/MB/1500V, xxx= 450 to 465 in steps of 5;
 JAM60S20-xxx/MB/1500V, xxx= 375 to 390 in steps of 5;
 JAM72S31-xxx/MR/1500V, xxx= 510 to 545 in steps of 5;
 JAM66S31-xxx/MR/1500V, xxx= 470 to 500 in steps of 5;



CERTIFICATE

No. Z2 072092 0295 Rev. 63

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICAT

JAM60S31-xxx/MR/1500V, xxx= 425 to 450 in steps of 5;
 JAM54S31-xxx/MR/1500V, xxx= 385 to 405 in steps of 5;
 JAM76S11-xxx/PR(B)/1500V, xxx= 395 to 415 in steps of 5;
 JAM78S30-xxx/GR/1500V, xxx= 575 to 610 in steps of 5;
 JAM72S30-xxx/GR/1500V, xxx= 535 to 560 in steps of 5;
 JAM66S30-xxx/GR/1500V, xxx= 500 to 510 in steps of 5;
 JAM60S30-xxx/GR/1500V, xxx= 445 to 470 in steps of 5;
 JAM54S30-xxx/GR/1500V, xxx= 400 to 420 in steps of 5;
 JAM78S31-xxx/GR/1500V, xxx= 570 to 590 in steps of 5;
 JAM72S31-xxx/GR/1500V, xxx= 525 to 545 in steps of 5;
 JAM66S31-xxx/GR/1500V, xxx= 480 to 500 in steps of 5;
 JAM60S31-xxx/GR/1500V, xxx= 435 to 450 in steps of 5;
 JAM54S31-xxx/GR/1500V, xxx= 395 to 415 in steps of 5;
 JAM72S17-xxx/GR/1500V, xxx= 385 to 400 in steps of 5;
 JAM72S40-xxx/GR/1500V, xxx= 540 to 575 in steps of 5;
 JAM66S40-xxx/GR/1500V, xxx= 495 to 525 in steps of 5;
 JAM60S40-xxx/GR/1500V, xxx= 450 to 480 in steps of 5;
 JAM54S40-xxx/GR/1500V, xxx= 405 to 430 in steps of 5;
 JAM72S41-xxx/GR/1500V, xxx= 540 to 570 in steps of 5;
 JAM66S41-xxx/GR/1500V, xxx= 495 to 525 in steps of 5;
 JAM60S41-xxx/GR/1500V, xxx= 450 to 475 in steps of 5;
 JAM54S41-xxx/GR/1500V, xxx= 405 to 430 in steps of 5;
 JAM66S35-xxx/MR/1500V, xxx= 650 to 670 in steps of 5;
 JAM60S35-xxx/MR/1500V, xxx= 590 to 610 in steps of 5;
 JAM72S30-xxx/LR/1500V, xxx= 555 to 580 in steps of 5;
 JAM54S30-xxx/LR/1500V, xxx= 415 to 435 in steps of 5;
 JAM54S31-xxx/LR/1500V, xxx= 415 to 420 in steps of 5;
 xxx is standing for rated output power at STC

Parameters:

Construction: Framed or Frameless, with Junction box, Cable and Connectors.
 Test Laboratory: Yangzhou Opto-Electrical Products Testing Institute
 No. 10 West Kaifa Road, Yangzhou 225009 Jiangsu, P. R. China
 Safety Class: Class II
 Maximum System Voltage: 1500 V DC or 1000 V DC
 Fire Safety Class: Class C according to UL790.
 Production Facility(ies): 079395, 095903, 090968, 108746, 072092, 109998, 112017, 113943, 114922, 001783, 004170, 113691, 117043, 119123, 120210, 117684, 114994, 120736, 115500, 120016, 108093, 121678.

Tested according to:

IEC 61215-1:2016
 IEC 61215-1-1:2016
 IEC 61215-2:2016
 IEC 61730-1:2016
 IEC 61730-2:2016
 EN IEC 61730-1:2018
 EN IEC 61730-1:2018/AC:2018-06
 EN IEC 61730-2:2018
 EN IEC 61730-2:2018/AC:2018-06

440W MBB **LR** Series



Higher output power



Lower LCOE



Better mechanical loading tolerance



Less shading and lower resistive loss



12-year product warranty



25-year linear power output warranty

Half-cell Module JAM54S31 LR 415-440

Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



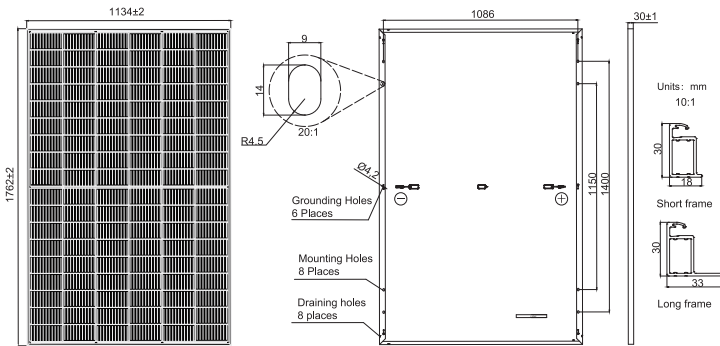


440W

415-440

JAM54S31

LR
Series



Remark: customized frame color and cable length available upon request

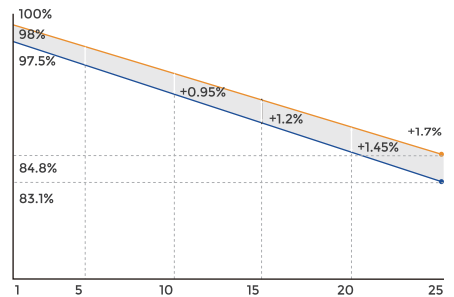
Cell	Mono
Weight	20kg
Dimensions	1762±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	108(6x18)
Junction Box	IP68, 3 diodes
Connector	QC 4.10-351/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); 800mm(+)/800mm(-)(Leapfrog) Landscape: 1200mm(+)/1200mm(-)
Front Glass	2.8mm
Packaging Configuration	36pcs/Pallet, 936pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM54S31 -415/LR	JAM54S31 -420/LR	JAM54S31 -425/LR	JAM54S31 -430/LR	JAM54S31 -435/LR	JAM54S31 -440/LR
Rated Maximum Power(Pmax) [W]	415	420	425	430	435	440
Open Circuit Voltage(Voc) [V]	37.01	37.19	37.37	37.55	37.73	37.91
Maximum Power Voltage(Vmp) [V]	30.92	31.11	31.30	31.49	31.68	31.86
Short Circuit Current(Isc) [A]	14.17	14.25	14.33	14.42	14.50	14.58
Maximum Power Current(Imp) [A]	13.42	13.50	13.58	13.65	13.73	13.81
Module Efficiency [%]	20.8	21.0	21.3	21.5	21.8	22.0
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α _{Isc})	+0.045% / C					
Temperature Coefficient of Voc(β _{Voc})	-0.275% / C					
Temperature Coefficient of Pmax(γ _{Pmp})	-0.350% / C					
STC	Irradiance 1000W/m ² , cell temperature 25 °C, AM1.5G					

Superior Warranty

0.55% Annual Degradation Over 25 years



- New linear power warranty
- Standard module linear power warranty

ELECTRICAL PARAMETERS AT NOCT

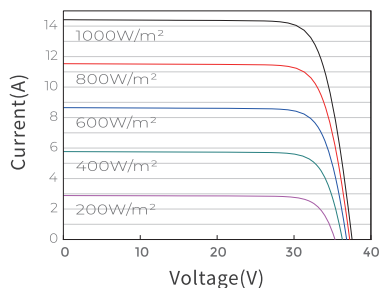
TYPE	JAM54S31 -415/LR	JAM54S31 -420/LR	JAM54S31 -425/LR	JAM54S31 -430/LR	JAM54S31 -435/LR	JAM54S31 -440/LR
Rated Max Power(Pmax) [W]	314	318	322	326	329	333
Open Circuit Voltage(Voc) [V]	35.02	35.19	35.36	35.53	35.70	35.87
Max Power Voltage(Vmp) [V]	29.26	29.44	29.62	29.80	29.98	30.15
Short Circuit Current(Isc) [A]	11.33	11.40	11.47	11.53	11.60	11.67
Max Power Current(Imp) [A]	10.74	10.80	10.86	10.92	10.99	11.05
NOCT	Irradiance 800W/m ² , ambient temperature 20 °C, wind speed 1m/s, AM1.5G					

OPERATING CONDITIONS

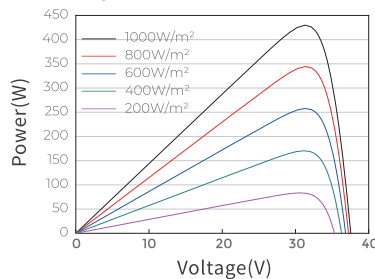
Maximum System Voltage	1000V/1500V DC
Operating Temperature	-40 °C ~+85 °C
Maximum Series Fuse Rating	25A
Maximum Static Load,Front*	5400Pa(112lb/ft ²)
Maximum Static Load,Back*	2400Pa(50lb/ft ²)
NOCT	45±2 °C
Safety Class	Class II
Fire Performance	UL Type 1

CHARACTERISTICS

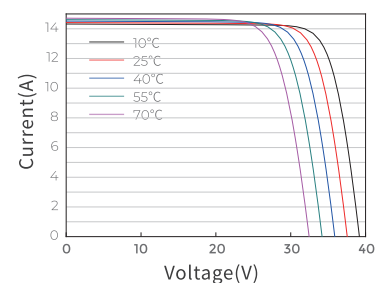
Current-Voltage Curve **JAM54S31-430/LR**



Power-Voltage Curve **JAM54S31-430/LR**



Current-Voltage Curve **JAM54S31-430/LR**





VKF Hagelschutz Nr. 32551

Inhaber /-in
Solarmarkt GmbH
Neumattstrasse 2
5000 Aarau
Schweiz

Hersteller /-in
JA SOLAR
100160 Beijing
China

Gruppe 121 - Dach - Photovoltaik Module
Produkt JAM54S30-Serie, JAM54S31-Serie

Beschreibung Mono-kristallines Halbzellen-PV-Modul (Glas/Folie).
Frontglas t = 2.8 mm aus gehärtetem Glas.
Alu-Rahmen t = 30 mm.

Unterlagen SUPSI PVLab: Prüfbericht '22-089/A-REP1-rev0' (1. Dezember 2022); Institut für Solartechnik SPF: Prüfbericht 'H415' (6. November 2023)

VKF Prüfbestimmungen 25 Photovoltaik Module, Version 1.03 vom 01.11.2016

Klassifikation Hagelwiderstand Funktionalität HW 4
Beurteilung Hagelwiderstand Aussehen HW 4

Bemerkungen

Gültigkeitsdauer 31.12.2028
Ausstellungsdatum 27.11.2023
Ersetzt Dokument vom 09.03.2023

Vereinigung Kantonalen Feuerversicherungen

Martin Jordi

Cornelia Humm

Die Funktionalität ist der minimale Hagelwiderstand von den Bauteilfunktionen:

Lichtdurchlässigkeit	HW --	Mechanik	HW 4
Lichtabschirmung	HW --	Wasserdichtheit	HW --

Vereinigung Kantonalen Feuerversicherungen VKF

Bundesgasse 20 Postfach 3001 Bern T +41 31 320 22 22 mail@vkg.ch www.vkg.ch



Shanghai JA Solar PV Technology Co., Ltd.
No. 36, Jiang Chang San Rd
Zhabei, Shanghai 200436
P. R. China
Tel: +86 (21) 6095 5531
Fax: +86 (21) 6095 5959

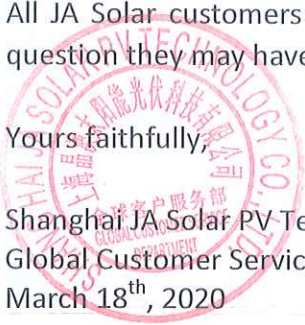
Declaration of antireflection glass

JA Solar as the PV module manufacturer hereby declares that all the JA Solar modules recently manufactured (starting from 2014) have on the front side a tempered and high-transmission glass covered by anti-reflection coating to reduce light reflection and hence absorb more solar energy and generate more electric current.

All JA Solar customers are encouraged to consult with JA Solar technical support staff with any further question they may have.

Yours faithfully,

Shanghai JA Solar PV Technology Co., Ltd.
Global Customer Service Department
March 18th, 2020



EU DECLARATION OF CONFORMITY

(DoC No. 23013002)

We **Hoymiles Power Electronics Inc.**
No.18 Kangjing Road, Hangzhou 310015, Zhejiang Province, P.R. China

as the manufacturer, declare under our sole responsibility that the following products

PRODUCT: **PV Microinverter**
MODELS: **HMS-2000-4T, HMS-1800-4T, HMS-1600-4T**
HMS-2000C-4T, HMS-1800C-4T, HMS-1600C-4T, HMS-1400C-4T
HMS-1000-2T, HMS-900-2T, HMS-800-2T, HMS-700-2T, HMS-600-2T
HMS-500-1T, HMS-450-1T, HMS-400-1T, HMS-350-1T, HMS-300-1T

to which this declaration relates, are in conformity with the following directive and standards:

Directives	2014/53/EU (RE Directive)
Article 3.1(b) EMC	EN 301 489-1 V2.2.3 (2019-11) EN 301 489-3 V2.1.1 (2019-03) EN 61000-6-1:2019 EN 61000-6-2:2019 EN 61000-6-3:2021 EN 61000-6-4:2019 EN 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021
Article 3.1(a) Safety	EN 62109-1:2010 EN 62109-2:2011
Article 3.1(a) Health	EN 62479:2010 EN 50663:2017
Article 3.2 Radio	EN 300 220-1 V3.1.1 (2017-02) EN 300 220-2 V3.1.1 (2017-02)

Manufacturer: Hoymiles Power Electronics Inc.

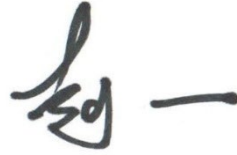
Address: No.18 Kangjing Road, Hangzhou 310015, Zhejiang Province, P.R. China

EU Importer: Hoymiles Power Electronics B.V.

Address: High Tech Campus 9, Unit BK 3.28, 5656 AE Eindhoven, Netherlands

This Declaration of Conformity is not valid any longer, in case, without any written authorization by Hoymiles Power Electronics Inc.:

- The product is modified, supplemented or changed in any other way
- The product is used or installed improperly.

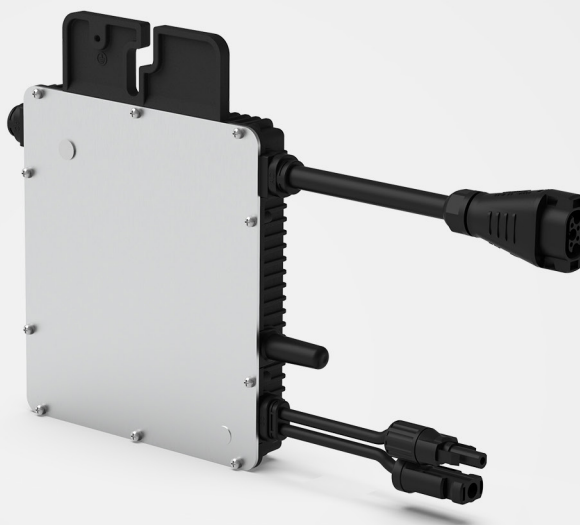
A handwritten signature in black ink, consisting of stylized Chinese characters, positioned above a horizontal line.

Yi Zhao, Vice President.
2023-01-30
Hangzhou, China

Hoymiles Power Electronics Inc.
No.18 Kangjing Road, Hangzhou 310015, China
Tel: +86 571 28056101
Fax: +86 571 28056137
<http://www.hoymiles.com/>

Appendix:

Product Specifications	
Frequency Range	863.25 MHz to 869.75 MHz
RF Output Power (EIRP)	11.69 dBm
Modulation Type	GFSK
Type of Antenna	External Omni Antenna
Antenna Gain	2.0 dBi



Datenblatt Mikro-Wechselrichter

HMS-300
HMS-350
HMS-400
HMS-450
HMS-500

Beschreibung

Mit einer Ausgangsleistung von bis zu 500 VA gehört Hoymiles neue Mikro-Wechselrichter-Serie HMS-500 zu den besten 1-in-1-Mikro-Wechselrichtern.

Alle aufgeführten Modelle sind mit einer Blindleistungssteuerung ausgestattet und erfüllen die Anforderungen von EN 50549-1:2019, VDE-AR-N 4105:2018, VFR2019 usw.

Die neue Sub-1G-Funklösung ermöglicht eine stabilere Kommunikation unter verschiedenen Umgebungsbedingungen.

Merkmale

01

Hochleistungs-1-in-1-Mikro-Wechselrichter mit einer Ausgangsleistung von bis zu 500 VA

02

Mit Blindleistungssteuerung, konform mit EN 50549-1:2019, VDE-AR-N 4105:2018, VFR2019 usw.

03

Sicherer für Aufdach-Solarstationen mit Schnellabschaltung und isoliertem Transformator

04

An ein Modul angeschlossen; flexibel für verschiedene Anwendungen

05

Die Sub-1G-Funklösung ermöglicht eine stabile Kommunikation mit dem Hoymiles-Gateway DTU

Technische Daten

Modell	HMS-300-1T	HMS-350-1T	HMS-400-1T	HMS-450-1T	HMS-500-1T
Angaben zum Eingangsstrom (DC)					
Üblicherweise verwendete Modulleistung (W)	240 bis 405+	280 bis 470+	320 bis 540+	360 bis 600+	400 bis 670+
Maximale Eingangsspannung (V)	60	60	65	65	65
MPPT-Spannungsbereich (V)	16 - 60				
Einschaltspannung (V)	22				
Maximaler Eingangsstrom (A)	11,5	11,5	12,5	13,3	14
Maximaler Eingangskurzschlussstrom (A)	16	16	20	20	20
Angaben zum Ausgangsstrom (AC)					
Nennausgangsleistung (VA)	300	350	400	450	500
Nennausgangsstrom (A)	1,30	1,52	1,74	1,96	2,17
Nennausgangsspannung/-bereich (V) ¹	230/180 - 275				
Nennfrequenz/-bereich (Hz) ¹	50/45 - 55				
Leistungsfaktor (einstellbar)	> 0,99 standardmäßig 0,8 voreilend ... 0,8 nacheilend				
Klirrfaktor	< 3 %				
Maximale Einheiten pro 10-AWG-Strang ²	24	21	18	16	14
Maximale Einheiten pro 12-AWG-Strang ²	15	13	11	10	9
Wirkungsgrad					
CEC-Spitzenwirkungsgrad	96,7 %	96,7 %	96,7 %	96,5 %	96,5 %
MPPT-Nennwirkungsgrad	99,8 %				
Leistungsaufnahme bei Nacht (mW)	< 50				
Mechanische Daten					
Umgebungstemperaturbereich (°C)	-40 bis +65				
Abmessungen (B × H × T mm)	182 × 164 × 30				
Gewicht (kg)	1,75				
Schutzart	Außenbereich IP67 (NEMA 6)				
Kühlung	Natürliche Konvektion - Keine Lüfter				
Merkmale					
Kommunikation	Sub-1G				
Art der Isolierung	Galvanisch isolierter HF-Transformator				
Überwachung	Hoymiles S-Miles Cloud ³				
Konformität	EN 50549-1: 2019, VDE-AR-N 4105: 2018, VFR2019, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3				

*1 Nennspannung/-frequenzbereich können je nach örtlichen Anforderungen variieren.

*2 Die genaue Anzahl der Mikro-Wechselrichter pro Strang entnehmen Sie bitte den örtlichen Anforderungen.

*3 Hoymiles-Überwachungssystem