

# CERTIFICATE

**TÜV NORD CERT GmbH**  
herewith declares that

**Solar Solutions GmbH**  
Brückenstrasse 94,  
60594 Frankfurt am Main,  
Germany

is authorized to provide the product mentioned below with the mark as illustrated:

**Description of product (details see Annex 2):**

**PV Modules with Segmented 6" PERC Mono-crystalline Silicon Solar Cells**

**PV Modules with Segmented 8" PERC Mono-crystalline Silicon Solar Cells**



Valid from: 2021-08-10

Valid until: 2022-10-19

Certification program:	P12-VA-01 Rev. 17 09.20
Certification fundamental(s):	IEC / EN 61215-1:2016; IEC / EN 61215-1-1:2016; IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Registered No.:	44 780 21 406749 - 162
Manufacturer:	see Annex 1
Test Report No.:	492011730.001
File No.:	PVP05049/21P



**TÜV NORD CERT GmbH**  
**Certification Body**  
**Consumer Products**



Essen, 2021-08-10

Please also pay attention to the information stated overleaf.

**Manufacturer:**

Manufacturer: Coded by debtor no. 55390908

Factory inspection report no.: 862010358.004

**Remark:**

Factory inspection is mandatory to be performed annually. Please refer to factory inspection report for detailed information.

A handwritten signature in blue ink, appearing to read "Roggen" followed by a stylized flourish.

**TÜV NORD CERT GmbH**  
**Certification Body**  
**Consumer Products**

**Description of product(s):**

Module types:

**PV Modules with Segmented 6" PERC Mono-crystalline Silicon Solar Cells**

432 cells: AS-M4327-S(M2)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: ES-M4327-S(M2)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: AS-M4327-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: ES-M4327-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: AS-M4327U-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: ES-M4327U-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: AS-M4327Z-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
432 cells: ES-M4327Z-S(G1)-xxx/HV (xxx = 445-480, in increment of 5)  
408 cells: AS-M4087-S(M2)-xxx/HV (xxx = 395-455, in increment of 5)  
408 cells: ES-M4087-S(M2)-xxx/HV (xxx = 395-455, in increment of 5)  
408 cells: AS-M4087-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: ES-M4087-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: AS-M4087U-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: ES-M4087U-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: AS-M4087Z-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: ES-M4087Z-S(G1)-xxx/HV (xxx = 420-455, in increment of 5)  
408 cells: AS-M4087-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: ES-M4087-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: AS-M4087U-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: ES-M4087U-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: AS-M4087Z-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: ES-M4087Z-S(M6)-xxx/HV (xxx = 460-500, in increment of 5)  
408 cells: AS-M4087U-S(M2)-xxx/HV (xxx = 395-435, in increment of 5)  
408 cells: ES-M4087U-S(M2)-xxx/HV (xxx = 395-435, in increment of 5)  
408 cells: AS-M4087Z-S(M2)-xxx/HV (xxx = 395-435, in increment of 5)  
408 cells: ES-M4087Z-S(M2)-xxx/HV (xxx = 395-435, in increment of 5)  
360 cells: AS-M3607-S(M2)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: ES-M3607-S(M2)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: AS-M3607-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: ES-M3607-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: AS-M3607U-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: ES-M3607U-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: AS-M3607Z-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
360 cells: ES-M3607Z-S(G1)-xxx/HV (xxx = 370-400, in increment of 5)  
340 cells: AS-M3407-S(M2)-xxx/HV (xxx = 325-380, in increment of 5)  
340 cells: ES-M3407-S(M2)-xxx/HV (xxx = 325-380, in increment of 5)



**TÜV NORD CERT GmbH**  
Certification Body  
Consumer Products

340 cells: AS-M3407-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: ES-M3407-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: AS-M3407U-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: ES-M3407U-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: AS-M3407Z-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: ES-M3407Z-S(G1)-xxx/HV (xxx = 350-380, in increment of 5)  
340 cells: AS-M3407-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: ES-M3407-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: AS-M3407U-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: ES-M3407U-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: AS-M3407Z-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: ES-M3407Z-S(M6)-xxx/HV (xxx = 380-415, in increment of 5)  
340 cells: AS-M3407U-S(M2)-xxx/HV (xxx = 325-360, in increment of 5)  
340 cells: ES-M3407U-S(M2)-xxx/HV (xxx = 325-360, in increment of 5)  
340 cells: AS-M3407Z-S(M2)-xxx/HV (xxx = 325-360, in increment of 5)  
340 cells: ES-M3407Z-S(M2)-xxx/HV (xxx = 325-360, in increment of 5)

Maximum system voltage: 1500V  
Fuse rating: 20A  
Electrical protection class: Class II  
Pollution degree: 1  
Material group: III or II or I, refer to test report for details  
Design load (positive / negative): 2400Pa / 2400Pa or 3600Pa / 1600Pa, refer to test report for details  
Safety factors: 1.5  
Fire safety class: Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Module types:

**PV Modules with Segmented 8" PERC Mono-crystalline Silicon Solar Cells**

408 cells: AS-M4087-S(M12)-xxx/HV (xxx = 635-655, in increment of 5)  
408 cells: ES-M4087-S(M12)-xxx/HV (xxx = 635-655, in increment of 5)  
414 cells: AS-M4147-S(M12)-xxx/HV (xxx = 645-655, in increment of 5)  
414 cells: ES-M4147-S(M12)-xxx/HV (xxx = 645-655, in increment of 5)  
390 cells: AS-M3907-S(M12)-xxx/HV (xxx = 605-625, in increment of 5)  
390 cells: ES-M3907-S(M12)-xxx/HV (xxx = 605-625, in increment of 5)  
340 cells: AS-M3407-S(M12)-xxx/HV (xxx = 530-545, in increment of 5)  
340 cells: ES-M3407-S(M12)-xxx/HV (xxx = 530-545, in increment of 5)  
345 cells: AS-M3457-S(M12)-xxx/HV (xxx = 535-550, in increment of 5)  
345 cells: ES-M3457-S(M12)-xxx/HV (xxx = 535-550, in increment of 5)  
325 cells: AS-M3257-S(M12)-xxx/HV (xxx = 505-520, in increment of 5)



**TÜV NORD CERT GmbH**  
Certification Body  
Consumer Products

325 cells: ES-M3257-S(M12)-xxx/HV (xxx = 505-520, in increment of 5)

Maximum system voltage:	1500V
Fuse rating:	30A or 25A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	III or II or I, refer to test report for details
Design load (positive / negative):	3600Pa / 1600Pa, refer to test report for details
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018 (as per ANSI/UL 790-2018)

Remark:

For detailed product information, please refer to test report.



**TÜV NORD CERT GmbH**  
**Certification Body**  
**Consumer Products**