

# CERTIFICATE

**TÜV NORD CERT GmbH**  
herewith declares that

**HYUNDAI ENERGY SOLUTIONS CO., LTD.**  
55, Bundang-ro, Bundang-gu  
Seongnam-si, Gyeonggi-do, 13591  
Rep. of Korea

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

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

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



Valid from: 2020-12-18

Valid until: 2024-11-05

Tested according to: P12.4-AA-02 Rev. 00  
(IEC TS 62804-1:2015 modified)  
Remark: Test temperature: 85°C;  
Relative humidity: 85%;  
Test duration: 96 hours.  
Registered No.: 44 780 20 406749 - 153R1M1  
Manufacturer: see Annex 1  
Test Report No.: 492011581.001  
File No.: PVP11116/20P



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



Essen, 2020-12-18

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 20 406749 - 153R1M1

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Aktenzeichen: / File reference: PVP11116/20P

2020-12-18

**Manufacturer:**

Manufacturer: **Tongwei Solar (Hefei) Co., Ltd.**  
No. 888, Changning Road, High-tech District  
Hefei City, Anhui Province, 230088, P.R. China

Factory inspection report no.: 862010358.004

**Remark:**

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



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**Description of product(s):**

|                              |   |
|------------------------------|---|
| Module types:                | <b>PV Modules with Segmented 6" PERC Mono-Crystalline Silicon Solar Cells</b><br>432 cells: HiE-SxxxUH (xxx = 445-480, in increment of 5)<br>408 cells: HiE-SxxxSI (xxx = 395-455, in increment of 5)<br>408 cells: HiE-SxxxUI (xxx = 420-455, in increment of 5)<br>408 cells: HiS-SxxxVI (xxx = 460-500, in increment of 5)<br>360 cells: HiE-SxxxUF (xxx = 370-400, in increment of 5)<br>340 cells: HiE-SxxxSG (xxx = 325-380, in increment of 5)<br>340 cells: HiE-SxxxUG (xxx = 350-380, in increment of 5)<br>340 cells: HiS-SxxxVG (xxx = 380-415, in increment of 5) |
| Maximum system voltage:      | 1500V   |
| Fuse rating:                 | 20A   |
| Application class:           | Class A   |
| Electrical protection class: | Class II  |

**Remark:**

For detailed product information, please refer to CDF (Constructional Data Form) in Annex 1 of test report.



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