

# CERTIFICATE

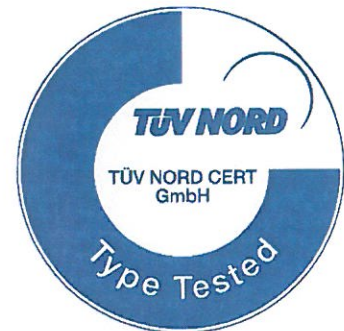
**TÜV NORD CERT GmbH**  
herewith declares that

**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 Segmented 6" PERC Mono-crystalline Silicon Solar Cells**



Valid from: 2020-07-10  
Valid until: 2022-10-19

Tested according to: 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 20 406749 - 017R1M2  
Manufacturer: see Annex 1  
Test Report No.: 492011300.004  
File No.: PVP06062/20P-01



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



Essen, 2020-07-10

Please also pay attention to the information stated overleaf.

**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.: 862010358.003

**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 "Rogers K.", located above the company name.

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**Description of product(s):**

Module types:	<b>PV Modules with Segmented 6" PERC Mono-crystalline Silicon Solar Cells</b> 432 cells: HiE-SxxxUH (xxx = 445-480, in increment of 5) 408 cells: HiE-SxxxSI (xxx=395-455, in increment of 5) 408 cells: HiE-SxxxUI (xxx=420-455, in increment of 5) 408 cells: HiE-SxxxVI (xxx = 460-500, in increment of 5) 360 cells: HiE-SxxxUF (xxx = 370-400, in increment of 5) 340 cells: HiE-SxxxSG (xxx=325-380, in increment of 5) 340 cells: HiE-SxxxUG (xxx=350-380, in increment of 5) 340 cells: HiE-SxxxVG (xxx = 385-415, in increment of 5)
Maximum system voltage:	1500V
Fuse rating:	20A
Electrical protection class:	Class II
Pollution degree:	1
Material group:	III or I, refer to CDF for detail
Design load (positive / negative):	2400Pa / 2400Pa or 3600Pa / 1600Pa, refer to CDF for detail
Safety factors:	1.5
Fire safety class:	Class C according to ANSI/UL 1703-2018

**Remark:**

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



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## Certificate of conformity with the following European Directives

Registered No.:

44 799 20 406749 - 048

### Low-Voltage Directive 2014/35/EU

Date of application	File reference	Test report No.	Date of issue	Place of issue
2020-06-18	PVP06062/20P-01	492011300.004	2020-07-10	Essen

This is to certify that the following products comply to the essential requirements of the above mentioned European Directive and the following standards, taking into account the German national deviations:

**Product:** Crystalline Silicon Terrestrial Photovoltaic (PV) Modules

**Type designation:** See Annex 1

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

**Standard(s):** 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

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD CERT GmbH. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.



Certification Body  
Specialist Manager Consumer Products

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Email: [prodcert@tuev-nord.de](mailto:prodcert@tuev-nord.de)

**Description of product(s):**

Module types:

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

432 cells: HiE-SxxxUH (xxx = 445-480, in increment of 5)

408 cells: HiE-SxxxSI (xxx=395-455, in increment of 5)

408 cells: HiE-SxxxUI (xxx=420-455, in increment of 5)

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360 cells: HiE-SxxxUF (xxx = 370-400, in increment of 5)

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