

# CERTIFICATE

**TÜV NORD CERT GmbH**

herewith declares that

**Econess Energy Co., Ltd.**

No.58, Haida Road, Huashi Town  
Jiangyin City, Jiangsu Province, 214421  
P.R. China

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



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

**PV Modules with 6" Poly-crystalline Silicon Solar Cells:**

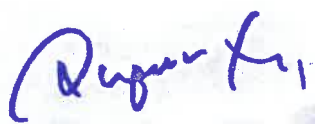
**PV Modules with 6" Mono-crystalline Silicon Solar Cells**

**PV Modules with 6" Half-cut Poly-crystalline Silicon Solar Cells**

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

Valid until: 2024-12-12

Tested according to: IEC 62716:2013 / EN 62716:2013 + AC:2014.  
Registered No.: 44 780 19 406749 - 405R1M1  
Manufacturer: see Annex 1  
Test Report No.: 492011336.002  
File No.: PVP07087/20P-02



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



Essen, 2021-01-19

Please also pay attention to the information stated overleaf.

Anlage 1 zum Zertifikat Nr.: / Annex 1 to Certificate No.: 44 780 19 406749 - 405R1M1

Aktenzeichen: / File reference: PVP07087/20P-02

2021-01-19

**Manufacturer:**

Manufacturer: **Econess Energy Co., Ltd.**  
No.58, Haida Road, Huashi Town,  
Jiangyin City, Jiangsu Province, 214421, P.R. China

Factory inspection report no.: 862010180.008

**Remark:**

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



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

**Description of product(s):**

Module types: **PV Modules with 6" Poly-crystalline Silicon Solar Cells:**  
72 cells: EN156P-72-xxx (xxx = 300 - 350, in increments of 5)  
60 cells: EN156P-60-xxx (xxx = 250 - 290, in increments of 5)  
54 cells: EN156P-54-xxx (xxx = 225 - 260, in increments of 5)  
48 cells: EN156P-48-xxx (xxx = 200 - 230, in increments of 5)  
36 cells: EN156P-36-xxx (xxx = 150 - 175, in increments of 5)

Maximum system voltage: 1500V  
Fuse rating: 15A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 6" Mono-crystalline Silicon Solar Cells:**  
72 cells: EN156M-72-xxx (xxx = 330 - 370, in increments of 5)  
60 cells: EN156M-60-xxx (xxx = 275 - 305, in increments of 5)  
54 cells: EN156M-54-xxx (xxx = 245 - 275, in increments of 5)  
48 cells: EN156M-48-xxx (xxx = 220 - 245, in increments of 5)  
36 cells: EN156M-36-xxx (xxx = 165 - 185, in increments of 5)

Maximum system voltage: 1500V  
Fuse rating: 15A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 6" Half-cut Poly-crystalline Silicon Solar Cells:**  
144 cells: EN156P-144-xxx (xxx = 300 - 355, in increments of 5)  
120 cells: EN156P-120-xxx (xxx = 250 - 295, in increments of 5)  
144 cells: EN158P-144-xxx (xxx = 300 - 355, in increments of 5)  
120 cells: EN158P-120-xxx (xxx = 250 - 295, in increments of 5)

Maximum system voltage: 1500V  
Fuse rating: 15A  
Application class: Class A  
Electrical protection class: Class II



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

Module types: **PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells:**  
144 cells: EN156M-144-xxx (xxx = 345 - 395, in increments of 5)  
120 cells: EN156M-120-xxx (xxx = 290 - 330, in increments of 5)  
144 cells: EN158M-144-xxx (xxx = 370 - 415, in increments of 5)  
120 cells: EN158M-120-xxx (xxx = 310 - 345, in increments of 5)

Maximum system voltage: 1500V  
Fuse rating: 15A  
Application class: Class A  
Electrical protection class: Class II

Module types: **PV Modules with 6" Half-cut Mono-crystalline Silicon Solar Cells:**  
144 cells: EN166M-144-xxx (xxx = 405 - 455, in increments of 5)  
120 cells: EN166M-120-xxx (xxx = 340 - 380, in increments 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.



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