Factory Inspection Certificate

Registered No.: PVP05115/25P-01

Name and address of the customer	**Tongwei Co., Ltd.** No. 588, Middle Section Tianfu Avenue, High-Tech Zone, Chengdu, China (Sichuan) Pilot Free Trade Zone
Description of the product	**Crystalline Silicon Terrestrial Photovoltaic (PV) Modules**
Manufacturing plant	**Tongwei Solar (Yancheng) Co., Ltd.** No. 88, Jiuhuashan Road, Economic Development Zone, Yancheng City, Jiangsu Province, China
Production processes carried out at the inspected plant	Stringing ☒ Lamination ☒ Lay-up ☒ Electrical Tests ☒
Factory inspection report no.:	862010763.002 Please refer to factory inspection report for detailed information.
Date of inspection:	**2024-07-09**
In accordance to	P12-VA-01-A5 Rev. 11/12.19 "surveillance of production sites and certified products"

The manufacturing plant is under a periodic factory surveillance programme in the frame of TÜV NORD type approval certification according to the standard(s) in the annex.

Renewable Energy
TÜV NORD (Hangzhou) Co., Ltd.
Shanghai, 2025-05-27

Please also pay attention to the information stated overleaf.

Description of product(s):

Module type(s):

Double Glass PV Modules with Half-cut 7" TOPCon Mono-crystalline Silicon Solar Cells:

156 cells: TWMND-78HDxxx (xxx = 580-650, in increment of 5)
144 cells: TWMND-72HDxxx (xxx = 535-600, in increment of 5)
132 cells: TWMND-66HDxxx (xxx = 490-550, in increment of 5)
120 cells: TWMND-60HDxxx (xxx = 445-500, in increment of 5)
108 cells: TWMND-54HDxxx (xxx = 400-450, in increment of 5)
144 cells: TWMNG-72HDxxx (xxx = 580-615, in increment of 5)
120 cells: TWMNG-60HDxxx (xxx = 485-510, in increment of 5)
120 cells: TWMNG-60HCxxx (xxx = 485-510, in increment of 5)
108 cells: TWMNG-54HDxxx (xxx = 435-460, in increment of 5)
108 cells: TWMNG-54HCxxx (xxx = 435-460, in increment of 5)
132 cells: TWMNH-66HDxxx (xxx = 580-655, in increment of 5)
120 cells: TWMNH-60HDxxx (xxx = 530-595, in increment of 5)
108 cells: TWMNH-54HDxxx (xxx = 475-535, in increment of 5)
108 cells: TWMNH-54HCxxx (xxx = 475-535, in increment of 5)
96 cells: TWMNH-48HDxxx (xxx = 420-475, in increment of 5)
96 cells: TWMNH-48HCxxx (xxx = 420-475, in increment of 5)
96 cells: TWMNH-48HExxx (xxx = 425-470, in increment of 5)
96 cells: TWMNH-48HWxxx (xxx = 425-475, in increment of 5)

Double Glass PV Modules with Half-cut 8" TOPCon Mono-crystalline Silicon Solar Cells:

132 cells: TWMNF-66HDxxx (xxx = 665-755, in increment of 5)
120 cells: TWMNF-60HDxxx (xxx = 605-685, in increment of 5)
108 cells: TWMNF-54HDxxx (xxx = 545-615, in increment of 5)
110 cells: TWMNF-55HDxxx (xxx = 530-565, in increment of 5)
100 cells: TWMNF-50HDxxx (xxx = 480-510, in increment of 5)

Double Glass PV Modules with Half-cut 7" PERC Mono-crystalline Silicon Solar Cells:

156 cells: TWMPD-78HDxxx (xxx = 570-615, in increment of 5)
144 cells: TWMPD-72HDxxx (xxx = 525-565, in increment of 5)
132 cells: TWMPD-66HDxxx (xxx = 480-520, in increment of 5)
120 cells: TWMPD-60HDxxx (xxx = 440-470, in increment of 5)
108 cells: TWMPD-54HDxxx (xxx = 395-425, in increment of 5)
144 cells: TWMPG-72HDxxx (xxx = 560-590, in increment of 5)
108 cells: TWMPG-54HDxxx (xxx = 420-440, in increment of 5)
108 cells: TWMPG-54HCxxx (xxx = 420-440, in increment of 5)
132 cells: TWMPH-66HDxxx (xxx = 575-585, in increment of 5)
120 cells: TWMPH-60HDxxx (xxx = 525-530, in increment of 5)
96 cells: TWMPH-48HDxxx (xxx = 420-425, in increment of 5)

Renewable Energy
TÜV NORD (Hangzhou) Co., Ltd.
Shanghai, 2025-05-27

	96 cells: TWMPH-48HCxxx (xxx = 420-425, in increment of 5) **Double Glass PV Modules with Half-cut 8" PERC Mono-crystalline Silicon Solar Cells:** 132 cells: TWMPF-66HDxxx (xxx = 635-685, in increment of 5) 120 cells: TWMPF-60HDxxx (xxx = 580-620, in increment of 5) 108 cells: TWMPF-54HDxxx (xxx = 520-560, in increment of 5) 110 cells: TWMPF-55HDxxx (xxx = 530-565, in increment of 5) 100 cells: TWMPF-50HDxxx (xxx = 480-510, in increment of 5) **Double Glass PV Modules with Half-cut 8" HJT Mono-crystalline Silicon Solar Cells:** 132 cells: TWMHF-66HDxxx (xxx = 660-740 in increment of 5) 120 cells: TWMHF-60HDxxx (xxx = 600-670, in increment of 5) xxx indicates rated output power generated from front side under STC
Certificate(s):	44 780 24 406749 - 028R6M9
Valid until:	2029-02-25
Standard(s):	IEC 61215-1:2021 / EN IEC 61215-1:2021 IEC 61215-1-1:2021 / EN IEC 61215-1-1:2021 IEC 61215-2:2021 / EN IEC 61215-2:2021 IEC 61730-1:2023 IEC 61730-2:2023
Serial no. regulations of the product:	Documented by file 1: TWsolar-M-PIE-MR007, version A3 effect on: 2025-03-25 Documented by file 2: TWsolar-M-OPD-MR016, version A0 effect on: 2024-12-30 For Half-chip Module Regulation: AXBYYMXXXXXXXXX Example: Y1M25A015000015

For Half-chip Module

Code	Description of Code	Example
AX	Manufacturing plant identifier	H1 = M1 of Hefei Factory H2 = M2 of Hefei Factory H3 = M3 of Hefei Factory H4 = P1 of Hefei Factory H5 = P2 of Hefei Factory H6 = P3 of Hefei Factory H7 = P4 of Hefei Factory Y1 = M1 of Yancheng Factory Y2 = M2 of Yancheng Factory Y3 = M3 of Yancheng Factory Y4= M4 of Yancheng Factory

Renewable Energy
TÜV NORD (Hangzhou) Co., Ltd.
Shanghai, 2025-05-27

S1 = M1 of Sichuan Factory
S2 = M2 of Sichuan Factory
S3 = M3 of Sichuan Factory
N1 = M1 of Nantong Factory
N2 = M2 of Nantong Factory
N3 = M3 of Nantong Factory
C1 = T4 of Chengdu Factory
C2 = T2 of Chengdu Factory

B	Work order identifier	M = mass production work order
YY	Year	25 = 2025
M	Month	A = October
XXX	Worker order number	015 = The 15th worker order
XXXXXX	Serial number	000015 = The 15th Module

Renewable Energy
TÜV NORD (Hangzhou) Co., Ltd.
Shanghai, 2025-05-27