

File No.: PVP06158/23P-01

Attached to Test Report No.: 492012822.001

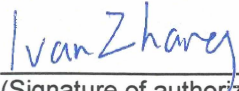
CDF (Constructional Data Form) for Electrical Products

Applicant.....:	Zhejiang Aiko Solar Technology Co., Ltd. No.655,Haopai Road, Suxi Town, Yiwu City, Zhejiang Province, 322009, P.R.China
Manufacturer	Zhuhai Fushan Aiko Solar Technology Co., Ltd. Room 139, No.6, West Zhufeng Avenue, Fushan Industrial Park, Doumen District, Zhuhai City, Guangdong Province, 519175, P.R.China
Product	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
Standard(s).....:	IEC 61215-1:2021 + COR1:2021 / EN IEC 61215-1:2021 + AC:2021; IEC 61215-1-1:2021 / EN IEC 61215-1-1:2021; IEC 61215-2:2021 / EN IEC 61215-2:2021; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 + AC:2018.
Trade mark	AIKO 
Module type(s).....:	PV Modules with 182mm Half-Cut Mono-crystalline Silicon Solar Cells: 108 cells: AIKO-Axxx-MAH54Tm (xxx = 430-445, in increment of 5)

Confirmation of the applicant
Zhejiang, 11/13/2023 (Place and date)


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Confirmation of TÜV NORD CERT
Shanghai, 11/13/2023 (Place and date)


(Signature of authorized TÜV NORD CERT engineer)

Electrical ratings:

PV Modules with 182mm Half-Cut Mono-crystalline Silicon Solar Cells:

Module type	108 cells: AIKO-Axxx-MAH54Tm (xxx = 430-445, in increment of 5)		
Dimensions [mm] / l x w x h	1764 x 1148 x 25		
Maximum system voltage [V]	1500	Safety class acc. to IEC 61140	Class II
Min-creepage distance [mm]	14.5	Fuse rating [A]	25
Design load (positive) [Pa]	2400	Safety factor (positive)	1.5
Design load (negative) [Pa]	1600	Safety factor (negative)	1.5
Electrical ratings at irradiance level at STC			
Rated Pmax at STC [W]	430; 435; 440; 445		
Rated Voc at STC [V]	40.02, 40.12, 40.22, 40.32,		
Rated Vmp at STC [V]	34.31, 34.41, 34.51, 34.61		
Rated Isc at STC [A]	13.60, 13.66, 13.72, 13.78		
Rated Imp at STC [A]	12.54, 12.65, 12.75, 12.86		
Tolerance of rated electrical parameters at STC [%]	Tolerance of rated Pmax at STC is 0~+3% Tolerance of rated Voc at STC is ±3% Tolerance of rated Isc at STC is ±3%		

Copy of marking plate:



Model:

Rated Maximum Power (Pmax)	xxxW
Power Tolerance	0~+3%
Voltage at Pmax (Vmp)	xxx V
Current at Pmax (Imp)	xxx A
Open-Circuit Voltage (Voc)	xxx V
Short-Circuit Current (Isc)	xxx A
Voc & Isc Tolerance	±3%
Maximum System Voltage	1500 V
Maximum Series Fuse Rating	25A
Operating Temperature	-40°C ~ +85°C
Protection Class	Class II

STC: AM=1.5, E=1000W/m², Tc=25°C

CE





Zhejiang Aiko Solar Technology Co., Ltd.
Add : No.655,Haopai Road, Suxi Town, Yiwu 322009 Zhejiang ,P.R.China
Web: www.aikosolar.com


Made in China

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 Xian li
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Ivan Zhang
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List of critical materials and components:

Object	Manufacturer	Type	Technical Data	Remark
Components				
Solar cell	Aiko Solar Technology Co., Ltd. Manufactured by: 1. Guangdong Aiko Solar Technology Co., Ltd. 2. Tianjin Aiko Solar Technology Co., Ltd. 3. Zhejiang Aiko Solar Technology Co., Ltd. 4. Zhuhai Fushan Aiko Solar Technology Co., Ltd.	182×184-12BB BC	Dimension (w x l) = 182mm x 92mm ± 0.5mm Thickness = 135 ± 30µm Cell area = 16744mm² 12BB	Tested with PV modules
Front cover	Guangdong Aiko Solar Technology Co., Ltd.	AIKO-Frontsheet	EFTE+Fiberglass cloth Thickness = 500 ± 50µm Color: Transparent	Tested with PV modules
Rear cover	Suzhou Hondol New Material Limited	HD-SG-S	Thickness = 740 ± 74µm Color: White CTI = 600V	Tested with PV modules CTI report No. CN232DMQ 001 by TÜV Rheinland
Encapsulation material	Cybird Technologies Inc.	Cybright T22 (front side) & Cybright W11 (rear side)	Thickness = 0.40 - 0.60 mm (Cybright T11) Thickness = 0.40 - 0.60 mm (Cybright W11) CTI = 600V	Tested with PV modules CTI report no. 15043899 038 issued by TÜV Rheinland for Cybright T22 CTI report no. 15043899 064 issued by TÜV Rheinland for Cybright W11
Internal wiring (for interconnection cell-to-cell bus bar)	Suzhou YourBest New-type Materials Co., Ltd.	Copper belt with tin plated	0.25 x 0.8mm Sn60%Pb40%	Tested with PV modules
Internal wiring (for inter-string connection)	Suzhou YourBest New-type Materials Co., Ltd.	Copper belt with tin plated	0.3 x 6.0mm 0.3 x 4.0mm Sn60%Pb40%	Tested with PV modules
Fluxing agent	Suzhou Vital Electronics Material Technology Co., Ltd.	WTO-PV105A	-	Tested with PV modules
Fixing tape	Cybird Technologies(Zhejiang) Inc.	FF-3665(T36)	-	Tested with PV modules
Junction box set 1				

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Object	Manufacturer	Type	Technical Data	Remark
Junction box	Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.	PV-ZH011C-5xyz(x=1 or 2; y=A or B; z=1 or 2 or 3)	Rated Voltage = 1500VDC Rated current = 20A for (z = 1), 25A for (z = 2), 30A for (z = 3) Reverse current = 45A RTI = 110°C Number of diodes: 3 for (x=1); 2 for (x=2)	Certificate no. R 50505349
Adhesive (junction box)	H.B. Fuller (Suzhou) Advanced Material Co., Ltd.	1527	Color: white	Tested with PV modules
Potting material	H.B. Fuller (Suzhou) Advanced Material Co., Ltd.	1533	Color: white	-
Bypass diodes	Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.	35SQ045	Tj max = 200°C If = 35A	-
Cable	Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.	62930 IEC 131 1x4.0mm²	Rated Voltage = 1500VDC	Certificate no.: R 50436635
Connectors	Zhejiang Zhonghuan Sunter PV Technology Co., Ltd.	PV-ZH202B	Rated voltage = 1500VDC Rated current = 40A	Certificate no.: R 50350557
	Stäubli Electrical Connectors AG	PV-KST4-EVO2A/xy PV-KBT4-EVO2A/xy	Rated voltage = 1500VDC Rated current = 45A	Certificate no.: R 60127169

Remark:

- (1) Fire test Class C according to ANSI/UL 1703-2018 (MST 23 of IEC / EN 61730-2) has been evaluated on all the raw materials listed above.
- (2) Pollution degree I (Sequence B1 of IEC / EN 61730-2) has been evaluated on all the raw materials listed above.

----- End of CDF -----

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