

**Technical Report No.: 704072400528-00**

**Date: 2024-07-10**

**Client:** Trina Solar Co., Ltd.  
No. 2 TianHe Road, Trina PV Industrial Park, New District, 213031  
Changzhou City, Jiangsu Province, PEOPLE'S REPUBLIC OF  
CHINA

**Factory:** Trina Solar Co., Ltd.  
No. 2 TianHe Road, Trina PV Industrial Park, New District, 213031  
Changzhou City, Jiangsu Province, PEOPLE'S REPUBLIC OF  
CHINA

**Test object:** Product: Crystalline Silicon Photovoltaic modules

Model: See clause 1.4

**Test specification:** IEC 61730-2: 2016 MST 23 Fire test  
(Test method is according to UL790)

**Purpose of examination:**

- Testing and evaluation (visual / partial) according to the test specification

**Test result:** The test results show that the presented product is in compliance with the specific requirements.

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## 1. Description of the test object

### 1.1 Picture(s)

N/A

### 1.2 Function

Manufacturer's specification for intended use:

The PV modules for electricity generation systems with max. voltage of 1500 V DC.

Manufacturer's specification for predictive use:

N/A

### 1.3 Consideration of the foreseeable use

- Not applicable
- Covered through the applied standard
- Covered by the following comment\*
- Covered by attached risk analysis

### 1.4 Technical Data

Sample No.	Module type	Model serial No.	Remark
HA2023TL-1301-016X	TSM-435NEG9R.25	A12231000100507	Spread-of-flame test
HA2023TL-1301-017X	TSM-435NEG9R.25	A12231000100526	Spread-of-flame test
HA2023TL-1301-018X	TSM-435NEG9R.25	A12231000100531	Ignition of brands

## 2. Order

### 2.1 Date of Purchase Order, Customer's Reference

The order dated 2024-07-08

## 2.2 Test Sample(s)

- Reception date(s): 2023-11-03
- Location(s) of reception:  
Changzhou HuaYang Inspection and Testing Technology Co., Ltd.  
NO.8 Lanxiang Road, Wujin Economic Development Zone, Changzhou, Jiangsu,  
China
- Condition of test sample(s): In good condition

## 2.3 Date(s) of Testing 2023-11-21

## 2.4 Location(s) of Testing of Changzhou HuaYang Inspection and Testing Technology Co., Ltd. NO.8 Lanxiang Road, Wujin Economic Development Zone, Changzhou, Jiangsu, China

## 2.5 Points of Non-Compliance or Exceptions of the Test Procedure

- None

## 3. Test Results

- “Decision rule according to IEC Guide 115:2023, clause 4.3.3 was applied.”
- “Decision rule (based on ILAC-G8) for an upper specification limit (A lower limit or specification with an up-per and a lower limit is treated similarly.):
  - Compliance with the requirement: If a specification limit is not breached by a measurement result plus the expanded uncertainty with a 95% coverage probability, then compliance with the specification will be stated (e.g. Pass).

3.1 Positive Test Results

3.1.2	TABLE: Fire Test - MST 23 (Spread-of-flame test)		P
	Test Date [YYYY/MM/DD].....	2023-11-21	—
	Module fire resistance class.....	Class A	—
	No. of modules provided to create the test assembly.....	2	—
	Testing method.....	according to UL790	—
	Test environmental conditions.....	24.5°C, 34% R.H.	—
	Test temperature (°C).....	737~764	—
	Wind speed (m/s).....	5.26 (76mm from right) 5.21 (middle) 5.25 (76mm from left) 5.24 (Average)	—
	Test duration time (s).....	600	—
	Sample No.	Observations	—
	HA2023TL-1301-016X	<input checked="" type="checkbox"/> Modules comply with the requirements for the fire resistance class	P
	HA2023TL-1301-017X		
Supplementary information: N/A.			

3.1.3	TABLE: Fire Test - MST 23 (Ignition of brands)		P
	Test Date [YYYY/MM/DD].....	2023-11-21	—
	Module fire resistance class.....	Class C	—
	No. of modules provided to create the test assembly.....	1	—
	Testing method.....	according to UL790	—
	Test environmental conditions.....	24.3°C, 36% R.H.	—
	Test temperature of the igniting flame(°C).....	881~894	—
	Sample No.	Observations	—
	HA2023TL-1301-018X	<input checked="" type="checkbox"/> Modules comply with the requirements for the fire resistance class	P
Supplementary information: N/A			



**3.2 Points of Non-Compliance according to the test specification**

- None

**4. Remarks**

**4.1 General**

N/A

**4.2 Factory surveillance cycle**

Your production facility is currently on a

- Annual (12 month)
- Bi-Annual (6 month)
- Quarterly (3 month)
- N/A

surveillance cycle.

**4.3 Additional information for routine tests to be performed by the factory(ies)**

**Routine tests for electrical appliances / equipment:**

N/A

**5. Documentation**

Appendix 1: List of measurement equipment

Description	Equipment ID	Due Date of calibration
Spread-of-flame tester	HYJC-YS-367	2024.08.24
Burning brand tester	HYJC-YS-367	2024.08.24

**6. Summary**

“The test specifications are met”



**TÜV SÜD Certification and Testing (China)Co., Ltd. Shanghai Branch**

Tested by:

Meng Wang *Meng Wang*

*printed name, function & signature*

Approved by:

Yang Xu *Xu Yang*

*printed name, function & signature*