

## Technical Report No. 704062401282-00 Dated 2024-05-30

Client: LONGi Green Energy Technology Co.,Ltd.

No.388, Middle Hangtian Road Chang'an District 710100 Xi'an City, Shaanxi PEOPLE'S REPUBLIC OF CHINA.

Customer No.: 099333

Manufacturing place:

a. LONGi Photovoltaic Technology (Taizhou) Co., Ltd. (Production facility No. in certificate: 99605)

No.8, Taikang Road Hailing District 225300 Taizhou City, Jiangsu Province PEOPLE'S REPUBLIC OF CHINA.

b. LONGi Solar Technology (Zhejiang) Co., Ltd. (Production facility No. in certificate: 99626)

2 Middle Bailing Road, Donggang Industrial Park, Economic Development Zone, 324000, Quzhou, Zhejiang, P.R. China.

c. Vina Solar Technology Co., Ltd. (Production facility No. in certificate: 90968) E12 factory, lot CN-03, Van Trung Industrial Park, Viet Yen District, 21000 Bac Giang Province, Vietnam

d. LONGi Solar Technology Co., Ltd. (Xi' an Module Factory) (Production facility No. in certificate: 02875)

No.8369 Shangyuan Road, Caotan Ecological Industrial Park, Economic and Technological Development Zone, 710018 Xi'an, Shaanxi PEOPLE'S REPUBLIC OF CHINA.

e. LONGi Solar Technology (Chuzhou) Co., Ltd.Production Facility Code: 102892

No. 19 Huaian Road Nanqiao District 239000 Chuzhou City, Anhui Province PEOPLE'S REPUBLIC OF CHINA.

f. LONGi Solar Technology (Jiangsu) Co., Ltd. (Production Facility Code: 108647)

No. 288 Yaojia Road, Jiulong Town, Hailing District 225300 Taizhou City, Jiangsu Province PEOPLE'S REPUBLIC OF CHINA.

g. LONGi Solar Technology (Xianyang) Co., Ltd. (Production Facility Code: 108363)

No. 120, Wenxing West Road Qindu Distrct 712000 Xianyang City, Shaanxi Province PEOPLE'S REPUBLIC OF CHINA.

h. LONGi Solar Technology (Jiaxing) Co., Ltd. (Production facility No. in

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certificate: 110068)

No.130 Ruifeng Street, Gaozhao Subdistrict, Xiuzhou District, 314031 Jiaxing City, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA

i. LONGi Solar Technology (Xi'an) Co., Ltd. (Production Facility Code: 114737)

No. 388, Middle Hangtian Road, Chang'an District, 710100, Xi'an city, Shaanxi, P.R. China.

j. LONGi Solar Technology (Qinghai) Co., Ltd. (Production Facility Code: 116018)

No. 1-53 Gabatai Community of Xitai Village, 813000 Gonghe County, Qinghai Province, PEOPLE'S REPUBLIC OF CHINA.

k. LONGi Solar Technology(Datong) Co., Ltd. (Production Facility Code: 115423)

Room 106B, North Zone, Enterprise Incubation Service Center, Xinrong Economic and Technological Development Zone, Huayuatun Town, Xinrong District, 037002 Datong, Shanxi Province, PEOPLE'S REPUBLIC OF CHINA.

I.LONGi Photovoltaic Technology (Jiaxing) Co.,Ltd. (Production Facility Code: 119607)
Junmin Road, Wangdian Town, Xiuzhou District, 314000 Jiax

Junmin Road, Wangdian Town, Xiuzhou District, 314000 Jiaxing, Zhejiang, P.R.China.

m. LONGi Solar Technology (Wuhu) Co., Ltd. (Production Facility Code: 120099)

North of Wanxing Road and west of Yudai Road, Shenxiang Area, 241000 Wuhu City, Anhui Province People's Republic of China.

- n) LONGi Solar Technology (Jiamusi) Co., Ltd. No.1777 East Shengli Road Dongfeng District 154000 Jiamusi, Heilongjiang PEOPLE'S REPUBLIC OF CHINA.
- o) LONGi MALAYSIA SDN.BHD Persiaran Aeronautik,Presint 5A,Bandar Industri Bernilai Tinggi, Serendah,48200 Rawang, Selangor,MALAYSIA.
- p) LONGi Photoelectric Technology (Jiaxing)Co.,Ltd. (Production Facility Code: 123508)

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No.435 Changfan Road, Nanhu District 314000 Jiaxing Zhejiang Province People's Republic of China.

q)Illuminate USA LLC (Production Facility Code: 122119) 3600 Etna Parkway Etna, Ohio 43062.

Test subject: Model type:

LR5-54HTDB-420M

Test specifica-IEC 61730-2:2016 MST 23 class A fire test.

Test method is referred to UL 790 class A fire test. tion:

Test according to the test specification Purpose of

examination:

The test results show that the presented product is in compliance with the specified requirements.

Test result:

This technical report may only be quoted in full. Any use for advertising purposes must be granted in writing. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production.

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### 1 Description of the test subject

#### 1.1 **Function**

Manufacturer's specification for intended use:

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

1	2	Consideration	of the	foreseeable	misuse
	. 4	OUISIACI AUDII	OI LIIC	I OI C S C C a D I C	HIIIOUOC

(Regulated by law, e.g.	GPSG, MDD,	therefore always	applicable)
☐ Not applicable			

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$\times$	Covered through the applied standard
	Covered by the following comment
	Covered by attached risk analysis

### 1.3 **Technical Data (minimum Rating plate)**

Model:	:	LR5-54HTDB-420M		
		GDP240437-1	LRR010139240111900001	
		GDP240437-2	LRR010139240111900002	
Rated output Power at STC:		420W		
Max. system voltage:		Maximum system voltage (VDC) 1500		
Fuse rating		30A		
Protection Class		II		
YOT lab project No.		GDP240437		
Remark: The sample GDP240437-1 is arranged for flaming spread test class A test, and				

Remark: The sample GDP240437-1 is arranged for flaming spread test class A test, and GDP240437-2 is arranged for the burning brand class A test.

#### 2 Order

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

The order dated 2024-05-07

### 2.2 Receipt of Test Sample, Location

Yangzhou Opto-Electrical Products Testing Institure.

### 2.3 **Date of Testing**

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### **Location of Testing** 2.4

Yangzhou Opto-Electrical Products Testing Institure. No.10 West Kaifa Road, Yangzhou, 225009 Jiangsu, P.R. China.

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

• N/A

### **Test Results** 3

### 3.1 **Positive Test Results**

	TABLE: Fire Test - MST 23 (Spread-of-flame test)			Р
	Test Date [YYYY/MM/DD]	·····	2024-05-07	1
	Module fire resis	stance class	Class A	_
		provided to create the test	2	I
	Testing method		according to UL790	
	Test environmen	ntal conditions	25°C, 32% R.H.	_
	Test temperatur	e (°C)	734~786	_
	Wind speed (m/	s)	5.23 (76mm from right)	_
			5.18 (middle)	
			5.22 (76mm from left)	
			5.21 (Average)	
	Test duration time (s)		600	_
S	ample No.	Ol	oservations	_
GDP240437-1  Modules comply with the requirements for the fire resistance class			quirements for the fire resistance class	Р

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# Test photos: **GDP240437-1**:





## Posted test





Supplementary information: The backpanel has broken, but nothing has been blown off or fallen off the test deck in the form of flaming or growing brands.

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3.3	TABLE: Fire Test - MST 23 (Ignition of brands)  Test Date [YYYY/MM/DD]		Р	
			2024-05-07	_
	Module fire	e resistance class	Class A	_
	No. of modules provided to create the test assembly		1	
	Testing me	ethod	according to UL790	-
	Test enviro	onmental conditions	25°C, 32% R.H.	_
	The dry we	eight of the finished brand (g)	2028	
	Test temperature of the igniting flame(°C)		869~897	
			5.23 (76mm from right)	_
			5.18 (middle)	
			5.22 (76mm from left)	
			5.21 (Average)	
Sample No. Observa		tions	_	
GDP240437-2 Modules comply with the requirements for the fire resistance class			Р	

Supplementary information: GDP240437-2 was arranged for burning of brands.

The backpanel has broken, but nothing has been blown off or fallen off the test deck in the form of flaming or growing brands.

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## Test photos:

# GDP240437-2:

## Front



## Back





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## After test:

Front







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

None

### Remark:

### 4.1 **General**

The user manual has been examined according to the minimum requirements described in the product standard. The manufacturer is responsible for the accuracy of further particulars as well as of the composition and layout.

### 4.2 Factory surveillance cycle

Your production facility is currently on a

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☐ Annual (12 month) ☐ Bi-Annual (6 month) ☐ Quarterly (3 month) ☐ surveillance cycle.					
4.3 Additional information	4.3 Additional information for routine tests to be performed by the factory(ies)				
Routine tests for electrical	appliances / equipment:				
Routine test requirements for	production are described in an	nual inspection test reports.			
5 Documentation					
File	File name	Date			
Data form (CDF):	N/A	N/A			
User manual:	N/A	N/A			
Installation manual:	N/A	N/A			
Product specifications:	N/A	N/A			
6. Summary					
The test specification is	The test specification is met.				
TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch TÜV SÜD Group					
Tested by:	Yang Xu				
Approved by:	Printed name,function & signature  Tao Wang  Printed name,function & signature				

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