


<b>Prüfbericht-Nr.:</b> Test report no.:	<b>CN25BB98 001</b>	<b>Auftrags-Nr.:</b> Order no.:	326122608	Seite 1 von 7 Page 1 of 7
<b>Kunden-Referenz-Nr.:</b> Client reference no.:	2050703	<b>Auftragsdatum:</b> Order date:	29/07/2025	
<b>Auftraggeber:</b> Client:	LONGi Green Energy Technology Co., Ltd. No. 388, Middle Hangtian Road, Chang'an District, Xi'an, 710100 Shaanxi, P.R.China			
<b>Prüfgegenstand:</b> Test item:	Photovoltaic (PV) module			
<b>Bezeichnung / Typ-Nr.:</b> Identification / Type no.:	See module type designation on page 3			
<b>Auftrags-Inhalt:</b> Order content:	Fire test of photovoltaic (PV) modules			
<b>Prüfgrundlage:</b> Test specification:	Photovoltaic (PV) modules  Spread of fire test and Burning brand test according to UL 790			
<b>Wareneingangsdatum:</b> Date of sample receipt:	01/08/2025			
<b>Prüfmuster-Nr.:</b> Test sample no.:	See clause 6			
<b>Prüfzeitraum:</b> Testing period:	02/08/2025 - 07/08/2025			
<b>Ort der Prüfung:</b> Place of testing:	Refer to page 3			
<b>Prüflaboratorium:</b> Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
<b>Prüfergebnis*:</b> Test result*:	Pass			
<b>geprüft von:</b> tested by:	X <u>Zexuan Fang</u>		<b>genehmigt von:</b> authorized by:	X <u>Angel wong</u>
<b>Datum:</b> Date:	08/08/2025		<b>Ausstellungsdatum:</b> Issue date:	08/08/2025
<b>Stellung / Position:</b>	Project Engineer		<b>Stellung / Position:</b>	Authorizer
<b>Sonstiges /</b> <i>Other:</i>	Samples fulfilled the requirement of Class A Spread of flame test and Class A Burning brand test according to UL790.			
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet			
* Legend:	P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested			
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b>  <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

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**Liste der verwendeten Prüfmittel**  
**List of used test equipment**

<b>Prüfmittel</b> <i>Test equipment</i>	<b>Prüfmittel-Nr. / ID-Nr.</b> <i>Equipment No. / ID-No.</i>	<b>Nächste Kalibrierung</b> <i>Next calibration</i>
Visualinspection platform	GF-24 WGCS-1	22/10/2025
Irradianceeilluminometer	GF-28 1010A	29/12/2025
steelmeasuringgtape	GF-171 TAJIMA	22/12/2025
Photovoltaic module combustiontest system	GF-112-1 SCF	05/12/2025
Electronic balance	GF-190 LBA-5200	09/12/2025
Mechanical stopwatch	GF-120803	09/12/2025
Hygrothermograph	GF-270-3 TH20R	09/12/2025
Handheld wind speedtester	GGF-112-21340	16/05/2026
Electrothermal blowing dry box	GF-112-8B1101-0A	03/04/2026

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**Produktbeschreibung**  
*Product description*

<b>I</b>	<b>General</b>										
<b>1</b>	<b>Product details</b>										
<b>1.1</b>	<p><b>Module type designation</b></p> <p>With ½ cut of mono c-Si cells:                  LR7-60HVD-xxxM (xxx=525-550, in steps of 5, 120 cells, Pmax@BNPI= 575-602)                  xxx represents output power in Wp</p>										
<b>1.2</b>	<p><b>Intended use</b></p> <p>PV modules are installed in the following special applications:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Building attached PV (BAPV)</td> <td> <input type="checkbox"/> yes  <input checked="" type="checkbox"/> no                 </td> </tr> <tr> <td>Building integrated PV (BIPV)</td> <td> <input type="checkbox"/> yes  <input checked="" type="checkbox"/> no                 </td> </tr> <tr> <td>Applications in areas with snow and / or wind load exceeding loads as tested in UL 61730-2</td> <td> <input type="checkbox"/> yes  <input checked="" type="checkbox"/> no                 </td> </tr> <tr> <td>Applications at environmental temperature exceeding the limits indicated in UL 61730-1</td> <td> <input type="checkbox"/> yes  <input checked="" type="checkbox"/> no                 </td> </tr> <tr> <td>Other (please specify)</td> <td> <input type="checkbox"/> yes, as follows:  <input checked="" type="checkbox"/> no                 </td> </tr> </table>	Building attached PV (BAPV)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Building integrated PV (BIPV)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Applications in areas with snow and / or wind load exceeding loads as tested in UL 61730-2	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Applications at environmental temperature exceeding the limits indicated in UL 61730-1	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Other (please specify)	<input type="checkbox"/> yes, as follows: <input checked="" type="checkbox"/> no
Building attached PV (BAPV)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no										
Building integrated PV (BIPV)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no										
Applications in areas with snow and / or wind load exceeding loads as tested in UL 61730-2	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no										
Applications at environmental temperature exceeding the limits indicated in UL 61730-1	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no										
Other (please specify)	<input type="checkbox"/> yes, as follows: <input checked="" type="checkbox"/> no										
<b>2</b>	<p><b>Summary of test results</b></p> <p>Totally 1 set of PV modules listed in page 4 were subjected to the fire test of UL 790 and the results were passed according to the pass criteria requirements of UL 790.</p> <p>Test locations:                  Visual check was performed by TÜV Rheinland (Suzhou) Co., Ltd.                  Fire test (MST 23) was performed at China Testing &amp; Certification International Group Co., Ltd., China Photovoltaic Product Test Center, which is located at No.1, South side of Yanmi Road, economic development zone, Miyun District, Beijing, P.R. China</p>										

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Absatz	<b>Photovoltaic (PV) modules</b>	Messergebnisse - Bemerkungen	Ergebnis
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Result

<b>3</b>	<b>Test specification</b>		
	IEC 61730-2:2023: Photovoltaic (PV) module safety qualification – Part 2: Requirements for testing-MST 23	applicable	—

<b>4</b>	<b>List of test samples</b>			
<input checked="" type="checkbox"/> The modules tested were taken at random from a production batch and subjected to manufacturer's normal quality control and inspection for safety testing			—	
<input type="checkbox"/> The modules tested were prototypes of a new design and not taken from a production batch.				
<b>Module type: LR7-60HVD-535M</b>				
Sample no.	Sample SN	Test sequence		Remarks / constructional characteristics (e.g. cell, backsheet, frame type)
1	LRR0031602507 04200003	Fire		Samples are Mono c-Si module with 120 pcs cells and Al-frame
2	LRR0031602507 04200012	Fire		
Remark: N/A				

<b>5</b>	<b>Overview of tests and test results</b>
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Test	Remarks	Result
Visual inspection (initial) – MQT 01	See table 6	P
Fire test (UL 790)	See table 7	P

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Absatz Clause	Photovoltaic (PV) modules Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse - Bemerkungen Measuring results - Remarks	Ergebnis Result	
6.1	<b>Visual inspection (initial) – MQT 01</b>			
Test date (dd/mm/yyyy)		08/08/2025		—
Sample no.	Requirement	Nature and position of initial findings		
1	No major visual defects	No major visual defects		P
2		No major visual defects		P
Supplementary information: N/A				
7	<b>Fire test – MST 23 (acc. to UL 790)</b>			
7.1	<b>Spread of flame test</b>			
Test date (dd/mm/yyyy)		06/08/2025		—
Sample no.		1		
Fire class test specification		A		
<b>Test results</b>				
Did any portion of the module blow off or fall off the test deck in the form of flaming / glowing brands?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	P
Did any portion of the roof desk fall away in the form of glowing particles?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Was the flame spread beyond 1.82m for Class A, 2.40m for Class B or 3.96m for Class C?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Was there a significant lateral spread-of-flame from the path directly exposed to the test flame?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Supplementary information: N/A				
7.2	<b>Burning brand test</b>			
Test date (dd/mm/yyyy)		07/08/2025		—
Sample no.		2		
Fire class test specification		A		
<b>Test results</b>				
Did any portion of the module blow off or fall off the test deck in the form of flaming / glowing brands?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	P
Did any portion of the roof desk fall away in the form of glowing particles?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Did the brand burn a hole through the roof covering or through any part of the module?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Did any sustained flaming of the module occur?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Supplementary information: N/A				

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Absatz	Photovoltaic (PV) modules	Messergebnisse - Bemerkungen	Ergebnis
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Result

7.3	Fire type classification result	
Module type	Mono c-Si Module	
Module dimension [mm]	1990 × 1134 × 30	
Thickness of front cover (superstrate) [mm]	2.0 mm	
Thickness of back cover (substrate) [mm]	2.0 mm	
Material of back cover (substrate)	Glass	
Frame material	Aluminum alloy	
Best passed class of Spread of flame test	Class A	
Best passed class of Burning brand test	Class A	
Supplementary information: Above information is provided by client.		

**FOTO-DOKUMENTATION**  
*PHOTO DOCUMENTATION*

**Appendix: Photos**



*Fig. 1: Front view of test sample*



*Fig. 2: Rear view of test sample*



*Fig. 3: Detail view of solar cell*



*Fig. 4: Detail view of closed junction box*