

# Certificate of Compliance

**Certificate:** 70065662

**Master Contract:** 266494

**Project:** 80021509

**Date Issued:** 2019-12-02

**Issued to:** Longi Green Energy Technology Co., Ltd.  
No. 388, Middle Hangtian Road  
Chang'an District, Xi'an, Shaanxi 710100  
CHINA

**Attention:** Fei Zhuang

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only*



**Issued by:** Tom Yang  
Tom Yang

## PRODUCTS

CLASS - C531110 - POWER SUPPLIES-Photovoltaic Modules and Panels

CLASS - C531190 - POWER SUPPLIES-Photovoltaic Modules and Panels - Certified to US Standards

Photovoltaic Modules with maximum system voltage up to 1500 V dc, Type 1 or Type 2 module fire performance (for US), Class C fire resistance rating (for Canada). Model Series

LR6-72-xxxM (xxx=320-350, in step of 5),  
LR6-72HV-xxxM (xxx=320-350, in step of 5),  
LR6-72BK-xxxM (xxx=320-350, in step of 5),  
LR6-72PE-xxxM (xxx=340-380, in step of 5),  
LR6-72PH-xxxM (xxx=340-380, in step of 5),  
LR6-72PB-xxxM (xxx=340-380, in step of 5),  
LR6-72HPB-xxxM (xxx=360-385, in step of 5),

LR6-60-xxxM (xxx=270-300, in step of 5),  
LR6-60HV-xxxM (xxx=270-300, in step of 5),  
LR6-60BK-xxxM (xxx=270-300, in step of 5),  
LR6-60PE-xxxM (xxx=280-320, in step of 5),  
LR6-60PH-xxxM (xxx=280-320, in step of 5),  
LR6-60PB-xxxM (xxx=280-320, in step of 5),



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LR6-72OPH-xxxM (xxx=385-410, in step of 5),  
LR6-60OPH-xxxM (xxx=335-355, in step of 5),  
LR6-72HPH-xxxM (xxx=365-395, in step of 5),  
LR6-60HPH-xxxM (xxx=300-330, in step of 5),  
LR6-60HPB-xxxM (xxx=295-320, in step of 5),

LR4-72HPB-xxxM (xxx=405-435, in step of 5),  
LR4-72HPH-xxxM (xxx=420-455, in step of 5),  
LR4-60HPB-xxxM (xxx=335-365, in step of 5),  
LR4-60HPH-xxxM (xxx=350-380, in step of 5),  
with the electrical ratings as specified below at Standard Test Conditions.

Notes:

1. Rated electrical characteristics are within +/- 5% of measured values at Standard Test Conditions of 100 mW/cm<sup>2</sup> irradiance, AM 1.5 spectrums, and 25°C.
2. All modules model with suffix 'HV' after '72' or '60', can be used in PV system with maximum system voltage 1500 V dc.
3. All modules model with suffix 'BK' after '72' or '60', are black modules (substrate is in black color).
4. All modules model with suffix 'PH' after '72' or '60', are modules with PERC cells used in maximum system voltage of 1500 V dc.
5. All modules model with suffix 'PE' after '72' or '60', are modules with PERC cells used in maximum system voltage of 1000 V dc.
6. All modules model with suffix 'PB' after '72' or '60', are black modules with PERC cell (substrate is in black color).
7. All modules model with suffix 'OPH' after '72' or '60', are modules with 1/6 cut cells used in maximum system voltage of 1500 V dc.
8. All modules model with suffix 'HPH' after '72' or '60', are modules with 1/2 cut cells used in maximum system voltage of 1500 V dc.
9. All modules model with suffix 'HPB' after '72' or '60', are black modules with 1/2 cut cells used in maximum system voltage of 1000 V dc.
10. LR6 is for models with 156mm cells, and LR4 is for models with 166mm cells.

**APPLICABLE REQUIREMENTS**

ULC/ORD – C1703-01 - Flat-Plate Photovoltaic Modules and Panels  
UL 1703-3<sup>rd</sup> Ed - Flat-Plate Photovoltaic Modules and Pane



## Supplement to Certificate of Compliance

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*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### Product Certification History

Project	Date	Description
80021509	2019-12-02	Update report to add the approved cell M2E6B to model series LR6-72HPH-xxxM, LR6-72PH-xxxM, LR6-60HPH-xxxM, LR6-60PH-xxxM, add conductive adhesive SE-200X to model Series LR6-72OPH-xxxM and LR6-60OPH-xxxM, add alternate substrate KPP2 by Lucky Film Co., Ltd, enlarge power range of partial models.
80019322	2019-10-29	Update report to add alternate cell LES65TN by TSEC Corporation.
80016786	2019-10-29	Update report to add alternate output wiring system PV-LR03B, and combination of Jbox-Adhesive-Substrates.
80013797	2019-09-27	Update report 70065662 to add new cell 157.25(±0.25) x 31.45(±0.25)mm for LR6-60OPH-xxxM, LR6-72OPH-xxxM, and enlarge the power range for LR6-72OPH-xxxM.
80010394	2019-09-27	Update report 70065662 to add new substrate ZTT-TPT.
80010393	2019-08-22	Update report 70065662 to add new substrate ZTT-TPO.
80011490	2019-08-13	Update report 70065662 to add new model series LR4-72HPB-xxxM, LR4-72HPH-xxxM, LR4-60HPB-xxxM, LR4-60HPH-xxxM, with new cell M6E6B.
80003457	2019-08-13	Update report 70065662 to add factory 'HT SOLAR VIETNAM COMPANY LIMITED', IFE waived, 3 samples were tested from the factory as a supplementary means.
80005843	2019-07-29	Update report to add alternative cell M2E6B manufactured by LONGi Solar Technology Co., Ltd. and alternative manufacturer of ribbon, frame, cell based on the declaration letter.
80005844	2019-07-16	Update report 70065662 to add new backsheet VTPE1RWHV-F and VTPE1RW-F manufactured by Taiflex Scientific Co., Ltd.
80005842	2019-06-21	Update report to add alternate substrates Cynagard2X5A, Cynagard2X5A(R), ZTT-KPO350, alternate Jbox adhesive PV-804, and several combination of materials as the materials added.
70219326	2019-06-12	Update report 70065662 to add new backsheet TPTw25 manufactured by Lucky Film Co., Ltd.
80003455	2019-05-29	Update report 70065662 to add alternate size rail frame design 35mm x 30mm for all 72 - cells and 144 - cells, update module fire performance type based on engineering considerations.



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80002050	2019-05-21	Update report 70065662 to add one new combination of approved backsheet TPCw manufactured by Lucky Film Co., Ltd. with approved EVA 9120B/9110T manufactured by 3M and extend the power of model LR6-60HPH-xxxM based on the approved model LR6-72HPH-xxxM.
70210863	2019-04-08	Update report 70065662 to add new cell M2B5B manufactured by Longi and electrical circuit for full size cell modules was slightly changed to adopt PV-LR02B Junction box.
70214107	2019-02-28	Update report to add new model series for black modules LR6-72HPB-xxxM and LR6-60HPB-xxxM, also update some electrical ratings for some LR6-60 modules.
70210864	2019-02-27	Update report 70065662 to add two new cells G156S5 manufactured by United Renewable Energy Co., Ltd and EE6E5D manufactured by EEPV CORP.
70211668	2019-02-01	Update report 70065662 to add alternate frame 35*30mm and 35*35mm, a little update on some electrical rating for several models, alternate cell connection manufacturers, update on the configuration of Junction box 'PV-LR02B' base on CSA Report 266494-70176715.
70207720	2019-01-29	Update report 70065662 to add model series LR6-72HPH-xxxM and LR6-60HPH-xxxM.
70203536	2019-01-28	Update report 70065662 to add new model Series LR6-72OPH-xxxM and LR6-60OPH-xxxM.
70203542	2019-01-11	Update report 70065662 to add new combination for approved MGTPE390 backsheet and approved F406PS&F806PS EVA.
70207385	2018-12-19	Update report 70065662 to add alternate backsheet Cynagard 225A, combined with SV15296/SV-15297, F406PS/F806PS and EVA9110T/EVA9120 T, alternate insulation tapes 3M D300B and BEC-201 / BEC-201B, alternate adhesives HT-8258 and CV709, alternate junction box pottings HT-6360 and CV315.
70191700	2018-10-31	Update report 70065662 to add alternate cell 'VC6M5-P' by Vina Cell technology Co., Ltd.
70196051	2018-09-19	Update report 70065662 to add alternate potting material '5299W-S' by 'SHANGHAI HUITIAN NEW MATERIAL CO LTD' to Junction box 'PV-ZH011-6B'.
70195735	2018-09-12	Update report 70065662 to add alternate cell 'M2E5B' or 'M2E1L85B' with the alternate interconnection ribbons 0.27 x 0.8 mm and end ribbon by Huizhou Huasheng Electronic Wire&Cable Co., Ltd.
70195736	2018-08-28	Update report to add one new mounting method for 72 cells modules use 400mm new mounting holes using M8 or M6 bolt, Att 2 – Installation Manual, and Att 1 – Illustrations were updated for reflect this added installing method, update materials combination of 1000V system voltage as



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		qualified in 1500V system voltage, add alternate EVO2 connectors to Junction box 'PV-ZH011-6B' that approved in UL report E330400.
70180350	2018-05-11	Update report to add alternative new backsheet Crown BF-TM4, manufactured by Crown Advanced Material Co.,Ltd., with approved EVA F40 6PS/F806PS and SV-15297/SV-15296.
70181907	2018-04-27	Update report to add one new mounting method for 72 cells modules as 400mm new mounting holes added, add one new cell interconnect materials manufacturer, expand the power range of the module, type LR6-72PE-xxxM, LR6-72PH-xxxM, LR6-72PB-xxxM, LR6-60PE-xxxM, LR6-60 PH-xxxM, LR6-60PB-xxxM, based on previous project 70149373. Update report to add one new mounting method for 72 cells modules as 400mm new mounting holes added, add one new cell interconnect materials manufacturer, expand the power range of the module, type LR6-72PE-xxxM, LR6-72PH-xxxM, LR6-72PB-xxxM, LR6-60PE-xxxM, LR6-60 PH-xxxM, LR6-60PB-xxxM, based on previous project 70149373.
70167310	2017-12-26	Update report to change maximum series overcurrent protection device rating from 15 A to 20 A, and update the connector and cable for Jbox 'TL-BOX026-ienpxyzT' and 'TL-BOX026-15ENPxyzF' according to UL Report E326997, 2017-12-21, also add new superstrate supplier 'Xinyi Solar (Malaysia) Sdn. Bhd' with the identical product with Xinyi PV Products (Anhui) Holdings Ltd.
70162782	2017-11-22	Update report to add alternate substrate 'Crown BF-TM4' by Crown, for the combination of encapsulation of F806PS and S201MT2, update the Factory Dielectric Voltage Withstand Test and Factory Wet Insulation-Resistance Test base on the standard updating on 2017-09-13, and update fire performance type 1 for the combination as as Intertek Report No. 170613002SHF-BP-7, change TFB-30 to TFB-30(plus) for 1500 V dc system voltage, thickness base on manufacturer's declaration.
70163197	2017-11-17	Update report to alternate substrate 'TPCw' by Lucky Film Co., Ltd, for the combination of encapsulation of F806PS and S201MT2, update the Factory Dielectric Voltage Withstand Test and Factory Wet Insulation-Resistance Test base on the standard updating on 2017-09-13.
70160200	2017-10-23	Update report 70065662 to add alternate cell 'VC6M5-C3' by Vina Cell Technology Co., Ltd.
70149373	2017-08-08	Update report to add alternate mono-crystalline silicon solar cell(M2E1L45B), cover qualification of connectors 'type PV-KBT4/6II-UR (female) and PV-KST4/6II-UR (male)' for approved junction box 'PV-ZH011-1' and 'TL-BOX026-ienpxyzT' base on UL report, add cell manufacturer 'LONGi (KUCHING) SDN BHD' with same QA document as LONGi Solar Technology Co., Ltd. Also add history of factory addition for 'LONGi (KUCHING) SDN BHD' in project 70140277, 'LONGi Solar Technology (Yinchuan) Co., Ltd' and 'LONGi Solar Technology (Taizhou) Co., Ltd' in project 70109704 (with changed information by client Services



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		center(rs) on June 26, 2017), add the module frame hole position in project 70145200.
70145200	2017-06-30	Update module fire performance to Type 1 for black modules, add alternate frame 35 mm x 40 mm for 72-CELL modules.
70128961	2017-05-11	Update report for the renewal of electrical ratings for modules, and change Trade Mark to 'LONGI', change submitter name / address to: LONGI Green Energy Technology Co., Ltd / No. 388, Middle Hangtian Road, Chang'an District, Xi'an City.
70129999	2017-05-03	Update report to add module Series LR6-72PB-xxxM and LR6-60PB-xxxM (black modules with PERC cells)also update electrical ratings or power level of some modules
70134193	2017-05-03	update report to add new 4BB cell by Vina Solar.
70129997	2017-04-24	Update report to add module series LR6-72PH-xxxM and LR6-60PH-xxxM (modules used PERC cells of maximum system voltage up to 1500 V dc).
70122431	2017-02-17	Update report to add 5BB cell 'M2A1L45B' by LERRI Solar Technology Co., Ltd and cell connections size '0.27 x 1.0mm', add junction box 'PV-ZH011-1' to other model series in maximum system voltage of 1000 V dc.
70105189	2016-11-22	Update Report base on the certification report by NREL 'TÜV Rheinland PTL LLC' (Project No. TRS160217, Certification Report No.: 315 40019.002-2016-04-28, Internal Report No.: 15090113.001. Project No. TRS151120, Certification Report No.: 31540019.001, 31540019.002-2016-01-08, Internal Report No.: 15090113.001. Project No. TRS160803, Certification Report No.: 31540019.004 Internal Report No.: 1 5090113.004-2016-09-08. Including materials addition and a new factory 'Vina Solar Technology Co., Ltd' without IFE. Also update module fire performance base on NREL 'Intertek Testing Service Ltd., Shanghai' Test Report 151211011SHF-BP-1R1_2016-09-27 and 151211011 SHF-BP-3R1_2016-09-27.
70082291	2016-09-30	Update report to and alternate substrate 'MGTPE390 (black)' to cover black modules LR6-72BK-xxxM (xxx=300-360, in step of 5), LR6-60BK-xxxM (xxx=250-300, in step of 5), and substrate 'Cynagard 215A(R)', output wiring system 'TL-BOX026-15ENPxyzF' to cover modules series LR6-72HV-xxxM (xxx=300-360), LR6-60HV-xxxM (xxx=250-300).
70079605	2016-08-09	Update report to cover qualification of 15 combinations of materials, and qualification for new Model series LR6-72PE-xxxM (xxx=300-360, in step of 5), and Model series LR6-60PE-xxxM (xxx=250-300, in step of 5), with PERC Mono-Si Cells.
70065662	2016-04-11	CSA certification for LERRI Solar Technology Co.,Ltd, models LR6-72-xxxM (xxx=300 to 360, in step of 5, 72 cells), LR6-60-xxxM (xxx=250 to 300, in step of 5, 60 cells).