



# Certificate of Compliance

**Certificate:** 70096910

**Master Contract:** 248189

**Project:** 70181293

**Date Issued:** 2018-08-28

**Issued to:** Trina Solar Co., Ltd.  
2 Trina Rd  
PV Park New District  
Changzhou, Jiangsu 213031  
CHINA  
Attention: Candy Ge

*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:** Tao (Tom) Yang  
Tao (Tom) 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, with module fire resistance rating Class A (for Canada) or module fire performance Type 13 (for US).

For photovoltaic modules (poly-crystalline silicon) with maximum system voltage of 1000 V dc.

Models TSM-XXXPDG5 (XXX=245 to 275, in step of 5 W),  
Models TSM-XXXPDG5.07 (XXX=245 to 275, in step of 5 W),  
Models TSM-XXXPDG5.50 (XXX=245 to 275, in step of 5 W),  
Models TSM-XXXPEG5 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5(II) (XXX=245 to 300, in step of 5 W),  
Models TSM-XXXPEG5.07 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.07(II) (XXX=245 to 300, in step of 5 W),  
Models TSM-XXXPEG5.50 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.50(II) (XXX=245 to 300, in step of 5 W),  
Models TSM-XXXPEG5.40 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.40(II) (XXX=245 to 300, in step of 5 W),



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Models TSM-XXXPEG5H (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H(II) (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.40 (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.40(II) (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.07 (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.07(II) (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.47 (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5H.47(II) (XXX=255 to 310, in step of 5 W),  
Models TSM-XXXPEG5.47 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.47(II) (XXX=245 to 300, in step of 5 W),  
Models TSM-XXXPDG14 (XXX= 290 to 320, in step of 5 W),  
Models TSM-XXXPDG14.07 (XXX= 290 to 320, in step of 5 W),  
Models TSM-XXXPEG14 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14(II) (XXX= 290 to 350, in step of 5 W),  
Models TSM-XXXPEG14.07 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14.07(II) (XXX= 290 to 350, in step of 5 W),  
Models TSM-XXXPEG14.40 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14.40(II) (XXX= 290 to 350, in step of 5 W),  
Models TSM-XXXPEG14.47 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG40 (XXX= 160 to 175, in step of 5 W),  
Models TSM-XXXPEG40(II) (XXX= 160 to 195, in step of 5 W),  
Models TSM-XXXPEG40.07 (XXX= 160 to 175, in step of 5 W),  
Models TSM-XXXPEG40.07(II) (XXX= 160 to 195, in step of 5 W),  
Models TSM-XXXPEG40.40 (XXX= 160 to 175, in step of 5 W),  
Models TSM-XXXPEG40.40(II) (XXX= 160 to 195, in step of 5 W),  
Models TSM-XXXPEG40.47 (XXX= 160 to 175, in step of 5 W),  
Models TSM-XXXPEG40.47(II) (XXX= 160 to 195, in step of 5 W).  
Models TSM-XXXPEG14H (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H(II) (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.40 (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.40(II) (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.07 (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.07(II) (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.47 (XXX=305 to 370. In step of 5W),  
Models TSM-XXXPEG14H.47(II) (XXX=305 to 370. In step of 5W),

For photovoltaic modules (mono-crystalline silicon) with maximum system voltage of 1000 V dc.

Models TSM-XXXDEG40.07(II) (XXX= 180 to 200, in step of 5W),  
Models TSM-XXXDEG40.40(II) (XXX= 180 to 200, in step of 5W),  
Models TSM-XXXDEG5 (XXX= 255 to 270, in step of 5W),  
Models TSM-XXXDEG5(II) (XXX= 270 to 315, in step of 5W),  
Models TSM-XXXDEG5.07 (XXX= 255 to 270, in step of 5W),  
Models TSM-XXXDEG5.07(II) (XXX= 270 to 315, in step of 5W),  
Models TSM-XXXDEG5.40(II) (XXX= 270 to 315, in step of 5W),  
Models TSM-XXXDEG5.47(II) (XXX= 270 to 315, in step of 5W),



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Models TSM-XXXDEG5C.07(II) (XXX= 275 to 310, in step of 5W)  
Models TSM-XXXDEG5C(II) (XXX= 275 to 310, in step of 5W),  
Models TSM-XXXDEG5H(II) (XXX=275 to 345, in step of 5 W),  
Models TSM-XXXDEG5H.40(II) (XXX=275 to 345, in step of 5 W),  
Models TSM-XXXDEG5H.07(II) (XXX=275 to 345, in step of 5 W),  
Models TSM-XXXDEG5H.47(II) (XXX=275 to 345, in step of 5 W),  
Models TSM-XXXDEG14 (XXX= 310 to 330, in step of 5W),  
Models TSM-XXXDEG14.07 (XXX= 310 to 330, in step of 5W),  
Models TSM-XXXDEG14(II) (XXX= 315 to 375, in step of 5W),  
Models TSM-XXXDEG14.07(II) (XXX= 315 to 375, in step of 5W),  
Models TSM-XXXDEG14.40(II) XXX= 315 to 375, in step of 5W),  
Models TSM-XXXDEG14.47(II) (XXX= 315 to 375, in step of 5W),  
Models TSM-XXXDEG14C.07(II) (XXX=335 to 370, in step of 5W),  
Models TSM-XXXDEG14C(II) (XXX= 335 to 370, in step of 5W),  
Models TSM-XXXDEG14H(II) (XXX=335 to 415. In step of 5W),  
Models TSM-XXXDEG14H.40(II) (XXX=335 to 415. In step of 5W),  
Models TSM-XXXDEG14H.07(II) (XXX=335 to 415. In step of 5W),  
Models TSM-XXXDEG14H.47(II) (XXX=335 to 415. In step of 5W),

For photovoltaic modules (poly-crystalline silicon) with maximum system voltage of 1500 V dc.

Models TSM-XXXPEG5.20 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.20(II) (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.27 (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG5.27(II) (XXX=245 to 290, in step of 5 W),  
Models TSM-XXXPEG14.20 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14.20(II) (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14.27 (XXX= 290 to 345, in step of 5 W),  
Models TSM-XXXPEG14.27(II) (XXX= 290 to 345, in step of 5 W).

For photovoltaic modules (mono-crystalline silicon) with maximum system voltage of 1500 V dc.

Models TSM-XXXDEG5.20(II) (XXX= 270 to 300, in step of 5W),  
Models TSM-XXXDEG5.27(II) (XXX= 270 to 300, in step of 5W),  
Models TSM-XXXDEG5C.20(II) (XXX= 275 to 310, in step of 5W),  
Models TSM-XXXDEG5C.27(II) (XXX= 275 to 310, in step of 5W),  
Models TSM-XXXDEG14.20(II) (XXX= 315 to 360, in step of 5W),  
Models TSM-XXXDEG14.27(II) (XXX= 315 to 360, in step of 5W),  
Models TSM-XXXDEG14C.20(II) (XXX= 335 to 370, in step of 5W),  
Models TSM-XXXDEG14C.27(II) (XXX= 335 to 370, in step of 5W).

Notes:

1. Rated electrical characteristics are within +/-10% of measured values at Standard Test Conditions of 100 mW/cm<sup>2</sup> irradiance, AM 1.5 spectrum, and 25°C.
2. For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.
3. Product code naming as below:



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1/2	3	4/5/6	7	8	9/10	11	12	13	14	15
TS	M	260	P	C	05	A	0	8	2	(II)
Manufa cturer	PV Module types	Rated Power	Crystal Form of Cells	Maximum System Voltage	Key Characteristic	Next generation	Module Frame	Module Color	Electronics	Serial Code
Trina Solar	M: Common	210	D:Mono	A: UL 600V	01 125*125 cell/ 6x12 Distribution	If no letter, the 1 <sup>st</sup> Gen. module.	0: No Special Frame	0:White Laminate, silver frame	If no letter, the standard J-box	If no letter or number, the standard module
	G: BIPV	260	P:Poly	C: IEC 1000V	05 156*156 cell/ 6x10 Distribution	A: The 2nd Gen. module	1:Trinamount 1/II	5:Black Laminate, black frame	1: TrinaSmart DC (No Smart Curve)	(II):High efficiency module
		310	I: IBC	D: IEC 1000V & UL 1000V E: IEC 1500V & UL1000V or IEC1500V & UL 1500V	14 156*156 cell/ 6x12 Distribution	B: Light Weight	2: Dual glass frame	8:White Laminate, black frame	2: Trinasmart DC (Smart Curve)	.....
					G5 156*156 cell/ 6x10 Dual glass	C: Bifacial Module	3: TBD	7: Transparent Laminate, dual glass	3: Trinasmart AC	.....
					G14 156*156 cell/ 6x12 Dual glass	D: Frameless	4: Duomax Racking	9: White Laminate, blue frame	S: Safety switch	.....
					G40 156*156 cell/ 4x10 Dual glass	E:Low Cost Light Weight	5:Trinamount 3 D10		M: Monitoring only	
					03 156*156 cell/ 6x8 Distribution	H: Half Cut			C: Trinapeak	
					G3 156*156 cell/ 6x8 Dual glass	Z: ZWS			D: Trinapeak(EMC version)	
					07 156*31.2 cell/ 34x10 Distribution	HB: Half Cut + light weight			U: TS4-D J-Box	

4. New Type module fire performance, similar to Type 13, for TSM-xxxDEG5C.07(II), TSM-xxxDEG5.20(II), TSM-xxxDEG5.27(II), TSM-xxxDEG5C.20(II), TSM-xxxDEG5C.27(II), TSM-xxxDEG14C.07(II), TSM-xxxDEG14.20(II), TSM-xxxDEG14.27(II), TSM-xxxDEG14C.20(II), TSM-xxxDEG14C.27(II).

**APPLICABLE REQUIREMENTS**

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



## *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**

<b>Project</b>	<b>Date</b>	<b>Description</b>
70181293	2018-08-28	Update report 70096910 to add alternate encapsulant Cybright W11, Cybright T11, revise the missing string connections and cell size in project 70176896(modules with half cut cell), change the cell size from 156.75mm to 157mm, add cell manufacturers for subsidiary corporation of TrinaSolar, delete 3 or 4 busbar cells by Trina with the confirmation from client.
70181293	2018-07-17	Update report 70096910 to add alternate encapsulant Cybright W11, Cybright T11, revise the missing string connections and cell size in project 70176896(modules with half cut cell).
70187045	2018-06-20	Update report to add new models series TSM-XXXDEG5C(II), TSM-XXXDEG14C(II), and enlarge the power range of TSM-XXXDEG5C.07(II) and TSM-XXXDEG14C.07(II) within 10% change in project 70112243. Alternate white pattern glass as superstrates by Changzhou Hongxie Safety Glass Co., Ltd which tested in project 70112243, alternate sizes for the related model series for little change.
70176896	2018-03-27	Update report to add new model series TSM-PEG5H, TSM-PEG14H, TSM-DEG5H, TSM-DEG14H with half-cut cells. Update the encapsulate manufacturer name to HANGZHOU FIRST APPLIED MATERIAL CO LTD, update to reflect the submitter name change from Changzhou Trina Solar Energy Co., Ltd to Trina Solar Co., Ltd.
70166131	2018-02-09	Update report to extend power range of related model series, also update the electrical ratings of some models, also add 2.0 mm thickness for substrate supplier Dongguan CSG Solar Glass Co., Ltd and Wujiang CSG Glass Co., Ltd, and 2.0 mm thickness for substrate by Caihong (Hefei) Photovoltaic Co., Ltd, as the provided declaration.
70167159	2018-01-17	Update report 70096910 to add alternate encapsulant 'B601HP' and 'B601W' by CHANGZHOU BBETTER FILM TECHNOLOGIES CO., LTD, alternate substrate and superstate from Wujiang CSG Glass Co., Ltd and Dongguan CSG Solar Glass Co., Ltd, and revise the model name for flux by Tongfang, WMTC annual re-qualification.
70140030	2017-10-26	Update report 70096910 to add alternate adhesive '1522' by Tosan.
70141680	2017-10-25	Update report for the qualification of Solar Light Redirecting Film by 3M and alternate front glass 2.5 mm AR coating thickness by Changzhou





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		Huamei Photovoltaic Materials Co., Ltd, revise the encapsulant thickness for some models.
70130001	2017-08-10	Update report to add encapsulation 'PO 8110' by 3M COMPANY, also add special note for the production line test for modules without metal frame in the report, alternate adhesive '1522' by TONSAN ADHESIVE INC, add alternate adhesive 'SS622E' by GUANGZHOU BAIYUN CHEMICAL INDUSTRY CO., LTD base on UL report File E306515(Page 9, Issued on 2013-03-29, Revised on 2016-08-25).
70143746	2017-08-04	Update report for the qualification of a new installation method using clamps for dual glass modules.
70117257	2017-06-27	Update report 70096910 to add encapsulate 'EV1050G2/EV1050G5' by Lushan, alternate Jbox 'TS307' by Trina Solar, qualification for materials combination of this EVA with Trina Solar cells, materials combination of this Jbox with pottings 'TONSAN 1533', '5299W-S', 'HT6360AB', Jbox adhesive '1527', 'JS606', 'HT-5258', 'HT906Z'.
70130002	2017-05-17	Update report to cover qualification of model series with metal frame, TSM-xxxDEG5C.27(II), TSM-xxxDEG5.20(II), TSM-xxxDEG5.27(II), TSM-xxxPEG5.20, TSM-xxxPEG5.27, TSM-xxxDEG14C.27(II), TSM-xxxDEG14.20(II), TSM-xxxDEG14.27(II), TSM-xxxPEG14.20, TSM-xxxPEG14.27, with maximum system voltage up to 1500 V dc.
70130000	2017-05-17	Update report to add superstrate and substrate from Mingyang Toughened Glass Co., Ltd, XIN YI PV PRODUCTS (ANHUI) HOLDINGS LTD, SUOLATE SPECIAL GLASS(JIANGSU)CO.,LTD, SYP Kangqiao Autoglass Co.,Ltd, 2.5 mm thickness, with Float glass, tempered white AR-Coating glass.
70112243	2017-04-09	Update report 70096910 to add new models series TSM-xxx DEG14C.07 and TSM-xxx DEG5C.07 with alternate junction box 'FT30xy ABQDE' by 'ZHEJIANG RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD', also rise overcurrent protection device rating to 20 A for all models.
70106136	2016-12-26	Update Report 70096910 to add alternate 'Cybright T22' by Cybrid. Also revise cell interconnections size, power range, ect.
70106143	2016-12-26	Update report 70096910 to add alternate EVA 'HEF', 'HEP' by 'HANWHA ADVANCED MATERIALS CORPORATION'.
70096910	2016-10-14	CSA C/US Certification on G-G models base on UL File: E306515-20130329-Description( for G-G mdouels), also cover qualification of factory: Hefei Trina Solar Technology Co Ltd' and 'Trina Solar Science & Technology (Thailand) Ltd'.