



# Limited Warranty Supplement 25 year product warranty for TSM-\*\*\*NEG18R.28

To Whom it may concern,

It is hereby stated that the module of TSM-\*\*\*NEG18R.28.Trina Solar supplied and listed under Global Limited Warranty Sec.1) h) ii), Trina Solar warrants that for a period of twenty-five (25) years commencing on the Warranty Start Date (as defined in Global Limited Warranty Sec. 4) there will be no defects in material, workmanship or manufacture that materially impede the power generation functioning of the Products provided that such defects have been reasonably proved to be the direct and sole cause to such power underperformance of such Products.

The Limited Product Warranty covers glass breakage provided that there was no external cause of breakage (i.e. only breakage caused by the glass itself or the module is covered).

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which occur after delivery (Incoterms 2020) to the Buyer, do not constitute a defect under the Limited Product Warranty.

This Limited Warranty Supplement only applies to the TSM-\*\*\*NEG18R.28 Products that are delivered after 1st Jan, 2024(incoterm 2020) and installed within Europe/Japan/Australia/New Zealand.

For the purpose of customer-benefit protection, any operation such as packing/unpacking, loading/unloading, transportation, storage, installation, use, operation or maintenance must comply with the requirements of Trina Solar' user manual and other official documents. Any other warranty terms not mentioned in this supplement shall be subject to the latest version of Global Limited Warranty

(Website: https://www.trinasolar.com/resources/downloads).

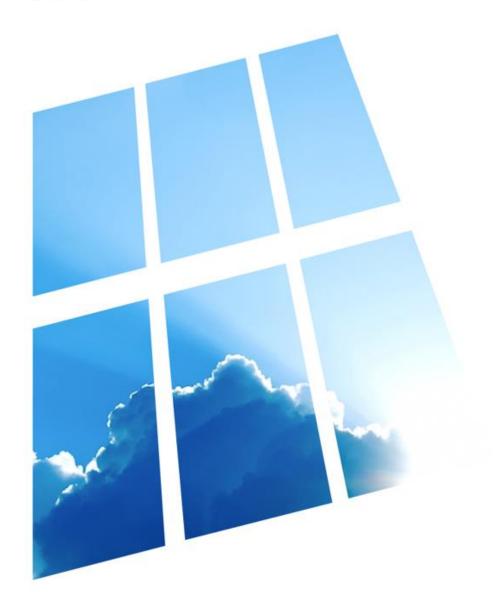
Yours Sincerely,

Global Product Strategy & Marketing Management:

Global Customer Service:

Signature Date:





GLOBAL LIMITED WARRANTY FOR TRINA SOLAR BRAND CRYSTALLINE SOLAR PHOTOVOLTAIC MODULES

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# **Global Limited Warranty**

# 1) Warranted Products

This Global Limited Warranty shall only apply to the following Products:

# a) P-type Poly of Back Sheet Products

(i)				
TSM-***PA03	TSM-***PA05	TSM-***PA05.05	TSM-***PA05.08	TSM-***PA05A
TSM-***PA05A.05	TSM-***PA05A.08	TSM-***PA14	TSM-***PA14A	TSM-***PA05.002
TSM-***PA05.052	TSM-***PA05.082	TSM-***PC03	TSM-***PC05	TSM-***PC05.01
TSM-***PC05.05	TSM-***PC05.08	TSM-***PC05A	TSM-***PC05A.05	TSM-***PC05A.08
TSM-***PC05B	TSM-***PC05B.05	TSM-***PC05B.08	TSM-***PC14	TSM-***PC14.08
TSM-***PC14A	TSM-***PC05A.002	TSM-***PC05A.052	TSM-***PC05A.082	TSM-***PC05A.003
TSM-***PC14.002	TSM-***PC14.082	TSM-***PC06	TSM-***PC06.08	TSM-***PC05A.08(II)
TSM-***PC14(II)	TSM-***PC14.08(II)	TSM-***PC05A.002(II)	TSM-***PC05A.052(II)	TSM-***PC05A.082(II)
TSM-***PC14.002(II)	TSM-***PC14.082(II)	TSM-***PD05	TSM-***PD05.05	TSM-***PD05.08
TSM-***PD05.50	TSM-***PD05.002	TSM-***PD05.052	TSM-***PD05.082	TSM-***PD14
TSM-***PD14.08	TSM-***PD14.002	TSM-***PD05(II)	TSM-***PD05.05(II)	TSM-***PD05.08(II)
TSM-***PD14(II)	TSM-***PD14.08(II)	TSM-***PD05.00S	TSM-***PD05.05S	TSM-***PD05.08S
TSM-***PD05.05U	TSM-***PD05.08U	TSM-***PD05.00C	TSM-***PD05.05C	TSM-***PD05.08C
TSM-***PD05.00D	TSM-***PD05.05D	TSM-***PD05.08D	TSM-***PD14.00C	TSM-***PE05A
TSM-***PE05A.08	TSM-***PE14A	TSM-***PE14A.08	TSM-***PE05A(II)	TSM-***PE05A.08(II)
TSM-***PE14A(II)	TSM-***PE14A.08(II)	TSM-***PE05H	TSM-***PE05H.08	TSM-***PE14H
TSM-***PE14H.08	TSM-***PD05H	TSM-***PD14H	TSM-***PD05HB.09	TSM-***PE15H
TSM-***PE15H.08	TSM-***PE15H.09	TSM-***PE06H	TSM-***PE06H.08	TSM-***PE06H.09
TSM-***PE15A	TSM-***PE15A.08	TSM-***PE15A.09	TSM-***PE06A	TSM-***PE06A.08
TSM-***PE06A.09	TSM-***PD06H	TSM-***PD06H.05	TSM-***PD06H.08	TSM-***PD06H.09
	TO 1 444 DD 4 TH 1 00	TO 1 4 444 DD 4 TH 1 0 0		
TSM-***PD15H	TSM-***PD15H.08	TSM-***PD15H.09	TSM-***PC06A	
TSM-***PD15H	TSM-***PD15H.08	ISM-***PD15H.09	TSM-***PC06A	
TSM-***PD15H (ii)	ISM-***PD15H.08	TSM-***PD15H.09	TSM-***PC06A	
	TSM-***PD15H.08	TSM-***PD15H.09	TSM-***PC06A  TSM-***PA05A.10	TSM-***PA05A.15
(ii) TSM-***PA05.10 TSM-***PA05A.18	TSM-***PA05.15 TSM-***PC05.10	TSM-***PA05.18 TSM-***PC05.15	TSM-***PA05A.10 TSM-***PC05.18	TSM-***PC05A.10
(ii) TSM-***PA05.10	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18	TSM-***PA05.18	TSM-***PA05A.10	
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0	TSM-***PA05.15 TSM-***PC05.10	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.15	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PD14.T0(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9 TSM-***PE14B.T8	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II)	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II)
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PD14.T0(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14HB.T8(II)	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE05A.T0(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14HB.T9 TSM-***PE05A.T8(II)	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II)
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14HB.T9	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II)
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14B.T8(II) TSM-***PE14A.T0(II) TSM-***PE14A.T0(II)	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T9(II) TSM-***PE14A.T8(II) TSM-***PE14A.T8(II) TSM-***PE05H.T0(II)	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10 TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE14A.T0(II) TSM-***PE14A.T0(II) TSM-***PE14HB.T8	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14HB.T9 TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE14H.T0
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14B.T9(II) TSM-***PE14B.T9(II) TSM-***PE14A.T0(II) TSM-***PE14A.T0(II) TSM-***PE05H.T9 TSM-***PE14H.T8	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T0	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD05.10 TSM-***PD14.10 TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE05A.T0(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE05H.T8(II) TSM-***PE05H.T8(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14HB.T9 TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0 TSM-***PE05H.T9(II) TSM-***PE05H.T9(II)	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE14H.T0 TSM-***PD14H.T8
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD14.T0 TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14HB.T8(II) TSM-***PE14A.T0(II) TSM-***PE14H.T8 TSM-***PE05H.T9	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD05.T8(II) TSM-***PE05A.T9 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T9(II) TSM-***PE14HB.T9(II) TSM-***PE15H.T0(II) TSM-***PE05H.T0(II)	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE05A.T0(II) TSM-***PE14A.T9(II) TSM-***PE05H.T8(II) TSM-***PE05H.T8(II) TSM-***PE05H.T8 TSM-***PE15H.T8	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14HB.T9 TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0 TSM-***PE05H.T9(II) TSM-***PE05H.T9	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE14H.T0 TSM-***PE14H.T0 TSM-***PE14H.T0
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14HB.T8(II) TSM-***PE14A.T0(II) TSM-***PE14H.T8 TSM-***PE14H.T8 TSM-***PE05HB.T9 TSM-***PE05HB.T9 TSM-***PE06H.T8	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T9(II) TSM-***PE14HB.T9(II) TSM-***PE15H.T0(II) TSM-***PE15H.T0 TSM-***PE15H.T0 TSM-***PE15H.T0	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE05A.T0(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE06H.T0(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0 TSM-***PE05H.T9 TSM-***PE05H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE06H.T8(II)	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE05H.T8 TSM-***PE14H.T0 TSM-***PE14H.T0 TSM-***PE06H.T0 TSM-***PE06H.T0
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14HB.T8(II) TSM-***PE14A.T0(II) TSM-***PE14A.T0(II) TSM-***PE14H.T8 TSM-***PE14H.T8 TSM-***PE14H.T8 TSM-***PE05H.T9 TSM-***PE05H.T9 TSM-***PE15A.T0	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T9(II) TSM-***PE15H.T0(II) TSM-***PE15H.T0 TSM-***PE15A.T8	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14B.T8 TSM-***PE14A.T0(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE15H.T8	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE14B.T9 TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0 TSM-***PE05H.T9(II) TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE06A.T0	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE05A.T9(II) TSM-***PE05A.T9(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE05H.T8 TSM-***PE14H.T0 TSM-***PE14H.T0 TSM-***PE14H.T0 TSM-***PE06H.T0 TSM-***PE06H.T0 TSM-***PE06H.T0
(ii) TSM-***PA05.10 TSM-***PA05A.18 TSM-***PC05A.15 TSM-***PD05.T0 TSM-***PD05.T0(II) TSM-***PE05A.T8 TSM-***PE14B.T0 TSM-***PE14B.T0 TSM-***PE14B.T9(II) TSM-***PE14HB.T8(II) TSM-***PE14A.T0(II) TSM-***PE14H.T8 TSM-***PE14H.T8 TSM-***PE05HB.T9 TSM-***PE05HB.T9 TSM-***PE06H.T8	TSM-***PA05.15 TSM-***PC05.10 TSM-***PC05A.18 T TSM-***PD05.T8 TSM-***PD14.T8 TSM-***PE05A.T9 TSM-***PE14B.T8 TSM-***PE14HB.T0 TSM-***PE14HB.T0 TSM-***PE14HB.T9(II) TSM-***PE14HB.T9(II) TSM-***PE15H.T0(II) TSM-***PE15H.T0 TSM-***PE15H.T0 TSM-***PE15H.T0	TSM-***PA05.18 TSM-***PC05.15 TSM-***PC05A.10(II) TSM-***PD14.10 TSM-***PD14.T0(II) TSM-***PE14A.T0 TSM-***PE14B.T9 TSM-***PE14HB.T8 TSM-***PE05A.T0(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE14A.T9(II) TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE15H.T8 TSM-***PE06H.T0(II)	TSM-***PA05A.10 TSM-***PC05.18 TSM-***PC05A.15(II) TSM-***PD05.15 TSM-***PD14.15 TSM-***PD14.T8(II) TSM-***PE14A.T8 TSM-***PE14B.T0(II) TSM-***PE05A.T8(II) TSM-***PE05H.T0 TSM-***PE05H.T0 TSM-***PE05H.T9 TSM-***PE05H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE15H.T9 TSM-***PE06H.T8(II)	TSM-***PC05A.10 TSM-***PC05A.18 (II) TSM-***PD05.18 TSM-***PD14.18 TSM-***PE05A.T0 TSM-***PE14A.T9 TSM-***PE14B.T8(II) TSM-***PE14HB.T0(II) TSM-***PE05A.T9(II) TSM-***PE05H.T8 TSM-***PE05H.T8 TSM-***PE14H.T0 TSM-***PE14H.T0 TSM-***PE06H.T0 TSM-***PE06H.T0



# b) P-type Mono PERC of Back Sheet Products

(i) TSM-***DA01 TSM-***DA01.05 TSM-***DA01A TSM-***DA01A.05 TSM-***DA01A.08 TSM-***DA03 TSM-***DA05 TSM-***DA01A.002 TSM-***DA01A.052 TSM-***DA01A.082 TSM-***DC01 TSM-***DC01.01 TSM-***DC01.05 TSM-***DC01A TSM-***DC01A.05 TSM-***DC01A.08 TSM-***DC03 TSM-***DC05 TSM-***DC080 TSM-***DC08.08 TSM-***DC01A.002 TSM-***DC01A.052 TSM-***DC05A.082 TSM-***DC05A.08 TSM-***DC05A.08 TSM-***DC05A.002 TSM-***DC05A.052 TSM-***DC05A.082 TSM-***DC05A.08 TSM-***DC05A.08 TSM-***DC05A.002 TSM-***DC05A.052 TSM-***DC05A.082 TSM-***DC05A.08 TSM-***DC05A.08 TSM-***DC05A.002 TSM-***DC05A.052 TSM-***DC05A.082 TSM-***DC05A.08 TSM-***DC05A.08 TSM-***DC05A.092(II) TSM-***DC05A.052 TSM-***DC05A.082 TSM-***DC05A.082 TSM-****DC05A.081 TSM-***DC05A.092(II) TSM-***DC05A.052 TSM-***DC05A.082 TSM-***DC05A.082 TSM-***DC05A.081 TSM-***DC05A.081 TSM-***DC05A.082(II) TSM-***DC05A.082(II) TSM-***DC05A.082(II) TSM-***DC05A.082(II) TSM-***DC05A.082(II) TSM-***DC05A.082(II) TSM-***DD05A.082(II) TSM-***DD05A.082(II) TSM-***DD05A.082(II) TSM-***DD05A.082(II) TSM-***DD05A.082(II) TSM-***DD05A.082(II) TSM-***DE05A.08(II) TSM-***DE05A.08(II) TSM-***DE05A.08(II) TSM-***DE05A.08(II) TSM-***DE05A.08(II) TSM-***DE06A.08(II) TSM-***DE06A.08(
TSM-***DA03
TSM-***DC01
TSM-***DC01A.08
TSM-***DC01A.002   TSM-***DC01A.052   TSM-***DC01A.082   TSM-***DC05A.08   TSM-***DC05A.002   TSM-***DC05A.052   TSM-***DC05A.082   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC06A.085   TSM-***DC05A.085   TSM-***DD05A.085   TSM-***DE05A.085   TSM-***DE05A
TSM-***DC05A.08         TSM-***DC05A.002         TSM-***DC05A.052         TSM***DC05A.082         TSM-***DC05A.08(II)         TSM-***DC05A.05(II)         TSM-***DC05A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.05(II)         TSM-***DC05A.05(II)         TSM-***DC05A.082(II)         TSM-***DC05A.082(II)         TSM-***DC05A.05(II)         TSM-***DC05A.052(II)         TSM-***DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DD05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-***DE06A.082(II)         TSM-****DE06A.082(II)         TSM-****DE06A.082(II)         TSM-****DE06A.082(II)         TSM-****DE06A.092(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE05A.082(II)         TSM-****DE06A.0
TSM-***DC06.08         TSM-***DC03A(II)         TSM-***DC03A.05(II)         TSM-***DC03A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.08(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DD05A.05(II)         TSM-***DD05A.08(II)         TSM-***DD05A.08(II)         TSM-***DD05A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DE06A.08S(II)         TSM-***DD05A.08S(II)         TSM-***DD05A.08S(II)         TSM-***DD05A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD05A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)         TSM-***DD06A.08S(II)
TSM-***DC05A.05(II)         TSM-***DC05A.08(II)         TSM-***DC05A.092(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DC05A.052(II)         TSM-***DD05A.052(II)         TSM-***DE05A.052(II)         TSM-***DE06A(II)         TSM-***DE06A(II)         TSM-***DE05A.052(II)         TSM-***DE06A(II)         TSM-***DE06A(II)         TSM-***DE05A.052(II)         TSM-***DE06A(II)         TSM-***DE06A(II)         TSM-***DE06A(II)         T
TSM-***DC06.08(II)         TSM-***DD05A(II)         TSM-***DD05A.05(II)         TSM-***DD05A.08(II)         TSM-***DD14A(II)           TSM-***DD14A.08(II)         TSM-***DD05A.052(II)         TSM-***DD05A.082(II)         TSM-***DD05A.05S(II)         TSM-***DD05A.08S(II)           TSM-***DD05A.05U(II)         TSM-***DD05A.08U(II)         TSM-***DE05A(II)         TSM-***DE05A.08(II)         TSM-***DE05A.08(II)           TSM-***DD05A(III)         TSM-***DE05H(III)         TSM-***DE05H.08(III)         TSM-***DE14H(III)         TSM-***DE14H(III)           TSM-***DE05H(II)         TSM-***DE06H(III)         TSM-***DE06H(III)         TSM-***DE06H.08(II)         TSM-***DE06H.09(II)           TSM-***DE06M(II)         TSM-***DE15M.08(II)         TSM-***DE15H.08(II)         TSM-***DE15H.09(II)         TSM-***DE15H.09(II)           TSM-***DE06A.09(II)         TSM-***DE15A(II)         TSM-***DE15A.08(II)         TSM-***DE06A(II)         TSM-***DD15M (II)           TSM-***DD15M.08 (II)         TSM-***DD15M.09 (II)         TSM-***DD15M.09 (II)         TSM-***DD06H.08(II)         TSM-***DD06H.08(II)         TSM-***DD06H.08(II)         TSM-***DD06H.08(II)         TSM-***DD06H.08(II)         TSM-***DE15X(II)           TSM-***PE15H(II)         TSM-***PE06H(II)         TSM-***PE15M(II)         TSM-***DE06A.18         TSM-***DE06A.18           (ii)         TSM-***PE08H(II)         TSM-***DE05A.T8(II)
TSM-***DD14A.08(II)         TSM-***DD05A.052(II)         TSM-***DD05A.082(II)         TSM-***DD05A.08S(II)         TSM-***DD05A.08S(II)           TSM-***DD05A.05U(II)         TSM-***DD05A.08U(II)         TSM-***DE05A(II)         TSM-***DE05A.08(II)         TSM-***DE05A.08(II)           TSM-***DE05A.05U(II)         TSM-***DE05A.08U(II)         TSM-***DE05A.08(II)         TSM-***DE05A.08(II)         TSM-***DE05A.08(II)           TSM-***DE05H(II)         TSM-***DE05H(II)         TSM-***DE06H.08(II)         TSM-***DE06H.08(II)         TSM-***DE06H.09(II)           TSM-***DE06M(II)         TSM-***DE06M.09(II)         TSM-***DE15H.09(II)         TSM-***DE15H.08(II)         TSM-***DE06A.09(II)           TSM-***DE06A.09(II)         TSM-***DE15A.09(II)         TSM-***DE15A.09(II)         TSM-***DE06A.09(II)         TSM-***DD15M.09(II)           TSM-***DD15M.08 (II)         TSM-***DD15M.09 (II)         TSM-***DD06M (II)         TSM-***DD06H.08(II)         TSM-***DD06H.08(II)           TSM-***PE15H(II)         TSM-***DD15H.05(II)         TSM-***DD15H.08(II)         TSM-***DD15H.08(II)         TSM-***DE15X(II)           TSM-***PE08H(II)         TSM-***PE08H(II)         TSM-***PE08H(II)         TSM-***DE15X(II)           TSM-***PE08H(II)         TSM-***PE08H(II)         TSM-***DE05A.T0(II)         TSM-***DE05A.T0(II)
TSM-***DD05A.05U(II)         TSM-***DD05A.08U(II)         TSM-***DE05A(II)         TSM-***DE05A.08(II)         TSM-***DE14A(II)           TSM-***DE14A.08(II)         TSM-***DE05H(II)         TSM-***DE05H.08(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE14H(II)         TSM-***DE15H.08(II)         TSM-***DE06H.08(II)         TSM-***DE15H.09(II)         TSM-***DE15H.08(II)         TSM-***DE15H.09(II)         TSM-***DE15H.09(II)         TSM-***DE15H.09(II)         TSM-***DE15H.09(II)         TSM-***DE06A.09(II)         TSM-***DE06A.09(II)         TSM-***DE15A.09(II)         TSM-***DE15A.09(II)         TSM-***DD15M (II)         TSM-***DD15M (II)         TSM-***DD15M (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD15H.08(II)         TSM-***DE15A(II)         TSM-***DE15A(II)         TSM-***DE15A(II)         TSM-***DE15A(II)         TSM-***DE15A(II)         TSM-***DE15A(II)         TSM-***DE15A(II)
TSM-***DE14A.08(II)         TSM-***DE05H(II)         TSM-***DE05H.08(II)         TSM-***DE14H(II)         TSM-***DE14H.08(II)           TSM-***DD05H(II)         TSM-***DD14H(II)         TSM-***DE06H(II)         TSM-***DE06H.08(II)         TSM-***DE06H.09(II)           TSM-***DE06M(II)         TSM-***DE06M.09(II)         TSM-***DE15H(II)         TSM-***DE15H.08(II)         TSM-***DE15H.09(II)           TSM-***DE15M(II)         TSM-***DE15M.08(II)         TSM-***DE15M.09(II)         TSM-***DE06A.08(II)         TSM-***DD15M.09(II)           TSM-***DD15M.08(II)         TSM-***DD15M.09(II)         TSM-***DD06H(II)         TSM-***DD06H.05(II)         TSM-***DD06H.05(II)           TSM-***PE15H(II)         TSM-***DD15H(II)         TSM-***DD15H.05(II)         TSM-***DD15H.08(II)         TSM-***DE15X(II)           TSM-***PE08H(II)         TSM-***PE06H(II)         TSM-***PE15M(II)         TSM-***PE06M(II)         TSM-***PE17H(II)           TSM-***PE08H(II)         TSM-***PE17H(II)         TSM-***PE08H(II)         TSM-***D01A.10         TSM-***D01A.15           TSM-***D05A.T0(II)         TSM-***D05A.T0(II)         TSM-***D05A.T0(II)         TSM-***D014A.T0(II)         TSM-***D014A.T0(II)           TSM-***D05A.T0(II)         TSM-***D05A.T9(II)         TSM-***D014A.T0(II)         TSM-***D014A.T0(II)
TSM-***DD05H(II)         TSM-***DD14H(II)         TSM-***DE06H(II)         TSM-***DE06H.08(II)         TSM-***DE06H.09(II)           TSM-***DE06M(II)         TSM-***DE06M.09(II)         TSM-***DE15H(II)         TSM-***DE15H.08(II)         TSM-***DE15H.09(II)           TSM-***DE15M(II)         TSM-***DE15M.08(II)         TSM-***DE06A(II)         TSM-***DE06A(II)         TSM-***DE06A.08(II)           TSM-***DD15M.09(II)         TSM-***DD15M.09(II)         TSM-***DD06H(II)         TSM-***DD06H(II)         TSM-***DD06H.05(II)           TSM-***DD06H.08(II)         TSM-***DD15H(II)         TSM-***DD15H.05(II)         TSM-***DD15H.08(II)         TSM-***DD15H.08(II)           TSM-***PE15H(II)         TSM-***PE06H(II)         TSM-***PE15M(II)         TSM-***PE06M(II)         TSM-***PE17H(II)           TSM-***PE08H(II)         TSM-***PE17M(II)         TSM-***PE08M(II)         TSM-***PE06H(II)         TSM-***DD15H.05(II)           TSM-***PE08H(II)         TSM-***PE17M(II)         TSM-***PE08M(II)         TSM-***PE06H(II)         TSM-***PE17H(II)           TSM-***PE08H(II)         TSM-***DD05A.T0(II)         TSM-***DD05A.T0(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T0(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T0(II)
TSM-***DE06M(II)         TSM-***DE06M.09(II)         TSM-***DE15H(II)         TSM-***DE15H.08(II)         TSM-***DE15H.09(II)           TSM-***DE15M(II)         TSM-***DE15M.08(II)         TSM-***DE15M.09(II)         TSM-***DE06A(II)         TSM-***DE06A.08(II)           TSM-***DE06A.09(II)         TSM-***DE15A(II)         TSM-***DE15A.08(II)         TSM-***DE15A.09(II)         TSM-***DD15M (II)           TSM-***DD15M.08 (II)         TSM-***DD15M.09 (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H.05 (II)           TSM-***PE15H(II)         TSM-***DD15H(II)         TSM-***DE15M(II)         TSM-***PE15M(II)         TSM-***PE17H(II)           TSM-***PE08H(II)         TSM-***PE17M(II)         TSM-***PE08M(II)         TSM-***PE06M(II)         TSM-***PE17H(II)           (ii)         TSM-***PE08H(II)         TSM-***DD01A.18         TSM-***DC01A.10         TSM-***DD01A.15           TSM-***DC01A.18         TSM-***DD05A.T0(II)         TSM-***DD05A.T8(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T0(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T0(II)
TSM-***DE15M(II)         TSM-***DE15M.08(II)         TSM-***DE15M.09(II)         TSM-***DE06A(II)         TSM-***DE06A.08(II)           TSM-***DE06A.09(II)         TSM-***DE15A(II)         TSM-***DE15A.08(II)         TSM-***DE15A.09(II)         TSM-***DD15M (II)           TSM-***DD15M.08 (II)         TSM-***DD15M.09 (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H.05 (II)           TSM-***PE15H(II)         TSM-***PE06H(II)         TSM-***PE15M(II)         TSM-***PE06H(II)         TSM-***PE17H(II)           TSM-***PE08H(II)         TSM-***PE17M(II)         TSM-***PE08M(II)         TSM-***PE06H(II)         TSM-***PE17H(II)           (ii)         TSM-***DA01A.10         TM-***DA01A.15         TSM-***DA01A.18         TSM-***DC01A.10         TSM-***DC01A.15           TSM-***DC01A.18         TSM-***DD05A.T0(II)         TSM-***DD05A.T8(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T0(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T8(II)
TSM-***DE06A.09(II)         TSM-***DE15A(II)         TSM-***DE15A.08(II)         TSM-***DD15M.09(II)         TSM-***DD15M.09(II)         TSM-***DD06M (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD06H (II)         TSM-***DD15H (II)         TSM-***DD15H (II)         TSM-***DD15H (II)         TSM-***DE15X(II)         TSM-***PE15M(II)         TSM-***PE17H(II)         TSM-****PE17H(II)         TSM-****PE17H(II
TSM-***DD15M.08 (II) TSM-***DD15M.09 (II) TSM-***DD06M (II) TSM-***DD06H (II) TSM-***DD06H.05 (II) TSM-***DD06H.08 (II) TSM-***DD15H.09 (II) TSM-***DD15H.08 (II) TSM-***DD15H.08 (II) TSM-***DD15H.08 (II) TSM-***DD15H.08 (II) TSM-***PE15M (II) TSM-***PE15M (II) TSM-***PE06M (II) TSM-***PE17M (II) TSM-***PE06M (II) TSM-***PE17M (II) TSM-***PE06M (II) TSM-***PE17M (II) TSM-***PE06M (II) TSM-***PE06M (II) TSM-***PE17M (II) TSM-***PE06M (II) TSM-***PE06M (II) TSM-***PE17M (II) TSM-***PE17M (II) TSM-***PE17M (II) TSM-***PE17M (II) TSM-***DC01A.10 TSM-***DC01A.15 TSM-***DC01A.18 TSM-***DD05A.T0 (II) TSM-***DD05A.T0 (II) TSM-***DD14A.T0 (I
TSM-***DD06H.08(II) TSM-***DD15H(II) TSM-***DD15H.05(II) TSM-***PE15X(II) TSM-***PE15X(II) TSM-***PE06H(II) TSM-***PE06H(II) TSM-***PE06M(II) TSM-***PE06M(II) TSM-***PE17H(II) TSM-***PE08M(II)  (ii) TSM-***DA01A.10 TM-***DA01A.15 TSM-***DA01A.18 TSM-***DC01A.10 TSM-***DC01A.15 TSM-***DC01A.18 TSM-***DD05A.T0(II) TSM-***DD05A.T0(II) TSM-***DD05A.T0(II) TSM-***DE05A.T0(II) TSM-***DE05A.T0(II) TSM-***DE05A.T0(II) TSM-***DE14A.T0(II) TSM-***DE14A.T0(II) TSM-***DE14A.T0(II) TSM-***DE14A.T0(II) TSM-***DE14A.T0(II)
TSM-***PE15H(II) TSM-***PE06H(II) TSM-***PE15M(II) TSM-***PE06M(II) TSM-***PE17H(II)  (ii) TSM-***DA01A.10 TM-***DA01A.15 TSM-***DA01A.18 TSM-***DC01A.10 TSM-***DC01A.15 TSM-***DC01A.18 TSM-***DD05A.T0(II) TSM-***DD05A.T0(II) TSM-***DD05A.T0(II) TSM-***DD14A.T0(II)
TSM-***PE08H(II)         TSM-***PE17M(II)         TSM-***PE08M(II)           (ii)         TSM-***DA01A.10         TM-***DA01A.15         TSM-***DA01A.18         TSM-***DC01A.10         TSM-***DC01A.15           TSM-***DC01A.18         TSM-***DD05A.T0(II)         TSM-***DD05A.T8(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T8(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T8(II)
(ii)  TSM-***DA01A.10 TM-***DA01A.15 TSM-***DA01A.18 TSM-***DC01A.10 TSM-***DC01A.15  TSM-***DC01A.18 TSM-***DD05A.T0(II) TSM-***DD05A.T8(II) TSM-***DD14A.T0(II) TSM-***DD14A.T8(II)  TSM-***DE05A.T0(II) TSM-***DE05A.T8(II) TSM-***DE14A.T0(II) TSM-***DE14A.T8(II)
TSM-***DA01A.10         TM-***DA01A.15         TSM-***DA01A.18         TSM-***DC01A.10         TSM-***DC01A.15           TSM-***DC01A.18         TSM-***DD05A.T0(II)         TSM-***DD05A.T8(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T0(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T8(II)
TSM-***DA01A.10         TM-***DA01A.15         TSM-***DA01A.18         TSM-***DC01A.10         TSM-***DC01A.15           TSM-***DC01A.18         TSM-***DD05A.T0(II)         TSM-***DD05A.T8(II)         TSM-***DD14A.T0(II)         TSM-***DD14A.T0(II)           TSM-***DE05A.T0(II)         TSM-***DE05A.T9(II)         TSM-***DE14A.T0(II)         TSM-***DE14A.T8(II)
TSM-***DC01A.18 TSM-***DD05A.T0(II) TSM-***DD05A.T8(II) TSM-***DD14A.T0(II) TSM-***DD14A.T8(II) TSM-***DE05A.T0(II) TSM-***DE05A.T9(II) TSM-***DE14A.T0(II) TSM-***DE14A.T8(II)
TSM-***DE05A.T0(II) TSM-***DE05A.T8(II) TSM-***DE05A.T9(II) TSM-***DE14A.T0(II) TSM-***DE14A.T8(II)
TSM-***DE05H.T8(II) TSM-***DE14H.T0(II) TSM-***DE14H.T9(II) TSM-***DE14H.T9(II)
TSM-***DD05H.T8(II) TSM-***DD14H.T0(II) TSM-***DD14H.T8(II) TSM-***DE06H.T0(II) TSM-***DE06H.T8(II)
TSM-***DE06H.T9(II) TSM-***DE06H.18(II) TSM-***DE06M.T0(II) TSM-***DE06M.T8(II) TSM-***DE06M.T9(II)
TSM-***DD06M.T8(II) TSM-***DE15H.T0(II) TSM-***DE15H.T9(II) TSM-***DE15H.T9(II)
TSM-***DE15M.T8(II) TSM-***DE06A.T0(II) TSM-***DE06A.T0(II) TSM-***DE06A.T0(II)
TSM-***DE15A.T0(II) TSM-***DE15A.T8(II) TSM-***DE15B.T8(II)
TSM-***DD15M.T9(II) TSM-***DD15M.T9(II) TSM-***DD15M.T9(II) TSM-***DD15M.T9(II)
TSM-***DD06M.T0(II) TSM-***DD06M.T8(II) TSM-***DD06M.T9(II) TSM-***DD06H.T0(II)
TSM-***DD06H.T8(II) TSM-***DD06H.18(II) TSM-***DD06A.T9(II) TSM-***DD06A.T9(II)
TSM-***DD15A.T0(II) TSM-***DD15A.T8(II) TSM-***DD15A.T9(II) TSM-***PE15H.T0(II) TSM-***PE06H.T0(II)
TSM-***PE15M.T0(II) TSM-***PE06M.T0(II) TSM-***PE17H.T0(II) TSM-***PE17H.T0(II)
TSM-***PE08M.T0(II)
(iii)
TSM-***DD06M.05(II) TSM-***DE06M.05(II) TSM-***DE06X.05(II) TSM-***DD06X.05(II) TSM-***DE09.05
TSM-***DD09.05 TSM-***DE09.B5 TSM-***DE09R.05 TSM-***DE09R.B5 TSM-***DE09.05W
TSM-***DE09R.05W TSM-***DE09R.B5W
(iv)
TSM-***DE08M(II) TSM-***DD08M(II) TSM-***DE17M(II) TSM-***DD17M(II) TSM-***DE17M.08(II)
TSM-***DD17M.08(II) TSM-***DE18M(II) TSM-***DD18M(II) TSM-***DE21 TSM-***DE21.08
TSM-***DD21 TSM-***DD21.08 TSM-***DE19 TSM-***DE19.08 TSM-***DD19
TSM-***DD19.08 TSM-***DE20 TSM-***DE20.08 TSM-***DD20 TSM-***DD20.08
TSM-***DE18 TSM-***DE18.08 TSM-***DD18 TSM-***DD18.08 TSM-***DD09
TSM-***DE15V(II) TSM-***DE09 TSM-***DE15MB(II) TSM-***DE171H(II) TSM-***DC082H.08(II)
TSM-***DE20.B0 TSM-***DE09.B0 TSM-***DE09R TSM-***DE09R.B0 TSM-***DE19R
TSM-***DE18M.W(II) TSM-***DE21.W TSM-***DE19.W TSM-***DE20.W TSM-***DE09R.W
TSM-***DE09R.B0W TSM-***DE19R.W TSM-***DE21.70 TSM-***DE19R.70

(v) TSM-***DE08M.T0(II), TSM-***DE17M.T8(II) TSM-***DE18M.T8(II) (vi)	TSM-***DE17M.T0(II) TSM-***DD08M.T8(II) TSM-***DD18M.T8(II)	TSM-***DD08M.T0(II) TSM-***DD17M.T8(II)	TSM-***DD17M.T0(II) TSM-***DE18M.T0(II)	TSM-***DE08M.T8(II) TSM-***DD18M.T0(II)
TSM-***DE06XC.08(II) TSM-***DE08M.08(II) TSM-***DE09.B8 TSM-***DE09R.08W	TSM-***DD06XC.08(II) TSM-*** DD06M.08(II) TSM-***DE09R.08 TSM-***DE09R.B8W	TSM-***DE09.08 TSM-*** DE06M.08(II) TSM-***DE09R.B8	TSM-***DD09.08 TSM-***DE18M.08(II) TSM-***DE09.08W	TSM-***DD08M.08(II) TSM-***DD18M.08(II) TSM-***DE18M.08W(II)
(vii) TSM-***DE19C				
(viii) TSM-***DE06XC.07(II)	TSM-***DE06XC.05(II)	TSM-***DE09C.07	TSM-***DE09C.05	

# c) N-type Mono of Back Sheet Products

(i) TSM-\*\*\*NE09RC.05

# d) P-type Polycrystalline of Mono-facial Dual Glass Products

(i) TSM-***PDG5 TSM-***PEG5.50 TSM-***PEG40.07 TSM-***PEG5H TSM-***PEG14H.40 TSM-***PEG5H.07(II) TSM-***PEG14H.47(II) TSM-***PEG14H.47(II) TSM-***PEG6H TSM-***PEG14.40(II)	TSM-***PDG5.07 TSM-***PEG14 TSM-***PEG5.40 TSM-***PEG14H TSM-**PEG14H.07 TSM-***PEG5H.47(II) TSM-***PEG15H TSM-***PEG6	TSM-***PDG5.50 TSM-***PEG14(II) TSM-***PEG5.47 TSM-***PEG5H.40 TSM-***PEG14H.47 TSM-***PEG14H(II) TSM-***PEG15 TSM-***PEG6(II)	TSM-***PEG5 TSM-***PEG40.40 TSM-***PEG14.40 TSM-***PEG5H.07 TSM-***PEG5H(II) TSM-***PEG14H.40(II) TSM-***PEG15H(II) TSM-***PEG15H(II)	TSM-***PEG5.07 TSM-***PEG40.47 TSM-***PEG14.47 TSM-***PEG5H.47 TSM-***PEG5H.40(II) TSM-***PEG14H.07(II) TSM-***PEG15(II) TSM-***PEG6M (II)
(ii) TSM-***PEG5.20 TSM-***PEG14H.20 TSM-***PEG14H.27((II) TSM-***PEG6H.20	TSM-***PEG5.27 TSM-***PEG14H.27 TSM-***PEG15H.20 TSM-***PEG6.20	TSM-***PEG14.20 TSM-***PEG5H.20(II) TSM-***PEG15.20 TSM-***PEG6.20(II)	TSM-**PEG5H.20 TSM-***PEG5H.27(II) TSM-***PEG15H.20(II)	TSM-***PEG5H.27 TSM-***PEG14H.20(II) TSM-***PEG15.20(II)

# e) P-type Mono PERC of Mono-facial Dual Glass Products

(i)				
TSM-***DEG40.07(II)	TSM-***DEG5(II)	TSM-***DEG5.07(II)	TSM-***DEG14(II)	TSM-**DEG14.07(II)
TSM-***DEG40.47(II)	TSM-***DEG5.40(II)	TSM-***DEG5.47(II)	TSM-***DEG14.40(II)	TSM-***DEG14.47(II)
TSM-***DEG5H(II)	TSM-***DEG14H(II)	TSM-***DEG5H(II)	TSM-***DEG5H.40(II)	TSM-***DEG5H.07(II)
TSM-***DEG5H.47(II)	TSM-***DEG14H(II)	TSM-***DEG14H.40(II)	TSM-***DEG14H.07(II)	TSM-***DEG14H.47(II)
TSM-***DEG6H(II)	TSM-***DEG6M(II)	TSM-***DDG6M(II)	TSM-***DEG15H(II)	TSM-***DEG15M(II)
TSM-***DDG6H(II)	TSM-***DEG6(II)	TSM-***DEG15(II)		
(ii)				
TSM-***DEG14.20(II)	TSM-***DEG5.20(II)	TSM-***DEG5.27(II)	TSM-***DEG5H.20(II)	TSM-***DEG5H.27(II)
TSM-***DEG14H.20(II)	TSM-***DEG14H.27(II)	TSM-***DEG6H.20(II)	TSM-***DEG6M.20(II)	TSM-***DEG15H.20(II)
TSM-***DEG15M.20(II)	TSM-***DDG6M.20(II)	TSM-***DDG6H.20(II)	TSM-***DEG6.20(II)	TSM-***DEG15.20(II)
(iii)				
TSM-***DEG8M.20(II)	TSM-***DEG17M.20(II)	TSM-***DEG18M.20(II)	TSM-***DEG9.20	TSM-***DEG9R.B0
TSM-***DEG9R.20	TSM-***DEG9R.B0W	TSM-***DEG9R.20W		
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(iv)

TSM-\*\*\*DEG9.28 TSM-\*\*\*DEG18M.28(II) TSM-\*\*\*DEG9R.88 TSM-\*\*\*DEG9R.28 TSM-\*\*\*DEG9R.28W

# f) P-type Mono PERC of Bifacial Dual Glass Products

(i) TSM-***DEG5C.07(II) TSM-***DEG5HC.07(II) TSM-***DEG6HC(II)	TSM-***DEG14C.07(II), TSM-***DEG14HC(II) TSM-***DEG6MC(II)	TSM-***DEG5C(II) TSM-***DEG14HC.07(II) TSM-***DEG15C(II)	TSM-***DEG14C(II) TSM-***DEG15HC(II) TSM-***DEG15C.07(II)	TSM-***DEG5HC(II) TSM-***DEG15MC(II)
(ii) TSM-***DEG5C.27(II) TSM-***DEG5HC.27(II) TSM-***DEG6HC.20(II) TSM-***DEG15C.20(II)	TSM-***DEG14C.27(II) TSM-***DEG14HC.20(II) TSM-***DEG6MC.20(II) TSM-***DEG15MC.27(II)	TSM-***DEG5C.20(II) TSM-***DEG14HC.27(II) TSM-***DEG6C.20(II)	TSM-***DEG14C.20(II) TSM-***DEG15HC.20(II) TSM-***DEG6C.20(II)	TSM-***DEG5HC.20(II) TSM-***DEG15MC.20(II) TSM-***DEG15C(II)
(iii) TSM-***DEG8MC.20 (II) TSM-***DDG21C.20 TSM-***DDG19C.28 TSM-***DEG15VC.20(II) TSM-***DEG19RC.20 TSM-***DEG18C.20W	TSM-***DEG17MC.20(II) TSM-***DDG21C.28 TSM-***DEG20C.20 TSM-*** DEG18C.20 TSM-***DEG18MC.20W(II) TSM-***DEG19RC.20W	TSM-***DEG18MC.20(II) TSM-***DEG19C.20 TSM-***DEG20C.28 TSM-***DDG18C.20 TSM-***DEG21C.20W	TSM-*** DEG21C.20 TSM-*** DEG19C.28 TSM-*** DDG20C.20 TSM-*** DEG18C.28 TSM-***DEG19C.20W	TSM-***DEG21C.28 TSM-***DDG19C.20 TSM-***DDG20C.28 TSM-*** DDG18C.28 TSM-*** DEG20C.20W
(iv) TSM-***DEG9C.27	TSM-***DEG9RC.B7	TSM-***DEG9RC.27	TSM-***DEG9RC.27W	

# g) N-type Mono of Bifacial Dual Glass Products

(i) TSM-***NEG16MC(II)	TSM-***NEG7MC(II)			
(ii) TSM-***NEG15MC.20(II)	TSM-***NEG16MC.20(II)	TSM-***NEG7MC.20(II)	TSM-***NEG15XC.20(II)	
(iii) TSM-***NEG19C.20 TSM-*** NEG9RC.20	TSM-***NEG20C.20 TSM-*** NEG20C.C0	TSM-***NEG21C.20	TSM-***NEG19RC.20	TSM***NEG18C.20
(iv) TSM-***NEG9C.27	TSM-***NEG9RC.B7	TSM-***NEG9RC.27		

# h) N-type Mono of Mono-facial Dual Glass Products

(i) TSM-***NEG9.20	TSM-***NEG9R.B0	TSM-***NEG9R.20	TSM-***NEG19R.20	
(ii) TSM-***NEG9.28	TSM-***NEG9R.B8	TSM-***NEG9R.28	TSM-***NEG18R.20	TSM-***NEG18R.28

# i) Clamp

(i) Trina Clamp II

Applicable for following Products: TSM-\*\*\*DE09.B0, TSM-\*\*\*DE09.B8, TSM-\*\*\*DE09.B5, TSM-\*\*\*DE20.B0, TSM-\*\*\*DE09R.B0, TSM-\*\*\*DE09R.B5, TSM-\*\*\*DE09R.B8, TSM-\*\*\*DE09R.B8, TSM-\*\*\*DE09R.B8, TSM-\*\*\*DE09R.B0, TSM-\*\*\*NEG9R.B8, TSM-\*\*\*NEG9R.B0, TSM-\*\*\*DE09R.B0W, TSM-\*\*\*DE09R.B8W

(ii) Trina Clamp III

Applicable for following Products: TSM-\*\*\*DE20, TSM-\*\*\*DE21, TSM-\*\*\*DE20.W, TSM-\*\*\*DE21.W

**Note:** V @^ Á ‰E E E + Á] | æ&^ @[ | å^ ¦ Á • c æ} å • Áã} Á ^ æ& @Á & æ• ^ Á ~ [ ¦ Á c @ Öæc æÁÙ @^ ^ c ÁÇ~ [-28ÁPE@6Ын DÈ ^ Á ‰VÙT

# 2) Rules of use and application for Products listed under Sec. 1)

Trina Solar has set out certain rules of use and application for the Products (please see Appendix: *Rules of application for climatic modules*) to ensure the functionality, durability and performance under different climatic circumstances.

Only for Products listed under Sec. 1) a D\ÊDÁÊ ÁÊ\*Á\$@#\$ ^ Á ã } •[ \cdot\square \square \squa

No.	Environment	Temperature	Relative Humidity	Irradiance kwh/m²
1)	High temperature and high humidity area	Annual average temperature > 23°C  Monthly minimum temperature > 18°C	Annual average RH > 70% Monthly minimum average RH > 60%	/
2)	High temperature dif- ference and high irra- diation area	Desert and gobi region	/	>1800
3)	Gelid area (Low irradiation)	< -10°C (Monthly minimum temperature)	/	<1400
4)	Normal	Not listed in Nr. 1 to 3 before		

#### 3) Warranty

#### a) 10-Year Limited Product Warranty

For the Products listed under Sec. 1) a DÇ A DÇÊ A DÇÊ A DÇÊ A Solar warrants that for a period of ten years commencing on the Warranty Start Date (as defined in Sec. 4)) there will be no defects in material workmanship or manufacture that materially impede the power generation functioning of the Products.

If the Buyer is aware or should have been aware of such design, material, workmanship or manufacturing defects prior to installation of the Products and nevertheless installs the Products without giving Trina Solar the opportunity to correct such defects prior to installation, the Buyer shall bear the additional costs incurred by correcting such defects after installation.

This Limited Product Warranty covers glass breakage provided that there was no external cause of breakage (i.e. only breakage caused by the glass itself or the module is covered).

For Trina Clamp II listed under Sec. 1) i) (i), Trina Solar's warranty is limited to the defects caused by mechanical failures (e.g., shattering, deformation of the Trina Clamp); and regardless of whether such defects substantially impede the performance of the solar modules.

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which



occur after delivery (Incoterms 2020) to the Buyer, do not constitute a defect under this Limited Product Warranty.

## b) 12-Year Limited Product Warranty

If the Buyer is aware or should have been aware of such design, material, workmanship or manufacturing defects prior to installation of the Products and nevertheless installs the Products without giving Trina Solar the opportunity to correct such defects prior to installation, the Buyer shall bear the additional costs incurred by correcting such defects after installation.

This Limited Product Warranty covers glass breakage provided that there was no external cause of breakage (i.e. only breakage caused by the glass itself or the module is covered).

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which occur after delivery (Incoterms 2020) to the Buyer, do not constitute a defect under this Limited Product Warranty.

## c) 15-Year Limited Product Warranty

For the Products listed under Sec.1) à Diii), (vi), (viii), (c) (i), (e) (iv), (f) (iv), (g) (iv), h) (ii) Trina Solar warrants that for a period of fifteen years commencing on the Warranty Start Date (as defined in Sec. 4)) there will be no defects in material, workmanship or manufacture that materially impede the power generation functioning of the Products.

If the Buyer is aware or should have been aware of such design, material, workmanship or manufacturing defects prior to installation of the Products and nevertheless installs the Products without giving Trina Solar the opportunity to correct such defects prior to installation, the Buyer shall bear the additional costs incurred by correcting such defects after installation.

This Limited Product Warranty covers glass breakage provided that there was no external cause of breakage (i.e. only breakage caused by the glass itself or the module is covered).

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which occur after delivery (Incoterms 2020) to the Buyer, do not constitute a defect under this Limited Product Warranty.

## d) 25-Year Limited Power Output Warranty for Back Sheet Products

In addition, Trina Solar provides power warranty of 25 years, which is commencing on the warranty start date, the remaining power output ratio of our back sheet Products listed under Sec.1) a), b), namely 1-100% \* (P0 P1) / P0, will not be lower than the following guaranteed level.

P0: Lower limit value of the module nominal power output indicated in the contract or product nameplate. P1: Actual power output measured at the Standard Test Conditions (STC: Irradiance 1000w/m², Temperature 25°C, AM 1.5), and measurement shall be carried out either by Trina Solar or by a third-party testing institute recognized by Trina Solar and the Buyer.

(Remarks: According to STC, measurement system uncertainty should be included in all actual power output measurements.)

- for P-type Poly Products (as defined in Sec. 1) a)): 2.5% in the first year; from the 2nd year to the 25th year, the average annual power decline will be no more than 0.65%; by the end of the 25th year, the actual power output will be no less than 81.9%;
- for P-type Mono PERC Products (as defined in Sec. 1) b) (i), (ii)): 2.5% in the first year; from the 2nd year to the 25th year, the average annual power decline will be no more than 0.6%; by the end of the 25th year, the actual power output will be no less than 83.1%.
- for P-type Mono PERC Products (as defined in Sec. 1) b) (iii), (iv), (v), (vi), (vii), (viii)): 2.0 % in the first year; from the 2nd year to the 25th year, the average annual power decline will be no more than 0.55 %; by the end of the 25th year, the actual power output will be no less than 84.8 %;
- for N-type Mono Products (as defined in Sec. 1) c) (i)): 1.0 % in the first year; from the 2nd year to the 25th year, the average annual power decline will be no more than 0.4 %; by the end of the 25th year, the actual power output will be no less than 89.4 %;

(Remark: According to STC, measurement system uncertainty should be included in all actual power output measurements.)

## e) 30-Year Limited Power Output Warranty for Dual Glass Products

# (i) Frontside:

In addition, Trina Solar provides power warranty of 30 years, which is commencing on the warranty start date, the remaining power output ratio of our dual glass Products listed under Sec.1) d), e) and the front side (without J-Box) of the Products listed under Sec. 1) f), g), h), namely 1-100% \* (P0 P1) / P0, will not be lower than the following guaranteed level.

P0: Lower limit value of the module nominal power output indicated in the contract or product nameplate. P1: Actual power output measured at the Standard Test Conditions (STC: Irradiance 1000w/m², Temperature 25°C, AM 1.5), and measurement shall be carried out either by Trina Solar or by a third-party testing institute recognized by Trina Solar and the Buyer.

(Remarks: According to STC, measurement system uncertainty should be included in all actual power output measurements.)

For Bifacial Dual Glass products listed in 1) f) and 1) g), the power output warranty only applies to the front side of the product (without junction box).

- for P-type Poly Mono-facial Dual Glass Products (as defined in Sec. 1) d), for P-type Mono PERC Mono-facial Dual Glass Products (as defined in Sec. 1) e) (i), (ii), for the front side (without J-Box) of P-type Mono PERC Bifacial Dual Glass Products (as defined in Sec.1) f) (i), (ii)): 2.5 % in the first year; from the 2nd year to the 30th year, the average annual power decline will be no more than 0.5%; by the end of the 30th year, the actual power output will be no less than 83.0%;
- for P-type Mono PERC Mono-facial Dual Glass Products (as defined in Sec. 1) e) (iii), (iv) for the front side (without J-Box) of P-type Mono PERC Bifacial Dual Glass Products (as defined in Sec.1) f) (iii), (iv)): 2.0 % in the first year; from the 2nd year to the 30th year, the average annual power decline will be no more than 0.45 %; by the end of the 30th year, the actual power output will be no less than 84.95%;
- for N-type Mono Bifacial Dual Glass Products (as defined in Sec.1) g) (i), (ii)): 1.5% in the first year; from the 2nd year to the 30th year, the average annual power decline will be no more than 0.5%; by the end of the 30th year, the actual power output will be no less than 84.0%.
- for N-type Mono Dual Glass Products (as defined in Sec.1) g) (iii), (iv), h) (i), (ii)): 1.0% in the first year; from the 2nd year to the 30th year, the average annual power decline will be no more than 0.4%; by the end of the 30th year, the actual power output will be no less than 87.4%.



#### (ii) Backside

For P-type Mono PERC Bifacial Products (as defined in Sec.1) b) (vii), (viii), (viii), (iv)) and N-type Mono Bifacial Dual Glass Products (as defined in Sec.1) g) (iii), (iv)), Trina Solar warrants that for a period of thirty years commencing on the Warranty Start Date (as defined in Sec. 4)) the loss of the power on the backside of the product (with junction box) as follows

- From the 1st year to the 10th year, the power degradation will be no more than Initial backside power P multiplied by 15%
- From 11th to 30th year, the power degradation will be no more than Initial backside power P multiplied 30%.

For definition purposes only: Initial backside power P = nameplate power (module front side power) \* specified bifaciality (as specified lower limit of the bifaciality in the relevant Product Data Sheet).

(Remark: According to STC, measurement system uncertainty should be included in all actual power output measurements.)

# f) 5-Year Limited Product Warranty

For the Products listed under Sec. 1) iD Solar warrants that for a period of five years commencing on the Warranty Start Date (as defined in Sec. 4)) there will be no defects in material workmanship or manufacture that materially impede the power generation functioning of the Products.

If the Buyer is aware or should have been aware of such design, material, workmanship or manufacturing defects prior to installation of the Products and nevertheless installs the Products without giving Trina Solar the opportunity to correct such defects prior to installation, the Buyer shall bear the additional costs incurred by correcting such defects after installation.

For Trina Clamp III listed under Sec. 1) i) (ii), Trina Solar's warranty is limited to the defects caused by mechanical failures (e.g., shattering, deformation of the Trina Clamp); and regardless of whether such defects substantially impede the performance of the solar modules.

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which occur after delivery (Incoterms 2020) to the Buyer, do not constitute a defect under this Limited Product Warranty.

# 4) Warranty Start Date

The Warranty Start Date is the date of initial installation of the Products or three months after the delivery (Incoterms 2020) of the Products to the Buyer, whichever date is earlier.

#### 5) Exclusions and Limitations

This Global Limited Warranty does not apply to any Products which have been subject to:

- a) Failure to pay the purchase price towards Trina Solar or its subsidiaries which have put the module on the market even though (i) the payment was due and (ii) the direct customer who has obtained the module from Trina Solar or its subsidiary (Wairect Customer) is not entitled to withhold the purchase price or parts of the purchase price. Trina Solar must inform the Buyer about the non-payment and provide the name and the full address of the Direct Customer which has failed to pay the module. In case that Trina Solar can reject the claims under this Global Limited Warranty based on this provision, the Buyer can deposit the amount not paid in order to trigger the Global Limited Warranty claims;
- **b)** Failure to provide proof of purchase or product information;

- d) Fæã | ã } \* Á c [ Á & [ { ] | ^ Á ¸ ã c @iÁ térmãof tæéstàr[dardæ bf any Áupporting éa[tsæb] ` æ | Á the Products, or the Buyer has installed any substandard, mismatched, inferior or unqualified supporting (including but not limited to the clamps, etc.), which directly led to the quality problems with Trina Solar Products;
- e) Failure to carry out proper operation and maintenance (including but not limited to operation and maintenance requirements requested by Trina Solarq aphilicable user manual or other applicable local laws and regulations of the place of installation);
- f) Service by service technicians who are not qualified under the relevant law and/or applicable regulations at the place of installation;
- **g)** Change, erasure or illegible-made of the Product's type, nameplate or serial number (other than by any act or omission of Trina Solar);
- h) Installation on mobile units (except photovoltaic tracking system), such as vehicles, ships or offshorestructures (except water surface floating systems pursuant to Sec 2);
- Exposure to voltage in excess to the maximum system voltage or power surges;
- i) defective components in the construction on which the module is mounted;
- **k)** Exposure to mold discoloration or similar external effects:
- I) unauthorized modifications:
  - (i) Operation/maintenance by use of unauthorized spare parts;
  - (ii) Application under extreme environmental conditions or rapid changes in such environments resulting in corrosion, oxidation, or affected by chemical products;
  - (iii) Other acts beyond Trina Solar's reasonable control (including direct or indirect damage by war, fire, flood, hurricane, volcanic eruption, surface collapse, debris flow, lightning, earthquake, heavy snowfall, hailstone, strong breeze etc.);
- m) Use of the Products in such a manner as to infringe Trina Solars or any third party's intellectual property rights (including but not limited to patents, trademarks, etc.);
- n) Any subsequent sale of the Products from a country where Trina Solar was first marketed to another country without the consent of Trina Solar ("Prohibition of Parallel Import"). But the Prohibition of Parallel Import does not apply to the sales within the European Union ("EU"), where the sale of Products from one EU country to another does not require the consent of Trina Solar. However, the consent of Trina Solar must be obtained for the sale of Products from outside the EU to an EU country or from an EU country to outside the EU.
- o) only for Buyers located in Australia applies: This Global Limited Warranty is only valid for Products from authorized Australian resellers. Buyers may contact the Customer Support office in their region (as detailed in Sec. 8)) for details of authorized Australian resellers.
- p) only for Buyers located in the US applies: This Global Limited Warranty is only valid for Products from authorized US resellers. Buyers may contact the Customer Support office in their region (as detailed in Sec. 8)) for details of authorized US resellers.
- **q)** only for Buyers located in Japan applies: This Global Limited Warranty is only valid for Products from authorized Japanese resellers. Buyers may contact the Customer Support office in their region (as detailed in Sec. 8)) for details of authorized Japanese resellers.

# 6) Repair, Replacement or Refund Remedy

- a) CE• Á Ó \* ŝofe land exélusive remedy under this Global Limited Warranty (though the Buyer should note Sec. 6) d) regarding the potential existence of other statutory rights and Sec. 6 e) for Australian Buyers) Trina Solar will, at its sole discretion, either, with regard to the applicable Products:
  - (i) determine a maintenance plan and repair the defective Products; or
  - (ii) refund the difference value between the actual STC power and the warranty power of the products. Front side power compensation = The market price at time of payout (per watt) \* (sum of the re-



maining theoretical warranty power according to Sec. 3) d), e) - sum of STC power actually measured according to Sec. 3) d), e)); The backside power compensation is processed based on the market price at the time of payout and 10% of the difference between the warranty power and the actual STC power measured for backside; or

- (iii) refund the salvage value of the defective Products. The salvage value = The market price at the time of payout (unit price per watt) \* the original guaranteed nameplate power \* remaining warranty period (year) / original total warranty period by Trina Solar; For the salvage value compensation caused by the backside power attenuation, it is treated as 10% of the product salvage value; or
- (iv) provide additional Products to make up for the difference between the actual STC power of Products and the warranty power (Difference power = sum of the remaining theoretical warranty power according to Sec. 3) d), e) sum of STC power actually measured according to Sec. 3) d), e)); For the backside power replenishment of the Mono-facial Dual Glass products, it is treated at 10% of the difference between the actual STC power and the warranty power; or
- (v) replace the defective Products or part thereof by new or remanufactured Products. The total nominal power of the replaced Products shall not be less than the total remaining theoretical warranty power of the defective Products. (The power on the backside of the Dual Glass products is treated at 10% of the backside warranty power) Trina Solar reserves the right to provide other models of Products in replacement or addition of the defective Products if the defective Products are discontinued or otherwise unavailable.

During the warranty period of Sec. 3), Trina Solar shall bear the direct costs of repairing the products and transportation charges incurred in the delivery of the repair, replacement or additional products to the buyer, excluding insurance, air freight, customs clearance, customs duties and other non-seller's costs (e.g. port delays, storage charges due to negligence on the part of the buyer or end-user). During repair and replacement, the costs and other related expenses for the removal, handling, repack, installation or reinstallation shall remain with the Buyer. Beyond the warranty period of Sec. 3), Buyer shall bear all reasonable costs of materials, labor, freight, clearance, removal, repack, installation or reinstallation whatsoever related to repairing or replacement.

Defect Products or end of lifetime Products shall be disposed if legally permissable by the Buyer in accordance with local applicable laws or regulations, unless Trina Solar agrees or where legally mandatory takes them back. If Trina Solar decides or where legally mandatory takes the defective products back, the goods property of these products shall belong to Trina Solar without any limitation.

- b) The Global Limited Warranty periods as defined in Sec. 3) a), b), c), d), e), f) shall not extend or renew upon the repair, replacement or offering additional products of defective Products by Trina Solar. The Global Limited Warranty period for replaced, repaired or additionally provided Products is the remainder of the Global Limited Warranty period on the original new Products.
- c) All other claims under this Global Limited Warranty against Trina Solar shall be excluded. Under this limited Warranty, Trina Solar is not responsible for any special, incidental or consequential damages (including loss of profits, business interruption, loss of power generation, harm to goodwill or business reputation, or delay damages) whether such claims are based in contract, warranty, negligence or strict tort. This exclusion applies to the extent permissible by law, and even if the remedies set forth below herein are deemed to have failed of their essential purpose.
- d) YOU MAY HAVE SPECIFIC LEGAL RIGHTS OUTSIDE THIS LIMITED WARRANTY, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. THIS GLOBAL LIMITED WARRANTY DOES NOT AFFECT ANY ADDITIONAL RIGHTS YOU HAVE UNDER LAWS IN YOUR JURISDICTION GOVERNING THE SALE OF CONSUMER GOODS, INCLUDING WITHOUT LIMITATION, NATIONAL LAWS IMPLEMENTING EC DIRECTIVE 99/44 OR PURSUANT TO THE MAGNUSON MOSS WARRANTY ACT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATIONS OR EXCLUSIONS IN THIS GLOBAL LIMITED WARRANTY STATEMENT MAY NOT APPLY.
- **e)** The following statement applies to Buyers that are "Consumers" within the meaning of the Australian Consumer Law:

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# 7) Rights and Remedies against Third Parties

This Global Limited Warranty shall be construed as a separate warranty and independent from any other contractual arrangement with third parties relating to the Products. It shall not affect any rights, obligations and remedies of the Buyer, if any, with regard to third parties for defects or non-conformity or non-compliance of the Products, notwithstanding its legal basis. The rights and remedies provided hereunder are in addition to any other rights and remedies against third parties to which the Buyer may be entitled by agreements with such third parties or by law.

# 8) Claims Procedure, Notice Periods, Expiration of Global Limited Warranty Claims and Limitations.

#### **China Customer Service Center**

Trina Solar Co. Ltd

No. 2 Trina Road, Trina PV Industrial Park,

New District, Changzhou, Jiangsu,

P.R. China, 213031 Tel: 400 689 0000

Fax: +86 519 8517 6021

Mail: Chinaservice@trinasolar.com

# **Europe Customer Service Center**

Trina Solar (Schweiz) AG

Birkenweg 4

8304 Wallisellen, Switzerland

Tel:+41 43 299 68 68

Fax: +41 43 299 68 10

Mail Euservice@trinasolar.com

#### **Japan Customer Service Center**

Trina Solar (Japan) Limited

32F Sumitomo Fudosan Roppongi Grand Tower,2-

1,3-chome,Roppongi,Minato-ku,Tokyo

1066232, Japan

Tel: +81 3 6435 9008 Fax: +81 3 6435 9010

Mail: <u>Japanservice@trinasolar.com</u>

# Australia and New Zealand Customer Service Center

Trina Solar (Australia) Pty Ltd

Suite 44.05, Level 44, Governor Philip Tower 1 Farrer Place Sydney NSW 2000, Australia

Tel: 1300 874 627

Mail: Australiaservice@trinasolar.com



## **Americas Customer Service Center**

Trina Solar (U.S.), Inc.

7100 Stevenson Blvd, Fremont, CA 94538

Tel: +1 800 696 7114

Mail: NAservice@trinasolar.com

# Middle East and Africa Customer Service

#### Center

Office 2506 Liwa Heights

Cluster W, Jumeirah Lake Towers

Dubai . United Arab Emirates

Tel: +971 4 568 2872

Mail: MEAservice@trinasolar.com

#### **India Customer Service Center**

Trina Solar (India) Regional Sales Office Unit No- 824, 8th Floor, DLF Tower-B, Jasola District Center, New Delhi . 110025, India

Tel: +91 11 45852200, +91 11 35852207

Mail: Indiaservice@trinasolar.com

# Rest of World (ROW) Customer Service Center

Trina Solar Energy Development Pte Ltd 600 North Bridge Road, #12-01 Parkview Square,

Singapore 188778

Tel: +65 6808 1111

Mail: apmeaservice@trinasolar.com

- b) Any dispute on technical facts relating to claims brought under this Global Limited Warranty for defects of Products shall be determined by expert determination. Trina Solar and the Buyer will, at c @^ Á Ó [ | Á V | ã } æáuðst, joiætly appoint as independent expert and appraiser a reputable researcher from a first-class test-institute such as TÜV Rheinland, TÜV SUD or ASU Arizona State University, and so on Ç ‰V ^ & @} ã & æ | Á Ò ¢ ] ^ | c + D È Á V @^ Á å ^ c ^ | { ã finæte coãndluşivée, à binding and enforceable in any proceeding brought hereunder. The Technical Expert shall (i) act as an expert recognized by Trina Solar; (ii) allow the parties a reasonable opportunity to make representations and counter-representations; (iii) take those representations and counter-representations into account; and (iv) if required by either party give written reasons for his or her determination.
- c) Any claim for breach of this Global Limited Warranty must be brought within two (2) months after discovery of the breach.
- **d)** The return of any defective Products will not be accepted unless prior written authorization has been given by Trina Solar.

#### 9) Force Majeure

Trina Solar shall not be responsible or liable in any way to the Buyer for any non-performance or delay in Trina Solar's performance under this Global Limited Warranty due to occurrences of force majeure such as war, riots, strikes, unavailability of suitable and sufficient labor, material, or capacity or technical or yield failures and any unforeseen event beyond its control, including, without limitation, any technological or physical event or condition which is not reasonably known or understood at the time of the sale of the defective Products or the notification of the relevant Global Limited Warranty claim under this limited Warranty.

# 10) Warranty Assignment

This Global Limited Warranty is transferrable when the Products remain installed in their original installation location without having them moved or disassembled after initial installation.

# 11) Validity

This Global Limited Warranty shall apply to Products delivered to the Buyer on or after 1<sup>st</sup> of December 2023(Incoterms 2020). This Global Limited Warranty shall be valid until a new revision is issued by Trina Solar.

# 12) Geographical Validity

This Global Limited Warranty does apply to all countries with the exception of Germany and Turkey where country specific limited warranties apply.

# 13) No Other Express Warranty

Except as otherwise provided by applicable statutory law (cf. Sec. 6) d) and 6 e)) or unless modified in writing and signed by an officer of Trina Solar, the Global Limited Warranty set forth herein is the only express warranty (whether written or oral) by Trina Solar applicable to the Products and no one is authorized to restrict, expand or otherwise modify this limited Warranty.

# 14) Miscellaneous

If any provision of this Global Limited Warranty is held invalid, unenforceable or contrary to law then the validity of the remaining provisions of this Global Limited Warranty shall remain in full force and effect.

# 15) Limitation of Liability

To the maximum extent permitted by applicable law, Trina Solar's aggregate liability according to this Global Limited Warranty shall not exceed the purchase price paid by the Buyer for the defective Products in the case of a Global Limited Warranty claim. The Buyer acknowledges that the foregoing limitation of liability is an essential element of this Global Limited Warranty and that in the absence of such limitations the purchase price of the Products would be significantly higher.

#### 16) Applicable Law and Jurisdiction

The validity of this Global Limited Warranty, the construction of its terms and the interpretation and enforcement of the rights and duties of the Buyer and Trina Solar shall be governed by the laws of the country of the original installation location of the ProductsÊ Á c [ Á c @^ Á ^ ¢ & | ˇ • ã [ } Á [ ~ Á c @æc Á & [ ` as well as of the *United Nations Convention on Contracts for the International Sale of Goods* (CISG) dated 11 April 1980 and of any other uniform law.

All disputes arising out of or in connection with this Global Limited Warranty shall be finally settled before the ordinary courts of the country of the original installation location of the Products.

# 17) Note

The installation and operation of photovoltaic modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using and operating the Products (<a href="http://www.trinasolar.com/en-glb/resources/downloads">http://www.trinasolar.com/en-glb/resources/downloads</a>).



Appendix: "Rules of application for Trina modules"

If the place of the installed Products is not listed in the following list of countries, states and provinces, please contact the competent contact customer support center (as stated in Sec. 8) a)) which shall timely feedback to Trina Solar headquarters PM. Then, Trina Solar headquarters PM shall work with engineering center and quality control team to confirm the corresponding product or material type and update the database.

Region	CN	Country/state/province	Climate type	Applicable products listed under Sec.1
	01	Ghana	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Mauritius	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Nigeria	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Sierra Leone	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Central African Republic	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Namibia	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	07	Algeria	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	80	Tunisia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	09	Egypt	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	10	Djibouti	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Kenya	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	12	Morocco	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13	South Africa	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Senegal	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	15	Tanzania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	16	Malawi	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	Zimbabwe	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18	Ethiopia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Zambia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	Eritrea	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	21	Burkina Faso	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
Africa	22	Rwanda	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	23	Mozambique	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	24	Botswana	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	25	Angola	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	26	Mali	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	27	Uganda	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	28	Chad	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	29	Mauritania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	30	Cote d'Ivoire	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Guinea	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	32	Niger	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	33	Madagascar	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	34	Burundi	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	35	Liberia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	36	Guinea-Bissau	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	37	Benin	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	38	Togo	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	39	Swaziland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	40	Libya	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	41	Lesotho	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	42	Cape Verde	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	43	Seychelles	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
۸ ۲۰۰۰	44	Gambia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
Africa	45	Comoros	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)

	10	Overland	Name alle	(a) (b) (a) (d) (a) (f) (a) (b)
	46	Sudan Somalia	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	47		Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	48	Sao Tome and Principe  Democratic Republic of	Normally	
	49	Congo	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	50	Congo	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	51	South Sudan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	52	Equatorial Guinea	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	53	Gabon	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	54	Douala	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	55	Cameroon	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	01	United Arab Emirates	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Oman	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Bahrain	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Saudi Arabia	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Yemen	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Iraq 	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
MEA	07	Israel	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	08	Lebanon	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	09	Palestine	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	10	Jordan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	11 12	Kuwait Qatar	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13		Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Syrian Cameroon	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	01	Norway	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Sweden	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Finland	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Denmark	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Ukraine	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Germany	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	07	France	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	08	Georgia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	09	Netherlands	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	10	Netherlands Antilles	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Portugal	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	12	Switzerland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
EU	13	Turkey	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Spain	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	15	Greece	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	16	Slovakia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	Hungary	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18	Luxembourg	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Malta	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	Czech Republic	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	21	Poland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	22	Bosnia and Herzegovina	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	23	Belgium	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	24	Austria	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	25	Estonia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	26	Ireland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
EU	27	New Caledonia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	28	United Kingdom	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	29	Italy	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	30	Curacao Island	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)



	21	Dulgorio	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Bulgaria	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	32	Uzbekistan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	33	Kazakhstan	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	34	Cyprus	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	35	Lithuania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	36	Romania	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	37	Moldova	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	38	Latvia	Normally	
	39	Azerbaijan	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	40	Slovenia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	41	Albania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	42	Montenegro	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	43	North Macedonia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	44	Serbia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	45	Croatia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	46	Kosovo	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	47 01	Macedonia Greece	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
		Calcutta		(a), (b), (c), (d), (e), (f), (g), (h)
	02	Telangana	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Andhra pradesh	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Tripura	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Kerala	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Rajasthan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	07	West Bengal	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	08	maharashtra	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	09 10	uttar pradesh Tamil Nadu	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	-			(a), (b), (c), (d), (e), (f), (g), (h)
	11	Gujarat karnataka	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13		Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Madhya pradesh	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	16	Punjab	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
India	17 18	Haryana Delhi	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Bihar	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	Orissa	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	21	Jharkhand	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	23	Chhattisgarh	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	24	state of Jammu &Kashmir	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	25	Uttarakhand	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	26	Himachal pradesh	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	27	Goa	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	28	Manipur	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	29	Meghalaya	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	30	Nagaland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Mizoram	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	32	The state of punjab	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	01	Hokkaido	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
Japan	02	Except Hokkaido	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Philippines	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Cambodia	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Maldives	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
ROA	03	Malaysia	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Myanmar	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Sri Lanka	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	00	SII Lalika	HOL AND HUMIN	(), (~), (~), (~), (~), (1), (8), (11)

	0.7			(a) (b) (a) (d) (a) (f) (a) (b)
	07	Solomon Islands	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	80	Thailand	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	09	Singapore	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	10	Indonesia	hot and humid hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Viet Nam		(a), (b), (c), (d), (e), (f), (g), (h)
	12	Bengal	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	13	Pakistan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Korea, Republic of	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	15 16	Mongolia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	Nepal New Zealand	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18		Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Hong Kong Brunei	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	01	North coast of Australia	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Queensland	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	03	the State of Victoria	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Australian capital territory	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
AUS	05	New South Wales	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	06	western australia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	07	Tasmania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	08	South Australia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	01	Barbados	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Panama	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Tropical rainforest area of northern Brazil	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Dominican Republic	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Colombia	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Costa Rica	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	07	Guyana	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	08	Haiti	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	09	Honduras	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	10	Martinique	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Peru	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	12	Argentina	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13	Mexico	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
LAC	14	Nicaragua	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	15	El Salvador	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	16	Uruguay	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	Jamaica	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18	Chile	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Brazil(Except tropical rain- forest area of northern)	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	La Joya	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	21	Bolivia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	22	The Republic of Guate- mala	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	23	Saint Lucia	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	24	Bahamas	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	25	Puerto Rico	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	26	Paraguay	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	27	Caribbean Islands	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	28	Arequipa	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
LAC	29	Moquegua	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
LAC	30	Ecuador	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Cockburn Town	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	32	Turks Islands	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)



		Caicos Islands	hot and humid	(a) (b) (a) (d) (a) (f) (a) (b)
	33		hot and humid	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	34	Belize		
	01	Hainan	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	Inner Mongolia	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	03	Sinkiang	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Tibet	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	05	Golmud	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Gansu	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	07	Heilongjiang	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	08	Jilin	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	09	Anhui	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	10	Hebei 	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Jiangsu	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	12	Fujian	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13	Yunnan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Szechwan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	15	Ningxia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
CHN	16	Guizhou	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	Shanxi	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18	Henan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Hubei	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	Hunan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	21	Guangdong	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	22	Guangxi	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	23	Liaoning	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	24	Shanghai :-	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	25	Tianjin	Normally	
	26	Jiangxi	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	27	Shaanxi	Normally	
	28	Shandong	Normally	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	29	Chongqing	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	30	Beijing	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Zhejiang	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	32	Taiwan	hot and humid	
	01	Florida	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	02	California	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h) (a), (b), (c), (d), (e), (f), (g), (h)
	03	Arizona	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
	04	Texas	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f), (g), (h)
USA	05	Alaska	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
	06	Massachusetts	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	07 08	New Jersey North Carolina	Normally  Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	09	New Canaan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	-		Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	10	New York	,	(a), (b), (c), (d), (e), (f), (g), (h)
	11	Hawaii	hot and humid	(a), (b), (c), (d), (e), (f), (g), (h)
	12	Montana	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	13	Nebraska	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	14	Nevada	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
USA	15	New Hampshire	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	16	New Mexico	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	17	North Dakota	Normally Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	18	Ohio	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	19	Oklahoma	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	20	Oregon	Normally	(a), (b), (c), (d), (e), (i), (g), (ii)

	21	Pennsylvania	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	22	Rhode Island	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	23	South Dakota	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	24	Tennessee	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	25	Utah	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	26	Vermont	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	27	Virginia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	28	Washington	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	29	West Virginia	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	30	Wisconsin	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	31	Wyoming	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	32	Alabama	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	33	Arkansas	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	34	Colorado	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	35	Connecticut	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	36	Delaware	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	37	Georgia state	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	38	Idaho	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	39	Illinois	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	40	Indiana	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	41	lowa	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	42	Kansas	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	43	Kentucky	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	44	Lousiana	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	45	Maine	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	46	Maryland	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	47	Michigan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	48	Minnesota	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	49	Mississippi	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	50	Missouri	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
	51	South Carolina	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
Canada	01	Canada	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
Russia	01	Russia	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f), (g), (h)
Armenia	01	Yerevan	Normally	(a), (b), (c), (d), (e), (f), (g), (h)
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# www.trinasolar.com



Trina Solar Co, Ltd.



2 Tianhe Road, Tianhe Photovoltaic Industrial Park, Xinbei District, Changzhou City, Jiangsu Province

Trina Customer Service Portal:



Tel: 0086-519-85485801

Fax: 0086-519-85485936

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