

Global Limited Warranty

Trina Solar Co., Ltd (“Trina Solar”) hereby grants the following Global Limited Warranty to the first customer installing (for its own use) (the “Buyer”) any of the specified (and no other) brand models listed below (the “Products”):

1) Warranted Products

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

a) P-type Poly of Back Sheet Glass 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, TSM-***PD15H, TSM-***PD15H.08, TSM-***PD15H.09, TSM-***PC06A;
- (ii) TSM-***PA05.10, TSM-***PA05.15, TSM-***PA05.18, TSM-***PA05A.10, TSM-***PA05A.15, TSM-***PA05A.18;TSM-***PC05.10, TSM-***PC05.15, TSM-***PC05.18, TSM-***PC05A.10, TSM-***PC05A.15, TSM-***PC05A.18, TSM-***PC05A.10(II), TSM-***PC05A.15 (II), TSM-***PC05A.18 (II);TSM-***PD05.T0, TSM-***PD05.T8, TSM-***PD05.10, TSM-***PD05.15, TSM-***PD05.18, TSM-***PD14.T0, TSM-***PD14.T8, TSM-***PD14.10, TSM-***PD14.15, TSM-***PD14.18, TSM-***PD05.T0(II), TSM-***PD05.T8(II), TSM-***PD14.T0(II), TSM-***PD14.T8(II); TSM-***PE05A.T0, TSM-***PE05A.T8, TSM-***PE05A.T9, TSM-***PE14A.T0, TSM-***PE14A.T8, TSM-***PE14A.T9, TSM-***PE14B.T0, TSM-***PE14B.T8, TSM-***PE14B.T9, TSM-***PE14B.T0(II), TSM-***PE14B.T8(II), TSM-***PE14B.T9(II), TSM-***PE14HB.T0, TSM-***PE14HB.T8, TSM-***PE14HB.T9, TSM-***PE14HB.T0(II), TSM-***PE14HB.T8(II), TSM-***PE14HB.T9(II), TSM-***PE05A.T0(II), TSM-***PE05A.T8(II), TSM-***PE05A.T9(II), TSM-***PE14A.T0(II), TSM-***PE14A.T8(II), TSM-***PE14A.T9(II), TSM-***PE05H.T0, TSM-***PE05H.T8, TSM-***PE05H.T9, TSM-***PE05H.T0(II),

TSM-***PE05H.T8(II), TSM-***PE05H.T9(II), TSM-***PE14H.T0, TSM-***PE14H.T8, TSM-***PD05H.T0, TSM-***PD05H.T8, TSM-***PD14H.T0, TSM-***PD14H.T8, TSM-***PD05HB.T9, TSM-***PE15H.T0, TSM-***PE15H.T8, TSM-***PE15H.T9, TSM-***PE06H.T0, TSM-***PE06H.T8, TSM-***PE06H.T9, TSM-***PE06H.T0(II), TSM-***PE06H.T8(II), TSM-***PE06H.T9(II), TSM-***PE15A.T0, TSM-***PE15A.T8, TSM-***PE15A.T9, TSM-***PE06A.T0, TSM-***PE06A.T0, TSM-***PE06A.T8, TSM-***PE06A.T9, TSM-***PD06H.T0, TSM-***PD06H.T8, TSM-***PD06H.T9, TSM-***PD15H.T0, TSM-***PD15H.T8, TSM-***PD15H.T9.

b) P-type Mono PERC of Back Sheet Glass 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-***DC80, TSM-***DC80.08, TSM-***DC01A.002, TSM-***DC01A.052, TSM-***DC01A.082, TSM-***DC05A, TSM-***DC05A.05, TSM-***DC05A.08, TSM-***DC05A.002, TSM-***DC05A.052, TSM-***DC05A.082; TSM-***DC06, TSM-***DC06.08, TSM-***DC03A(II), TSM-***DC03A.05(II), TSM-***DC03A.08(II), TSM-***DC05A(II), TSM-***DC05A.05(II), TSM-***DC05A.08(II), TSM-***DC05A.002(II), TSM-***DC05A.052(II), TSM-***DC05A.082(II), 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-***DE14A(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(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-***DD06M (II), TSM-***DD06H (II), TSM-***DD06H.05 (II), TSM-***DD06H.08 (II), TSM-***DD15H (II), TSM-***DD15H.05 (II), TSM-***DD15H.08 (II) , TSM-***DE15X(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);
- (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-***DE05A.T9(II), TSM-***DE14A.T0(II), TSM-***DE14A.T8(II), TSM-***DE14A.T9(II), TSM-***DE14B.T0(II), TSM-***DE14B.T8(II), TSM-***DE14B.T9(II), TSM-***DE05H.T0(II), TSM-***DE05H.T8(II), TSM-***DE14H.T0(II), TSM-***DE14H.T8(II), TSM-***DE14H.T9(II), TSM-***DD05H.T0(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.T8(II), TSM-***DE15H.T9(II), TSM-***DE15M.T0(II), TSM-***DE15M.T8(II), TSM-***DE15M.T9(II), TSM-***DE06A.T0(II), TSM-***DE06A.T8(II), TSM-***DE06A.T9(II), TSM-***DE15A.T0(II), TSM-***DE15A.T8(II), TSM-***DE15A.T9(II), TSM-***DE15B.T0(II), TSM-***DE15B.T8(II), TSM-***DE15B.T9(II), TSM-***DD15M.T0(II), TSM-***DD15M.T8(II), TSM-

- ***DD15M.T9(II), TSM-***DD06M.18(II), TSM-***DD06M.T0(II), TSM-***DD06M.T8(II), TSM-***DD06M.T9(II), TSM-***DD06H.T0(II), TSM-***DD06H.T9(II), TSM-***DD06H.T8(II), TSM-***DD06H.18(II), TSM-***DD06A.T0(II), TSM-***DD06A.T8(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-***PE08H.T0(II), TSM-***PE17M.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,
- (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-***DE18M.08(II), TSM-***DD18M.08(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, TSM-***DC082H;
- (v) TSM-***DE08M.T0(II), TSM-***DE17M.T0(II), TSM-***DD08M.T0(II), TSM-***DD17M.T0(II), TSM-***DE08M.T8(II), TSM-***DE17M.T8(II), TSM-***DD08M.T8(II), TSM-***DD17M.T8(II), TSM-***DE18M.T0(II), TSM-***DD18M.T0(II), TSM-***DE18M.T8(II), TSM-***DD18M.T8(II).
- (vi) TSM-***DE06XC.08(II), TSM-***DD06XC.08(II), TSM-***DE09.08, TSM-***DD09.08, TSM-***DD08M.08(II), TSM-***DE08M.08(II), TSM-***DD06M.08(II), TSM-***DE06M.08(II)

c) P-type Polycrystalline of Duomax Products

- (i) TSM-***PDG5, TSM-***PDG5.07, TSM-***PDG5.50, TSM-***PEG5, TSM-***PEG5.07, TSM-***PEG5.50, TSM-***PEG14, TSM-***PEG14(II), TSM-***PEG40.40, TSM-***PEG40.47, TSM-***PEG40.07, TSM-***PEG5.40, TSM-***PEG5.47, TSM-***PEG14.40, TSM-***PEG14.47, TSM-***PEG5H, TSM-***PEG14H, TSM-***PEG5H.40, TSM-***PEG5H.07, TSM-***PEG5H.47, TSM-***PEG14H.40, TSM-***PEG14H.07, TSM-***PEG14H.47, TSM-***PEG5H(II), TSM-***PEG5H.40(II), TSM-***PEG5H.07(II), TSM-***PEG5H.47(II), TSM-***PEG14H(II), TSM-***PEG14H.40(II), TSM-***PEG14H.07(II), TSM-***PEG14H.47(II), TSM-***PEG15H, TSM-***PEG15, TSM-***PEG15H(II), TSM-***PEG15(II), TSM-***PEG6H, TSM-***PEG6, TSM-***PEG6(II), TSM-***PEG15M(II), TSM-***PEG6M(II);
- (ii) TSM-***PEG5.20, TSM-***PEG5.27, TSM-***PEG14.20, TSM-***PEG5H.20, TSM-***PEG5H.27, TSM-***PEG14H.20, TSM-***PEG14H.27, TSM-***PEG5H.20(II), TSM-***PEG5H.27(II), TSM-***PEG14H.20(II), TSM-***PEG14H.27(II), TSM-***PEG15H.20, TSM-***PEG15.20, TSM-***PEG15H.20(II), TSM-***PEG15.20(II), TSM-***PEG6H.20, TSM-***PEG6.20, TSM-***PEG6.20(II).

d) P-type Mono PERC of Duomax 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),

e) P-type Mono PERC of Duomax Twin Products

- (i) TSM-***DEG5C.07(II), TSM-***DEG14C.07(II), TSM-***DEG5C(II), TSM-***DEG14C(II), TSM-***DEG5HC(II), TSM-***DEG5HC.07(II), TSM-***DEG14HC(II), TSM-*** DEG14HC.07(II), TSM-***DEG15HC(II), TSM-***DEG15MC(II), TSM-***DEG6HC(II), TSM-***DEG6MC(II), TSM-***DEG15C(II), TSM-***DEG15C.07(II);
- (ii) TSM-***DEG5C.27(II), TSM-***DEG14C.27(II), TSM-***DEG5C.20(II), TSM-***DEG14C.20(II), TSM-***DEG5HC.20(II), TSM-***DEG5HC.27(II), TSM-***DEG14HC.20(II), TSM-***DEG14HC.27(II), TSM-***DEG15HC.20(II), TSM-***DEG15MC.20(II), TSM-***DEG6HC.20(II), TSM-***DEG6MC.20(II), TSM-***DEG6C.20(II), TSM-***DEG6C.20(II), TSM-***DEG15C(II), TSM-***DEG15C.20(II), TSM-***DEG15MC.27(II);
- (iii) TSM-***DEG8MC.20 (II),TSM-***DEG17MC.20(II) , TSM-***DEG18MC.20 (II), TSM-*** DEG21C.20, TSM-***DEG21C.28, TSM-***DDG21C.20, TSM-***DDG21C.28, TSM-***DEG19C.20, TSM-***DEG19C.28, TSM-***DDG19C.20, TSM-***DDG19C.28, TSM-***DEG20C.20, TSM-***DEG20C.28, TSM-***DDG20C.20, TSM-***DDG20C.28, TSM-***DEG15VC.20(II);

f) N-type Mono of Duomax Twin 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).

Note: The “***” placeholder stands in each case for the power indication set out in the relevant Product Data Sheet (for example “TSM-285PE06H”).

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) c), d), e), f) can be installed on water surface floating systems;

For Products not used in accordance with the rules determined in this Appendix, Trina Solar will not undertake this limited Warranty. Any consequences, risks, losses or damages caused by any violations of the Buyer to the "Rules of application for climatic modules" shall be borne by the Buyer solely.

Environment	Temperature	Relative Humidity	Irradiance kwh/m2
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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 difference and high irradiation 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) c) (i), d) (i), e) (i), f) (i) Trina 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.

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.

b) 12 Year Limited Product Warranty

For the Products listed under Sec.1) a), b)(i),(ii),(iv),(v), c) (ii), d) (ii), (iii), e) (ii), (iii), f) (ii) Trina Solar warrants that for a period of twelve 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.

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) b) (iii),(vi) 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.

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 Glass Products

In addition, for the Products listed under Sec.1) a), b) Trina Solar warrants that for a period of twenty-five years commencing on the Warranty Start Date (as defined in Sec. 4)) the loss of power output relating to the initial guaranteed power which is defined as Peak Power Watts $P_{max}(W_p)$ plus Peak Power Watts $P_{max}(W_p)$ multiplied by the lower limit of the Power Output Tolerance $P_{max}(\%)$ – as specified in the relevant Product Data Sheet and measured at Standard Test Conditions (STC: irradiation $1000w/m^2$, temperature $25^{\circ}C$, AM 1.5) for the Products shall not exceed and measurement shall either be carried out by Trina Solar or by a third-party testing institute recognized by Trina Solar and the Buyer:

- 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), (iii)): 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) (iv), (v)): 2 % 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 %;

(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

aa) Frontside:

In addition, for the Products listed under Sec.1) c), d) and the front side (without J-Box) of the Products listed under Sec. 1) e), f) Trina Solar warrants that for a period of thirty years commencing on the Warranty Start Date (as defined in Sec. 4)) the loss of power output relating to the initial guaranteed power which is defined as Peak Power Watts $P_{max}(W_p)$ plus Peak Power Watts $P_{max}(W_p)$ multiplied by the lower limit of the Power Output Tolerance $P_{max}(\%)$ – as specified in the relevant Product Data Sheet and measured at Standard Test Conditions (STC: irradiation $1000w/m^2$, temperature $25^\circ C$, AM 1.5) for the Products shall not exceed and measurement shall either be carried out by Trina Solar or by a third-party testing institute recognized by Trina Solar and the Buyer:

- for P-type Poly Duomax Products (as defined in Sec. 1) c), for P-type Mono PERC Duomax Products (as defined in Sec. 1) d) (i), (ii), for the front side (without J-Box) of P-type Mono PERC Duomax Twin Products (as defined in Sec.1) e) (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%;
- for P-type Mono PERC Duomax Products (as defined in Sec. 1) d) (iii), for the front side (without J-Box) of P-type Mono PERC Duomax Twin Products (as defined in Sec.1) e) (iii)): 2 % 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 85 %;
- for the front side (without J-Box) of N-type Mono Duomax Twin Products (as defined in Sec.1) f)): 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%.

bb) Backside

For P-type Mono PERC Duomax Twin Products (as defined in Sec.1) e) (iii)), 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.)

4) Warranty Start Date

The Warranty Start Date is the date of 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 („Direct 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;
- c) Failure to comply with the requirements of Trina Solar's user manual or rules of use and application for the Products (as defined in Sec. 2) and Appendix;
- d) Failure to carry out proper operation and maintenance (including but not limited to operation and maintenance requirements requested by Trina Solar's applicable user manual or other applicable local laws and regulations of the place of installation);
- e) Service by service technicians who are not qualified under the relevant law and/or applicable regulations at the place of installation;
- f) Change, erasure or illegible-made of the Product's type, nameplate or serial number (other than by any act or omission of Trina Solar);
- g) Installation on mobile units (except photovoltaic tracking system), such as vehicles, ships or offshore-structures(except water surface floating systems pursuant to Sec 2) ;
- h) 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;
- j) Exposure to mold discoloration or similar external effects;
- k) 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.);
- l) Use of the Products in such a manner as to infringe Trina Solar's or any third party`s intellectual property rights (including but not limited to patents, trademarks, etc.);
- m) 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.
- n) 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.

- o) 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.
- p) 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) As Buyer's sole and exclusive 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 defective products (Difference value = The market price at the moment of raising Global Limited Warranty claims (per watt) * (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)); or
 - (iii) refund the salvage value of the defective Products. For purposes of this Global Limited Warranty salvage value = The market price at the moment of raising warranty claim (unit price per watt) * the original guaranteed nameplate power * remaining warranty period (year) / original total warranty period by Trina Solar; or
 - (iv) provide free Products to make up for the difference between the actual STC power of defective 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)); or
 - (v) replace the defective Products or part thereof by new or remanufactured Products at no charge. The total nominal power of the replaced Products shall not be less than the total remaining theoretical warranty power of the defective Products. Trina Solar reserves the right to provide similar Products in replacement of the defective Products if the defective Products are discontinued or otherwise unavailable.

During the warranty period of Sec. 3) a), b) and c), in the event that Trina Solar opts for option under Sec. 6) a) (i), Trina Solar shall bear the costs for repairing and all reasonable insurance and transportation charges (except air freight), customs clearance and any other reasonable costs for shipping the repaired Products to the Buyer (the Buyer may claim reimbursement by Trina Solar for these charges by providing an invoice from the relevant service provider to Trina Solar that these charges were incurred). The costs and other related expenses for the removal, repack, installation or reinstallation shall remain with the Buyer. Beyond the warranty period of Sec. 3) a), b) and c), Buyer shall bear all reasonable costs of materials, labor, freight, clearance, removal, repack, installation or reinstallation whatsoever related to repairing.

In the event that Trina Solar opts for option under Sec. 6) a) (iv), (v), Trina Solar shall bear all reasonable insurance and transportation charges (except air freight), customs clearance and any other reasonable costs for shipping the replaced Products to the Buyer (the Buyer may claim reimbursement by Trina Solar for these charges by providing an invoice from the relevant service provider to Trina Solar that these charges were incurred). The costs and other related expenses for the removal, repack, installation or reinstallation shall remain with the Buyer.

Defect Products or end of lifetime Products shall be disposed if legally permissible 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) shall not extend or renew upon the repair or replacement of defective Products by Trina Solar. The Global Limited Warranty period for replaced or repaired 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:

"Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure."

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.

- a) The Buyer shall notify Trina Solar under this Global Limited Warranty using Trina Solar's Customer Service Portal at the web address <http://customerservice.trinasolar.com>; alternatively by letter or facsimile. The notification shall specify the claim and, without limitation, include proof for the purchase

(purchasing invoices indicating purchase date, Products, serial numbers) and for the defect or malfunction (i.e. related to transport, storage, installation and operation) of the Products. The contact customer support center for the regions are:

Europe Customer Support

Trina Solar (Schweiz) AG
Birkenweg 4
8304 Wallisellen, Switzerland
T +41 43 299 68 00
F +41 43 299 68 10
<http://customerservice.trinasolar.com>

Americas Customer Support

Trina Solar (U.S.), Inc.
100 Century Center, Suite 501,
San Jose CA 95112, USA
T +1 800 696 7114
F +1 800 696 0166
<http://customerservice.trinasolar.com>

Australia and New Zealand Customer Support

Trina Solar (Australia) Pty Ltd
Suite 44.05, Level 44, Governor Philip Tower
1 Farrer Place Sydney NSW 2000 , Australia
T 1300 874 627
Mail
Australiaservice@trinasolar.com<http://customerservice.trinasolar.com>

Japan Customer Support

Trina Solar (Japan) Limited
World Trade Center Building 21F
4-1, Hamamatsu-cho, 2-chome,
Minato-ku, Tokyo, Japan, 105-6121
T +81-3-6435-9008
F +81-3-3437-7001
Mail Japanservice@trinasolar.com
<http://customerservice.trinasolar.com>

China Customer Support

Trina Solar Co.,Ltd
No. 2 Trina Road, Trina PV Industrial Park,
New District, Changzhou, Jiangsu,
P.R. China, 213031
T +86 519 8548 2008
F +86 519 8517 6021
<http://customerservice.trinasolar.com>

Rest of World (ROW) Customer Support

Trina Solar Energy Development Pte Ltd
600 North Bridge Road, #12-01 Parkview
Square,
Singapore 188778
T: +65 5808 1111
Mail: apmea@trinasolae.com

Middle East Customer Service

Trina Solar Middle East & Africa
6th Floor, One JLT,
Dubai – United Arab Emirates
Tel: +971 4 429 5872
Mail: MEAservice@trinasolar.com

India Customer Support

Trina Solar (India) Regional Sales Office
Unit No- 824, 8th Floor, DLF Tower-B, Jasola District Center, New Delhi -110025, India
T: +91 11 45852200, +91 11 35852207
Mail: salesindia@trinasolae.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 the Buyer's

or Trina Solar's request, jointly appoint as independent expert and appraiser a reputable researcher from a first-class test-institute such as Fraunhofer ISE in Freiburg, TÜV Rheinland, TÜV SUD or ASU Arizona State University, and so on ("Technical Expert"). The determination by such Technical Expert shall be final, conclusive, 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.

11) Validity

This Global Limited Warranty shall apply to Products delivered to the Buyer on or after 1st of November 2020 (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 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 Products, to the exclusion of that country's conflicts of law rules as well as of the United Nations Convention on the International Sale of Goods dated 11 April 1980 (CISG) 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.

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 (<http://www.trinasolar.com/en-qlb/resources/downloads>).

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	SN	Country/state/province	Climate type	Applicable Products listed under Sec. 1
Africa	1	Ghana	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	2	Mauritius	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	3	Nigeria	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	4	Sierra Leone	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	5	Central African Republic	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	6	Namibia	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)

7	Algeria	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
8	Tunisia	Normally	(a), (b), (c), (d), (e), (f)
9	Egypt	Normally	(a), (b), (c), (d), (e), (f)
10	Djibouti	Normally	(a), (b), (c), (d), (e), (f)
11	Kenya	Normally	(a), (b), (c), (d), (e), (f)
12	Morocco	Normally	(a), (b), (c), (d), (e), (f)
13	South Africa	Normally	(a), (b), (c), (d), (e), (f)
14	Senegal	Normally	(a), (b), (c), (d), (e), (f)
15	Tanzania	Normally	(a), (b), (c), (d), (e), (f)
16	Malawi	Normally	(a), (b), (c), (d), (e), (f)
17	Zimbabwe	Normally	(a), (b), (c), (d), (e), (f)
18	Ethiopia	Normally	(a), (b), (c), (d), (e), (f)
19	Zambia	Normally	(a), (b), (c), (d), (e), (f)
20	Eritrea	Normally	(a), (b), (c), (d), (e), (f)
21	Burkina Faso	Normally	(a), (b), (c), (d), (e), (f)
22	Rwanda	Normally	(a), (b), (c), (d), (e), (f)
23	Mozambique	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
24	Botswana	Normally	(a), (b), (c), (d), (e), (f)
25	Angola	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
26	Mali	Normally	(a), (b), (c), (d), (e), (f)
27	Uganda	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
28	Chad	Normally	(a), (b), (c), (d), (e), (f)
29	Mauritania	Normally	(a), (b), (c), (d), (e), (f)
30	Cote d'Ivoire	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
31	Guinea	Normally	(a), (b), (c), (d), (e), (f)
32	Niger	Normally	(a), (b), (c), (d), (e), (f)
33	Madagascar	High temperature and high humidity	(a), (b), (c), (d), (e), (f)

	34	Burundi	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	35	Liberia	Normally	(a), (b), (c), (d), (e), (f)
	36	Guinea-Bissau	Normally	(a), (b), (c), (d), (e), (f)
	37	Benin	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	38	Togo	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	39	Swaziland	Normally	(a), (b), (c), (d), (e), (f)
	40	Libya	Normally	(a), (b), (c), (d), (e), (f)
	41	Lesotho	Normally	(a), (b), (c), (d), (e), (f)
	42	Cape Verde	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	43	Seychelles	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	44	Gambia	Normally	(a), (b), (c), (d), (e), (f)
	45	Comoros	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	46	Sudan	Normally	(a), (b), (c), (d), (e), (f)
	47	Somalia	Normally	(a), (b), (c), (d), (e), (f)
	48	Sao Tome and Principe	Normally	(a), (b), (c), (d), (e), (f)
	49	Democratic Republic of Congo	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	50	Congo	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	51	South Sudan	Normally	(a), (b), (c), (d), (e), (f)
	52	Equatorial Guinea	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	53	Gabon	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
ROA	01	Philippines	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	Cambodia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	03	Maldives	High temperature and high humidity	(a), (b), (c), (d), (e), (f)

	04	Malaysia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	05	Myanmar	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	06	Sri Lanka	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	07	Solomon Islands	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	08	Thailand	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	09	Singapore	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	10	Indonesia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	11	Viet Nam	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	12	Bengal	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	13	Pakistan	Normally	(a), (b), (c), (d), (e), (f)
	14	Korea, Republic of	Normally	(a), (b), (c), (d), (e), (f)
	15	Mongolia	Normally	(a), (b), (c), (d), (e), (f)
	16	Nepal	Normally	(a), (b), (c), (d), (e), (f)
	17	New Zealand	Normally	(a), (b), (c), (d), (e), (f)
	18	Hong Kong	Normally	(a), (b), (c), (d), (e), (f)
	19	Brunei	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
ME	01	United Arab Emirates	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	02	Oman	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	03	Bahrain	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	04	Saudi Arabia	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)

	05	Yemen	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	06	Iraq	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	07	Israel	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	08	Lebanon	Normally	(a), (b), (c), (d), (e), (f)
	09	Palestine	Normally	(a), (b), (c), (d), (e), (f)
	10	Jordan	Normally	(a), (b), (c), (d), (e), (f)
	11	Kuwait	Normally	(a), (b), (c), (d), (e), (f)
	12	Qatar	Normally	(a), (b), (c), (d), (e), (f)
Aus	01	North coast of Australia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	Queensland	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	03	the State of Victoria	Normally	(a), (b), (c), (d), (e), (f)
	04	Australian capital territory	Normally	(a), (b), (c), (d), (e), (f)
	05	New South Wales	Normally	(a), (b), (c), (d), (e), (f)
	06	western australia	Normally	(a), (b), (c), (d), (e), (f)
	07	Tasmania	Normally	(a), (b), (c), (d), (e), (f)
	08	South Australia	Normally	(a), (b), (c), (d), (e), (f)
EU	01	Norway	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	02	Sweden	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	03	Finland	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	04	Denmark	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	05	Ukraine	Normally	(a), (b), (c), (d), (e), (f)
	06	Germany	Normally	(a), (b), (c), (d), (e), (f)
	07	France	Normally	(a), (b), (c), (d), (e), (f)
	08	Georgia	Normally	(a), (b), (c), (d), (e), (f)
	09	Netherlands	Normally	(a), (b), (c), (d), (e), (f)
	10	Netherlands Antilles	Normally	(a), (b), (c), (d), (e), (f)
	11	Portugal	Normally	(a), (b), (c), (d), (e), (f)

12	Switzerland	Normally	(a), (b), (c), (d), (e), (f)	
13	Turkey	Normally	(a), (b), (c), (d), (e), (f)	
14	Spain	Normally	(a), (b), (c), (d), (e), (f)	
15	Greece	Normally	(a), (b), (c), (d), (e), (f)	
16	Slovakia	Normally	(a), (b), (c), (d), (e), (f)	
17	Hungary	Normally	(a), (b), (c), (d), (e), (f)	
18	Luxembourg	Normally	(a), (b), (c), (d), (e), (f)	
19	Malta	Normally	(a), (b), (c), (d), (e), (f)	
20	Czech Republic	Normally	(a), (b), (c), (d), (e), (f)	
21	Poland	Normally	(a), (b), (c), (d), (e), (f)	
22	Bosnia and Herzegovina	Normally	(a), (b), (c), (d), (e), (f)	
23	Belgium	Normally	(a), (b), (c), (d), (e), (f)	
24	Austria	Normally	(a), (b), (c), (d), (e), (f)	
25	Estonia	Normally	(a), (b), (c), (d), (e), (f)	
26	Ireland	Normally	(a), (b), (c), (d), (e), (f)	
27	New Caledonia	Normally	(a), (b), (c), (d), (e), (f)	
28	United Kingdom	Normally	(a), (b), (c), (d), (e), (f)	
29	Italy	Normally	(a), (b), (c), (d), (e), (f)	
30	Curacao Island	High temperature and high humidity	(a), (b), (c), (d), (e), (f)	
31	Bulgaria	Normally	(a), (b), (c), (d), (e), (f)	
32	Uzbekistan	Normally	(a), (b), (c), (d), (e), (f)	
33	Kazakhstan	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)	
India	01	Calcutta	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	Telangana	Normally	(a), (b), (c), (d), (e), (f)
	03	Andhra pradesh	Normally	(a), (b), (c), (d), (e), (f)
	04	Tripura	Normally	(a), (b), (c), (d), (e), (f)
	05	Kerala	Normally	(a), (b), (c), (d), (e), (f)
	06	Rajasthan	Normally	(a), (b), (c), (d), (e), (f)

	07	West Bengal	Normally	(a), (b), (c), (d), (e), (f)
	08	maharashtra	Normally	(a), (b), (c), (d), (e), (f)
	09	uttar pradesh	Normally	(a), (b), (c), (d), (e), (f)
	10	Tamil Nadu	Normally	(a), (b), (c), (d), (e), (f)
	11	Gujarat	Normally	(a), (b), (c), (d), (e), (f)
	12	karnataka	Normally	(a), (b), (c), (d), (e), (f)
	13	Madhya pradesh	Normally	(a), (b), (c), (d), (e), (f)
	14	Punjab	Normally	(a), (b), (c), (d), (e), (f)
	15	Haryana	Normally	(a), (b), (c), (d), (e), (f)
	16	Delhi	Normally	(a), (b), (c), (d), (e), (f)
	17	Bihar	Normally	(a), (b), (c), (d), (e), (f)
	18	Orissa	Normally	(a), (b), (c), (d), (e), (f)
	19	Jharkhand	Normally	(a), (b), (c), (d), (e), (f)
	20	Chhattisgarh	Normally	(a), (b), (c), (d), (e), (f)
	21	state of Jammu &Kashmir	Normally	(a), (b), (c), (d), (e), (f)
	22	Uttarakhand	Normally	(a), (b), (c), (d), (e), (f)
	23	Himachal pradesh	Normally	(a), (b), (c), (d), (e), (f)
	24	Goa	Normally	(a), (b), (c), (d), (e), (f)
	25	Manipur	Normally	(a), (b), (c), (d), (e), (f)
	26	Meghalaya	Normally	(a), (b), (c), (d), (e), (f)
	27	Nagaland	Normally	(a), (b), (c), (d), (e), (f)
	28	Mizoram	Normally	(a), (b), (c), (d), (e), (f)
	29	The state of punjab	Normally	(a), (b), (c), (d), (e), (f)
JPN	01	Hokkaido	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	02	Except Hokkaido	Normally	(a), (b), (c), (d), (e), (f)
LAC	01	Barbados	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	Panama	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	03	Tropical rainforest area of northern Brazil	High temperature and high humidity	(a), (b), (c), (d), (e), (f)

04	Dominican Republic	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
05	Colombia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
06	Costa Rica	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
07	Guyana	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
08	Haiti	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
09	Honduras	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
10	Martinique	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
11	Peru	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
12	Argentina	Normally	(a), (b), (c), (d), (e), (f)
13	Mexico	Normally	(a), (b), (c), (d), (e), (f)
14	Nicaragua	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
15	El Salvador	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
16	Uruguay	Normally	(a), (b), (c), (d), (e), (f)
17	Jamaica	Normally	(a), (b), (c), (d), (e), (f)
18	Chile	Normally	(a), (b), (c), (d), (e), (f)
19	Brazil(Except tropical rainforest area of northern)	Normally	(a), (b), (c), (d), (e), (f)
20	La Joya	Normally	(a), (b), (c), (d), (e), (f)
21	Bolivia	Normally	(a), (b), (c), (d), (e), (f)
22	The Republic of Guatemala	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
23	Saint Lucia	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
24	Bahamas	High temperature and high humidity	(a), (b), (c), (d), (e), (f)

	25	Puerto Rico	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	26	Paraguay	Normally	(a), (b), (c), (d), (e), (f)
	27	Caribbean Islands	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
CHN	01	Hainan	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	Inner Mongolia	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	03	Sinkiang	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	04	Tibet	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	05	Golmud	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	06	Gansu	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	07	Heilongjiang	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	08	Jilin	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	09	Anhui	Normally	(a), (b), (c), (d), (e), (f)
	10	Hebei	Normally	(a), (b), (c), (d), (e), (f)
	11	Jiangsu	Normally	(a), (b), (c), (d), (e), (f)
	12	Fujian	Normally	(a), (b), (c), (d), (e), (f)
	13	Yunnan	Normally	(a), (b), (c), (d), (e), (f)
	14	Szechwan	Normally	(a), (b), (c), (d), (e), (f)
	15	Ningxia	Normally	(a), (b), (c), (d), (e), (f)
	16	Guizhou	Normally	(a), (b), (c), (d), (e), (f)
	17	Shanxi	Normally	(a), (b), (c), (d), (e), (f)
	18	Henan	Normally	(a), (b), (c), (d), (e), (f)
	19	Hubei	Normally	(a), (b), (c), (d), (e), (f)
	20	Hunan	Normally	(a), (b), (c), (d), (e), (f)
	21	Guangdong	Normally	(a), (b), (c), (d), (e), (f)
	22	Guangxi	Normally	(a), (b), (c), (d), (e), (f)

	23	Liaoning	Normally	(a), (b), (c), (d), (e), (f)
	24	Shanghai	Normally	(a), (b), (c), (d), (e), (f)
	25	Tianjin	Normally	(a), (b), (c), (d), (e), (f)
	26	Jiangxi	Normally	(a), (b), (c), (d), (e), (f)
	27	Shaanxi	Normally	(a), (b), (c), (d), (e), (f)
	28	Shandong	Normally	(a), (b), (c), (d), (e), (f)
	29	Chongqing	Normally	(a), (b), (c), (d), (e), (f)
	30	Beijing	Normally	(a), (b), (c), (d), (e), (f)
	31	Zhejiang	Normally	(a), (b), (c), (d), (e), (f)
USA	01	Florida	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	02	California	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	03	Arizona	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	04	Texas	High temperature difference and high irradiation	(a), (b), (c), (d), (e), (f)
	05	Alaska	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
	06	Massachusetts	Normally	(a), (b), (c), (d), (e), (f)
	07	New Jersey	Normally	(a), (b), (c), (d), (e), (f)
	08	North Carolina	Normally	(a), (b), (c), (d), (e), (f)
	09	New Canaan	Normally	(a), (b), (c), (d), (e), (f)
	10	New York	Normally	(a), (b), (c), (d), (e), (f)
	11	Hawaii	High temperature and high humidity	(a), (b), (c), (d), (e), (f)
	12	Montana	Normally	(a), (b), (c), (d), (e), (f)
	13	Nebraska	Normally	(a), (b), (c), (d), (e), (f)
	14	Nevada	Normally	(a), (b), (c), (d), (e), (f)
	15	New Hampshire	Normally	(a), (b), (c), (d), (e), (f)
	16	New Mexico	Normally	(a), (b), (c), (d), (e), (f)
	17	North Dakota	Normally	(a), (b), (c), (d), (e), (f)
	18	Ohio	Normally	(a), (b), (c), (d), (e), (f)

19	Oklahoma	Normally	(a), (b), (c), (d), (e), (f)
20	Oregon	Normally	(a), (b), (c), (d), (e), (f)
21	Pennsylvania	Normally	(a), (b), (c), (d), (e), (f)
22	Rhode Island	Normally	(a), (b), (c), (d), (e), (f)
23	South Dakota	Normally	(a), (b), (c), (d), (e), (f)
24	Tennessee	Normally	(a), (b), (c), (d), (e), (f)
25	Utah	Normally	(a), (b), (c), (d), (e), (f)
26	Vermont	Normally	(a), (b), (c), (d), (e), (f)
27	Virginia	Normally	(a), (b), (c), (d), (e), (f)
28	Washington	Normally	(a), (b), (c), (d), (e), (f)
29	West Virginia	Normally	(a), (b), (c), (d), (e), (f)
30	Wisconsin	Normally	(a), (b), (c), (d), (e), (f)
31	Wyoming	Normally	(a), (b), (c), (d), (e), (f)
32	Alabama	Normally	(a), (b), (c), (d), (e), (f)
33	Arkansas	Normally	(a), (b), (c), (d), (e), (f)
34	Colorado	Normally	(a), (b), (c), (d), (e), (f)
35	Connecticut	Normally	(a), (b), (c), (d), (e), (f)
36	Delaware	Normally	(a), (b), (c), (d), (e), (f)
37	Georgia state	Normally	(a), (b), (c), (d), (e), (f)
38	Idaho	Normally	(a), (b), (c), (d), (e), (f)
39	Illinois	Normally	(a), (b), (c), (d), (e), (f)
40	Indiana	Normally	(a), (b), (c), (d), (e), (f)
41	Iowa	Normally	(a), (b), (c), (d), (e), (f)
42	Kansas	Normally	(a), (b), (c), (d), (e), (f)
43	Kentucky	Normally	(a), (b), (c), (d), (e), (f)
44	Lousiana	Normally	(a), (b), (c), (d), (e), (f)
45	Maine	Normally	(a), (b), (c), (d), (e), (f)
46	Maryland	Normally	(a), (b), (c), (d), (e), (f)
47	Michigan	Normally	(a), (b), (c), (d), (e), (f)
48	Minnesota	Normally	(a), (b), (c), (d), (e), (f)
49	Mississippi	Normally	(a), (b), (c), (d), (e), (f)
50	Missouri	Normally	(a), (b), (c), (d), (e), (f)

Canada	01	Canada	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
Russia	01	Russia	Gelid (Low irradiation)	(a), (b), (c), (d), (e), (f)
Armenia	01	Yerevan	Normally	(a), (b), (c), (d), (e), (f)