

## Technical notes for Modules Installed at Seaside

In the consideration of the project installation site environment at seaside, as well as Jinko standard installation manual and limited product warranty, we hereby confirm: Jinko Solar agrees to provide the warranty for modules installed at seaside, for residential or commercial roof top systems, if below installation and maintenance guidance are followed:

### 1. Distance from the sea:

Item	Distance from the sea	Installation condition	Maintenance measures	Quality guarantee
1	Distance $\geq$ 500m	Normal	Generally	Under warranty
2	50<Distance<500m	Corrosion protection	Generally and Additionally	Under warranty
3	Distance $\leq$ 50m	Reject	NA	NA

### 2. All requirements in the installation manual must be followed;

### 3. The following instruction must be complied:

- 3.1. Don't scratch corrosion resistant layer with the surface of PV modules and PV system;
- 3.2. All of balance of system for PV installation must be salt mist resistance and corrosion resistance of sea water; Such as aluminum alloy (model: 5052/5056/5086/6061/6063/5356), stain less steel (model: SUS3 16), galvanized steel and nonmetal materials (such as: glass fiber). Among them, aluminum alloy and non-metal materials can contact with the frame directly without electrochemical corrosion;
- 3.3. Insulation or corrosion protective measures must be taken. Direct connection parts of non-aluminum alloy metal material such as racking, fixture, mounting bolt and the module frame or any gap shall use insulation gaskets rubber gasket and mica plate or anticorrosive paint for protection.
- 3.4. Jinko Solar recommends to use stainless steel grounding terminals, don't use copper and alloy materials, also the overall anti-corrosion coating is necessary after installation;
- 3.5. To keep water flow away on the module surface, PV modules need to be installed with minimum angle of 10 degree;
- 3.6. To ensure optimum module performance for near sea installation, maintenance measures of Jinko Solar standard installation manual is generally recommended and additionally the following maintenance measures shall be taken:
  - (1) Check periodically the frame, mounting system, grounding block and other junction areas for potential signs of corrosion;
  - (2) Clean periodically the frame, mounting system, grounding block and other junction areas from salt mist and dust accumulation.
  - (3) Mis-used, mis-installation and any other related collateral defects caused by any reason beyond Jinko Solar control shall be excluded from the Jinko Solar standard warranty.

### NOTE:

Jinko got IEC61701 certification of salt mist corrosion test and IEC60068-2-52 certification of dust testing conditions, manifesting that Jinko module has the ability of corrosion resistance for long time by experiment.

Meanwhile, modules and PV system shall be taken protective measures on the beach. The aluminum alloy used will have electrochemical corrosion in the contact area with other metals in the environment of sea salt fog, especially in



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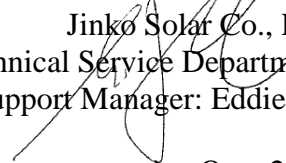
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the places with gaps. Even if there is no direct contact, corrosion will occur due to the presence of conductive electrolyte.

Although the modules are installed at a distance of 50 meters away, due to force majeure, the modules are completely or partially soaked by seawater, warranty will automatically be invalid.

Best Regards,

  
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11<sup>st</sup>  
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