



LEAPTON
SOLAR

Installation & Maintenance

This manual provides information on installation and safe use of photovoltaic modules produced by Leapton Solar (Changshu) Co., Ltd. and recommends safe and reliable installation instructions and maintenance of modules for customers.

Version: 2023 V2



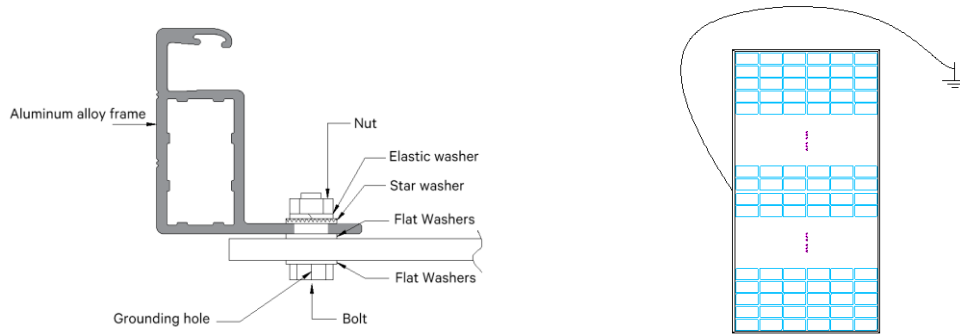


Figure 13-2: Grounding diagram

F) Electrical connections shall comply with the relevant electrical regulations of the installation site.

G) The assembly is equipped with by-pass diodes, which may damage the diodes, cables and junction boxes if improperly installed.

H) Define the length of the junction box cables as (different installation methods correspond to different cable lengths for different solar module types), or as required by customers on the length of the cable. As shown in Figure 14 below, please consider the length of the lead wire before designing the cable. It is not recommended to plug different types of connectors.



Figure 14: Half cells/Transparent backsheet solar module junction box

I) For Non-PID resistant solar modules, the project system design recommends the negative grounding installation of the inverter to avoid PID effect.

J) If the solar modules are in series, the total voltage is equal to the sum of the voltages of the individual solar modules. Recommendations are as follows:

$$\text{System voltage} \geq N * \text{Voc} * [1 + \text{TCVoc} * (\text{Tmin}-25)]$$

** note:

N: serial number of single solar module

Voc: Open circuit voltage (refer to product label or datasheet)

TCVoc: Open circuit voltage temperature coefficient (refer to product label or datasheet)

Tmin: Minimum ambient temperature

K) For water projects, it is recommended to adopt negative grounding installation of inverter to avoid PID effect in project system design.

