

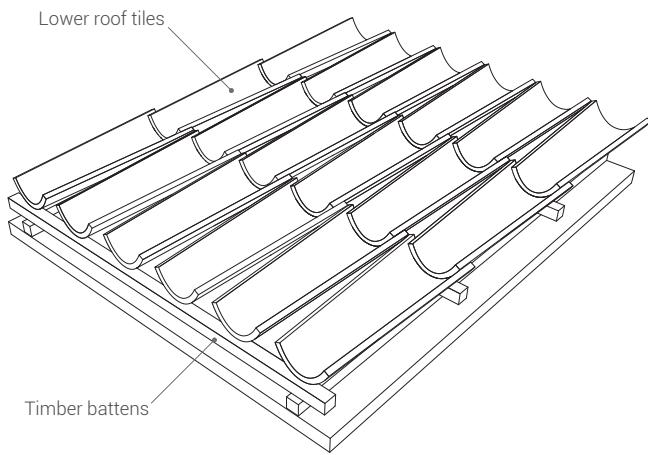
INSTALLATION GUIDE

BEFORE STARTING

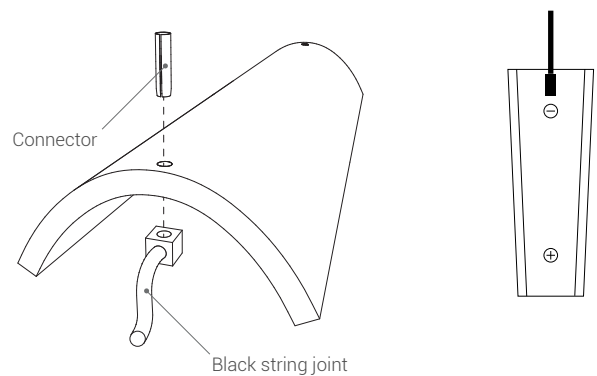
- The sunny sides of the roof offer better performances.
- The optical fiber effect inside Invisible Solar Rooftiles allows to produce energy even by the shaded side of Rooftile.
- Dimensions of Invisible Solar Rooftiles are the same of standard roof tiles. Applying proper measures it is also possible to install the Rooftiles on roof tiles with a different exposure size.

- Size, color and shape of the Invisible Solar Rooftiles cannot be changed.
- We recommend to install Invisible Solar Rooftiles on lower roof tiles, which allow a more correct air circulation and maintain an optimal use temperature.
- Each string can have a different length from other ones.

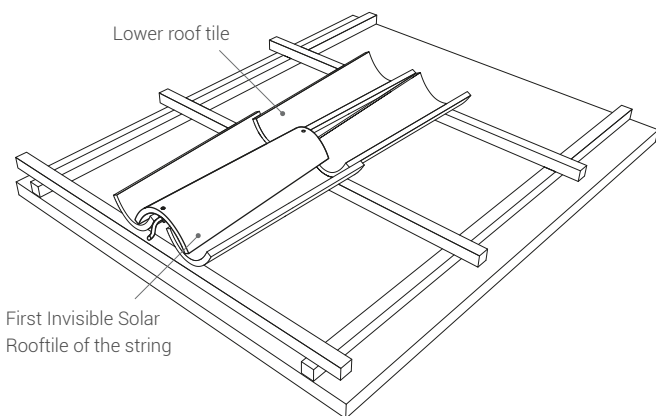
INSTRUCTION



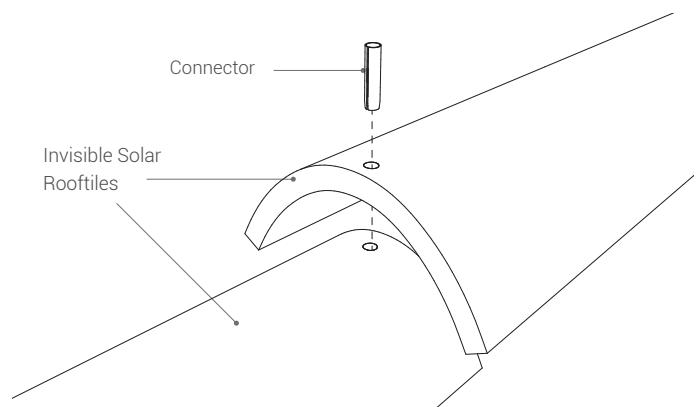
1 In case Invisible Solar has to be installed on an existing roof, remove the cover tiles and leave the lower roof tiles only. Later, the cover tiles will be substitute by the Invisible Solar Rooftiles. In case of a new roof, place the lower roof tiles and install the Invisible Solar Rooftiles on them.



2 Set up the first Rooftile of the string by applying the black string joint (negative) on the negative hole in the Rooftile back face and securing it with the connector.

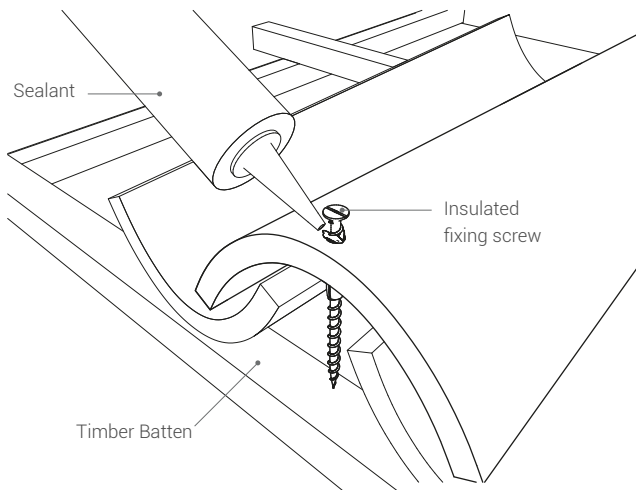


3 Place the first Invisible Solar Rooftile starting from the lower part of the roof pitch.

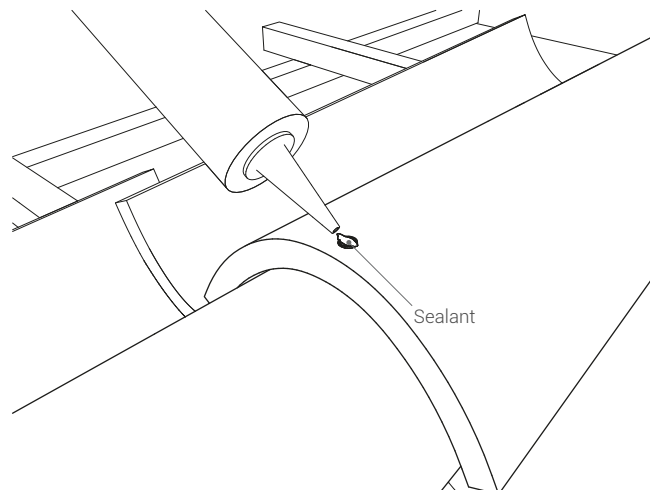


4 Before placing the next Rooftile, make sure the two connection holes are coincident and then insert the connector pushing it all the way in the holes. It may be necessary to use a small hammer to give the connector some light beats, being careful to not hit the module surfaces, to secure it in the correct position.

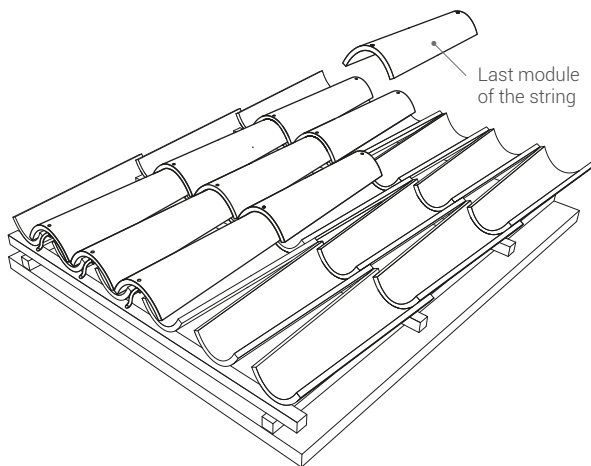




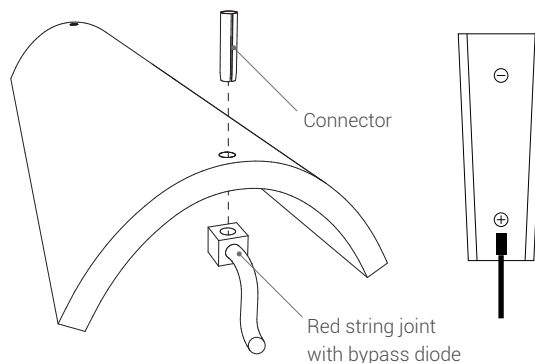
5 If it is considered necessary to strongly secure the Invisible Solar Rooftiles on the roof, it is possible to use the insulated fixing screws by inserting them through the installed connectors, until they are screwed to the timber batten. Before to finish the fixing, we recommend to put a little quantity of sealant (it would be better if it has terracotta color) under the fixing screw head to obtain the maximum isolation.



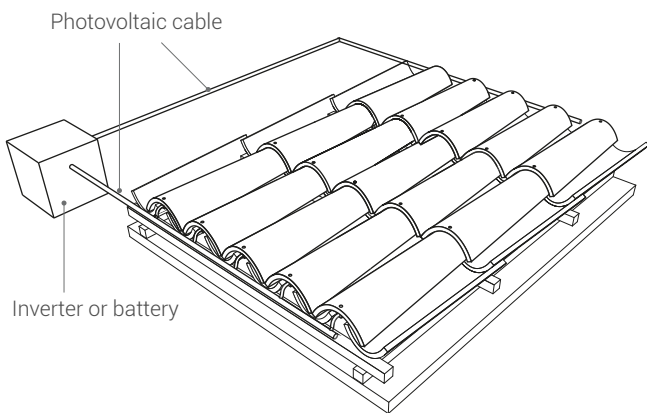
6 We recommend to always seal the connection hole with sealant, even for connections in which the fixing screw has not been used.



7 Complete the string by connecting the rest of Rooftiles to each other, with exception for the last one.



8 Set up the last Rooftile of the string by applying the red string joint (positive, with bypass diode) on the positive hole in the Rooftile back face and securing it with the connector. After this the Rooftile is ready to be placed and connected with the second to last Rooftile of the string using another connector.



9 Repeat the steps until all the strings will be completed. Finally, connect the string joints of each string to the photovoltaic cables which lead to the inverter or the battery.



EXAMPLE : ELECTRICAL CONNECTIONS DIAGRAM

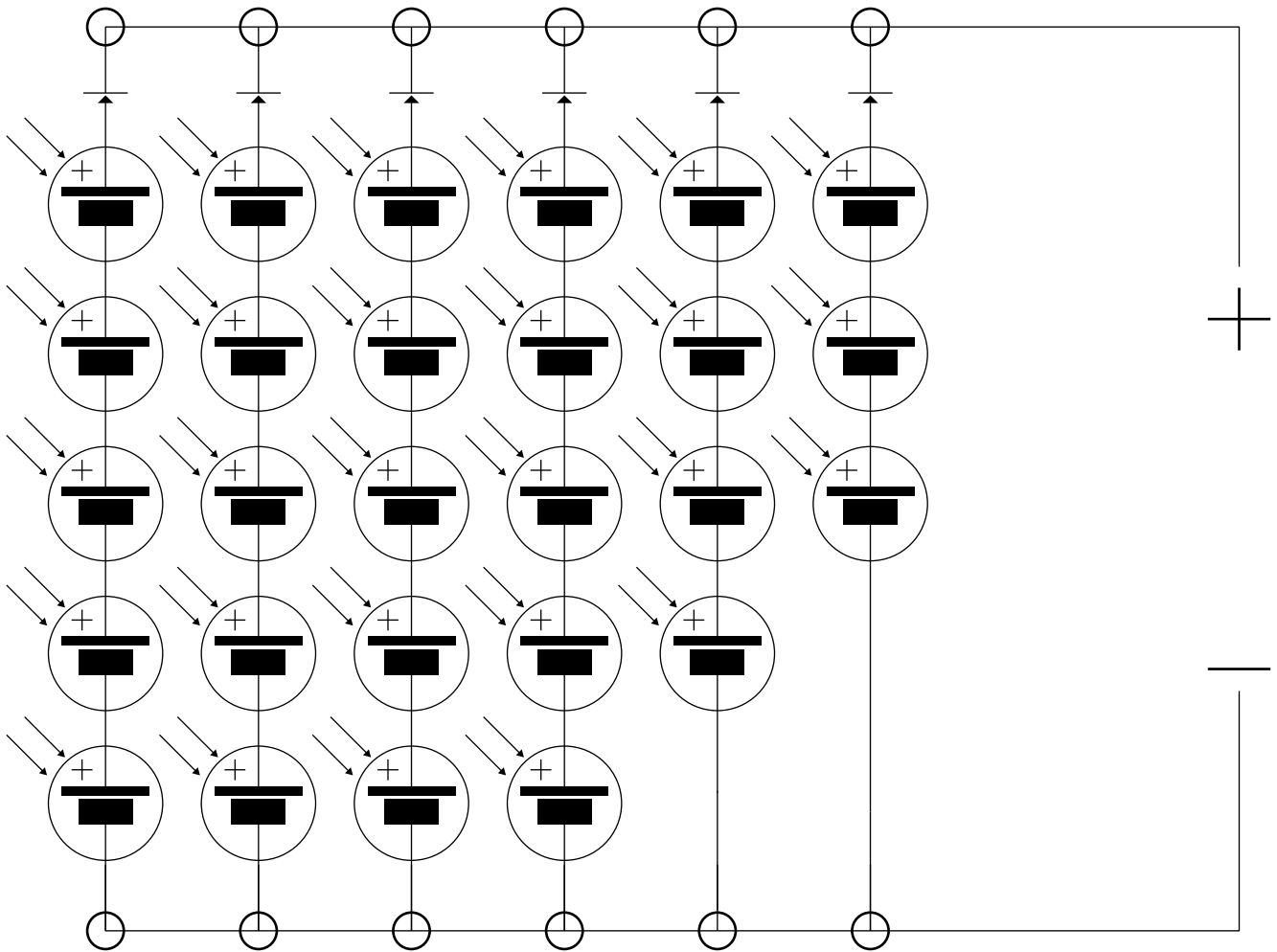
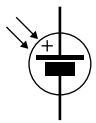
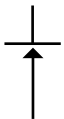


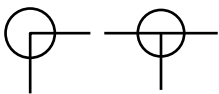
DIAGRAM KEY



Electric generator
Invisible Solar Rooftile



Bypass Diode
Integrated in the positive joint, it is used to connect the positive pole at the string end with the cable that leads to the inverter or battery.



Connectors
Standard connectors for PV cables at installer's choice.

SPECIFICATIONS ABOUT THE DIAGRAM

- The amount of Invisible Solar Rooftiles in a string changes according to the needs and can be different for each string.
- The plants can be composed of a different amount of strings.
- Bypass diodes allow to make parallel connections between strings with different voltages.