WHAT IS CLAIMED IS:

1. A PV string comprising a first and second PV cell, each PV cell having a busbar, wherein the first and second PV cells are directly connected to each other using non-conductive bonding material, characterized in that the non-conductive bonding material forms a direct connection between the first and second PV cells without use of a conductive bonding material.

2. A PV string according to claim 1, wherein the non-conductive bonding material is disposed 0.1mm – 1.0mm away from an edge of each busbar.

3. A PV string according to claim 1, wherein the non-conductive bonding material is in direct contact with a side surface of the first PV cell and a front surface of the second PV cell.4.

A method of electrically connecting and constructing the PV string according to claim 1, comprising the steps of:

Step 1: applying the non-conductive bonding material on a surface of the first PV cell, wherein the non-conductive bonding material is applied along a region adjacent to a front busbar edge of the first PV cell and/or along a region adjacent to a rear busbar edge of the second PV cell;

Step 2: placing the second PV cell in a partially overlapping manner, such that the busbars of both the first and second PV cells are aligned with each other, characterized in that a mechanical connection is established by direct contact of the non-conductive bonding material to the first and second PV cell such that an electrical contact between the first and second PV cells is established;

Step 3: curing the PV string.

5. The method according to claim 4, wherein the non-conductive bonding material is disposed 0.1mm – 1.0mm away from an edge of each busbar.

6. A method of electrically connecting and constructing the PV string according to claim 1, comprising the steps of:

Step 1: placing the first and the second PV cells in a partially overlapping manner, such that the busbars of the first and second PV cells are aligned with each other, wherein electrical contact is established between these PV cells;

Step 2: applying the non-conductive bonding material to the first and second PV cell such that the non-conductive bonding material is disposed between a side surface of the first PV cell and a front surface of the second PV cell;

Step 3: curing the PV string.

7. The method according to any of claims 4-6, wherein the non-conductive bonding material is applied in a continuous or non-continuous manner.

8. The method according to claim 7, wherein the non-conductive bonding material is applied using a means selected from a group comprising a syringe, a spray nozzle, a stencil or a pick and place process step.