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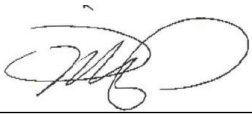
I served as Chief Examiner of the certified court interpreter test for the State of California and as a contract translator and interpreter for various federal agencies through the U.S. Department of State of for more than a decade. I served as an instructor at the University of California at Berkeley and the Middlebury Institute of International Studies at Monterey Graduate Program in Translation.

I have more than 30 years of experience in reviewing thousands of technical, legal, and business documents translated from Chinese to English and submitted to, among others, Chinese judicial authorities, U.S. federal courts, the U.S. International Trade Commission (ITC), and the USPTO Patent Trial and Appeal Board (PTAB).

I certify that the following document translated from Chinese into the English language is a true, correct, and complete translation of the corresponding source text to the best of my knowledge and ability.

I certify under penalty of perjury that the foregoing is true and correct.

Executed this [OO] day of April 2025 in Contra Costa County of the State of California.

By: 

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[12] **Utility Model Patent Specification**

Patent No. ZL 200820031198.X

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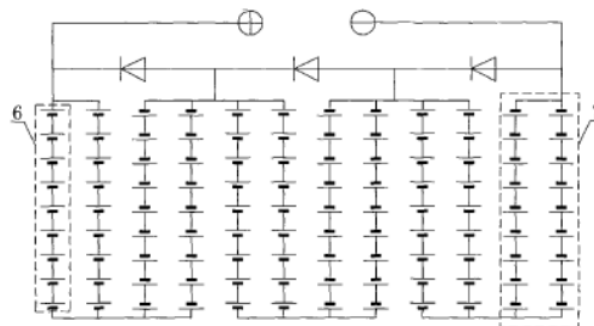
CLAIMS: 1 page, DESCRIPTION: 2 pages, DRAWINGS: 1 page

[54] **Title of the Utility Model**

PHOTOVOLTAIC MODULE CAPABLE OF OUTPUTTING HIGH POWER

[57] **ABSTRACT**

The utility model relates to a photovoltaic module capable of outputting high power, which can output high power and is low in manufacturing cost. The photovoltaic module comprises photovoltaic glass, unit cells connected by interconnection strips, and a package backsheet, which are packaged as a whole by a transparent laminated material, wherein the unit cells are 125×125 mm monocrystalline or polycrystalline solar cells. The unit cells are connected in series to form a series group, endpoints of two series groups are connected in parallel to form a parallel-series combination, and the parallel-series combinations are connected in series to form an output end of the module.



1. A photovoltaic module capable of outputting high power, comprising photovoltaic glass, unit cells connected by interconnection strips, and a package backsheet, which are packaged as a whole by a transparent laminated material, wherein the unit cells are 125×125mm monocrystalline or polycrystalline solar cells, and are connected in series to form a series group, endpoints of two series groups are connected in parallel to form a parallel-series combination, and the parallel-series combinations are connected in series to form an output end of the module.

2. The photovoltaic module capable of outputting high power according to claim 1, wherein the series group is formed by nine cells connected in series.

3. The photovoltaic module capable of outputting high power according to claim 2, wherein there are six series combinations that are connected in series to form the module.

PHOTOVOLTAIC MODULE CAPABLE OF OUTPUTTING HIGH POWER

(1) TECHNICAL FIELD

The utility model relates to the technical field of solar energy, and in particular, to a photovoltaic module capable of outputting high power.

(2) BACKGROUND ART

The output power of a solar photovoltaic module is associated with the area of solar unit cells therein and the number of solar unit cells connected in series. In order to increase the output power of the module, at present, the commonly-used method is to use cells with larger area (such as 156×156 mm or larger) or to increase the number of cells connected in series. Large-area unit cells are expensive, leading to high manufacturing cost. Increasing the number of cells connected in series can only increase the output voltage, while the output current remains unchanged. Therefore, even if more cells connected in series are added, the change in output power is not very ideal.

(3) SUMMARY OF THE UTILITY MODEL

In view of the above problems, the utility model provides a photovoltaic module capable of outputting high power, which can output high power and is low in manufacturing cost.

Its technical solution is as follows: a photovoltaic module comprises photovoltaic glass, unit cells connected by interconnecting strips, and a package backsheet, which are packaged as a whole by a transparent laminated material, wherein the unit cells are 125×125mm monocrystalline or polycrystalline solar cells, and are connected in series to form a series group, endpoints of two series groups are connected in parallel to form a parallel-series combination, and then the parallel-series combinations are connected in series to form an output end of the module.

The photovoltaic module is further characterized in that: the series group is formed by nine cells connected in series, and there are six series combinations that are connected in series to form the module.

In the above structure of the utility model, the use of monocrystalline (or polycrystalline) solar cells with a smaller area of 125×125 mm reduces the manufacturing cost, and the unit cells are connected in series and then in parallel, which increases the output power by increasing both voltage and current, resulting in a photovoltaic module with large output power, thereby avoiding the shortcomings of the existing photovoltaic module in which the output power is increased by increasing the area of the unit cells or by increasing the number of unit cells connected in series, leading to the increased manufacturing cost or a small variation in output power.

(4) DESCRIPTION OF THE DRAWINGS

FIG. 1 is a structural sectional view of the utility model;

FIG. 2 is a top view of the utility model; and

FIG. 3 is an electrical connection diagram of the utility model.

(5) DETAILED DESCRIPTION OF EMBODIMENTS OF THE UTILITY MODEL

With reference to FIGS. 1, 2 and 3, the utility model comprises photovoltaic glass 1, unit cells 3 connected by interconnection strips 2, and a package backsheet 4, which are packaged as a whole by a transparent laminated material 5. The unit cells 3 are 125×125 mm monocrystalline or polycrystalline solar cells. The unit cells 3 are connected in series to form a series group 6. There may be a plurality of series groups connected by the unit cells in series. FIG. 3 shows nine series groups. Endpoints of two series groups 6 are connected in parallel to form a parallel-series combination 7, and then six parallel-series combinations 7 are connected in series to form an output end of the module.

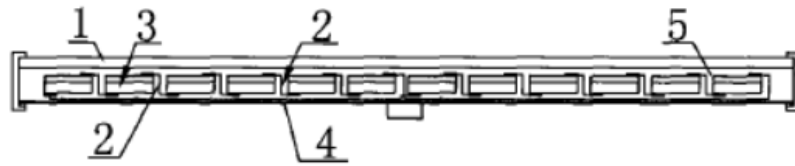


FIG. 1

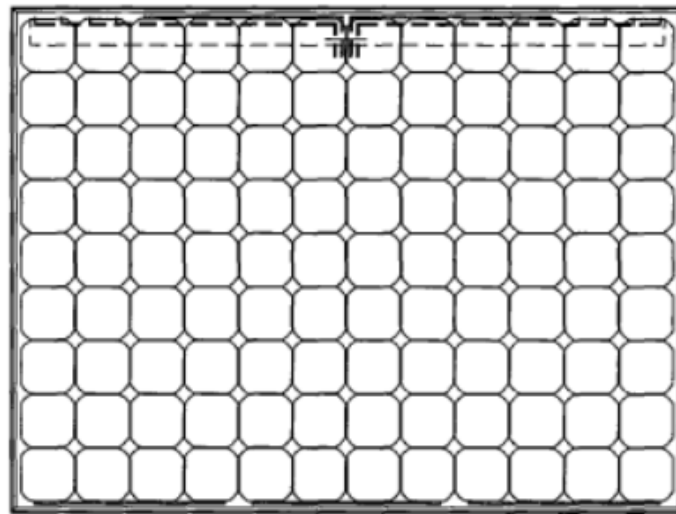


FIG. 2

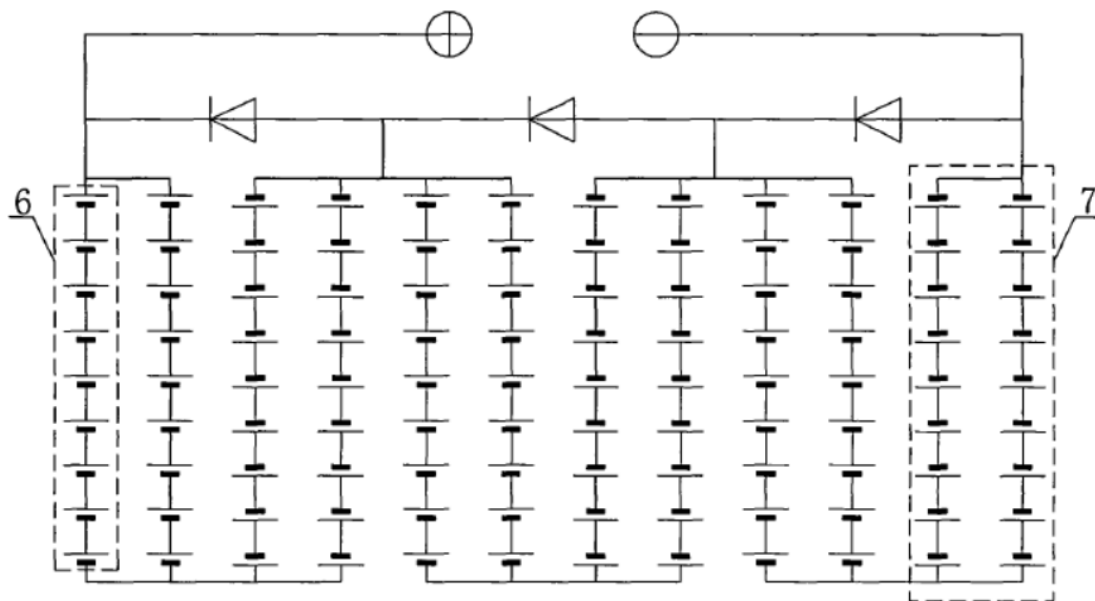


FIG. 3