

First, the Basic Concept of Grid-Connected Distribution Box The grid-connected distribution box is a core component of a solar power station. It holds significant importance in converting, distributing, and connecting the electric energy produced by solar panels to the power grid. Simultaneously, it is also an extremely crucial safety element within the solar power generation system. Second, the Roles of Grid-Connected Distribution Box

1. Power Conversion: The grid-connected distribution box is capable of converting the direct current generated by solar panels into alternating current, thus adapting to the requirements of the power grid and facilitating grid access.
2. Power Distribution: It can distribute the electricity generated by solar panels to different power loads in accordance with specific rules, meeting the power needs of various components of the solar power generation system.
3. Electric Energy Access: The grid-connected distribution box connects the electric energy generated by solar panels to the grid. It can supply excess electric energy to the grid and obtain electric energy from the grid for the use of solar panels when necessary.
4. Security: The grid-connected distribution box has multiple protection functions, including over-current protection, over-voltage protection, and over-temperature protection, ensuring the safe operation of the solar power generation system.

Third, the Components of Grid-Connected Distribution Box

1. Input End: Solar panels and electrical components such as direct pulse current controllers enter the grid-connected distribution box through this end.
2. DC Switch: The DC signal generated by the solar panel is connected to the DC energy storage battery through the DC switch for emergency needs.
3. DC-AC Converter: It outputs AC electrical signals to meet the requirements of the power grid.
4. AC Output: The converted AC electrical signal is output to the power load or connected to the power

grid.Specifications

Part Number	Description
1	Negative convergence copper bar
2	Detection unit
3	DC miniature circuit breaker
4	DC positive convergence output
5	DC negative convergence output
6	RS485 communication terminal (output point)
7	Grounding output point
8	Lightning protection device
9	Positive convergence copper

10	DC positive fuse holder and fuse (one fuse in series for each input) 16 circuits at most
11	DC negative fuse holder and fuse (one fuse in series for each input) 16 circuits at most

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光伏并网箱 PV Grid-Connected Cabinet



概述 Overview

光伏并网箱，并网柜，广泛适用于分布式屋顶发电、地面电站、工商业屋顶、渔光互补、农光互补，品种齐全。适用于各种新能源发电并网、光伏发电、风力发电，符合国家并网标准。

规格齐全可按要求定制

功率从单相2KW到三相1MW

结构紧凑，外形美观，耐腐蚀

具有漏电保护，过载保护，短路保护，缺相保护，浪涌保护，最大程度保护人身安全。

具有自动重合闸功能及远程控制功能大大减少了工作人员的工作成本

并网柜具有防孤岛，过欠压保护，检有压合闸，失压跳闸功能

并网柜采用汇流加并网的一体化设计大大降低了成本

光伏并网配电箱 材质及内部配置可根据当地并网要求定制化生产

This series of PVB is widely used for distributed rooftop generation, ground-based power station, the rooftop of industry and commerce, fishery and agriculture.

Furthermore, it is applied to new energy paralleling generation, photovoltaic and wind power generation.

It is usually applied in the distributed photovoltaic grid-connected system. Working power is between 2KW in single-phase system and 1MW in three-phase system

Function:

Lighting protection, short circuit protection, overcurrent protection, earth leakage protection and anti-islanding.

Tripping if no voltage and closing if recovery automatically.

Characteristics:

PA66 and transparent polyethylene carbon material are used, which makes it very convenient to look over the condition of operation without touching the box.

Protection grade reaches IP54, which means can prevent our products from dust and water.

It can be reclosed automatically and controlled remotely to reduce the operation cost of workers.

To reduce the manufacturing cost, the cabinet is designed integrately.

Compact structure

Nice appearance

Anti-corrosion

Customized due to the complete specifications

Standards:

It meets the state grid standards.



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FAQ

1. Installation power range?

3kw-200kw

2. Is there lightning protection?

With lightning protection

3. What is the highest usable altitude?

Under normal circumstances, the altitude below 3000m can be used