

First, the Use of Photovoltaic Grid-Connected Cabinet

1. Electric Energy Transmission and Grid Connection: The photovoltaic grid-connected cabinet is primarily employed to transmit the electric energy generated by the photovoltaic power generation system to the grid for grid connection. This enables power contribution and the acquisition of electricity fee income.
2. Power Monitoring and Detection: Additionally, photovoltaic grid-connected cabinets can be utilized for power grid management. They maximize the output power of the power generation system and monitor grid parameters such as voltage, current, and power to ensure reliable operation.
3. Induction Current Limitation: The photovoltaic grid-connected cabinet also possesses an induction current control function. It can limit induction current, safeguard equipment and circuits, and enhance safety.

Second, the Scenarios of Photovoltaic Grid Cabinets

1. Large-Scale Industrial Photovoltaic System: In large-scale industrial photovoltaic systems, the photovoltaic grid-connected cabinet plays a crucial role in controlling the grid-connected current and voltage of the power generation system. It can safely and stably output the electricity generated by the power generation system to the grid.
2. Commercial Photovoltaic System: In commercial photovoltaic systems, photovoltaic grid-connected cabinets can be used for grid-connected current and voltage control and other functions to ensure the realization of power generation effects and commercial interests.

In conclusion, the photovoltaic grid-connected cabinet is mainly used in solar power systems for grid connection. It also has practical functions such as power monitoring and detection and induction current limitation, making it an indispensable part of the solar power system. At the same time, photovoltaic grid-connected cabinets can be widely used in different scenarios, including large-scale industrial photovoltaic systems, commercial photovoltaic systems, and home photovoltaic systems. Through its application in various scenarios, it can unleash huge power generation potential, improve the environment, and enhance the efficiency of power utilization.

光伏并网柜 PV Grid-Connected Cabinet



概述 Overview

CSGGD、CSJXF对于大型光伏并网发电系统。为了减少逆变器与并网柜之间连接线及电量损耗 方便维护提高可靠性。一般在逆变器与并网柜之间增加交流汇流箱，电流大小根据逆变器功率配置为了满足这一要求Im特别设计的，可与光伏逆变器产品相配套组成完整的光伏发电系统方案，使用汇流交流箱，用户可以根据交流并网箱额定输入电流及电压 可定制。

该产品主要用于分布式光伏系统100Kw-1Mw的并网线路中。

CSGGD, CSJXF for large-scale photovoltaic grid-connected power generation systems. In order to reduce the connection line and power loss between the inverter and the grid-connected cabinet, it is convenient to maintain and improve reliability. Generally, an AC combiner box is added between the inverter and the grid-connected cabinet, and the current is configured according to the power of the inverter. In order to meet this requirement, Im is specially designed to be combined with photovoltaic inverter products to form a complete photovoltaic power generation system solution. The use of the confluence AC box allows the user to customize the current and voltage according to the AC and grid rated input current. This product is mainly used in the grid-connected line of distributed photovoltaic system 100Kw-1Mw.

Conditions for use

Ambient air temperature shall be neither above +40°C nor below -50°C.

Indoor installation and use, the altitude of the use venue shall not exceed 2000M

Environment relative humidity shall not exceed 50% at the maximum temperature of 40°C, high relative humidity is allowed when the temperature is comparatively low. (for example, it can be 90% at +20°C). Also, the impact brought about by occasional condensation due to temperature change shall be taken into consideration.

The gradient to vertical plane shall not be more than 5 degrees when equipments installation.

Equipments shall be installed at places free from excessive vibration and impact, and where no erosion shall be caused to the electric appliance components.

IF users have any special requirement, please negotiate with the manufacturer for settlement.

Technical specification:

Model	Rated voltage (V)	Rated current (A)		Rated short-circuit breaking current (KA)	Rated short-time withstand current (1S)(KA)	Rated peak withstand current (KA)
		A	B			
CSGGD1	380	A	1000	15	15	30
		B	600(630)			
		C	400			
CSGGD2	380	A	1500(1600)	30	30	63
		B	1000			
		C				
CSGGD3	380	A	3150	50	50	105
		B	2500			
		C	2000			

Execution standard: GB 7251.12-2013/IEC 61439-2:2011 <low-voltage switchgear and controlgear assemblies-part 2: Power switchgear and controlgear assemblies>

Technical parameter

Product model	CSGGD
Number of inverter inputs	1road-5road (It is recommended that an AC bus box be used)



Number of grid-connected output channels	1road
Grid-connection requirement	Three-phase grid-connected cabinet
Grid-connected voltage	AC: 380V-AC: 500V
Switch brand (optional)	Changsong, Delixi, Chint, Changshu, ABB, Schneider
Protection function	
Short circuit protection	There are
Overload protection	There are
Lightning protection	There are(Nominal current: In: 20KA, I _{max} : 40KA, UP≤4kV)
Isolation protection(Visual breakpoint)	There are (knife/disconnecting switch)
Over and under voltage protection	There are
Automatic reclosing	There are
Panel manually open and close	There are
Optional function	1, online power quality monitor; (optional) 2, anti-island protection device; (optional) 3, fault disconnecting device; (optional)
Grid-connected switch	
Plastic case reclosing (100A-800A) (optional)	1, power grid power failure or bias > 20%, automatic trip (0-10s delay trip time adjustable); 2, the power grid returns to normal, automatic closing; 3, manual operation can be switched to automatic operation; 4, lack of phase protection, break zero protection 5, check the pressure closing
Universal frame Circuit Breaker (200A-4000A) (optional)	1, power grid power failure or bias > 20%, automatic trip (0-10s delay trip time adjustable); 2, the power grid returns to normal, automatic closing; 3, manual operation can be switched to automatic operation 4, lack of phase protection, break zero protection; 5: Check the pressure closing
Environmental applicability	
Temperature and humidity	Operating temperature: -25 to 60°C Storage temperature: -40 to 70°C Humidity: 0-90% No frost no corrosive gas place (if there is, please specify)
Service altitude	≤3000M
Salt spray resistance	Standard salt spray test 336 hours
Conventional parameter	
Cabinet material	Cold rolled plate spray, stainless steel
Place of use	Indoor type (customizable outdoor type)

Cabinet type	Distribution bin, measuring bin, transformer bin, isolation switch bin
Installation mode	Floor vertical mounting
Cabinet size (D * W * H)	600mm*800mm*2200mm/800mm*800mm*2200m (customizable)

FAQ

1. Is there protection against lightning strikes?

Complete protection to ensure the safety of the equipment

2. Is there anything else besides the basic features?

There are also online power quality monitors, anti-island protection devices, fault disconnecting devices, etc., which are optional

3. What material is the box made of?

Cold rolled steel spray, stainless steel