The photovoltaic grid-connected cabinet is the equipment utilized to convert the direct current energy generated by the photovoltaic power generation system into alternating current energy and inject it into the power system via the connection point. Generally, the photovoltaic grid-connected cabinet is composed of a DC input, an inverter, an AC output, a protection device, and a monitoring system. Through the inverter, it converts the DC power output by the photovoltaic cell pack into the AC power required by the power system, thereby realizing the seamless grid connection between the photovoltaic power generation system and the power system. The photovoltaic grid-connected cabinet achieves efficient energy transmission between the photovoltaic power generation system and the power system mainly through seamless docking with the power system. Its working principle encompasses the following aspects: 1. The output DC power of the photovoltaic cell pack can enter the photovoltaic grid-connected cabinet through the DC input terminal of the cabinet. 2. The inverter within the photovoltaic grid-connected cabinet converts direct current energy into alternating current power and synchronizes the frequency and phase with the power system. 3. The inverter injects the generated AC power into the power system through the AC output terminal, thus establishing a power transmission channel between the photovoltaic power generation system and the power system. 4. The background monitoring and control system of the photovoltaic power station monitors and manages the operating status of the photovoltaic grid-connected cabinet in real time to ensure the safe and stable operation of the photovoltaic power generation system.

Technical parameter

Product model	CSGGD
Number of inverter inputs	1路-5路（It is recommended that an AC bus box be used）
Number of grid-connected output channels	1路
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, Imax：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℃ Storage temperature: -40 to 70℃ 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)

光伏并网柜
PV Grid-Connected Cabinet

昌松电气

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 be90% 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 impaction,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 sepcification:

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)
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/IEC61439-2:2011 <low-voltage switchgear and controlgear assemblies-part 2: Power switchgear and controlgear assemblies>

FAQ

1、What is the installation method?

Floor vertical mounting

2、Where can I use it?

They are generally indoor, and can be customized if needed for outdoor use

3、Shell size?

The general is 600mm*800mm*2200mm/800mm*800mm*2200mm, there are special requirements can be customized