

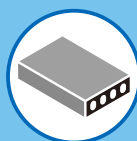
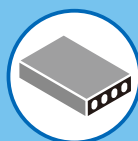
Communication Base Station Smart Hybrid PV Power Supply System



PV MPPT Module



Monitoring Module


 AC/DC Module
(Optional)

 DC-DC Module
(optional)

 DC Meter
(Optional)

 Wireless Internet
Gateway(Optional)


Surge protector



I/O circuit breaker



Testing Report



Product Introduction

The Telecom Base Station Intelligent Grid-PV Hybrid Power Supply System helps telecom operators to achieve "carbon reduction, energy saving" for telecom base stations and machine rooms. Stable, well-established, efficient and intelligent.

The system is mainly used for the Grid-PV Hybrid solution in telecom base stations and machine rooms, as well as off-grid PV base stations, Wind-PV hybrid power base stations and Diesel-PV hybrid power base stations in areas without grid electricity.



Product Features

- 1. Stable and reliable:** the power module adopts isolated circuit design scheme;
- 2. Intelligent collaboration:** support turnkey monitoring of PV modules, rectifier modules and DCDC modules;
- 3. High efficiency:** PV modules support MPPT function, conversion efficiency is more than 96%;
- 4. Wide voltage input for PV parts:** the working voltage of photovoltaic input is 120Vdc~420Vdc;
- 5. Easy to maintain:** fully modular design, support hot swap;
- 6. Remote operation and maintenance:** support remote wireless monitoring, intelligent operation and maintenance platform, always keep track of the operation status;
- 7. Easy installation:** protection class IP55, support wall and pole mounted;
- 8. Safer:** built-in surge protector, circuit breaker, reverse protection, overvoltage protection, etc.

CCG series	CCG01DJ3300	CCG02DJ5900	CCG02DJ6600
Controller type	Telecom Base Station Intelligent Grid-PV Hybrid Power Supply System (isolated type)		
MPPT productiveness	≥99%		
Peak conversion efficiency	≥95%		
Standby power consumption	≤3.0W	≤6.0W	≤6.0W
Photovoltaic input parameters			
Maximum input power	3300W	5900W	6600W
Maximum input current	18A×1 String (MPPT)	18A×2 String (MPPT)	18A×2 String (MPPT)
Working voltage range	120Vdc~420Vdc		
MPPT voltage range	120Vdc~340Vdc		
Maximum solar parts access voltage	420Vdc		
Start charging at minimum voltage	160Vdc		
Protection voltage (overvoltage/undervoltage protection)	420Vdc/115Vdc		
Protection recovery voltage (overvoltage/undervoltage recovery)	415Vdc/120Vdc		
Output parameter			
Output rating	3000W	5400W	6000W
Maximum output current	60A	100A	120A
Rated output voltage	57VDC		
Battery management parameters			
Applicable system type	48V: lead-acid battery/lithium-ion battery/rectifier		
Charging and protection parameter Settings (panel adjustable)	Default: 57VDC (40VDC~60VDC adjustable)		
	Default: Overvoltage protection 60V overvoltage recovery 57V (40VDC~60VDC adjustable)		
	Default: under-voltage protection 40V under-voltage recovery 42V (40VDC~60VDC adjustable)		
Display & communications			
Display mode	LCD+LED		
Communication mode	RS485 bus / standard Modbus protocol		
Monitor mode	Supports computer monitoring, 4G remote monitoring, etc		
Defensive function			
Photovoltaic input protection	Overvoltage and undervoltage protection are input		
Output protection	Stable voltage protection, battery reverse connection protection, battery detachment protection and overcharge protection		
Standard protection	Over temperature protection, fan fault protection, over current protection, surge lightning protection		
Safety standard			
Safety / voltage resistance	Input-output 1400Vdc, 60 seconds (leakage current less than 20mA no arc no breakdown)		
	Input-ground 1400Vdc, 60 seconds (leakage current less than 20mA no arc no breakdown)		
	Output-700Vdc, 60 seconds (leakage current less than 20mA no arc, no breakdown)		
	Communication port--ground 500Vdc, 60 seconds (leakage current less than 20mA no arc no breakdown)		
Wave surge protection class	Rated 20KA, MAX 40KA		
Insulation impedance	≥2MΩ		
Earthing resistance	≤0.1Ω		
Other parameters			
Heat dissipation method	Forced Air Cooling		
Way to install	Wall or Pole mounting		
Product size	475*450*160mm		
Product weight (kg)	14.5	16.5	16.5
Operating ambient temperature	-20°C~+50°C		
Storage temperature and relative humidity	-40°C~+70°C 5~95% no condensation		
IP levels of protection	IP54		
Altitude	0~4000m (when 3000~4000m, the ambient temperature decreases by 1 degree for every 100m increase in height)		

Solar base station PV module

BX 48D3000 Series

Standard: GB/T 26264-2010
YD/T 2321-2020
YD/T731-2018



Product introduction

The BX48D3000 PV DC-DC module can be used alone, but also as a module for wind, light, oil, and mixed power hybrid power supply system. The module has the advantages of high reliability, applicable for most of scenarios, and easy maintenance. It has been widely used in communication base stations and oil Wells & Fields, road administration and transportation, forest protection, solar energy monitoring and other scenes and projects.



Key advantage

- Small size, high power density (1U industrial design)
- Wide range single-phase input: (120Vdc-420Vdc)
- Conversion efficiency is more than 97%
- It has MPPT function and the tracking efficiency is greater than 99%
- Intelligent control, support RS485 communication and CAN communication
- High reliability and multiple protection functions

Specifications and parameters of BX 48D3000 Solar base station PV module

Maximum power input from photovoltaic	3300W
Photovoltaic input voltage range	120~420Vdc
Maximum current input to photovoltaic	18A
Output rated power	3000W
Rated output current	50A (maximum 60A)
Peak conversion efficiency	≥97%
MPPT Tracking efficiency	≥99%
Communication mode	RS485 /CAN
Output voltage: nominal value	-57VDC
And the adjustable range of output voltage	DC-40V~DC-60V adjustable
Overvoltage protection and recovery	Overvoltage 420V/recovery 410V
Output overcurrent protection	Yes
Output short circuit protection	Yes
Output overvoltage protection and recovery	Overvoltage default 60V/recovery 57V (adjustable)
Reverse discharge protection	Yes
Polarity reverse protection	Yes
Overtemperature protection	Yes
Physical communication alarm interface (dry contact)	Input a group / output a group (passive signal)
LED show	Red (fault), yellow (alarm), green (standby and operation)
Working temperature	-20°C~+50°C
Storage temperature	-40°C~+75°C
Relative humidity	No condensation 5~95%
Elevation requirements	0~4000m (when 3000~4000m, the ambient temperature decreases by 1 degree for every 100m increase in height)
Mode of connection	hot plug
Insulation resistance	≥2
Earthing resistance	≤0.1
Surge protection	≥10kA
High-voltage insulation test	Input-output 2120Vdc (leakage current less than 10mA no arc no breakdown)
	Input--ground, input--ground 1250Vdc (leakage current less than 10mA no arc no breakdown)
	Communication port--ground 500Vdc (leakage current less than 10mA no arc no breakdown)
Size	332.8mm*105mm*41mm
Levels of protection	IP20