PHOTOVOLTAIC PANELS | SUNFLOWER

Solatek Triple Axis Tracking Sunflower 2520Wp



Solatek Triple Axis Tracking Sunflower 2520Wp Specifications

Solatek Triple Axis Tracking Sunflower is a solar generating system integrating power generating, inverter and battery storage. The system adopts astronomical tracing algorithm with 24 hours auto-tracking of the sun. It has a power efficiency 40% better than general solar power systems. Because of its capability to work with storage systems, the device can work independently of grid, match the request of various occasions. The unique shape design makes sunflower become the most attractive photovoltaic system anywhere.



- 1 PV Module
- 2 Triple Axis Slewing Tracking
- Bearing3 Switch Box
- 4 Inverter
- 5 Control System
- 6 Storage Battery

System

The application of the Triple Axis Tracking Sunflower includes:

- **PV Module** converts the light energy into DC energy, charges the battery or inverts into AC to apply directly to load.
- Triple Axis Slewing Tracking Bearing ensures the mobility of the system and the tracking of the sun.
- **Battery Storage** the use of battery is to ensure continuous power even in solar energy shortage and/or disconnected grid.
- Household Load all kind of appliances of household, offices including lights, TV, refrigerator, air conditioning, ...
- Inverter the energy conversion of the whole system.



Specifications



Specification				
Madal	CD 21014 42	Deted Dewer		
IVIODEI	CD-2101VI-42	Rated Power	210W±5%	
Open Circuit Voltage	21V	Max Working Voltage	20.3V	
Max. Working Current	9.7A	Short Circuit Current	10A	
Module Efficiency	≥21.6%	Size	2070*1228*6.5mm	
Max. System Voltage	1000VDC	Working Temperature	-40~+85°C	
Power Temperature	-0.43%/°C	Current Temperature	0.08%/°C	
Compensation Coefficient		Compensation Coefficient		
Voltage Temperature	-0.37%/°C		≥20 yrs	
Compensation Coefficient		Working Life		
Power Warranty	>90% in 10 years	Max. Hail Impact	25mm; 23m/s	
STC (standard testing): 1000W/m ² , 25°C, AM1.5				

Horizontal Slewing Bearing







The lubricating grease in normal condition				
Lubricant Housing	Conical bearing / Slewing Bearing Raceway / Engaged Between Worm and Slewing Bearing	Recommended	Changcheng 7029D-1.5	
Temperature Range (°C)	-40~+180°C	Color	Milk White	
Viscosity (-30°C) Pas<600	≤500			
Worked Cone Penetration 0.1mm	362	Dropping Point	269 °C	
Grease Load (Unit: g)				
Slewing Bearing Raceway	20-25	Engaged Between Worm and Slewing Bearing	60-70 95-105	
Tapered Roller Bearing	12±0.5	Lubrication Interval	Every 2000 hours	
While the rotary drive is turning, continuously inject the grease into the grease mouth. Steam ejector or high-pressure cleaner to clean rotary is prohibited.				

Solatek V IV 5.6 KW Inverter Specifications



- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in Wi-Fi for mobile monitoring (App is available)
- Reserved communication port for BMS
- Parallel operation up to 9 units

MODEL	Solatek V IV 5.6KW	
Phase	1-phase in / 1-phase out	
Maximum PV Input Power	6000W	
Rated Output Power	5600W	
Maximum Charging Power	6000W	
GRID-TIE OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 450 VDC	
Start-up Voltage / Initial Feeding Voltage	110VDC / 120 VDC	
MPP Voltage Range	120 VDC ~ 430 VDC	
Number of MPP Trackers / Maximum Input Current	1 / 27 A	
GRID OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)	
Nominal Output Current	24.3A	
Power Factor	>0.9	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	96%	
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC	
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC	
Maximum AC Input Current	40 A	
PV INPUT (DC)		
Maximum DC Voltage	450 VDC	
MPP Voltage Range	120 VDC ~ 430 VDC	



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Number of MPP Trackers / Maximum Input Current	1 / 27 A	
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Output Waveform	Pure sinewave	
Efficiency (DC to AC)	93%	
HYBRID OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 450 VDC	
Start-up Voltage / Initial Feeding Voltage	110VDC / 120 VDC	
MPP Voltage Range	120 VDC ~ 430 VDC	
Number of MPP Trackers / Maximum Input Current	1 / 27 A	
GRID OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)	
Nominal Output Current	24.3A	
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC	
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC	
Maximum AC Input Current	40A	
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	220/230/240 VAC	
Efficiency (DC to AC)	93%	
BATTERY & CHARGER		
Nominal DC Voltage	48 VDC	
Maximum Solar Charging Current	120A	
Maximum AC Charging Current	120A	
Maximum Charging Current	120A	
GENERAL		
PHYSICAL		
Dimension, D x W x H (mm)	140 x 295 x 468	
Net Weight (kgs)	12	
INTERACE	_	
Parallel Function	Yes, 9 units	
Communication Port	USB/RS232/RS485/Wi-Fi/Dry-contact	
ENVIRONMENT		
Humidity	0 ~ 90% RH (Non-condensing)	
Operating Temperature	-10 to 50ºC	

System Maintenance

For maintaining the best possible long-term performance, it is suggested to make an inspection twice a year on the following:

- Make sure the airflow around the machine is not blocked; clean the dirt on the radiator.
- Check whether all exposed wires are damaged due to the sun, friction with other objects, dry rot, insect or rodent damage, etc. Repair or replace wires if necessary.
- Verify that the instructions and displays are consistent with the operation of the equipment, please note that any failures or incorrect displays should be corrected if necessary.
- Check all terminals for signs of corrosion, insulation damage, high temperature or burning/discoloration and tighten terminal screws.
- Check for dirt, nesting insects and corrosion and clean as required.

Battery Specifications

This system is suitable for any type of battery storage: tubular lead acid batteries, AGM batteries, lithium batteries, etc. Because of the limited space inside, the best solution is 1 to 2 units of wall-mounted lithium LifePO4 batteries.

Installation



Installation space size

