



EDUCATIONAL PHOTOVOLTAIC SYSTEM (Off Grid Training Equipment)

I. product overview

This system can simulate solar energy generational process, enable students to understand on photovoltaic generation system directly, and be familiar with off-grid training equipment composition and run principle.

single solar cell parameter is as follows:

Max work power	(pmax) 250w
Best work power	(vmp) 34.4v
Best work current	(imp) 7.26A
Open circuit voltage	(voc) 43.2v
Short circuit current	(lsc) 8.33A
Short circuit temperature coefficient	(0.065±0.15) %/°C
Open voltage temperature coefficient	(80±10) mV/°C
Peak value work power temperature coefficient	(0.5±0.05) %/°C
NOCT	47±2°C
Work temperature	40°C to 85°C
System maximum voltage	1000v DC
Output work power tolerance	±3%

II. Technical data

- Solar energy generation set :

consist of whole aluminum structure, photovoltaic adjustable pane(can adjust angle), with universal wheels under the bottom of aluminum frame, so it's movable, and with lockers to fix the position.

- External dimension :

1500mmx800mmx1000mm(length x width x height)

- Charger inverter machine:

Aluminum structure, the top is inverter controller, the down part is fixing shelf for gel battery, through connect wire to contribute charge inverter system, with universal wheels under the bottom, and with lockers, you can move or fix according to real requirement.

- External dimension :

400mmx 500mmx 800mm (length x width x height)



Note :
Due to keeping innovation,
the specification and
Machine pictures or color
are subject to alteration
without notice!



Inverter parameter:

Inverter rated value	1000 w
Solar energy max input work power	480 w
Solar energy max open circuit voltage	50 Vdc
Solar energy max input current	20 A
Cell voltage (accumulator)	24 Vdc
Cell voltage ranger	24 Vdc-
City electricity input voltage (AC)	220 Vac(145Vac-275Vac)
Input frequency	50 Hz
Convert efficiency	83%(100% negative) 88% negative)
Output waveform	Standard sine wave
Wave from distortion	Linear load $\leq 30\%$
Static work power consumption	8.8w (battery work mode, no load)
Solar energy charge voltage	Main charge 28.8 V, floating charge 27.6 V
City charge voltage	Main charge 27.6 V, floating charge 27 V
Charge current solar energy	20 A
City electricity	10 A
SWITCHING PERIODE	From city charge mode to battery charge mode ≤ 4 mS
Work priority	City electricity is priority

Dimension(L X W X H)	388mm x 150mm x 208mm
Package dimension(L X W X H)	468mm x 228mm x 290mm
Net weight (kg)	9.7
Gross weight (kg)	10.5
Charge protection	Yes
Battery less charge protection	Yes
Battery over charge protection	Yes
Output over load protection	yes
Output short circuit protection	Yes
Temperature over heat protection	Yes
Alarm (buzzer)	Output short circuit, over load, Temperature is too high, battery less voltage and over voltage
Environment temperature	-10%-50%
Environment humidity	10%-90%(noncondensing)
Accumulator parameter	12v65AH colloid storage batteryx2pieces

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