

# SOLAR KIT MODEL: SISMA-1000



**1000 Solar PV Kit**  
**144 kWh per month production**  
**4,8 kWh per day production**

<b>Quantity</b>	<b>Description</b>
<b>4</b>	<b>Solar panels 250W Polycrystalline</b>
<b>4</b>	<b>Micro Inverter SMA</b>
<b>1</b>	<b>Multigrad Communication unit</b>
<b>4</b>	<b>2M, AC cables for Multigrad Coomunication,</b>
<b>1</b>	<b>Support structure for solar panels</b>
<b>1</b>	<b>20 m AC cables 1x 4mm R1000 3core Inverter to Multigrade with connectors at end</b>
<b>1</b>	<b>5m AC cables 1x 4mm R1000 3 core Multigrad to Main Breaker with thimble at ends</b>
<b>1</b>	<b>1 installation tool kit</b>

## **SYSTEM WARRANTY\*:**

Solar modules production: 25 years  
Module support structure: 25 years  
Inverters: 5 years standard, (extendable to 25 years)

## **Quality of Components:**

Manufactured in EU.  
All components in the kit are high quality with CE standard

## **Description**

SITECNO solar kits for hybrid system with diesel generator, batteries and grid are complete solutions which also provide energy in all unforeseen situations that may lead either by time, by circumstances of outage and any situation. It is a complete solution for saving your energy costs and fuel.

## **Kits advantages**

- Easy to organize the order through a unique code and provider
- Compatibility between all components secured
- Measurement of energy flows installation
- CE Highest quality components
- Support pre (Combiner Box) enclosures configured to facilitate mounting installation.
- Possibility of dimensioning variants references listed kits for other power settings (on request)

### ***Function of the system***

1. The place uses the solar energy produced by photovoltaic modules during the hours of sun, plus the excess energy store in the batteries.
2. The diesel generator is the last option when the load does not get solar energy, and there is load shedding in the grid. In these situations the location consumes energy from diesel generator.

### ***Modular system***

These systems are module type and can be installed as per your space and requirement. You can ask for additional services as state-of-the-art designing, drawings, engineering and installation of your projects.

Solar kits with modular system can be extended to MW projects

### ***Solar Kit Applications:***

- Schools
- Restaurants
- Gymnasium
- Electric vehicle charging stations
- Gardens
- Markets
- Administration buildings
- Hospitals
- Resorts
- Service centres
- Multi story buildings
- Shopping malls
- Hotels
- Scout camps
- Petrol Stations
- Parking Areas
- Old houses
- Public service offices

### ***Additional Accessories***

You can ask for additional accessories for extension at your installation or shifting of your system to another place.

### ***Installation Training Services***

Training of installation is offered for technical persons on time to time basis. Schedule of the training session announce on web site.

### ***Operation and maintenance services***

Operation and maintenance services offered for the valued customers for efficient operation of the system. Customers may ask for the O&M service contract with the company.

### ***Monitoring services***

In order to monitor solar power systems, data can be transmitted to remote locations. For communication between the solar inverter and monitoring devices, SITECNO provides two basic choices: Wireless or Blue-tooth and wired variants.



# Polycrystalline SolarModule 250W

SITECNO Solar Photovoltaic Panels stand for quality, durability and most importantly, high performance. Our experience, capacity of research, continuing development and improvement have turned us into a company recognized in the sector by the high value offered to our clients.

Due to their engineered hollow section frame and its 4mm special textured glass with AR coating, SITECNO modules meet the maximum demands with regard to stability and corrosion resistance.

Thanks to their high performance SITECNO modules are prepared for changes in legislation. These panels will produce 5% more than any other of the same features.

The performance warranty is for 25 years, after 12 years, modules still produce a minimum 90% of their nominal performance. After 25 years module still produce a minimum 80% of their nominal performance.

## Electrical Characteristics:

MODEL	SI-P60-250
Nominal Power (Pmax)	250W
Open Circuit Voltage (VOC)	37,5V
Short Circuit Current (ISC)	8,76A
Voltageat Nominal Power (Vmp)	30,3V
Currentat Nominal Power (Imp)	8,24A
Module Efficiency (%)	15,20

## Mechanical Characteristics:

Cell type	Polycrystalline156x156mm
Number of cells	60 (6x10)
Module dimension	1660 x 990 x 50mm
Weight	20kg
Front cover	TSG low-iron tempered glass
Frame	Aluminium alloy
Junction box	IP65, 3diodes
Cable length	1200mm (+) , 800mm(-)
Connector	PV-JM601



## Temperature Coefficients:

Nominal Operating Cell Temperature (NOCT)	25°C ±2°C
Temperature Coefficients of Pmax	-0.43% / °K
Temperature Coefficients of Voc	-0.31% / °K
Temperature Coefficients of Isc	0.04% / °K
Operating Temperature	-40 °C to +85 °C
Maximum System Voltage	1000V DC
Reverse current load	15A

# MICRO INVERTER SB 240

## OVERVIEW

PV system operators can make a smart investment today, toward the future of the energy transition. The Sunny Boy 240 and its modular system make this possible. Thanks to its simple design, ease of planning and installation and overall flexibility when it comes to energy demand, it provides nothing but benefits.

## PRINCIPLE:

### MODULAR DESIGN MEANS EASY EXPANSION

When it comes to generating electricity with the micro inverter system, you can decide how small (or how large) your PV system will be (or become). Depending on the energy demand and your financial resources, the system can be expanded or varied step by step.

System size ranging from a single module (e.g., on a balcony) to a system offering several kilowatt-peak output

Any number of additional micro inverters can be connected thanks to the flexible design of the Sunny Multigate\*

\*Depending on local regulations



## TECHNICAL DESCRIPTION

### Input (DC)

Max. DC power (@ $\cos \varphi = 1$ )	230 W
Max. input voltage	45 V
MPP voltage range / rated input voltage	23 V ... 39 V / 29.5 V
Min. input voltage / initial input voltage	23 V / 40 V
Max. input current input A / input B	8.6 A

### Output (AC)

Rated power (@ 230 V, 50 Hz)	230 W
Max. apparent AC power	230 VA
Nominal AC voltage / range	230 / 184-270 V
AC power frequency / range	50 Hz, 60 Hz / -5 Hz ... +5 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V
Max. output current	1 A
Power factor at rated power	1
Displacement power factor, adjustable	0.8 overexcited ... 0.8 underexcited

### Efficiency

Max. efficiency / European weighted efficiency	95.8 % / 95.3 %
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### General data

Dimensions (W / H / D)	188 / 218 / 44 mm (7.4 / 8.6 / 1.7 inches)
Weight	1.3 kg (2.9 lb)
Operating temperature range	-40°C ... +65°C (-40°F ... +140°F)
Noise emission (typical)	38 dB(A)
Self-consumption (night)	0.03 W

## TECHNICAL DESCRIPTION SUNNY MULTIGATE

Max. number of micro inverters	12 x SB 240-10
Output (AC)	
Rated power (@ 230 V, 50 Hz)	2760 W
Max. apparent AC power	2760 VA
Nominal AC voltage / range	230 / 184-270 V
AC power frequency / range	50 Hz, 45.5 Hz to 63 Hz
Rated power frequency / rated grid voltage	50 Hz / 230 V
Max. output current	12 A
Power factor at rated power	1
Displacement power factor, adjustable	0.8 overexcited ... 0.8 underexcited



### Protective Devices

Ground fault monitoring / grid monitoring	— / ●
DC reverse polarity protection / AC short-circuit current capability / galvanically isolated	— / ● / —

### General data

Dimensions (W / H / D)	162 / 90 / 68 mm (6.4 / 3.5 / 2.5 inches)
Weight	0.75 kg (1.5 lb)
Operating temperature range	-40°C ... +45°C (-40°F ... +113°F)

Cooling method	Convection
Degree of protection (according to IEC 60529)	IP20

Communication	
Sunny portal	SMA Webconnect via Ethernet

Features	
AC terminal	Screw terminal
Interface: Speedwire/Webconnect	

Certification and approvals 01/2014	VFR2014, PPC, EN 50438:2007(EU, CZ, NEN), C10/11:2012, VDE0126-1-1, VDE-AR-N 4105, TR-3.2.1, R.D.1699/ R.D.413, CEI0-21, AS4777, TOR D4, G83/2, G59/3
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Type designation	MULTIGATE-1
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**Design**

Technical feature

Weight

Loads

Test certificate

**Cable:**

- Model:
- Rated Voltage:
- Rating Current:
- Cable Size:
- Proof Voltage:
- Protection Class:
- Temperature Range:
- Flame class:

**Modular type**

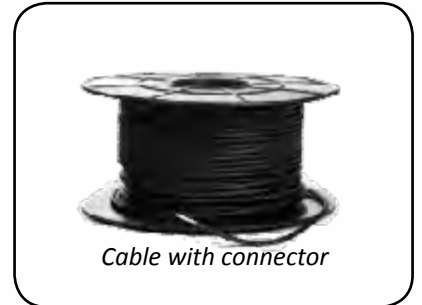
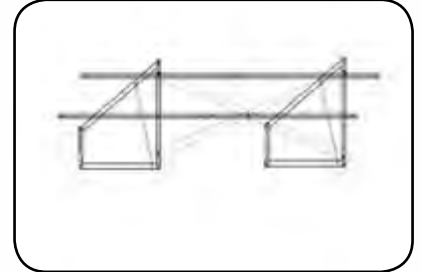
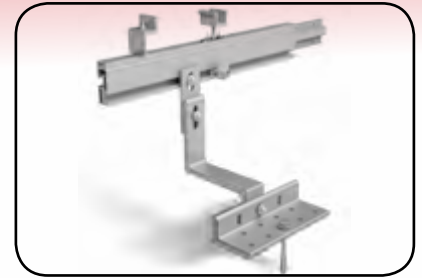
Aluminium  
25 years warranty  
Tamper proof nut bolt  
100% recycleable material  
A2 Stainless steel bolts  
2,49kg/m  
wind, snow  
CE Certifies

SI-MC4-F  
TUV 1500V DC / UL 600V DC  
20-30A  
2.5-4.0-6.0, 10-12-14AWG  
TUV 1500V AC, 1 min  
Class II  
-40 to 85°C  
UL94-V0

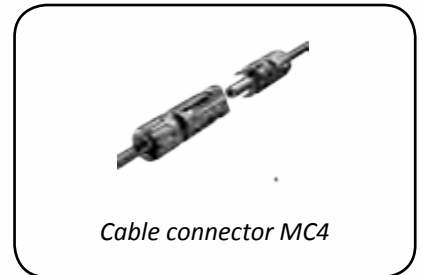
**Connector:**

Flexible conductor,  
Maximum service temperature:  
Estimated lifetime  
UV Resistant UV Resistant  
Grease & mineral oils resistance:  
Grease & mineral oils resistance:

class 5  
120°C  
30 years.  
excellent  
excellent



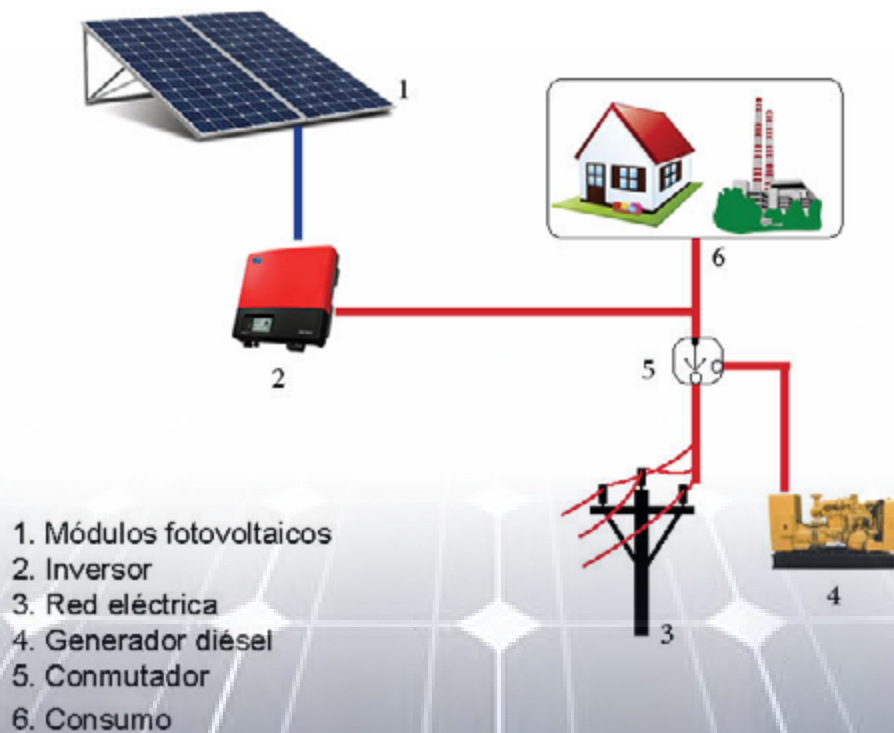
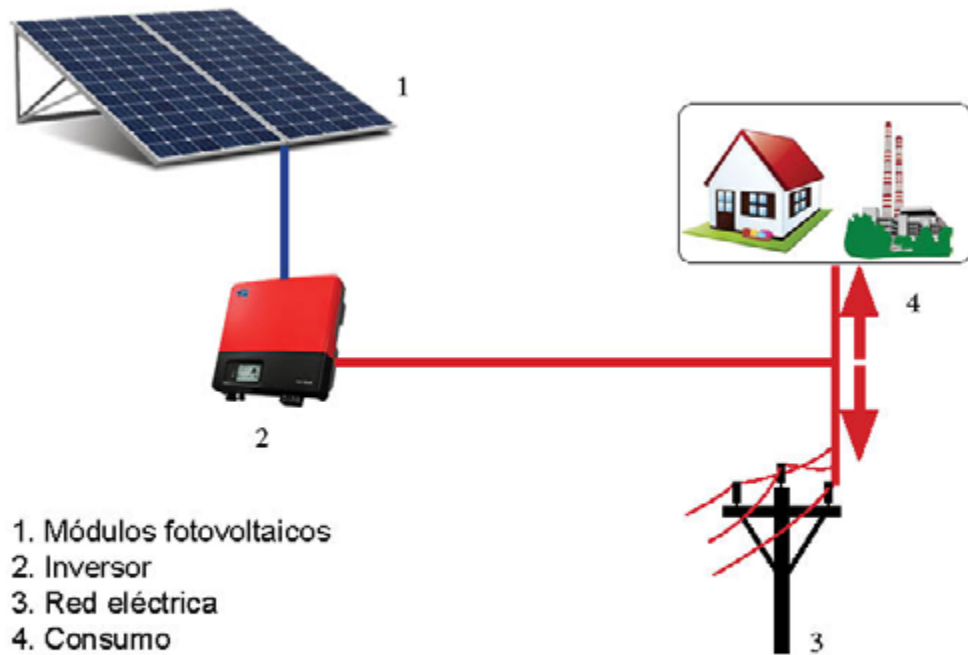
Cable with connector



Cable connector MC4

## INSTALLATION APPLICATION

- Instant self-consumption system with feed in grid (on grid)
- Instant self-consumption system without feed in to the grid (on grid)
- Solar system hybrid with diesel generator (on grid)



# Produce your own FREE energy

Your contribution for a sustainable earth and reduce CO2



**SiTecno**  
ENERGY - EFFICIENCY - INNOVATION



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