

SP1000 Efecto ~ SP5000 Efecto

INVERTER

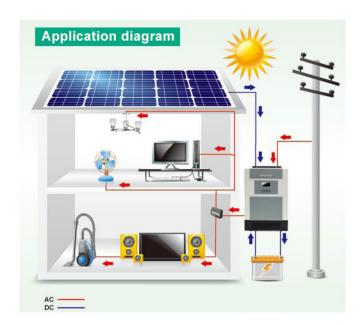
## **SP Efecto Series**

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SP Efecto series represent Hybrid/off-grid solar inverters that adapt high-frequency switching technology and offer high efficiency power saving results to customers who seek for environment friendly solutions that shall help reduce on the electricity bill. SP Efecto inverters feature AC charger and PV solar charger controllers to allow for batteries up to 500AH to be used. The less than 10ms transfer time from utility to autonomous power supply is perfect for computer systems and is unique for high efficiency solar power supply systems. SP Efecto inverters introduce the parallel inter-connectivity to increase your overall solar installation power rating by simply adding inverters.

## Features:

- Pure sine wave inverter
- Parallel connection capability (Optional for SP4000 Efecto and SP5000 Efecto)
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current suitable for high AH-rating batteries
- · Configurable AC/Solar input priority
- · Diesel generator compatible
- Auto restart as AC recovers
- · Overload and short circuit protection
- · Smart battery charger
- Cold start function



## Specifications

SP4000 ~ SP5000 Efecto

Name	MODEL	SP1000 Efecto	SP2000 Efecto	SP3000 Efecto	SP4000 Efecto	SP5000 Efecto	
Voltage	Rated Power						
170-280 VAC (For Personal Computers)   90-280 VAC (For Home Appliances)	INPUT						
90-280 VAC (For Home Appliances)	Voltage	230 VAC					
Source   S	Salastable Voltage Bange	170-280 VAC (For Personal Computers)					
OUTPUT         AC Voltage Regulation (Batt. Mode)         230VAC ± 15%           Surge Power         2000VA         4000VA         6000VA         8000VA         10000VA           Peak Efficiency         93%         10 ms (For Personal Computers)         Transfer Time         20 ms (For Home Appliances)           Waveform         Pure sine wave           BATTERY           Battery Voltage         12 VDC         24 VDC         48 VDC           Floating Charge Voltage         13.5 VDC         27 VDC         54 VDC           Low Battery Alarm Voltage         10 VDC         20 VDC         42 VDC           Shutdown Voltage         10 VDC         20 VDC         40 VDC           Overcharge Protection         15 VDC         30 VDC         60 VDC           Maximum Utility Charging Current         20 A         30 A         60 A           SOLAR CHARGER           Charging Current         50A         50A           Suggested operating Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         1W         2W           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING<	Selectable voltage Range	90-280 VAC (For Home Appliances)					
AC Voltage Regulation (Batt. Mode)   230VAC ± 15%	Frequency Range	50 Hz/60 Hz (Auto sensing)					
Batt. Mode   230VAC ± 15%	OUTPUT						
Surge Power         2000VA         4000VA         6000VA         8000VA         10000VA           Peak Efficiency         93%         10 ms (For Personal Computers)         Transfer Time         20 ms (For Home Appliances)           Waveform         Pure sine wave           BATTERY           Battery Voltage         12 VDC         24 VDC         48 VDC           Floating Charge Voltage         13.5 VDC         27 VDC         54 VDC           Low Battery Alarm Voltage         10.5 VDC         21 VDC         42 VDC           Shutdown Voltage         10 VDC         20 VDC         40 VDC           Overcharge Protection         15 VDC         30 VDC         60 VDC           Maximum Utility Charging Current         20 A         30 A         60 A           SOLAR CHARGER         50A         50A         50A           Suggested operating Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL         95 x		230VAC ± 15%					
Peak Efficiency	,	2000VA	4000VA 6000VA 8000VA 10000\		10000VA		
Transfer Time			93%				
Waveform		10 ms (For Personal Computers)					
Battery Voltage	Transfer Time	20 ms (For Home Appliances)					
Battery Voltage	Waveform	Pure sine wave					
Floating Charge Voltage	BATTERY						
Low Battery Alarm Voltage	Battery Voltage	12 VDC	24 VDC		48 VDC		
Shutdown Voltage	Floating Charge Voltage	13.5 VDC	27 VDC		54 VDC		
Overcharge Protection         15 VDC         30 VDC         60 VDC           Maximum Utility Charging Current         20 A         30 A         60 A           SOLAR CHARGER           Charging Current         50A           Suggested operating Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)	Low Battery Alarm Voltage	10.5 VDC	21 VDC		42 VDC		
Maximum Utility Charging Current         20 A         30 A         60 A           SOLAR CHARGER           Charging Current         50A           Suggested operating Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)         100 x 272 x 367mm         100 x 272 x 367mm         110 x 300 x 455mm	Shutdown Voltage	10 VDC	20 VDC		40 VDC		
Current         20 A         30 A         60 A           SOLAR CHARGER           Charging Current         50A           Suggested operating Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)	Overcharge Protection	15 VDC	30 VDC		60 VDC		
Charging Current         50A           Suggested operating Voltage Range         15~30 VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING         Maximum Charging Current         50A         110A           PHYSICAL         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)	, , ,	20 A	30 A		60 A		
Suggested operating Voltage Range         15~30 VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)	SOLAR CHARGER						
Voltage Range         15~30VDC         30~60 VDC         60~90 VDC           Maximum PV Array Open Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING         Maximum Charging Current         50A         110A           PHYSICAL         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT         5% to 95% Relative Humidity (Non-condensing)	Charging Current	50A					
Circuit Voltage         40 VDC         78 VDC         100 VDC           Standby Power Consumption         1W         2W           JOINT UTILITY AND SOLAR CHARGING           Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)		15~30VDC	30~60 VDC		60~90 VDC		
Consumption         TW         2W           JOINT UTILITY AND SOLAR CHARGING         Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)		40 VDC	78 VDC		100 VDC		
Maximum Charging Current         50A         110A           PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)	-	1W	1W 2W				
Current         50A         110A           PHYSICAL         PHYSICAL           Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT         Humidity         5% to 95% Relative Humidity (Non-condensing)	JOINT UTILITY AND SOLAR CHARGING						
Dimension (D×W×H)         95 x 250 x 330mm         100 x 272 x 367mm         110 x 300 x 455mm           Net Weight         4kgs         4.5kgs         6.8kgs         7.5kgs         8.5kgs           OPERATING ENVIRONMENT           Humidity         5% to 95% Relative Humidity (Non-condensing)		50A			110A		
Net Weight   330mm   100 x 272 x 367mm   110 x 300 x 455mm	PHYSICAL						
OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing)	Dimension (D×W×H)		100 x 272 x 367mm		110 x 300 x 455mm		
Humidity 5% to 95% Relative Humidity (Non-condensing)	Net Weight	4kgs	4.5kgs	6.8kgs	7.5kgs	8.5kgs	
2 2	OPERATING ENVIRONMENT						
Operating Temperature 0°C - 55°C	Humidity	5% to 95% Relative Humidity (Non-condensing)					
	Operating Temperature	0°C - 55°C					

Specifications are subject to change without notice.

\* Either SP4000 Efecto or SP5000 Efecto can be installed in parallel, and total capacity can reach 24KVA or 30KVA (Transfer time is 30ms in parallel operation)

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-15°C - 60°C

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