SP5000 Initial-P ~ SP5000 Initial-M

SP Initial Series

Keep high value with economy, SP Initial Series allow you easily to use solar energy. User friendly, high-efficiency and reliable Enjoy the green life

Features

- · Pure sine wave inverter
- Selectable high power charging current
- · Compatible to mains voltage or generator power
- · Smart battery charger design for optimized battery performance
- · Built-in solar charge controller
- Overload and short circuit protection
- · Smart battery charger design for optimized battery performance
- · Cold start function
- · USB communication port





OPTI-Sola

Specifications are subject to change without notice.

SP1000 Efecto ~ SP5000 Efecto

SP Efecto Series

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

OPTI-Sola

- 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

| MODEL | SP1000 Efecto | SP2000 Efecto | SP3000 Efecto | SP4000 Efecto | SP5000 Efecto |
|---------------------------------------|--|---------------|---------------------------|----------------|----------------|
| Rated Power | 1000VA / 800W | 2000VA/1600W | 3000VA / 2400W | 4000VA / 3200W | 5000VA / 4000W |
| INPUT | | | | | |
| Voltage | 230 VAC | | | | |
| Salastable Veltaga Banga | 170-280 VAC (For Personal Computers) | | | | |
| Selectable voltage Range | 90-280 VAC (For Home Appliances) | | | | |
| Frequency Range | 50 Hz/60 Hz (Auto sensing) | | | | |
| OUTPUT | | | | | |
| AC Voltage Regulation (Batt. Mode) | 230VAC ± 15% | | | | |
| Surge Power | 2000VA | 4000VA | 6000VA | 8000VA | 10000VA |
| Peak Efficiency | 93% | | | | |
| Transfor Timo | | 10 | ms (For Personal Computer | s) | |
| | 20 ms (For Home Appliances) | | | | |
| Waveform | Pure sine wave | | | | |
| BATTERY | | | | | |
| Battery Voltage | 12 VDC | 24 \ | /DC | 48 \ | /DC |
| Floating Charge Voltage | 13.5 VDC | 27 \ | /DC | 54 VDC | |
| Low Battery Alarm Voltage | 10.5 VDC | 21 \ | /DC | 42 VDC | |
| Shutdown Voltage | 10 VDC | 20 VDC 40 VDC | | /DC | |
| Overcharge Protection | 15 VDC | 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) | | | | |
| Operating Temperature | 0°C - 55°C | | | | |
| Storage Temperature | -15°C - 60°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)

SP2000 Brilliant~ 5000 Brilliant

SP Brilliant Series



Features

- Pure sine wave inverter
- Parallel connection capability (Optional for SP5000 Brilliant)
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- · Selectable charging current based on applications
- Configurable AC/Solar input priority
- · Compatible to mains voltage or generator power

Auto restart as AC recovers

- · Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

| MODEL | SP2000 Brilliant | SP3000 Brilliant | SP5000 Brilliant | |
|---------------------------------------|--|--------------------------------|------------------|--|
| Rated Power | 2000VA/1200W | 3000VA/2400W | 5000VA/4000W | |
| INPUT | | | | |
| Voltage | 120 VAC 230 VAC | | | |
| Salaatabla Voltaga Banga | 95-140 VAC (For Personal Computers) 170-280 VAC (For Personal Computers) | | | |
| Selectable voltage Kalige | 65-140 VA (For Home Appliances) 90-280 VAC (For Home Appliances) | | | |
| Frequency Range | | 50 Hz/60 Hz (Auto sensing) | | |
| OUTPUT | | | | |
| AC Voltage Regulation (Batt. Mode) | 110/120VAC ± 5% | 230VA0 | C ± 5% | |
| Surge Power | 4000VA | 6000VA | 10000VA | |
| Peak Efficiency | | 90% | | |
| Transfor Time | | 10 ms (For Personal Computers) | | |
| | | 20 ms (For Home Appliances) | | |
| Waveform | | Pure sine wave | | |
| BATTERY | | | | |
| Battery Voltage | 48 VDC | | | |
| Floating Charge Voltage | 54 VDC | | | |
| Low Battery Alarm Voltage | 42 VDC | | | |
| Shutdown Voltage | | 40 VDC | | |
| Overcharge Protection | | 60 VDC | | |
| Maximum Utility Charging Current | 10A | 15 A | 60 A | |
| SOLAR CHARGER | | | | |
| Maximum PV Rated Power | 3000W | | | |
| Maximum PV Array Open Circuit Voltage | 145Vdc | | | |
| MPPT Operation Voltage Range | 60~115Vdc | | | |
| Maximum Charging Current | 60A | | | |
| Standby Power Consumption | 2W | | | |
| JOINT UTILITY AND SOLAR CHARGING | | | | |
| Maximum Charging Current | 60A 120A | | | |
| PHYSICAL | | | | |
| Dimension (D X W X H) | 140 x 295 x 479mm 140 x 295 x 540mm | | | |
| Net Weight | 11.5kgs 13.5kgs | | | |
| OPERATING ENVIRONMENT | | | | |
| Humidity | 5% to 95% Relative Humidity (Non-condensing) | | | |
| Operating Temperature | 0°C - 55°C | | | |
| Storage Temperature | -15°C - 60°C | | | |

Specifications are subject to change without notice.

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* SP5000 Brilliant can be installed in parallel, and total capacity can reach 30KVA (Transfer time is 30ms in parallel operation)

Specifications

SP3000~5000 Brilliant Plus

SP Brilliant Plus Series



SP Brilliant Plus is built-in 2 or 3 MPP Trackers and enhance the charger capacity up to 180A

Features

- Pure sine wave inverter
- Built-in 2 or 3 strings of MPPT solar charge controller
- Enhance AC charger up to 60A
- Selectable input voltage range for home appliances and person al computers
- · Selectable charging current based on applications
- Configurable AC/Solar input priority
- · Compatible to mains voltage or generator power
- Auto restart as AC recovers
- · Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

| MODEL SP3000 Brilliant Plus SP3000 Brilliant Plus Rated Power 3000VA/2400W 5000VA/4000W NPUT 3000VA/2400W 5000VA/4000W Voltage 230 VAC 5000VA/4000W Selectable Voltage Range 170-280 VAC (For Personal Computers) 50 Frequency Range 50 Hz/60 Hz (Auto sensing) 001PUT AC Voltage Regulation (Batt. Mode) 230VAC ± 5% 50 Surge Power 6000VA 10000VA Peak Efficiency 100 ms (For Personal Computers) 10000VA Patter Voltage 20 ms (For Home Appliances) 10000VA Battery Voltage 20 ms (For Home Appliances) 10000VA Battery Voltage 48 VDC 10000VA Floating Charge Voltage 44 VDC 10000VA SoldAC Hz Apering Current 60 A 50 VDC Sold | • | | | | |
|---|---------------------------------------|--|----------------|--|--|
| Rated Power 3000VA/2400W 5000VA/4000W Voltage 230 VAC 230 VAC Selectable Voltage Range 90-280 VAC (For Personal Computers) 90-280 VAC (For Personal Computers) Selectable Voltage Range 90-280 VAC (For Personal Computers) 90-280 VAC (For Personal Computers) AC Voltage Regulation (Batt. Mode) 230VAC ± 5% 90% = 93% 90% = 93% Surge Power 6000VA 90% = 93% 10000VA Peak Efficiency 90% = 93% 10000VA Yours Sine wave 20 ms (For Home Appliances) Peak Sing Power Ac Voltage Regulation (Batt. Mode) 20 ms (For Home Appliances) Peak Sing Power Yours Sine wave 20 ms (For Home Appliances) Peak Sing Power Soltery Voltage 48 VDC Power Shutdown Voltage 48 VDC Shutdown Voltage Over Compare Protection Sol A COME Overcharge Protection 60 A SOLAR CHARGER Sol A COME SOLAR CHARGER SOLAR CHARGER SOLAR CHARGER SOLAR CHARGER | MODEL | SP3000 Brilliant Plus SP5000 Brilliant Plus | | | |
| INPUT 230 VAC Voltage 170-280 VAC (For Personal Computers) Selectable Voltage Range 00-280 VAC (For Personal Computers) OUTPUT 50 H2/60 HZ (Atto sensing) OUTPUT 230 VAC ± 5% AC Voltage Regulation (Batt. Mode) 230 VAC ± 5% Surge Power 6000VA 10000VA Peak Efficiency 10 ms (For Personal Computers) Transfer Time 20 ms (For Home Appliances) Waveform Pure sine wave Battery Voltage 48 VDC Floating Charge Voltage 50 4 VDC Low Battery Alarm Voltage 42 VDC Stutdown Voltage 60 A SOLAR CHARGER 60 A SOLAR CHARGER 9000W Maximum PV Rated Power 2000W | Rated Power | 3000VA/2400W 5000VA/4000W | | | |
| Voltage 230 VAC Selectable Voltage Range 170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances) 90-280 VAC (For Home Appliances) Frequency Range 00-280 VAC (For Home Appliances) OUTPUT 230VAC ± 5% Surge Power 6000VA 10000VA Peak Efficiency 90% ~ 93% Transfer Time 20 ms (For Personal Computers) Sattery Voltage 00m (For Personal Computers) Battery Voltage 20 ms (For Home Appliances) Waveform Pure sine wave BATTERY Battery Voltage Low Battery Alam Voltage 48 VDC Floating Charge Voltage 40 VDC Overcharge Protection 60 A VDC SoLAR CHARGER 60 VDC Maximum PV Aray Open Circuit Voltage 102/VDC Maximum PV Aray Open Circuit Voltage 102/VDC Maximum PV Aray Open Circuit Voltage 60~88Vdc Maximum PV Aray Open Circuit Voltage 60°-88Vdc Maximum PV Aray Open Circuit Voltage 102/VDC Maximum PV Aray Open Circuit Voltage 60°-88Vdc Ma | INPUT | | | | |
| Selectable Voltage Range 170-280 VAC (For Personal Computers) 90-280 VAC (For Personal Computers) 90-280 VAC (For Personal Computers) OUTPUT 50 Hz/60 Hz (Auto sensing) OUTPUT 230VAC ± 5% AC Voltage Regulation (Batt. Mode) 230VAC ± 5% Surge Power 6000VA 10000VA Peak Efficiency 00% ~ 93% 10000VA Transfer Time 10 ms (For Personal Computers) 20 ms (For Home Appliances) Waveform 20 ms (For Home Appliances) 20 ms (For Home Appliances) Battery Voltage 48 VDC 48 VDC Floating Charge Voltage 48 VDC 50 Hz/60 VDC Solutdown Voltage 40 VDC 00 VDC Overcharge Protection 60 A 20 VDC Maximum PV Rated Power 2000W 9000W Maximum PV Arary Open Circuit Voltage 102/DC 145Vdc Maximum PV Arary Open Circuit Vo | Voltage | 230 VAC | | | |
| Solvential Unlight Notice 50 H2/60 H2 (Auto sensing) OUTPUT 50 H2/60 H2 (Auto sensing) OUTPUT 230VAC ± 5% Surge Power 6000VA 10000VA Peak Efficiency 90% ~ 93% Transfer Time 10 ms (For Personal Computers) 20 ms (For Home Appliances) 20 ms (For Home Appliances) Waveform Pure sine wave Battery Voltage 48 VDC Floating Charge Voltage 48 VDC Floating Charge Voltage 48 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 A SOLAR CHARGER 60 A Maximum PV Aray Open Circuit Voltage 102/VDC Maximum PV Aray Open Circuit Voltage 60 -88Vdc Maximum PV Aray Open Circuit Voltage 60 -88Vdc Maximum PV Aray Open Circuit Voltage 100A Yort JUTLY AND SOLAR CHARGING 200W Maximum Charging Current 40A 180A Standby Power Consumption 2W J0NT UTLITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 2W J0NT UTLITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 2000W 194 x 295 x 455mm Dimension (D X W X | Selectable Voltage Range | 170-280 VAC (For Personal Computers) | | | |
| Frequency Range 50 Hz/60 Hz (Auto sensing) OUTPUT Cold Second | ocicetable voltage hange | 90-280 VAC (For Home Appliances) | | | |
| OUTPUT AC Voltage Regulation (Batt. Mode) 230VAC ± 5% Surge Power 6000VA 90% ~ 93% Transfer Time 10 000VA 90% ~ 93% Transfer Time 20 ms (For Home Appliances) Waveform 20 ms (For Home Appliances) Battery Voltage 48 VDC Floating Charge Voltage 44 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Array Open Circuit Voltage 102VDC Maximum PV Array Open Circuit Voltage 60 - 8Vdc JOINT UTLITY AND SOLAR CHARGING 2W JOINT UTLITY AND SOLAR CHARGING 2W Maximum Charging Current 100A 240A PHYSICAL 128 × 272 × 400mm 194 × 295 × 455mm Dimension (D X W X H) 128 × 272 × 400mm 194 × 295 × 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 95% to 95% Relative Humidity (Non-condensing) | Frequency Range | 50 Hz/60 Hz (Auto sensing) | | | |
| AC Voltage Regulation (Batt. Mode) 6000VA 2000VA 2 | OUTPUT | | | | |
| Surge Power 6000VA 10000VA Peak Efficiency 90% ~ 93% 100 ms (For Personal Computers) Transfer Time 20 ms (For Home Appliances) Waveform Pure sine wave Battery Voltage 48 VDC Floating Charge Voltage 54 VDC Low Battery Voltage 48 VDC Floating Charge Voltage 42 VDC Low Battery Voltage 40 VDC Overcharge Protection 60 A SoLar CHARGER 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 90000W Maximum PV Array Open Circuit Voltage 102/VDC Maximum PV Array Open Circuit Voltage 102/VDC Maximum Charging Current 40A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING 240A PHYSICAL 100A 240A PHYSICAL 102A 240A OPERATING ENVIRONMENT 102A Str2x x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 102A Str2x | AC Voltage Regulation (Batt. Mode) | 230VAC ± 5% | | | |
| Peak Efficiency 90% ~ 93% Transfer Time 10 ms (For Personal Computers) Waveform Pure sine wave BATTERY Pure sine wave BATTERY Battery Voltage Eatery Voltage 48 VDC Floating Charge Voltage 48 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 A Maximum Utity Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Rated Power 2000W JOINT UTILITY AND SOLAR CHARGING 180A PHYSICAL 100A 240A PHYSICAL 100A 240A PHYSICAL 128 × 272 x 400mm 194 × 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIROMMENT 128 × 272 x 400mm 194 × 295 x 455mm Humidity 5% to 95% Relative Humidity (Non-condensing) OPERATING ENVIROMMENT | Surge Power | 6000VA 10000VA | | | |
| Transfer Time 10 ms (For Personal Computers) 20 ms (For Home Appliances) 20 ms (For Home Appliances) BATTERY Pure sine wave BATTERY Battery Voltage Battery Voltage 48 VDC Floating Charge Voltage 48 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 0000W Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102 VDC 145 Vdc JOINT UTILITY AND SOLAR | Peak Efficiency | 90% ~ 93% | | | |
| Transfer Time 20 ms (For Home Appliances) Waveform Pure sine wave Battery Pure sine wave Battery Voltage 48 VDC Floating Charge Voltage 48 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 VDC SOLAR CHARGER 9000W Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 128 x 272 x 400mm 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 194 x 295 x 455mm Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 5°C | Transfer Time | 10 ms (For Perso | nal Computers) | | |
| Waveform Pure sine wave BATTERY Battery Voltage 48 VDC Floating Charge Voltage 54 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 42 VDC Shutdown Voltage 42 VDC Shutdown Voltage 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Array Open Circuit Voltage 102VDC Maximum PV Array Open Circuit Voltage 102VDC Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILTY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL Dimension (D X W X H) 128 x 272 x 400mm Net Weight 9% kgs 17kgs OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C | Transfer Time | 20 ms (For Hom | ne Appliances) | | |
| BATTERY Battery Voltage 48 VDC Floating Charge Voltage 54 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102/VDC 145Vdc MPPT Operation Voltage Range 60~88/dc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 100A 240A PHYSICAL 100A 240A PHYSICAL 100A 240A PHYSICAL 100A 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 128 x 272 x 400mm 194 x 295 x 455mm Umidity 6% 5% Relative Humidity (Non-condensing) 0°C - 55°C Operating Temperature 0°C - 55°C 5% to 95% Relative FLowicky Condensing) </th <th>Waveform</th> <th colspan="3">Pure sine wave</th> | Waveform | Pure sine wave | | | |
| Battery Voltage48 VDCFloating Charge Voltage54 VDCLow Battery Alarm Voltage42 VDCShutdown Voltage42 VDCOvercharge Protection60 VDCMaximum Utility Charging Current60 ASOLAR CHARGER80 VDCMaximum PV Rated Power2000WMaximum PV Array Open Circuit Voltage102 VDC102 VDC145 VdcMaximum PV Array Open Circuit Voltage60 ~88 VdcMaximum Charging Current40 AStandby Power Consumption2000WJOINT UTILITY AND SOLAR CHARGING180 APHYSICAL100 APHYSICAL240 APHYSICAL194 x 295 x 455 mmDimension (D X W X H)128 x 272 x 400 mm194 x 295 x 455 mmNet Weight9kgs17kgsOPERATING ENVIRONMENT5% to 95% Relative Humidity (Non-condensing) 0°C - 55°COperating Temperature-15°C - 60°C | BATTERY | | | | |
| Floating Charge Voltage 54 VDC Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING JOINT UTILITY AND SOLAR CHARGING 100A 240A PHYSICAL 1028 x 272 x 400mm 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature 5% to 95% Celative Fundity (Non-condensing) | Battery Voltage | 48 VDC | | | |
| Low Battery Alarm Voltage 42 VDC Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 9000W Maximum PV Rated Power 2000W 9000W Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL JOINA 240A Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Floating Charge Voltage | 54 VDC | | | |
| Shutdown Voltage 40 VDC Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 60 A Maximum PV Rated Power 2000W Maximum PV Array Open Circuit Voltage 102VDC Maximum Charging Current 102VDC Maximum Charging Current 40A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A Maximum Charging Current 100A JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A QUP 128 x 272 x 400mm Net Weight 9kgs OPERATING ENVIRONMENT 128 x 275 x 400mm Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Tempera | Low Battery Alarm Voltage | 42 VDC | | | |
| Overcharge Protection 60 VDC Maximum Utility Charging Current 60 A SOLAR CHARGER 60 A Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 100A 240A Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Shutdown Voltage | 40 VDC | | | |
| Maximum Utility Charging Current 60 A SOLAR CHARGER Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING JOINT UTILITY AND SOLAR CHARGING 240A PHYSICAL Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) OPC - 55°C Storage Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Overcharge Protection | 60 VDC | | | |
| SOLAR CHARGER Maximum PV Rated Power 2000W 9000W Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 128 x 272 x 400mm 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Maximum Utility Charging Current | 60 A | | | |
| Maximum PV Rated Power2000W9000WMaximum PV Array Open Circuit Voltage102VDC145VdcMPPT Operation Voltage Range60~88Vdc60~115VdcMaximum Charging Current40A180AStandby Power Consumption2WJOINT UTILITY AND SOLAR CHARGINGMaximum Charging Current100A240APHYSICALDimension (D X W X H)128 x 272 x 400mm194 x 295 x 455mmNet WeightOPERATING ENVIRONMENTHumidityS% to 95% Relative Humidity (Non-condensing)Operating Temperature0°C - 55°CStorage Temperature-15°C - 60°C | SOLAR CHARGER | | | | |
| Maximum PV Array Open Circuit Voltage 102VDC 145Vdc MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING 240A Maximum Charging Current 100A 240A PHYSICAL 128 x 272 x 400mm 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Maximum PV Rated Power | 2000W 9000W | | | |
| MPPT Operation Voltage Range 60~88Vdc 60~115Vdc Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING 2W Maximum Charging Current 100A 240A PHYSICAL 100A 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Maximum PV Array Open Circuit Voltage | 102VDC 145Vdc | | | |
| Maximum Charging Current 40A 180A Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING 240A Maximum Charging Current 100A 240A PHYSICAL 108 x 272 x 400mm 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | MPPT Operation Voltage Range | 60~88Vdc 60~115Vdc | | | |
| Standby Power Consumption 2W JOINT UTILITY AND SOLAR CHARGING JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL 100A 194 x 295 x 455mm Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Maximum Charging Current | 40A | 180A | | |
| JOINT UTILITY AND SOLAR CHARGING Maximum Charging Current 100A 240A PHYSICAL Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 5% to 95% Relative Humidity (Non-condensing) Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Standby Power Consumption | 2W | | | |
| Maximum Charging Current 100A 240A PHYSICAL Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | JOINT UTILITY AND SOLAR CHARGING | | | | |
| PHYSICAL Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Maximum Charging Current | 100A 240A | | | |
| Dimension (D X W X H) 128 x 272 x 400mm 194 x 295 x 455mm Net Weight 9kgs 17kgs OPERATING ENVIRONMENT 1000000000000000000000000000000000000 | PHYSICAL | | | | |
| Net Weight 9kgs 17kgs OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Dimension (D X W X H) | 128 x 272 x 400mm 194 x 295 x 455mm | | | |
| OPERATING ENVIRONMENT Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Net Weight | 9kgs 17kgs | | | |
| Humidity 5% to 95% Relative Humidity (Non-condensing) Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | OPERATING ENVIRONMENT | | | | |
| Operating Temperature 0°C - 55°C Storage Temperature -15°C - 60°C | Humidity | 5% to 95% Relative Humidity (Non-condensing) | | | |
| Storage Temperature -15°C - 60°C | Operating Temperature | 0°C - 55°C | | | |
| | Storage Temperature | -15°C - 60°C | | | |

Specifications are subject to change without notice.

* SP5000 Brilliant Plus can be installed in parallel, and total capacity can reach 30KVA (Transfer time is 30ms in parallel operation)

Specifications

SP Premium Series

True Hybrid Solar Inverter with Energy Storage

SP Premium Series are a universal power supply tool for houses. It utilizes solar power at day time feeding it to your appliances like illumination lamps, TV, stereo and PC equipment, saving the power to the batteries for the night time usage, and selling the power surplus unused by the connected appliances to the grid.

On cloudy days when the solar power is weak, **SP Premium Series** take the lacking power from the grid. At night, the power stored in the batteries are being used for your equipment. With this true hybrid design, we give you the confidence that 100% of your solar power is fully utilized.

Features

- 3KW/10KW on-grid inverter with energy storage
- · Pure sine wave output
- Microprocessor controlled to guarantee stable charging system
- Multiple operations: Grid tie, Off grid, and grid-tie with backup
- Built-in MPPT solar charger
- · LCD display panel for comprehensive information
- Multiple communication
- · Green substitution for generators
- · User-adjustable battery charging current

Application diagram



No consumption from household and the battery is fully charged



No PV energy and battery is fully discharged



No PV energy and the consumption from household is supplied by battery



Operation Diagram



Household's consumption is higher than supply from PV





SP10000 Premium



Specifications

| opecifications | | |
|---|------------------------------------|--|
| MODEL | SP3000 Premium | |
| RATED POWER | 3000 W | |
| Maximum PV Input Power | 4500W | |
| Maximum Charging Power | 1200 W | |
| | 1200 11 | |
| | | |
| PV INFOT (DC) | 202 1/00 / 500 1/00 | |
| Nominal DC voltage / Maximum DC voltage | 360 VDC / 500 VDC | |
| Start-up Voltage / Initial Feeding Voltage | 116 VDC / 150 VDC | |
| MPP Voltage Range | 250 VDC ~ 450 VDC | |
| Number of MPP Trackers / Maximum Input | 1x18 A | |
| GRID OUTPUT (AC) | | |
| Nominal Output Voltage | 208/220/230/240 VAC | |
| Output Voltage Range | 184 - 264.5 VAC* | |
| Nominal Output Current | 13.1 A | |
| Power Factor | > 0.99 | |
| FFFICIENCY | | |
| Maximum Conversion Efficiency (DC/AC) | 96% | |
| | 50 % | |
| | | |
| | 400 440 \/A 0 / 400 \/A 0 | |
| AC Start-up voltage/Auto Restart Voltage | 120 - 140 VAC / 180 VAC | |
| Acceptable Input Voltage Range | 170 - 280 VAC | |
| Max. AC Input Current | 25 A | |
| PV INPUT (DC) | | |
| Maximum DC Voltage | 500 VDC | |
| MPP Voltage Range | 250 VDC ~ 450 VDC | |
| Number of MPP Trackers / Max. Input Current | 1×18 A | |
| BATTERY MODE OUTPUT (AC) | | |
| Nominal Output Voltage | 208/220/230/240 VAC | |
| Output Waveform | | |
| Efficiency (DC to AC) | | |
| | 93 % | |
| HYBRID OPERATION | | |
| PV INPUT (DC) | | |
| Nominal DC Voltage / Maximum DC Voltage | 360 VDC / 500 VDC | |
| Start-up Voltage / Initial Feeding Voltage | 116 VDC / 150 VDC | |
| MPP Voltage Range | 250 VDC ~ 450 VDC | |
| Number of MPP Trackers / Max. Input Current | 1x 18 A | |
| GRID OUTPUT (AC) | | |
| Nominal Output Voltage | 208/220/230/240 VAC | |
| Output Voltage Range | 184 - 264.5 VAC | |
| Nominal Output Current | 13.1 A | |
| ACINPUT | | |
| AC Start-un Voltage / Auto Restart Voltage | 120 - 140 VAC / 180 VAC | |
| Accontable Input Voltage Pange | 170 280 VAC | |
| Acceptable input voltage Kange | 170 - 280 VAC | |
| | 25 A | |
| BATTERY MODE OUTPUT (AC) | | |
| Nominal Output Voltage | 208/220/230/240 VAC | |
| Efficiency (DC to AC) | 93% | |
| BATTERY & CHARGER | | |
| Nominal DC Voltage | 48 VDC | |
| Maximum Charging Current | 25A | |
| GENERAL | | |
| PHYSICAL | | |
| Dimension (DxWxH) | 117×438×480mm | |
| Net Weight | 15.57 kge | |
| INTEDEACE | 10. 07 Kgo | |
| | DE 222//JED | |
| | KS-232/USB | |
| Intelligent Slot | SNMP/Modbus/AS-400 cards(Optional) | |
| ENVIRONMENT | | |
| Humidity | 0 ~ 90% RH (No condensing) | |
| Operating Temperature | 0 to 40°C | |
| Altitude | Max. 1000m** | |

Product specifications are subject to change without further notice.

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

**Power derating 1% every 100m when altitude is over 1000m.



| MODEL | SP10000 Premium |
|--|--|
| RATED POWER | 10000 W |
| PV INPUT (DC) | |
| Maximum DC Power | 14850 W |
| Nominal DC Voltage | 720 VDC |
| Maximum DC Voltage | 900 VDC |
| Start-up Voltage / Initial Feeding Voltage | 320 VDC / 350 VDC |
| MPP Voltage Range | 400 VDC ~ 800 VDC |
| Maximum Input Current | 2*18.6 A |
| GRID OUTPUT (AC) | |
| Nominal Output Voltage | 230 VAC (P-N) / 400 VAC (P-P) |
| Output Voltage Range | 184 - 265 VAC per phase |
| Nominal Output Current | 13 A per phase |
| Inrush Current/Duration | 17 A per phase / 20ms |
| Maximum Output Fault Current/Duration | 51 A per phase / 1ms |
| Maximum output Overcurrent Protection | 51 A per phase |
| Power Factor | >0.99 |
| EFFICIENCY | |
| Maximum Conversion Efficiency (DC/AC) | 96% |
| European Efficiency@Vnominal | 95% |
| AC INPUT | |
| AC Start-up Voltage | 120-140 VAC per phase |
| Auto Restart Voltage | 180 VAC per phase |
| Acceptable Input Voltage Range | 170 - 280 VAC per phase |
| Nominal Frequency | 50 Hz / 60 Hz |
| AC Input Power | 10000VA/10000W |
| Maximum AC Input Current | 25 A |
| Inrush Input Current | 25 A |
| BATTERY MODE OUTPUT (AC) | |
| Nominal Output Voltage | 230 VAC (P-N) / 400 VAC (P-P) |
| Output Frequency | 50 Hz / 60 Hz (auto sensing) |
| Output Waveform | Pure sine wave |
| Output Power | 10000VA/10000W |
| Output Current | 13 A per phase |
| Efficiency (DC to AC) | 91% |
| BATTERY & CHARGER | |
| Nominal DC Voltage | 48 VDC |
| Maximum Battery Discharging Current | 250 A |
| Maximum Charging Current | 200 A |
| PHYSICAL | |
| Dimension (D×W×H) | 622×500×167.2mm |
| Net Weight | 45kgs |
| INTERACE | |
| Communication Port | RS-232/USB |
| Intelligent Slot | Optional SNMP, Modbus and AS-400 cards available |
| ENVIRONMENT | · |
| Protective Class | I |
| Ingress Protection Rating | IP20 |
| Humidity | 0 ~ 90% RH (No condensing) |
| Operating Temperature | 0 to 40°C |
| Altitude | 0 ~ 1000 m* |

Product specifications are subject to change without further notice. *Power derating 1% every 100 m when altitude is over 1000m.

SP3000 Power-P~SP3000 Power-M

SP Power Series

The system is designed for 120V to provide more choices. Friendly solutions that shall help reduce on the electricity bill. Built-in AC charger and PV solar charger controllers. Parallel operation with up to 6 units.

Features

- · Pure sine wave inverter
- Built-in PWM or MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- · Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- · Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- · Cold start function





Specifications

| MODEL | SP3000 Power-P | SP3000 Power-M | |
|--|--|----------------|--|
| Rated Power | 3000VA/2400W | | |
| INPUT | | | |
| Voltage | 120VAC | | |
| Salaatabla Valtaga Banga | 95-140 VAC (For Personal Computers) | | |
| | 65-140 VAC (For Home Appliances) | | |
| Frequency Range | 50 Hz/60 Hz (| Auto sensing) | |
| OUTPUT | | | |
| AC Voltage Regulation (Batt. Mode) | 120VAC ± 5% | | |
| Surge Power | 6000VA | | |
| Peak Efficiency | 93 | % | |
| Transfor Timo | 10 ms (For Personal Computers) | | |
| | 20 ms (For Hor | me Appliances) | |
| Waveform | Pure sir | ne wave | |
| BATTERY | | | |
| Battery Voltage | 24 VDC | | |
| Floating Charge Voltage | 27 VDC | | |
| Low Battery Alarm Voltage (load ≥ 50%) | 21.2VDC | | |
| Shutdown Voltage (load ≥ 50%) | 19.2 VDC | | |
| Overcharge Protection | 33 VDC | | |
| Maximum Utility Charging Current | 60A | | |
| SOLAR CHARGER | | | |
| Maximum PV Rated Power | 1250W | 2000W | |
| Maximum PV Array Open Circuit Voltage | 105Vdc | 145Vdc | |
| MPPT Operation Voltage Range | 60~80Vdc | 60~115Vdc | |
| Maximum Charging Current | 50A | 80A | |
| Standby Power Consumption | 2W | | |
| JOINT UTILITY AND SOLAR CHARG | ING | | |
| Maximum Charging Current | 110A | 140A | |
| PHYSICAL | | | |
| Dimension (D X W X H) | 120 x 295 x 468 mm | | |
| Net Weight | 11kgs | 11.5kgs | |
| OPERATING ENVIRONMENT | | | |
| Humidity | 5% to 95% Relative Humidity (Non-condensing) | | |
| Operating Temperature | 0°C - 55°C | | |
| Storage Temperature | -15°C - 60°C | | |

Specifications are subject to change without notice.

SP3200 AVR~ SP4000 AVR

SP AVR Series

Built-in AVR takes care of the rest - voltage fluctuations!

Features

- Adjustable voltage-transfer points & charging voltage
- Automatic restart of load after inverter shutdown
- Smart AVR function (Two buck / boost modes)
- Wide input range 140V~310V
- Generator compatible
- Cold-start capable
- · Full-functional of LCD display with Audible alarms
- Intelligent double-stage charging control; Adjustable charging current by DIP switches for different battery types
- Thermal control cooling fan
- DC/AC Isolation



AVR keeps electricity at a safe range by correcting the under and over voltages that are harmful to your equipment.

AVR also allows the life of the battery to be extended.



| MODEL | | SP3200 AVR SP4000 AVR | | | |
|--|----------------|--|----------------------------------|--|--|
| Rated Power | | 3200VA / 2400W | 4000VA / 3200W | | |
| INPUT | | | | | |
| Voltage | | 200V/220V/230V/240V Selectable | | | |
| Voltage Range | | 140V | ~ 310V | | |
| | Enhanced Buck | +28% of selecte | +28% of selected nominal voltage | | |
| Regulation Range | Buck mode | +10% of selected nominal voltage | | | |
| | Boost mode | -10% of selected nominal voltage | | | |
| | Enhanced Boost | -25% of selected nominal voltage | | | |
| Frequency Range | | 50 Hz/60 Hz | (Auto sensing) | | |
| Surge Protection | | 660 | Joules | | |
| OUTPUT | | | | | |
| AC Voltage Regulation (Batt. Mode) 230VAC ± 3% | | | AC ± 3% | | |
| Crest Factor | Factor 3:1 | | | | |
| Efficiency (Normal mod | le) | 97% | | | |
| Transfer Time | | 3 ms | | | |
| Over current protection | 1 | Yes | | | |
| Waveform | | Pure sine wave | | | |
| BATTERY | | | | | |
| Battery Voltage | | 36 VDC | 48 VDC | | |
| Floating Charge Voltage | | 40.5 VDC | 54 VDC | | |
| Low Battery Alarm Voltage | | 31.5 VDC | 42 VDC | | |
| Shutdown Voltage | | 30 VDC | 40 VDC | | |
| Overcharge Protection | | 32 VDC | 60 VDC | | |
| Maximum Utility Charging Current | | 3 | 30 A | | |
| SOLAR CHARGER | | | | | |
| Maximum solar charge | current | 25A | 20A | | |
| Suuggested operating Voltage Range | | 40 ~ 63VDC | 60 ~ 84Vdc | | |
| Polarity Protection | | Yes | | | |
| PHYSICAL | | | | | |
| Dimension (D×W×H) | | 510×200×180mm | | | |
| Net Weight | | 34kgs 41kgs | | | |
| OPERATING ENVIRON | MENT | | | | |
| Humidity | | 5% to 95% Relative Humidity (Non-condensing) | | | |
| Operating Temperature | | 0°C - 40°C | | | |
| Storage Temperature | | -15°C - 55°C | | | |
| | | | | | |

Specifications are subject to change without notice.



