# Programmable LCD Pure Sine Wave Inverter with AC charger / Solar charge controller (Option), Stackable Function SI-6000 (24VDC / 48VDC)

#### **Character:**

#### General

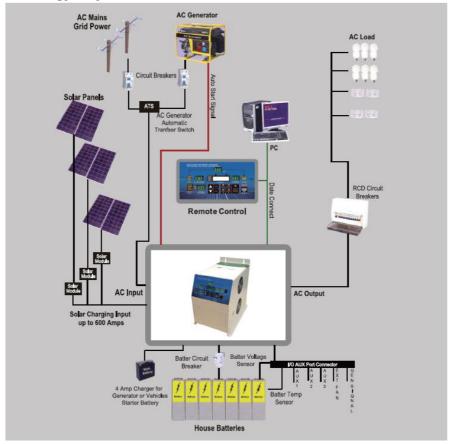
- **♦** More inverters stackable
- ♦ 3 Phase connectable
- Uninterrupted AC power (UPS function)
- Power Control Dealing with limited generator or shore side power
- ◆ Power Assist Boosting the capacity of shore or generator power
- LCD display for parameter setting and error messages
- Programming auxiliary relay (x 3)

#### **Battery Charger**

- Adaptive 4-stage charge characteristic: Bulk-Absorption-Float-Equalize
- **♦** The right amount of charge: Variable Absorption Time
- ♠ Preventing damage due to excessive gassing: The Battery Safe Mode
- Less maintenance and aging when the battery is not in use: The Equalize Mode
- ◆ 2 outputs to charge 2 battery banks
- To increase battery life: Temperature Compensation
- Battery Voltage Sense
- **♦** Extensional Solar Charger Capacity expansion by max. 10 sets of solar chargers (Our AP Series)

#### **Description:**

- ♦ Stackable Inverter ~
- Pure Sine Wave Inverter with AC Charger and Solar Charger (Option) + one more design [stackable function].
- ♦ You may parallel SI Series, according to your requirement.
- ◆ One unit is about 1.5K, if you want to increase to 4.5K, you just need to parallel 3pcs SI Series.
- Connect directly with Solar system.
- Natural Power System, Energy recycle for solar, Future trend.









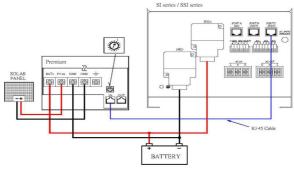
SI-6000

# Specifications:

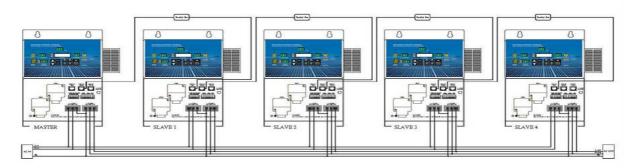
Input Voltage Range (VDC)	MODEL No.	SI-6000-24	SI-6000-48
Output Voltage (VAC)         90~120VAC / 185~240VAC           Output Frequency         50Hz / 60Hz ± 0.1%           Output Voltage         Pure sine wave           THD         < 5%	INVERTER		
Output Voltage         Pure sine wave           THD         < 5%	Input Voltage Range (VDC)		
Output Voltage         Pure sine wave           THD         < 5%	Output Voltage (VAC)	90~120VAC / 185~240VAC	
THD	Output Frequency	50Hz / 60Hz ± 0.1%	
Power Factor	Output Voltage	Pure sine wave	
Switch-on Behavior Nominal output voltage within 20 msec.  Cont. Output Power at 25°C(W) (cos£c=1.0) 6000W  Maximum Power (W) 12000W  Maximum Efficiency (%) 88  Zero-load Power (W) 20W  CHARGER  Input Voltage Range (VAC) 100~125VAC / 200~250VAC  Input Frequency 45~55Hz / 55~65Hz  Power Factor 1  Charge Characteristic 4-stage adaptive  Maximum DC Voltage Ripple (Vrms) < 1.25 V  Charge Voltage "Float" (VDC) 57.6V  Charge Voltage "Float" (VDC) 55.2V  Output Charge Voltage (VDC) Min.,Max. 22V,64V  Charge Current House Battery (A) 140A  Charge Current Starter Battery (A) 4A  AC INPUT SWITCH  Protected by Thermal Circuit Breaker 100A (110V) / 60A (220V)  Switch-over Time Inverter to AC Input 0 msec.  Switch-over Time AC Input to Inverter 0 msec.  Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 18VAC  Min Max. Frequency Range (50Hz/60Hz) 45-55Hz or 55-65Hz  GENERAL  Power Control Yes  Power Assist 20A  Multi-purpose Relay 3 relays	THD	< 5%	
Cont. Output Power at 25°C(W) (cos£c=1.0)         6000W           Maximum Power (W)         12000W           Maximum Efficiency (%)         88           Zero-load Power (W)         20W           CHARGER           Input Voltage Range (VAC)         100~125VAC / 200~250VAC           Input Frequency         45~55Hz / 55~65Hz           Power Factor         1           Charge Characteristic         4-stage adaptive           Maximum DC Voltage Ripple (Vrms)         < 1.25 V	Power Factor	All loads	
Maximum Power (W)         12000W           Maximum Efficiency (%)         88           Zero-load Power (W)         20W           CHARGER           Input Voltage Range (VAC)         100-125VAC / 200~250VAC           Input Frequency         45~55Hz / 55~65Hz           Power Factor         1           Charge Characteristic         4-stage adaptive           Maximum DC Voltage Ripple (Vrms)         < 1.25 V	Switch-on Behavior	Nominal output voltage within 20 msec.	
Maximum Efficiency (%) Zero-load Power (W)  CHARGER  Input Voltage Range (VAC) Input Frequency Power Factor Input Frequency Input Prequency Power Factor Input Prequency Input	Cont. Output Power at 25°C(W) (cos£c=1.0)	6000W	
Zero-load Power (W)         20W           CHARGER           Input Voltage Range (VAC)         100~125VAC / 200~250VAC           Input Frequency         45~55Hz / 55~65Hz           Power Factor         1           Charge Characteristic         4-stage adaptive           Maximum DC Voltage Ripple (Vrms)         < 1.25 V	Maximum Power (W)	12000W	
CHARGER Input Voltage Range (VAC) Input Frequency A5~55Hz / 55~65Hz Power Factor Charge Characteristic A-stage Adaptive Maximum DC Voltage Ripple (Vrms) Charge Voltage Ripple (Vrms) Charge Voltage "Float" (VDC) Charge Voltage "Float" (VDC) Charge Voltage "Float" (VDC) Charge Voltage Voltage (VDC) Min.,Max. Cutput Charge Voltage (VDC) Min.,Max. Charge Current House Battery (A) AC IRPUT SWITCH Protected by Thermal Circuit Breaker Switch-over Time Inverter to AC Input Switch-over Time Inverter to AC Input Detection Time AC Input Fault A mesc. Detection Time AC Input Fault A mesc. Trip Level Mains to Inverter Power Control Power Control Power Control Power Control Power Assist A55-65Hz Power Control Power Assist A55-65Hz Power Control Power Solica Adaptive A55-65Hz Power Control Power Assist A50-65Hz A55-65Hz A55-65Hz A55-65Hz A56-65Hz A56-6	Maximum Efficiency (%)	88	
Input Voltage Range (VAC) Input Frequency A5~55Hz / 55~65Hz Power Factor 1 Charge Characteristic A-stage adaptive Maximum DC Voltage Ripple (Vrms) Charge Voltage "Absorption" (VDC) Charge Voltage "Float" (VDC) Output Charge Voltage Voltage (VDC) Min.,Max. Charge Current House Battery (A) Charge Current House Battery (A) AC INPUT SWITCH Protected by Thermal Circuit Breaker Protected by Thermal Circuit Breaker Switch-over Time Inverter to AC Input Detection Time AC Input Fault A msec. to 10 msec. Trip Level Mains to Inverter Min Max. Frequency Range (50Hz/60Hz) Power Control Power Control Pesser Power Assist Power Assist Power Switch (A) Auto Transfer Switch (A) Multi-purpose Relay  100A (110V) / 60A (220V) Pesser Power Assist Power Control Pres Power Switch (A) Auto Transfer Switch (A) Multi-purpose Relay  100A (110V) / 60A Power State Power Assist Power Switch (A) Auto Transfer Switch (A) Multi-purpose Relay  100A (110V) / 60Hz Postory Z50Hz Power Control Pres Power Assist Power Switch (A) Auto Transfer Switch (A) Multi-purpose Relay  100A (110V) / 60Hz Postory Z50Hz Power Control Pres Power Assist Power Assist Power Assist Power Switch (A) Multi-purpose Relay Power Assist	Zero-load Power (W)	20W	
Input Frequency Power Factor 1 Charge Characteristic Maximum DC Voltage Ripple (Vrms)  Charge Voltage "Absorption" (VDC) Charge Voltage "Float" (VDC) Charge Voltage Voltage (VDC) Min.,Max. Charge Voltage Voltage (VDC) Min.,Max. Charge Current House Battery (A) Charge Current Starter Battery (A) AC INPUT SWITCH  Protected by Thermal Circuit Breaker Protected by Thermal Circuit Breaker Switch-over Time Inverter to AC Input Switch-over Time AC Input to Inverter Detection Time AC Input Fault Trip Level Mains to Inverter Min Max. Frequency Range (50Hz/60Hz) Power Control Power Control Power Assist Power Assist Power Switch (A) Multi-purpose Relay  4 -555Hz / 557-65Hz 4 -55Hz or 55-65Hz 4 -55Hz or 55-65Hz 4 -59Wes Assist Auto Transfer Switch (A) Multi-purpose Relay  3 relays	CHARGER		
Power Factor 1 Charge Characteristic 4-stage adaptive Maximum DC Voltage Ripple (Vrms) < 1.25 V Charge Voltage "Absorption" (VDC) 57.6V Charge Voltage "Float" (VDC) 55.2V Output Charge Voltage (VDC) Min.,Max. 22V,64V Charge Current House Battery (A) 140A Charge Current Starter Battery (A) 4A AC INPUT SWITCH Protected by Thermal Circuit Breaker 100A (110V) / 60A (220V) Switch-over Time Inverter to AC Input 0 msec. Switch-over Time AC Input to Inverter 0 Detection Time AC Input to Inverter 90VAC / 180VAC Trip Level Mains to Inverter 190VAC / 180VAC Trip Level Inverter to Mains 94VAC / 187VAC Min Max. Frequency Range (50Hz/60Hz) 45~55Hz or 55~65Hz GENERAL Power Control Yes Power Assist 20A Auto Transfer Switch (A) 30A Multi-purpose Relay 3 relays	Input Voltage Range (VAC)	100~125VAC / 200~250VAC	
Charge Characteristic 4-stage adaptive  Maximum DC Voltage Ripple (Vrms) < 1.25 V  Charge Voltage "Absorption" (VDC)	Input Frequency	45~55Hz / 55~65Hz	
Maximum DC Voltage Ripple (Vrms) Charge Voltage "Absorption" (VDC) Charge Voltage "Float" (VDC) Output Charge Voltage (VDC) Min.,Max.  Charge Current House Battery (A) Charge Current Starter Battery (A) Charge Current Starter Battery (A)  AC INPUT SWITCH Protected by Thermal Circuit Breaker Protected by Thermal Circuit Breaker Switch-over Time Inverter to AC Input O msec.  Switch-over Time AC Input to Inverter O msec.  Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 180VAC Trip Level Inverter to Mains 94VAC / 187VAC Min Max. Frequency Range (50Hz/60Hz)  GENERAL Power Control Yes Power Assist 20A Auto Transfer Switch (A) Multi-purpose Relay 3 relays	Power Factor	1	
Charge Voltage "Absorption" (VDC) Charge Voltage "Float" (VDC) Output Charge Voltage (VDC) Min.,Max. Charge Current House Battery (A) Charge Current Starter Battery (A) AC INPUT SWITCH Protected by Thermal Circuit Breaker Protected by Thermal Circuit Breaker Switch-over Time Inverter to AC Input O msec. Switch-over Time AC Input to Inverter Detection Time AC Input Fault Trip Level Mains to Inverter  Trip Level Mains to Inverter Min Max. Frequency Range (50Hz/60Hz)  GENERAL Power Control Protected Starter Battery (A) AC INPUT SWITCH  100A (110V) / 60A (220V) O msec.	Charge Characteristic	4-stage adaptive	
Charge Voltage "Float" (VDC)  Output Charge Voltage (VDC) Min.,Max.  Charge Current House Battery (A)  Charge Current Starter Battery (A)  AC INPUT SWITCH  Protected by Thermal Circuit Breaker  Protected by Thermal Circuit Breaker  Switch-over Time Inverter to AC Input  O msec.  Switch-over Time AC Input to Inverter  Detection Time AC Input Fault  4 msec. to 10 msec.  Trip Level Mains to Inverter  90VAC / 180VAC  Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Power Assist  20A  Auto Transfer Switch (A)  Multi-purpose Relay  3 relays	Maximum DC Voltage Ripple (Vrms)	< 1.25 V	
Output Charge Voltage (VDC) Min.,Max.  Charge Current House Battery (A)  Charge Current Starter Battery (A)  AC INPUT SWITCH  Protected by Thermal Circuit Breaker  Protected by Thermal Circuit Breaker  Switch-over Time Inverter to AC Input  Switch-over Time AC Input to Inverter  Detection Time AC Input Fault  Trip Level Mains to Inverter  Proved Inverter to Mains  PavAC / 180VAC  Trip Level Inverter to Mains  Min Max. Frequency Range (50Hz/60Hz)  Fower Control  Power Control  Power Assist  Auto Transfer Switch (A)  Multi-purpose Relay  MAA  AAC INPUT SWITCH  140A  140	Charge Voltage "Absorption" (VDC)	57.6V	
Charge Current House Battery (A) Charge Current Starter Battery (A)  AC INPUT SWITCH  Protected by Thermal Circuit Breaker Protected by Thermal Circuit Breaker  Switch-over Time Inverter to AC Input  O msec.  Switch-over Time AC Input to Inverter  O msec.  Detection Time AC Input Fault  4 msec. to 10 msec.  Trip Level Mains to Inverter  90VAC / 180VAC  Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Yes  Power Assist  20A  Auto Transfer Switch (A)  Multi-purpose Relay  3 relays	Charge Voltage "Float" (VDC)	55.2V	
Charge Current Starter Battery (A)  AC INPUT SWITCH  Protected by Thermal Circuit Breaker  Switch-over Time Inverter to AC Input  O msec.  Switch-over Time AC Input to Inverter  Detection Time AC Input Fault  Trip Level Mains to Inverter  90VAC / 180VAC  Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Power Assist  Auto Transfer Switch (A)  Multi-purpose Relay  100A (110V) / 60A (220V)  0 msec.  9 msec.  9 msec.  9 wsec.  9 wsec.  9 wsec.  9 wsec.  100A (110V) / 60A (220V)  9 wsec.  9	Output Charge Voltage (VDC) Min.,Max.	22V,64V	
AC INPUT SWITCH  Protected by Thermal Circuit Breaker 100A (110V) / 60A (220V)  Switch-over Time Inverter to AC Input 0 msec.  Switch-over Time AC Input to Inverter 0 msec.  Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 180VAC  Trip Level Inverter to Mains 94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz) 45~55Hz or 55~65Hz  GENERAL  Power Control Yes  Power Assist 20A  Auto Transfer Switch (A) 30A  Multi-purpose Relay 3 relays	Charge Current House Battery (A)	140A	
Protected by Thermal Circuit Breaker 100A (110V) / 60A (220V)  Switch-over Time Inverter to AC Input 0 msec.  Switch-over Time AC Input to Inverter 0 msec.  Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 180VAC  Trip Level Inverter to Mains 94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz) 45~55Hz or 55~65Hz  GENERAL  Power Control Yes  Power Assist 20A  Auto Transfer Switch (A) 30A  Multi-purpose Relay 3 relays	Charge Current Starter Battery (A)	4A	
Switch-over Time Inverter to AC Input  Switch-over Time AC Input to Inverter  Detection Time AC Input Fault  4 msec. to 10 msec.  Trip Level Mains to Inverter  90VAC / 180VAC  Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  45~55Hz or 55~65Hz  GENERAL  Power Control  Power Assist  20A  Auto Transfer Switch (A)  Multi-purpose Relay  3 relays	AC INPUT SWITCH		
Switch-over Time AC Input to Inverter 0 msec.  Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 180VAC  Trip Level Inverter to Mains 94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz) 45~55Hz or 55~65Hz  GENERAL  Power Control Yes  Power Assist 20A  Auto Transfer Switch (A) 30A  Multi-purpose Relay 3 relays		100A (110V) / 60A (220V)	
Detection Time AC Input Fault 4 msec. to 10 msec.  Trip Level Mains to Inverter 90VAC / 180VAC  Trip Level Inverter to Mains 94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz) 45~55Hz or 55~65Hz  GENERAL  Power Control Yes  Power Assist 20A  Auto Transfer Switch (A) 30A  Multi-purpose Relay 3 relays	Switch-over Time Inverter to AC Input	0 msec.	
Trip Level Mains to Inverter  Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Power Assist  Auto Transfer Switch (A)  Multi-purpose Relay  90VAC / 180VAC  94VAC / 187VAC  45~55Hz or 55~65Hz  36A	Switch-over Time AC Input to Inverter		
Trip Level Inverter to Mains  94VAC / 187VAC  Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Power Assist  Auto Transfer Switch (A)  Multi-purpose Relay  94VAC / 187VAC  45~55Hz or 55~65Hz  45~55Hz or 55~65Hz  20A  30A  30A	Detection Time AC Input Fault		
Min Max. Frequency Range (50Hz/60Hz)  GENERAL  Power Control  Power Assist  Auto Transfer Switch (A)  Multi-purpose Relay  45~55Hz or 55~65Hz  45~55Hz or 55~65Hz  20A  30A  30A	Trip Level Mains to Inverter	90VAC / 180VAC	
GENERAL           Power Control         Yes           Power Assist         20A           Auto Transfer Switch (A)         30A           Multi-purpose Relay         3 relays	Trip Level Inverter to Mains	94VAC / 187VAC	
Power Control Yes Power Assist 20A Auto Transfer Switch (A) 30A Multi-purpose Relay 3 relays	Min Max. Frequency Range (50Hz/60Hz)	45~55Hz or 55~65Hz	
Power Assist 20A Auto Transfer Switch (A) 30A Multi-purpose Relay 3 relays	GENERAL		
Auto Transfer Switch (A) 30A Multi-purpose Relay 3 relays	Power Control	Yes	
Multi-purpose Relay 3 relays	Power Assist	20A	
	· /	30A	
Output short circuit,	Multi-purpose Relay	·	
		Output sho	rt circuit,

	Overload,		
	Battery overvoltage,		
Protection	Battery undervoltage,		
	Battery reverse polarity detection,		
	Over temperature, High input voltage ripple		
Common Characteristics	Operating temperature range: -20°C to +50°C (fan assisted cooling) Humidity: max 95% (non-condensing)		
Weight (Kg)	48.10kg	46.50kg	
Dimensions (L x W x H) mm	590 x 480 x 630 mm		
OPTIONS			
Solar Charger	AP Series SCC-45AP-1248 / SCC-60AP-1248		
	(Max. 10 sets for parallel connection)		
Remote Controller	Remote monitoring available, optional cables: 3M/15M		
Battery Temperature Sensor (BTS)	Compensation for the battery charging voltage and current		

# ★ Stackable (Maximum 10 units)



## ★ Stackable (1Phase: Maximum 5 units)



## ★ Stackable (3Phase: Maximum 15 units)

