

# SUN GB Series

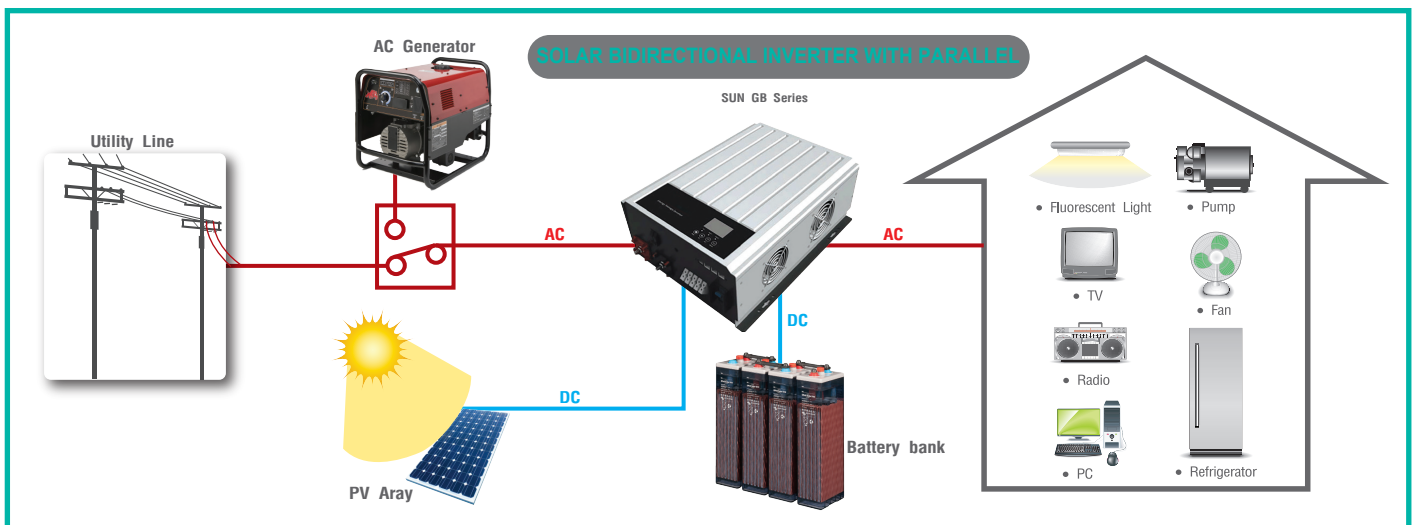
## SOLAR BIDIRECTIONAL PARALLEL INVERTER

### Features:

- DSP Control 1Phase Bidirectional Inverter with Output Isolated Transformer
- Include PWM with MPPT charge controller
- Provide uninterrupted backup power to load when utility grid line is not available.
- Parallel Output Inverter up to 4units for increase power
- Smart battery charging for small battery capacity
- Feeding excess energy back to grid line
- Harmonic distortion less than 3%
- High efficiency 90%
- User settable operation
  1. Excess PV energy back feed to utility line
  2. No PV energy back feed to utility line, PV energy only supply to loads
- Special design for using at high grid fluctuation area
- Battery temperature compensation(option)
- ISO 9001 and ISO 14001 certified factory



**SUN GB Series** is a single phase multi-function energy storage inverter, combining functions of inverter, On Grid, MPPT Solar charger controller and AC battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/Solar charger priority and acceptable input voltage based on different applications.



1. PV energy feed back to utility	PV energy is large feed to utility		PV energy is small, PV&Battery energy feed to utility	
2. PV energy supply to loads	PV large energy supply to loads & Charge battery	PV small energy & Battery supply to loads		No PV Battery energy supply to loads
3. Charger mode	PV&Utility Charge to batteries			
4. Bypass mode	Utility supply to loads			
5. PV energy to loads	PV energy supply to loads	PV&Battery energy supply to loads		Battery energy supply to loads



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## SOLAR BIDIRECTIONAL INVERTER WITH PARALLEL

MODEL		GB2048	GB3048	GB3548	GB4048	GB110
POWER RATING	PV Input(Wp)	2.4kWp	3.6kWp	3.8kWp	3.8kWp	10kWp
	AC Output Utility Power Factor	2kW	3kW	3.5kW	4kW	10kW
SOLAR CONTROLLER & AC CHARGER	PV Max.Open Circuit Voltage (Voc)	145Vdc				
	PV MPPT Voltage Range (Vmp)	64-145Vdc				
	Max PV Charging Current (A)	45A	60A		60A	180A(60x3)
	Max AC Charging Current (A)	40A	60A	80A	100A	180A
BATTERY	Normal Input Voltage(Vdc)	48Vdc				
	Voltage Range(Vdc)	40 - 62 Vdc				
	Max.Battery discharge(A)	60A	90A	120A	150A	120Ax3
	Low Voltage Alarm (Vdc)	42Vdc				
	High Voltage Alarm (Vdc)	60Vdc				
AC OUTPUT	Nominal Output Voltage (Vac)	220/230/240Vac, 50Hz +/-1%				
	Output Voltage Regulation	Less than <5% at Steady State Load				
	Phase	1 Phase 2wire +PE				
	Output Frequency (Hz)	50/60Hz +/- 0.5%				
	Output Current (A)	8.7A	13A	16A	18.2A	45.45A
	Total Harmonic Distortion(THDv)	Grid Tied/Grid charging mode <3%, Backup mode <4% at 0.8 Lagging Power Factor				
	Voltage Response time (0 – 100%)	20ms				
	Power Factor	Grid Tied & Grid charger >0.99				
	Overload Capability	110% for 30minutes, 125% for 1 minute, 150% for 30 seconds				
	Maximum Surge Current	200% for 2times				
	Grid Tied/Backup Transfer Time	2-4ms				
	Output Wave Form	Pure Sine Wave				
	Standby Power Consumption	<2W				
PROTECTION	System Protection	Over voltage, Under voltage, Overload, Over current, Over Temperature and Short circuit				
EFFICIENCY	Max.Inverter Efficiency	90% at full load, 90% at load 25% pf.=1				
	Max.Charger Efficiency	≥98%				
AC INPUT FORM GRID LINE OR GENERATOR	Maximum AC Current (A)	17	25A	35	43A	80A
	AC Voltage (Vac)	220/230/240 +/-10% (L-N)				
	Frequency(Hz)	50/60 Hz +/-3%				
DISPLAY	LED indication	System operation, indication of charger and discharger, indication of fault				
	LCD display	Output voltage, Output current, Grid voltage, Grid current, Voltage of storage battery, Load power, Chart of capacity				
ALARM	System Alarm	Over load, Short circuit, Over input voltage, Under voltaage,Low battery High Temperature				
COOLING		Automatic cooling fan				
INTERFACE		RS485 / CAN BUS				
PHYSICAL	Inverter Type	Wall mounted				Tower
	Dimension W x H x D (mm.)	337*462*183	337*462*18	370*462*183	370*462*183	400*840*555
	Weight(kg)	25	29.5	30	30	130
ENVIRONMENT	Operation Temperature	0 - 50 °C				
	Humidity	0 - 100% (Non - condensing)				
	Environmental Protection Rating	Indoor IP20(IP65/IP68 Optional)				
	Ambient humililty	0 - 100% relative humililty (non - condensing)				
	Altitude	<3000m				

\*Product specification are subject to change without further notice.

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### บริษัท ชูไฟติก จำกัด

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