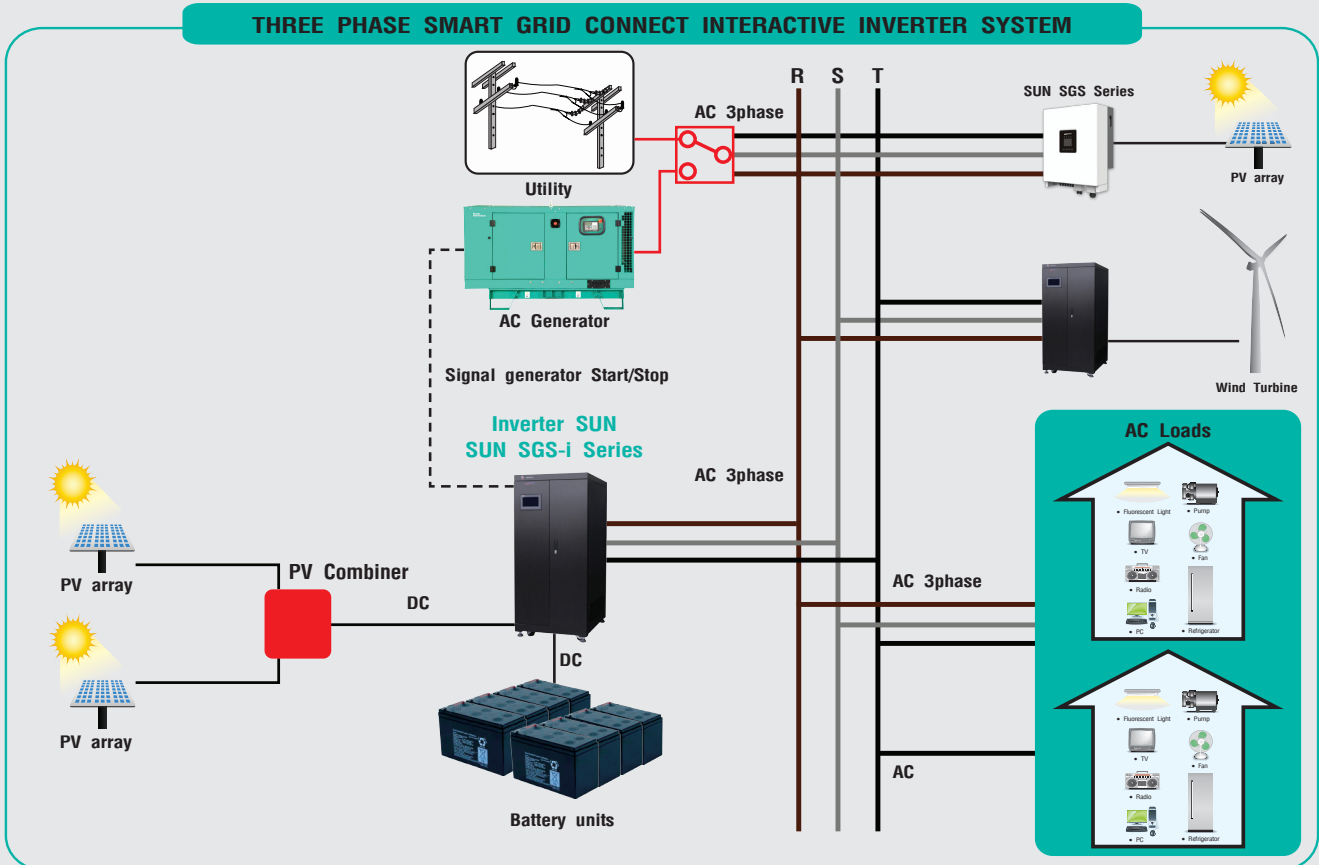


SUN SGS-i Series

Three Phase Smart Grid Connect Interactive Inverter with MPPT Solar Controller

- Three phase IGBT inverter Technology (SPWM) with output isolate transformer.
- Include PWM with MPPT solar controller
- Provide uninterruptible backup power to load when utility grid line is not available.
- Smart battery IGBT rectifier charging for small battery capacity.
- Feeding excess energy back to grid line.
- With Function parallel N+X upto 8 pcs Master-Slave
- High efficiency >98%.
- IGBT Rectifier input power factor >0.99, THDi<5%
- Generator connected signal and automatic start generator signal when generator provide as other energy source of the system.
- Static Transfer Switch Zero time Inverter to utility
- Special design for using at high grid fluctuation area.
- User settable operation:
 1. Excess PV energy back feed to utility line(Grid connect)
 2. No PV energy back feed to utility line, PV energy and Battery only supply to load(Stand alone)
 3. Setable on/off & %Control Excess PV energy back feed to utility line and external device control
 4. Setable Battery %DoD and %SoC
- Battery temperature compensation(option).
- HMI 7inch touch screen, Communication through to RS232, RS485/Modbus and dry contact.
- PEA Standard B.E. 2016(2559), ISO9001:2008 and ISO14001:2004 certified manufacturer.



SUN SGS-i Series

Smart Grid Interactive Inverter



Model		SGS-20i	SGS-30i	SGS-40i	SGS-50i
SMART GRID SYSTEM	Application	Smart Grid System for Mini Plant			
	Control & Technology	Smart DSP control Double Conversion IGBT Technology			
PV INPUT	Inverter	20kW	30kW	40kW	50kW
	PV Power	22kWp	33kWp	44kWp	55kWp
	MPPT Voltage range(Vmp/string)	250Vdc-400Vdc			
	Max.Open Circuit voltage(Voc/string)	450Vdc			
	Max.PV current	105A	160A	210A	260A
BATTERY VOLTAGE	Normal Voltage	240 Vdc			
	Voltage Range	210-290 Vdc			
	Max.AC Charging Current	50A	75A	100A	130A
	Maximum Battery current	60A	90A	120A	145A
IGBT CHARGER/RECTIFIER	Voltage charge	250-290 Vdc			
	Charging Current (Max.)	38A _{dc}	60A _{dc}	75A _{dc}	95A _{dc}
AC INPUT GRID LINE GENERATOR	Generator Power	40kW	60kW	80kW	100kW
	Voltage Fluctuation V _{spp}	L-L: 380/400/415 Vac, L-N: 220/230/240 Vac +/-10%			
	Phase	3Phase 4Wire +PE			
	Frequency Fluctuation V _{spp}	50/60 Hz ±3%			
	Function start/stop	Relay dry contact 10 A(ACC on and start)			
AC OUTPUT	Power Continuous(PF=1)	20kW	30kW	40kW	50kW
	Output Voltage	L-L: 380/400/415Vac, L-N: 220/230/240Vac 3Phase 4Wire+PE			
	Voltage Regulation/Power Factor	+/-5% steady state load, <4% at 100% step load within 0.1sec/0.9-1.0PF leading and Lagging			
	Frequency	50/60 Hz ±0.1%			
	Total Harmonic Distortion	THD<3% (Linear load) 0.8 Lagging Power Factor			
	Wave Form	Pure sine wave power output			
	Overload Capability	>125% load for 10 min, 150% load for 30sec, >150% load for 10sec, 200% at 2 Sec.			
ISOLATION	Type	Galvanic isolation			
EFFICIENCY	Inverter Peak (Max.)	>90% Including Isolation T/F		>95% Including Isolation T/F	
PROTECTION	System	Over current, Overload, Over temperature, Short circuit, Over voltage, Under voltage, Low battery voltage and Over battery voltage			
	IP level	IP20(IP65 / IP68 option)			
INDICATOR	HMI 7 inch LCD Display	Input/Output, Voltage, Current, Frequency, Inverter, overload, Output power, AC Energy Hour, Today, Month, Year,AC Energy ACC., Battery voltage, Load, DC current, inverter status and Fault			
COMMUNICATION	Interface Port	RS 232, RS485/Modbus and Dry Contact			
ALARM	Operation Alarm	Low battery, Overload, Over temperature and Fault			
COOLING	System Operate	Automatic cooling fans			
ENVIRONMENT	Temperature	0 - 50°C			
	Relative Humidity	0 - 95%(Non-condensing)			
DESIGE REGULATION	Tested According to	ISO9001, ISO14001, IEC 62040, Accordance to IEEE 929-2000, IEEE 1547-2003, IEC 61727-2004 and IEC 62116-2008 Incorporating with PEA Recommendation B.E.2016(2559)			
PHYSICAL	Dimension WxDxH(mm.)	550x890x1550			700x880x1600
	Weight (kg)	300	350	480	450

*Continuous products development is our commitment. In that manner, the above specifications may be changed without prior notice.

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