

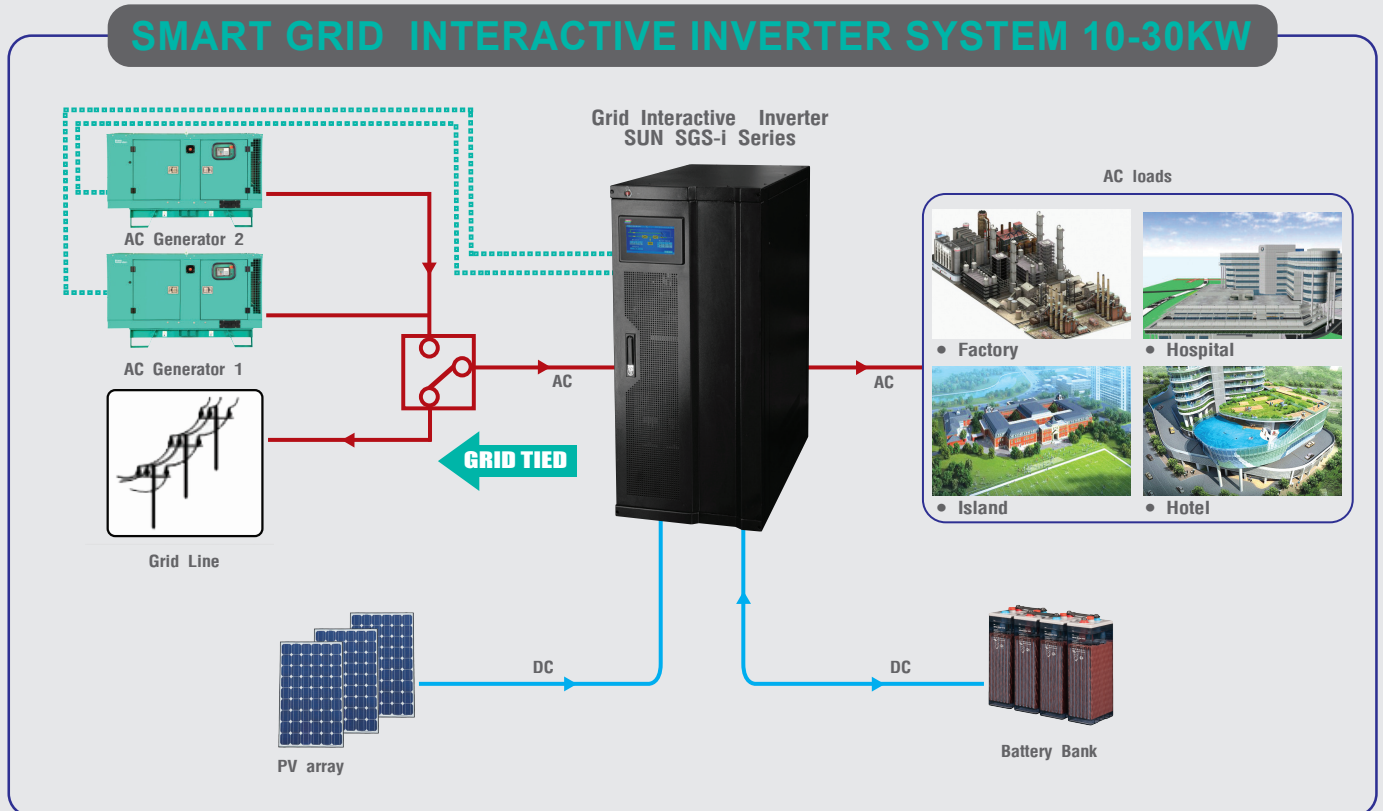
SUN SGS-i Series

Three Phase Smart Grid Connect Interactive Inverter with MPPT Solar Controller

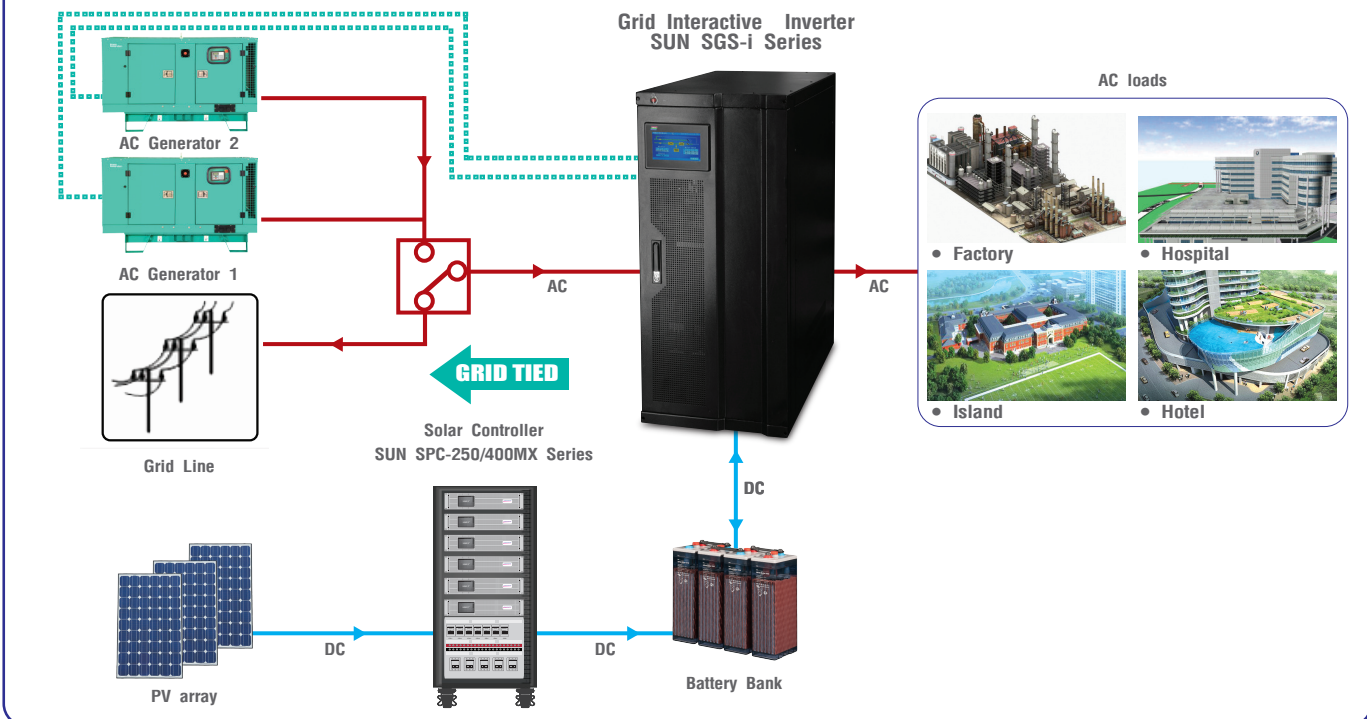
- Three phase IGBT inverter Technology (SPWM) with output isolate transformer.
- Include PWM with MPPT solar controller (10-30kWp).
- Provide uninterruptible backup power to load when utility grid line is not available.
- Smart battery IGBT rectifier charging for small battery capacity.
- Feeding excess 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.
- ISO9001:2008 and ISO14001:2004 certified manufacturer.



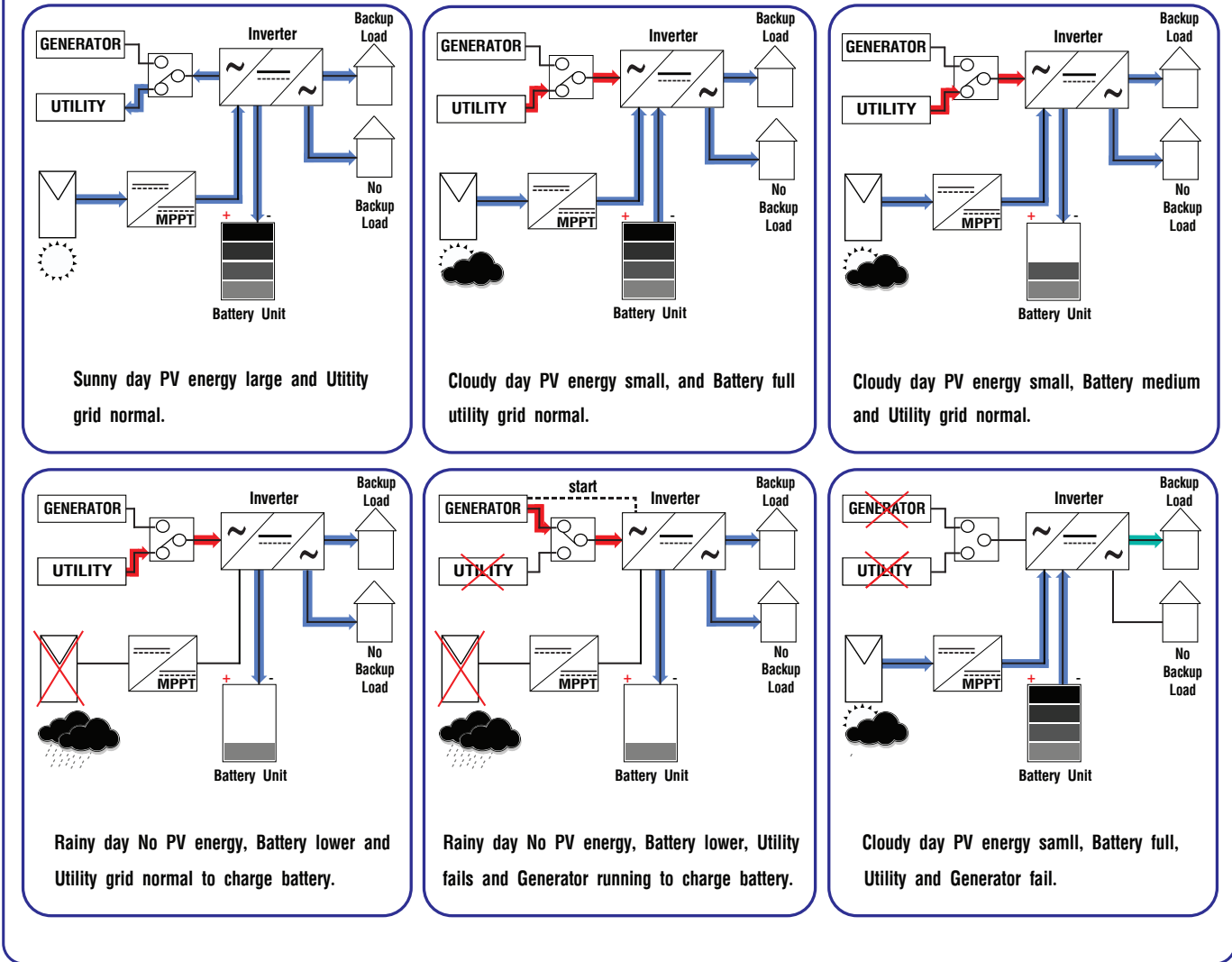
SMART GRID INTERACTIVE INVERTER SYSTEM 10-30KW



SMART GRID INTERACTIVE INVERTER SYSTEM 40-250kW



Operation Mode



SUN SGS-i Series

Smart Grid Interactive Inverter



Model		SGS-10i	SGS-15i	SGS-20i	SGS-30i	SGS-40i	SGS-50i	SGS-60i	SGS-75i	SGS-100i
SMART GRID SYSTEM	Application	Smart Grid System for Mini Plant								
	Control & Technology	Smart DSP control Double Conversion IGBT Technology								
HYBRID SYSTEM	Inverter	10kW	15kW	20kW	30kW	40kW	50kW	60kW	75kW	100kW
	Battery Storage	100-200Ah	150-300Ah	200-400Ah	250-500Ah	400-800Ah	450-1000Ah	500-1000Ah	750-1500Ah	1000-2000Ah
	PV System	10-12kWp	15-17kWp	20-25kWp	30-40kWp	40-45kWp	50-60kWp	60-70kWp	75-90kWp	100-120kWp
	Generator	10kW	15kW	20kW	30kW	40kW	50kW	60kW	75kW	100kW
	Electrical Grid	10kVA/15A	15kVA/25A	20kVA/30A	30kVA/55A	40kVA/60A	50kVA/75A	60kVA/91A	75kVA/115A	100kVA/152A
BATTERY VOLTAGE	Normal Voltage	400 Vdc								
	Voltage Range	368-480 Vdc								
	Max.AC Charging Current	40A	60A	75A	130A	150A	190A	225A	300A	375A
	Maximum Battery current	40A	60A	75A	130A	150A	190A	225A	300A	375A
IGBT CHARGER/RECTIFIER	Voltage charge	250-290 Vdc						400-480 Vdc		
	Charging Current (Max.)	20A	30 A	38 A	60A	75A	95A	110A	150A	190A
AC INPUT GRID LINE GENERATOR	Generator Power	10kW	15kW	20kW	30kW	40kW	50kW	60kW	75kW	100kW
	Voltage Fluctuation Vsp	L-L: 380/400/415 Vac, L-N: 220/230/240 Vac +/-10%								
	Phase	3Phase 4Wire +PE								
	Frequency Fluctuation Vsp	50/60 Hz ±3%								
	Function start/stop	Relay dry contact 10 A(ACC on and start)								
AC OUTPUT	Power Continuous(PF=1)	10kW	15kW	20kW	30kW	40kW	50kW	60kW	75kW	100kW
	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.)	>94% 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								
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 323, RS485/Modbus and Dry Contact								
ALARM	Operation Alarm	Low battery, Overload, Over temperature and Fault								
COOLING	System Operate	Automatic cooling fans								
ENVIRONMENT	Temperature	0 - 45°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								
PHYSICAL	Dimension WxDxH(mm.)	550x890x1550(with SPC400-40)				700x880x1600				
	Weight (kg)	250	250	300	350	600	600	700	800	800

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

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SUN SGS-i Series

Smart Grid Interactive Inverter



Model		SGS-120i	SGS-150i	SGS-160i	SGS-200i	SGS-225i	SGS-250i
SMART GRID SYSTEM	Application	Smart Grid System for Mini Plant					
	Control & Technology	Smart DSP control Double Conversion IGBT Technology					
HYBRID SYSTEM	Inverter	120kW	150kW	160kW	200kW	225kW	250kW
	Battery Storage	1250-2500Ah	1500-3000Ah	1600-3200Ah	2000-4000Ah	2000-4000Ah	2500-5000Ah
	PV System	120-135kWp	150-170kWp	160-180kWp	200-225kWp	200-230kWp	250-280kWp
	Generator	120kW	150kW	160kW	200kW	225kW	250kW
	Electrical Grid	120kVA/182A	150kVA/227A	160kVA/243A	200kVA/303A	250kVA/380A	250kVA/380A
BATTERY VOLTAGE	Normal voltage	400 Vdc					
	Voltage Range	368-480 Vdc					
	Max.AC Charging Current	450A	560A	600A	750A	800A	935A
	Maximum Battery Current	450A	560A	600A	750A	800A	935A
IGBT CHARGER/RECTIFIER	Voltage	400-480 Vdc					
	Charging current(Max.)	225Adc	280Adc	300Adc	375Adc	400Adc	465Adc
GENERATOR	Generator Power	120kW	150kW	160kW	200kW	225kW	250kW
	Voltage Fluctuation Vsp	L-L: 380/400/415 Vac, L-N: 220/230/240 Vac $\pm 10\%$					
	Phase	3Phase 4Wire +PE					
	Frequency Fluctuation Vsp	50/60 Hz $\pm 3\%$					
	Function start/stop	Relay dry contact 10 A(ACC on and start					
AC OUTPUT	Power Continuous (PF=1)	120kW	150kW	160kW	200kW	225kW	250kW
	Output Voltage	L-L: 380/400/415Vac, L-N: 220/230/240Vac 3Phase 4Wire+PE					
	Voltage regulation/Power Factor	$\pm 5\%$ steady state load, $< 4\%$ at 100% step load within 0.1sec/0.9-1.0PF leading and Lagging					
	Frequency	50 Hz $\pm 0.1\%$					
	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 20sec					
ISOLATION	Type	Galvanic isolation					
EFFICIENCY	Inverter Peak(Max.)	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					
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 - 45°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					
PHYSICAL	Dimension WxDxH(mm.)	1600x1000x2000					
	Weight(kg.)	1200	1300	1350	1400	1450	1500

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