

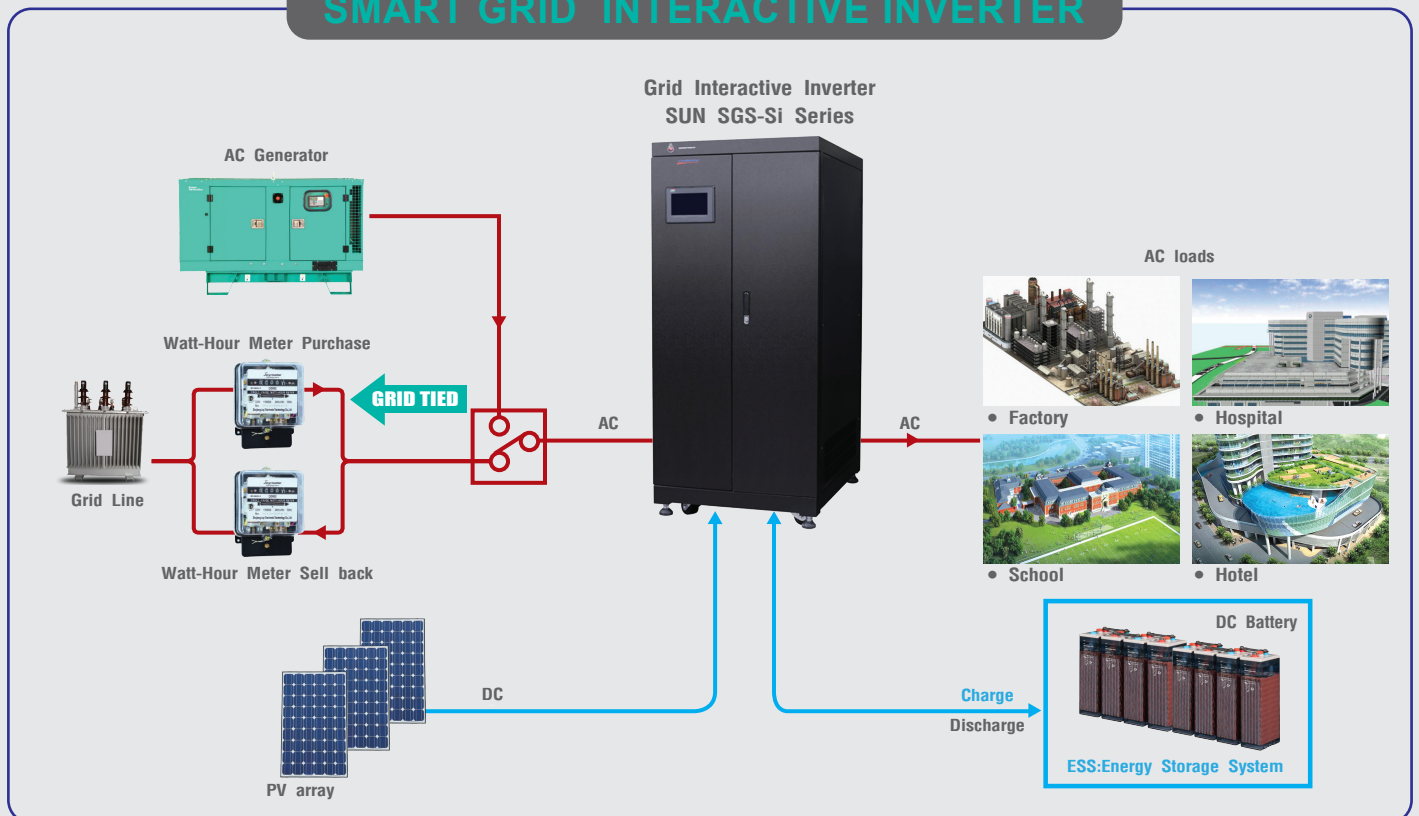
SUN SGS-Si Series

Smart Grid Interactive Inverter

- Single phase inverter Technology with output transformer
- Include PWM with MPPT charge 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
- High efficiency >95%
- Parallel redundancy N+X up to 8 Unit
- Generator connected signal and automatic start generator signal when generator provide as other energy source of the system
- Transfer time 4-10ms Inverter to utility
- Special design for using at high grid fluctuation area
- 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 load.
 3. Setable & %Control Excess PV energy back feed to utility line
 4. Setable Battery %DoD and %SoC
- Battery temperature compensation compensation (Temperature sensor is not included)
- ISO9001 and ISO14001 certified factory

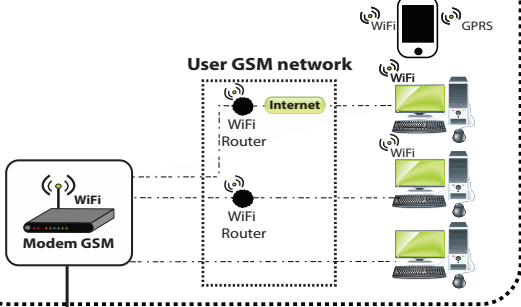


SMART GRID INTERACTIVE INVERTER

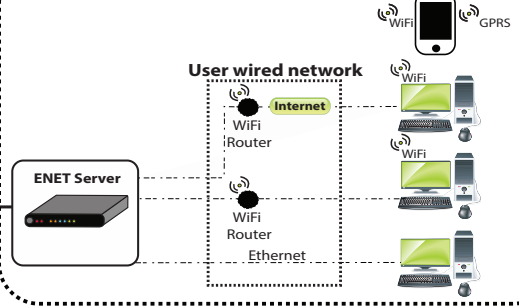


Information Communication Technology

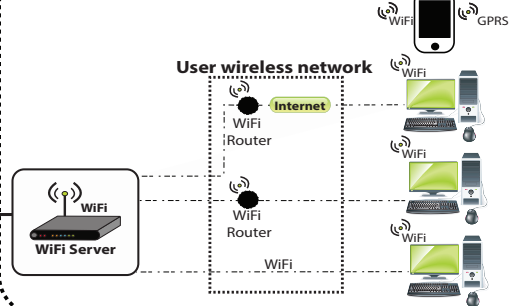
GSM Network monitoring system solution



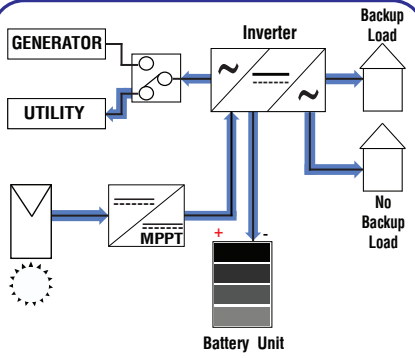
Ethernet wired monitoring system solution



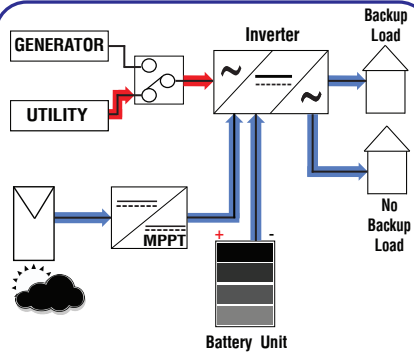
WiFi wireless monitoring system solution



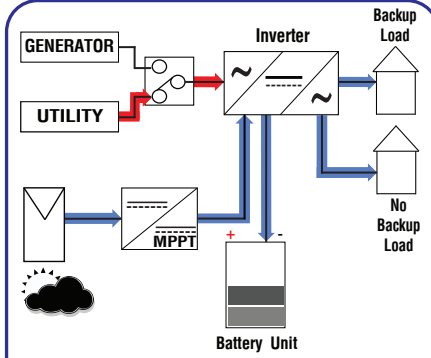
Operation Mode



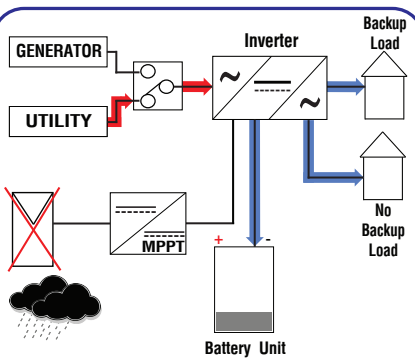
Sunny day PV energy large and Utility grid normal.



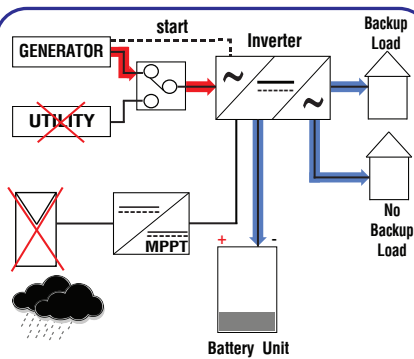
Cloudy day PV energy small, and Battery full utility grid normal.



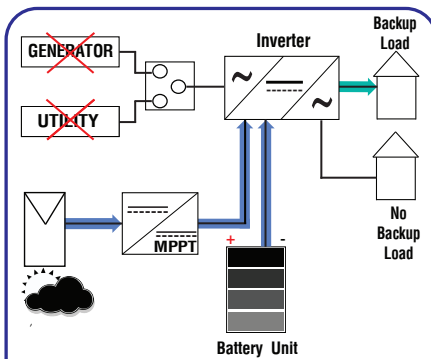
Cloudy day PV energy small, Battery medium and Utility grid normal.



Rainy day No PV energy, Battery lower and Utility grid normal to charge battery.



Rainy day No PV energy, Battery lower, Utility fails and Generator running to charge battery.



Cloudy day PV energy small, Battery full, Utility and Generator fail.

SUN SGS-Si Series

Single Phase Smart Grid Interactive Inverter



Model		SGS-10Si	SGS-20Si	SGS-30Si	SGS-50Si
SMART GRID SYSTEM	Application	Smart Grid System for Mini Plant			
	Control & Technology	Smart DSP control Double Conversion IGBT Technology			
PV INPUT	Inverter	10kW	20kW	30kW	50kW
	PV Power	11kWp	22kWp	33kWp	55kWp
	MPPT Voltage range(Vmp/string)	250-450Vdc(400-600Vdc option)			
	Max.Open Circuit voltage(Voc/string)	500Vdc(800Vdc option)			
	Max.PV current	63A(30A option)	63A(50A option)	125A(80A option)	210A(130A option)
BATTERY VOLTAGE	Normal Voltage	240Vdc (384Vdc option)			
	Voltage Range	210-290Vdc (330-500 option)			
	Max.AC Charging Current	40A	80A	125A	200A
	Maximum Battery current	47A	95A	140A	235A
IGBT CHARGER/RECTIFIER	Voltage charge	250-290Vdc			
	Charging Current (Max.)	40Adc	80Adc	125Adc	200Adc
AC INPUT GRID LINE GENERATOR	Generator /Utility Power	20kW	40kW	60kW	100kW
	Voltage	L-N: 220/230/240 Vac +/-10%			
	Phase	1Phase 2Wire + PE			
	Frequency	50/60 Hz ±3%			
	Function start/stop remote	Relay dry contact 10 A(ACC on and start)			
	Power Continuous(PF=1)	10kW	20kW	30kW	50kW
AC OUTPUT	Output Voltage	L-N: 220/230/240Vac 1Phase 2Wire+PE			
	Voltage Regulation	+/-5% steady load, <4% at 100% step load within 0.1sec			
	Frequency	50/60 Hz ±0.1%			
	Total Harmonic Distortion	THD<3% (Linear load)			
	Wave Form	Pure sine wave			
	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%			
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 Display	AC, Inverter, overload and Fault Output voltage, Frequency, Output power, AC Energy Hour, today, Month, Year,AC Energy ACC., Battery voltage, Load, DC current, inverter status and Fault			
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.)	290x650x755	520x830x1150		700x880x1600
	Net Weight /Weight(kg)	100	200	250	300

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

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