Su-Kam
Ek nayi soch

STATE OF ART

GRID TIE SOLAR INVERTERS

PV GRID CONNECTED INVERTERS

Converting sunshine into savings and a greener planet

With a drastic fall in prices of SPV modules and Balance of System on one hand and the rising electricity tariffs on the other, grid connected solar Roof Top PV systems are becoming increasingly economically viable for the vast 1.3 billion population of India. The multiple benefits, expected payback and mid-sized grid connected Roof Top PV solution offers a lot of economic benefit while also complying with Government norms regarding the global carbon footprint.

The Grid Tie Solar Inverter / PV Grid Connected Inverter convert the direct current generated by the solar module into grid-acceptable alternating current. Thus they form the heart of every solar energy system. It is suited best for the tropical countries like India where the sunlight is in abundance.

These new generation inverters are designed in single-phase from1.5 KW to 10 KW & three-phase from10 KW to 1 MW systems.

FEATURES

INNOVATIVE

- Greater Energy Production. Maximizes the power conversion with highest efficiency. MPPT tracking up to 99.9%.
- Optimized Electric Control Technology with over 97.3 % efficiency. Lowest loss in industry.

ECONOMICAL

- Safe and clean aesthetics with IP 65 Protection for outdoor usage.
- ROI in less than 5 years.

RELIABLE

- Proven Reliability/long lasting.
- IEC Electrical and safety certification.
- More than 4.5 MW off and on grid system installed and running successfully.

CONVENIENT

- Greater Design flexibility with ease of operation.
- Large LCD Interface for visual and configuration.

Su-Kam Power Systems Ltd.
Corporate Office: Plot No. 54, Udyog Vihar, Phase VI, Sector-37, Gurgaon -122001, Haryana, India
Tel: +91-124-4170500 Fax: +91-124-4038700/1/2
E-mail: info@su-kam.com Website: www.su-kam.com

Certifications
ISO 9001:2008
ISO 14001:2004
R&D Recognised by Ministry of Science & Technology Government of India

Su-Kam Su-Buddy SERVICE WITH SMILE

Toll Free Helpline No.:
1800-102-4423
24x7 call log in facility

RADIANT SERIES OF THREE PHASE INVERTERS

10 KWp-30 KWp-50KWp-100 KWp – 250 KWp – 500 KWp – 1000 KWp

Su-Kam

Ek nayi soch

STATE OF ART

GRID TIE SOLAR INVERTERS

SALIENT FEATURES

High efficiency levels

Employing highly efficient circuit topology, the Su-Kam Radiant series of three phase inverters deliver maximum power output with very high efficiency figures of 98.7%. Please see the efficiency curve for our 500 KW Radiant 500TL inverter.

Extremely low Total Harmonic Distortion (THD) - unmatched by the industry

The Su-Kam Radiant three phase inverters have achieved THD of 0.8% at 100% load and 3.7% at 10% load. Compare this with THD levels of 10% to 22% for some of the other leading brands. We have displayed the THD measurements recorded on an oscilloscope that compares our Radiant inverter with a competing brand inverter at 10% load.

The output of our inverter is a Pure Sine Wave compared with a relatively distorted wave form that some of the other inverters deliver. The customer, therefore, does not require a harmonic filter. At the grid connection point, a two winding transformer would serve the purpose against a three winding transformer which would be required to take care of harmonics.

The above features translate into lower risk of failure and lower total cost to the customer while ensuring that a high quality Sine Wave output is fed into the grid.

Accurate and fast Maximum Power Point Tracking (MPPT)

The Radiant series of Su-Kam inverters come with a specialized MPPT algorithm which delivers extremely high power yields. The MPPT tracking efficiency reaches a peak value of 99.9%.

Diverse communication modes

The Radiant inverters are equipped with diverse communication interfaces which include RS232/RS485 and Ethernet.

Environment capabilities

The Radiant series of Su-Kam inverters are designed to operate in a wide temperature range of – 250 C to +550 C without de-rating and will operate upto a temperature of + 750 C. The equipment operates without de-rating at an altitude of 3000 meters.

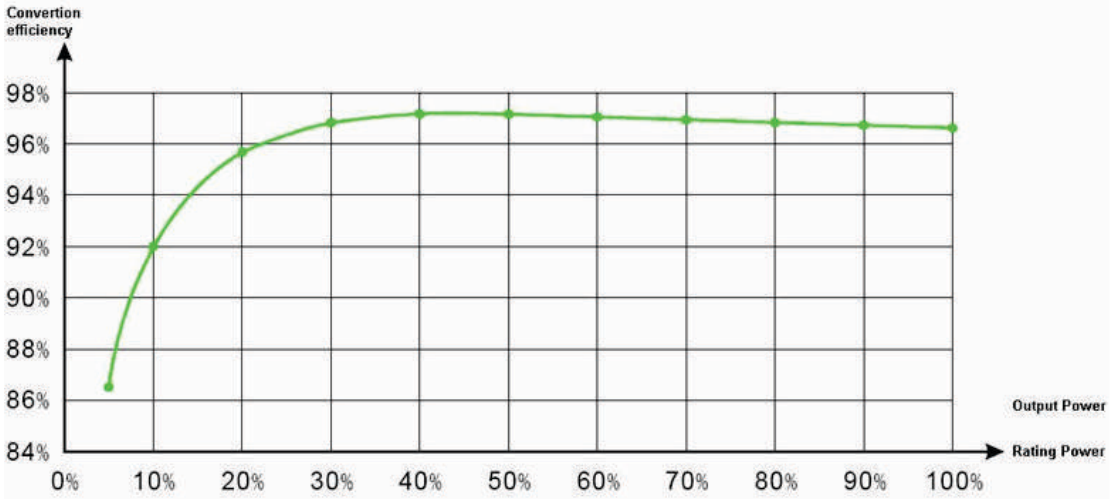
The inverters are designed with IP-54 capabilities to take care of challenging weather conditions.

The Su-Kam advantage

Su-Kam today is India's leader in Inverters, UPS, batteries and energy storage systems. Its product range includes Solar PCUs with off-grid and grid-tie capabilities. The Ministry of New and Renewable Energy, Government of India has, after detailed appraisal, accorded the highest standard of accreditation 'SP1A' to Su-Kam as its channel partner for off-grid projects.

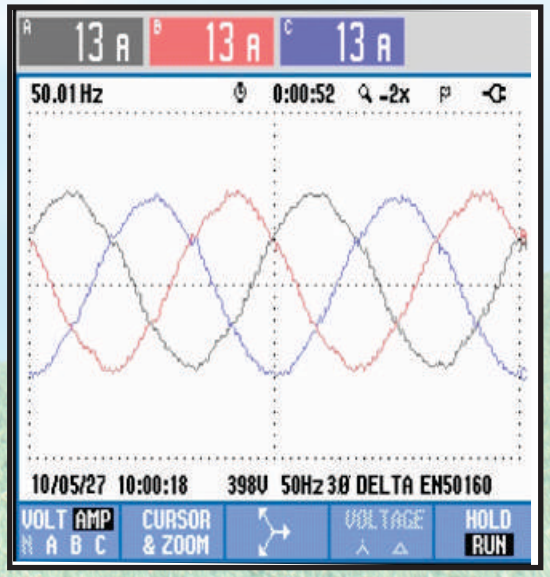
Su-Kam is unmatched in India with its wide service network of over 70 service centers manned by over 500 service engineers that ensure 24x7 service support and total user satisfaction.

HIGH EFFICIENCY EVEN UNDER PART LOAD CONDITIONS

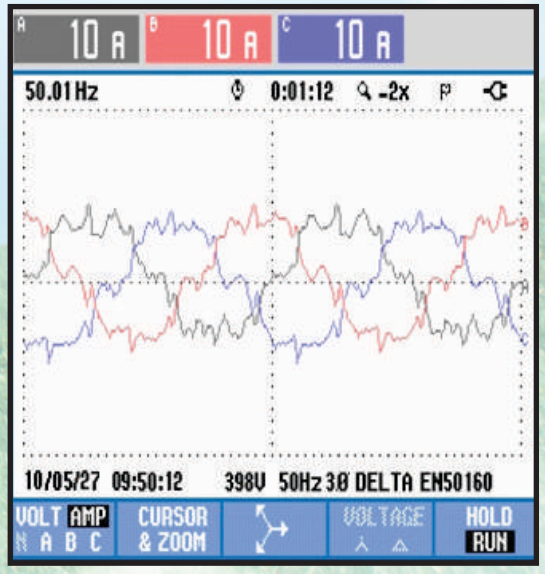


Comparison of Total Harmonic Distortion between Radiant and a competing brand at 10% load

SU-KAM RADIANT INVERTER



COMPETING BRAND INVERTER



TECHNICAL PARAMETERS

		10 KWp	30KWp	50 KWp	100 KWp	250 KWP	250 KWp TL	500 KWp TL	1000 KWp TL	1000 KWp
Parameter at DC side	Max DC Voltage	880V DC with Crystalline silicon /720V DC with thin film								
	Max DC Power	12 KWp	34 KWp	56 KWp	112 KWp	275 KWp		560 KWP	1120 KWp	
	Max Inpaut	2			4	8		16	64	
	MMPT Range	420V-850V								
	Max DC input current	50A	80A	130A	250A	600 A		1200A	2400A	
	PV Array Configuration	Floating Negative Ground Positive Ground								
	Transformer	Available					NA	NA	NA	Available
Parameter at AC side	Rated Output Power	10 KW	30KW	50 KW	100 KW	250KW		500 KW	1000KW	
	Rated Voltage	400V					270 V	270 V	10KV/20KV/35KV	
	Voltage range	310V-450V					210 -310V	210 -310V	M.V Transformer (optional)	
	Grid Frequency	50Hz								
	Grid Frequency Range	47-53Hz								
	THDi	<.8%								
	Pf	>.99								
	Maximum output Current per Phase	145(need to confirm)								
System Characterstics	Max Efficiency	95.%	95.3%	96.8%	97.2%	97.5%	98.3%	98.7%	98.7%	97.8%
	Europian Eff	94.3%	94.5%	96.2%	96.6%	96.7%	97.7%	98.5%	98.5%	97.4%
	MPPT Accuracy	99.9%								
	Losses At night	<10W	<15W	<20W	<40W	<100W		<100W	<1500W	
	Stanby Consumption	<100W						<150 W	<1500W	
	Ambient Temperature	-25 to 55O C without de-rating								
	Storage Temperature Range	-25 to 80O C (Need to Confirm)								
	Relative Humidity	95% no condensation								
	Cooling Method	Air								
Display and Communication	Display	LCD								
	Communicaton	Ethernet/RS232/RS485								
	Ambient Sensor	Temperature / Sunlight / Wind Speed								
	Dimension (WXHXD)	600X1000X 600 mm	800X1800X 650mm	900x2000x 800 mm	1200/2200 800 mm	1800/2200/ 800mm	1400/2200/ 800mm	2800/2200/ 800mm	8000/2800/ 2200mm	10000/2800 / 2200mm
	Weight (KG)	200	550	650	980	1960	980	1960	16.7 T	19.5 T
	Noise	<65 dB(A)								
	Max Altitude Above See level	3000m								
Protective Function	Input (DC side)	Over voltage and under voltage								
	Grid (AC side)	Over voltage, under voltage, over frequency, under frequency, over current and short circuit, over temperature, anti-islanding, AC earth, fault.								
	Faults Displayed on Display	Array Fail		Inverter Over Temp.			Wrong Phase			
		AC /DC Earth Fault		DC Over Volt.			Grid abnormal			
		No Sync		Fast DC over Volt.			Output overload			
		Frequency Out of Range		Array over Volt.			Wound component			
		Inverter Over Current		DC under Volt.			Array reverse polarity (optional)			
				Local Emergency Stop (optional)			Array fuse fail(optional)			

Su-Kam *Ek nayi soch*

Please contact us with your queries and our engineers will be happy to assist you with your requirement

Su-Kam Power Systems Ltd.
Corporate Office: Plot No. 54, Udyog Vihar, Phase VI, Sector-37, Gurgaon-122001, Haryana, India.
E-mail: solar@su-kam.com **Phone:** +91-124-4170500, Fax: +91-124-4038700
Website: www.su-kam.com **Helpline No.:**1800-102-4423