

NUCLEUS

Reliable & Dependable
Solar MPPT PCU

SOLAR ENERGY FOR YOUR HOME AND BUSINESS

www.sinesantechnologies.com



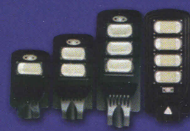
OUR OTHER PRODUCT



ONLINE UPS



Solar Water Pump



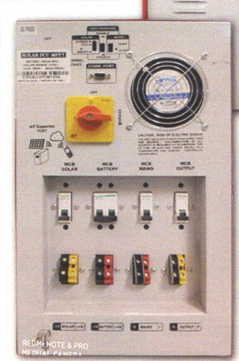
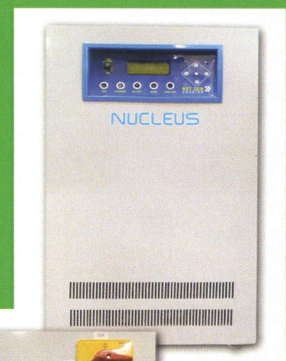
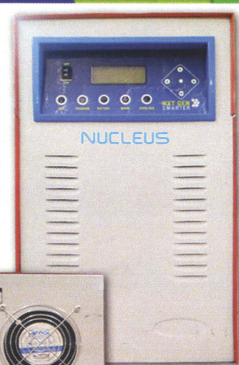
All in one Solar Street Light



Off Grid PWM Solar Inverter



All in one Solar Street Light



For more Info email - sinesantechnologies@gmail.com
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Sinesan Technologies Pvt.Ltd.- Udaipur(Raj.)

System Rating	1KVA	1KVA	2KVA	3KVA/5KVA	5KVA/7.5KVA	7.5KVA/10KVA	10KVA	15KVA
SYSTEM PARAMETERS								
DC VOLTS	12V	24V	24V	48V	96V	120V	180V	240V
SOLAR PHOTOVOLTAIC PARAMETERS								
SPV RANGE (Voc)	18V - 45V	36V - 90V	36V - 90V	72V - 180V	144V - 360V	180V - 450V	270V - 450V	360V - 600V
MAX. SPV POWER	1KW	1KW	2KW	3KW / 5KW	5KW / 7.5KW	7.5KW / 10KW	10KW	15KW
COMPATIBLE SPV PANELS	36 CELL / 60 CELL / 72 CELL							
SOLAR CHARGE CONTROLLER								
Type	MPPT based charge controller							
Rating	50Amp. / 70Amp.							
Solar Charging	Factory Setting 30A				Variable Range 5A - 50A			
GRID Parameters								
Input Voltage	100V. AC - 300V. AC (Standard Range) / 180V AC - 260V AC (UPS Range) \pm 5V.							
Input Frequency	50Hz \pm 10							
Grid charging Boost Voltage (each Battery)	Factory Setting 14.4V				Variable Range 13.8V - 15V			
Grid Charging Current	Factory Setting 15A				Variable Range 5A - 18A			
Out Put Voltage	220V \pm 10V No load to Full Load							
Out Put Frequency	50Hz							
Out Put waveform	Pure sine Wave							
BATTERY PARAMETERS								
Battery Low cut voltage each battery	Factory setting 10.6V				Variable Range 10.4V - 11.5V			
Solar Battery low cut Voltage each battery	Factory setting 12V				Variable Range 11.5V - 12.5V			
Recommended Battery Charging Voltage	SMF / Gel		13.8V - 14.0V					
	Tubular		14V - 14.4V					
Grid reconnect Voltage range	SMF / GEL		12.0V - 12.2V					
	TUBULAR		11.5V - 12.5V					
PROTECTIONS								
Output Over Load, Battery Low, Battery reverse Polarity, Battery Over Discharge, Output Short Circuit, Reverse Phase, solar reverse Polarity, Over temperature.								
DISPLAY & INDICATIONS								
LED INDICATIONS: System ON,								
DISPLAY : Input Voltage, Solar ON, PV voltage, PV current, PV reverse, Solar KWH, Battery Voltage, Output Voltage, Over load, Load %, Battery Low....								
OTHER PARAMETERS								
Operating Temp. 0 - 50 degree Centigrade								
Cooling: Forced air cooling by FAN								
Noise: 50db at 1 mtr.								
Max. Relative Humidity @ 25 deg. C. (Non Condensing) 95%								
Standard Compliance : IP20								

NUCLEUS

The centre of power

SOLAR HYBRID INVERTER

INBUILT 50A SOLAR CHARGE CONTROLLER



SOLAR ADVANCE PROTECTION



FUNDAMENTAL THERMAL PROTECTION



50AMP SOLAR CHARGER CONTROLLER



INTELLIGENT CHARGING SHARING



THREE OPERATING MODES



POWERFUL CHARGING FOR LOW VOLTAGE



NO HUMMING NOISE



Available in
1000VA - 2800VA

MAKE IN INDIA



FEATURES

- DSP based Pure Sine wave Output. • Configurable critical Parameters.
- Inbuilt highly efficient PWM Solar Charge Controller.
- Various Solar Priority selection modes for better performance.
- Preference for maximum Solar Utilization. • System can operate without Solar PV Panel.
- Charging Compatible for GEL, SMF & Tubular Battery.
- Safe Protection in Output Short-circuit & reverse Phase and PV reverse.

TECHNICAL SPECIFICATION

System Rating		3800VA	5200VA	7500VA	10000VA		
Normal Input Battery Voltage		48V	48V	96V	96V	120V	120V
Maximum PV Power		3400Wp		5100Wp		8500Wp	
SPV Range		60VDC - 100VDC		120VDC - 200VDC		150VDC - 250VDC	
Solar Charge Controller Rating		50A/70A					
Solar Charge Controller Type		Inbuilt PWM Charge Controller					
Solar Charge Controller Technology		DSP based Intelligent Battery Charging & Charge Sharing with Grid					
Input Voltage		100V ~ 300V (STANDARD RANGE) / 180V ~ 260V (UPS RANGE) \pm 5V					
Input Voltage Frequency		50Hz \pm 10%					
Output Waveform		PURE SINEWAVE on Backup Mode (Battery / Solar)					
Parameters Configurable from LCD		Factory Setting				Variable Range	
Grid Charging Boost Voltage Each Battery		14.4V				13.8V - 15V	
Battery Low Cut Voltage Each Battery		10.6V				10.4V - 11.5V	
Solar battery Low Cut Voltage Each Battery		12V				11.5V - 12.5V	
Solar Charging Current		30A				5A - 50A	
Grid Charging Current		15A				5A - 18A	
Recommended Battery Charging Voltage	SMF/GEL	13.8V - 14.0V					
	TUB	14V - 14.4V					
Grid Reconnect Voltage Range	SMF/GEL	12.0V - 12.2V					
	TUB	11.5V - 12.5V					
Changeover Time		\leq 10 Milliseconds on UPS Mode and \leq 30 Milliseconds on Normal Mode					
Output Voltage		220V \pm 10V No load to Full load.					
Battery Low Response		Battery low shutdown after 4 times auto retries with alarms.					
Overload Response		Battery low shutdown after 6 times auto retries with alarms.					
Protections		Output Over Load / Battery Low / Battery Rev. Polarity / Battery Over Discharge / Output Short Circuit / Reverse Phase / Over Heating / Reverse Solar PV					
LED & Switches		System on / UPS Mode on / Solar Priority mode / SMF-Tubular Battery Charging					
Display		Input Voltage / Solar On / PV Voltage / PV Current / PV Reverse / Solar kWh / Battery Voltage / Output Voltage / Overload / UPS ON / Load % & Actual Watt / Short Circuit / Thermal Trip / Battery Loose Connection / Fuse Blown					
Operating Temperature		0-50°C					
Cooling		Fan					
Max. Relative Humidity @ 25°C (Non Condensing)		95%					
Noise @ 1meter		50db					
Standard Compliance		IP20					

Solar Inverter Operating Mode

Hybrid Mode	PCU Mode Light	PCU Mode Ultra
This mode recommended where power cut is for very long duration of time. (More than 10 Hrs)	This mode is recommended where Power cut is moderate. (4-5 Hrs)	This mode is recommended where Power cut is very less. (Less than 2 Hrs)

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PRODUCT RANGE
1000VA - 10000VA



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