



**SURJA**  
THE POWER OF FUTURE

700-10 KVA  
Solar PCU

Genus Surja 3-in-1 solar power conditioning unit powered with advance DSP technology provides uninterrupted power round the clock. This modern machine maximizes the use of Solar energy and harnesses it to power your homes and offices.

This 3-in1 device works as an inverter, a Solar Inverter and hybrid inverter and keeps your appliances working all the time.

Surja has been designed to prioritize the Solar over other electricity supply and to keep the load running and batteries charged all the time. It delivers high efficiency while charging the batteries from Solar and reduces your electricity bills.

Lower Your dependency on conventional fuel by switching to Surja – Solar PCU and contribute towards a Greener Environment.

**Features:**

- Normal + Solar + Hybrid Inverter
- Energy Saver Mode
- In-Built PWM Solar Charge Controller  
Upto 30 Amp

- Multi-Information Graphical /  
LCD Display Panel
- DSP Based Technology
- Remote Monitoring (Optional)

“More than  
an Inverter”



TECHNICAL SPECIFICATION							
<b>MODEL</b>	700	900	1500	2500	3500	5000	10000
System Rating(VA/W)	600 VA	800 VA	1400 VA	2.5 KVA	3.5 KVA	5 KVA	10 KVA
<b>Input Parameters</b>							
Nominal Input Battery Voltage	12 V		24 V		48V		96 V 120 V
Main Input Voltage Range (Normal Mode)	100VAC-280VAC ± 15VAC						
Main Input Voltage Range (UPS Mode)	180VAC-265VAC ± 5VAC						
<b>Battery Charging</b>							
Grid Charging	13.5 A	15 A					
Solar Charging Current	Peak charging current 30A						
<b>Switch</b>							
Energy Saver ON Mode	Grid charging stops and system transfer to back-up mode when battery bank reaches in float condition if Solar available			Grid charging stops and system transfer to back-up mode when battery bank reaches in float condition if Solar available			
Energy Saver OFF Mode	NA			Grid by-pass to load when battery bank reaches in float condition (Normal Operation)			
<b>Grid Charging ON/OFF Mode</b>							
Grid Charging On Mode	NA			When Switch is ON Charging through Grid is On			
Grid Charging Off Mode	NA			When Switch is OFF Charging through Grid Stops			
<b>Output Parameters</b>							
Wave Form Type	Sure Sine Wave						
Output Voltage Regulation	200VAC ± 10%				210VAC ± 10%		
Output Frequency	50Hz±0.5Hz						
Peak Efficiency (with linear load)	>73%	>78%	>80%	>83%	>90%		
Distortion (THD)	< 3 % on linear load			≤5% on linear load			
Overload Protection	Provided at >100% with Auto reset			Provided at >110% with manual reset			
Low Battery Protection	10.4±0.2V Provided at ≤10.4V (per battery) with manual reset						
Short circuit Protection	Provided at ≥300% with manual reset						
Over Temperature Protection	Provided at ≥ 85 °C			Provided at ≥ 90 °C			
<b>Change Over Time</b>							
In UPS Mode	≤ 12 millisecond						
In Normal Mode	≤ 50 millisecond						
<b>Battery Parameter (Per Battery)</b>							
Boost Voltage	14.4V±0.2V/Battery						
Float Voltage	13.5V±0.2V /Battery						
Low Battery Cut	10.4V±0.2V/Battery						
Battery Type	12V/ 150 AH to 300 AH						
<b>Solar Charge Controller</b>							
Type	PWM Based						
Maximum I/P PV Voltage Voc	21VDC± 1V	42VDC± 2V	84VDC± 4V		168VDC± 8V	210VDC± 10V	
Maximum Solar Array (W)	525 W	1200 W	2400 W		5000W	10500W	
Charger Efficiency	Upto 97%						
PV Voltage Low	<17	<34	<67		<135		
PV Voltage High	>23	>45	>90		>180		
<b>Environment</b>							
Forced Cooling	Through DC Cooling FAN				Through AC Cooling FAN		
Humidity	0-90% non condensing						
Operating & Storage Temperature	0-50 °C						
<b>Display Parameters</b>							
Display Type	LED Display			Back light 16x2 Lines LCD Screen			
Parameters	Solar ON, Mains On/Fuse Blown Indication, Battery Charging / Charged, Back-up Mode, Low Battery Protection, Overload/Short Circuit Protection			Solar ON/OFF, Switch On/Off, Main On/Off, Main MCB Trip, Load Level Graph, PV Current & Voltage, Warnings & Protections, System Capacity, Energy Saver Mode On/Off, UPS/Normal Mode Status Etc			
<b>Connectivity</b>	NA			Optional SNMP / RS232			

## Other Products & Solutions:

- ▶ On-Grid & Off-Grid Power Packs  
1KW-500KW
- ▶ Solar PV Panels  
40Wp-310Wp
- ▶ MPPT Solar Charge Controller  
12V-96V (25A / 45A / 60A)
- ▶ Solar EPC Solutions
- ▶ Solar Water Power Pumping System  
1-10HP
- ▶ Solar Hybrid Power Packs  
1KW-100KW
- ▶ Net Metering Solutions



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