Experience the magic of the sun

V-Guard Solar Power Systems

Celebrating 47 years

V-GUARD


V-GUARD
V-GUARD

COMPANY INTRODUCTION

The origin of V-Guard dates back to 1977, when Mr. Kochouseph Chittilappilly, with a burning passion to make a difference, set out to build a robust brand in the Indian electrical and electronic goods market. With a small manufacturing unit for voltage stabilizers, a vision and a strong make-do belief, apart from a capital of INR 100,000 that he borrowed from his father and two workers to assist him, he set to sail on his dream. Within a short span of time, V-Guard grew rapidly to become a name synonymous with voltage stabilizers across South India. In the year 2012, he passed the baton on to his son Mr. Mithun K Chittilappilly who took over as the Managing Director of the company. The company grew rapidly expanding its presence across India as well as its portfolio with a range of products to include Inverter and Inverter Batteries, Electric Water Heaters, Solar Water Heaters, Pumps & Motors, Domestic Switch Gears, Distribution Boards, Wiring Cables, Induction Cooktops, Mixer Grinders, Fans, Gas Stoves, Rice Cookers, Modular Switches, Air Coolers, Breakfast Appliances, Chimneys and Water Purifiers. In less than four decades, V-Guard earned a reputation of solidity and reliability for designing and manufacturing products that are built to last! Being rooted in solidity is only the beginning, something we are proud of but a glory we cannot bask in. Because there is so much more to achieve in a world in which the meaning of a better quality of life is being redefined every day, fuelling greater expectations from the tools that enable a better quality of life.

V-Guard has embarked on a series of transformational exercises across the value chain including customer service, supply chain management functions, ushering in a paradigm shift in sales & marketing and quality-first processes across the organisation, to serve customers better and enhance their delight. V-Guard's new vision will continue to drive more technologically driven smart products for the next decade and beyond, enabling a seamlessly connected world. V-Guard is armed with a vast network of distributors, direct dealers, retailers and service centres in its endeavour to reach every nook and corner of the country.

SOLAR POWER SYSTEM

V-Guard's range of Solar Power Systems are the perfect choice for you if you are looking for a safe, powerful and reliable source of energy. Solar Power Systems i.e. setups made up of photovoltaic or PV Modules, an inverter unit and battery, does the job of effectively converting sunlight into electricity. There are 29 models under this product combination, further comprising of Sine Wave and Square Wave. The key difference between them lies in the inverter output that these two differentiators deliver. Why go for solar? The answer is simple: the sun's rays can be harvested for energy over and over again without depleting the source. By providing more energy and lasting longer than other brands, V-Guard Solar Power Systems are the best choice for cutting your carbon footprint down to size. When you invest in a Solar Power System, you are essentially purchasing 25 to 30 years of electricity at today's price. So, invest in a V-Guard Solar Power System and experience the infinite power of the sun!

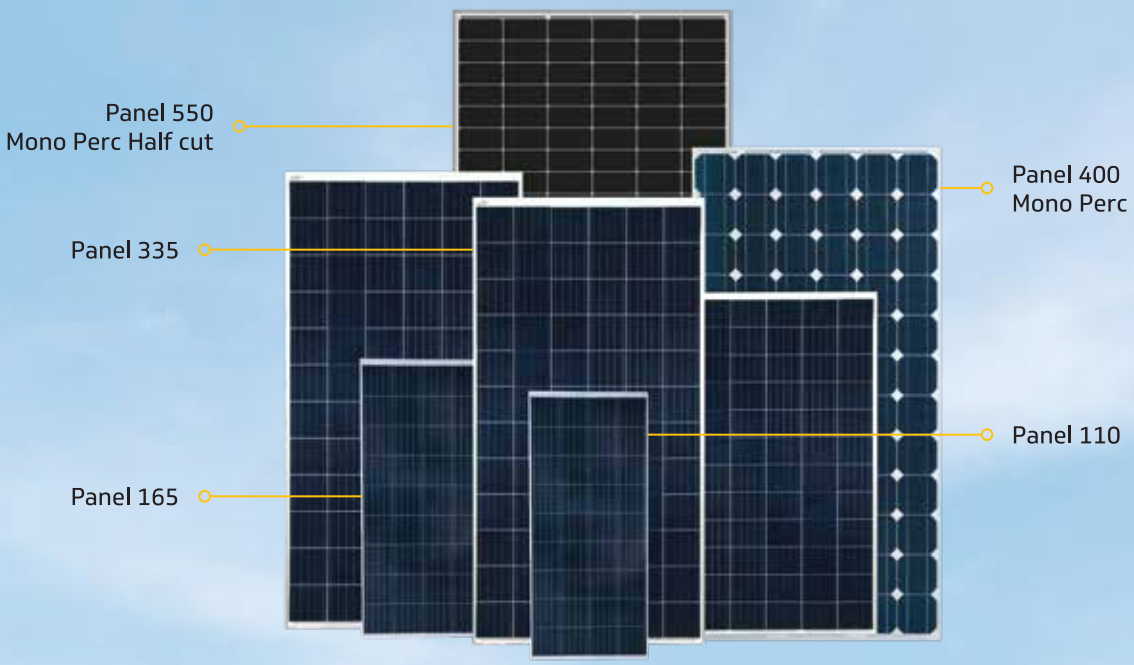
DISCLAIMER:
We undertake to repair this PV Module free of cost for a period of 25* years from the date of purchase against any manufacturing defects and the performance warranty is not less than 90% output at the end of 10 years and 80% at the end of 25 years from the date of purchase. **Manufacturer warranty for panels 110 & 160 is 5 years & performance warranty is 25 years.

1.SOLAR PANELS

1.1 SOLAR PV PANELS - POLYCRYSTALLINE

V-Guard's Solar Photovoltaics (often abbreviated as PV) Panels harnesses the sun's energy directly and effectively. Without causing any pollution or noise, these panels convert the incident solar radiation into electricity. The high transmittance and low iron tempered glass with anti-reflective coating will catch and absorb light immediately and effectively.

These reduces carbon emission as well as your electricity bill. With a warranty of 25 years*, the decision to switch to solar energy is as easy as it gets and so worth it. In a few words, these panels are robust, reliable, effective and so much more!



DISCLAIMER:
We undertake to repair this PV Module free of cost for a period of 10 years from the date of purchase against any manufacturing defects and the performance warranty not less than 90% output at the end of 10 years and 80% at the end of 25 years from the date of purchase. (Manufacturer warranty for panels 110 & 165 - 5 years & performance warranty - 25 years)

FEATURES

- Manufactured using exceptional quality long-lasting Polycrystalline cells.
- Worry-free investment with 25 years warranty.*
- Aesthetically and functionally designed to suit residential, commercial and industrial applications.
- High transmittance and low iron tempered glass with anti-reflective coating to catch and absorb light immediately and effectively.
- Outstanding performance even in low-light environments like cloudy mornings, late evenings etc.
- Can withstand even high wind pressures and heavy snow falls.
- Perfectly suitable for coastal areas as well.
- Flexible yet supremely sturdy and durable.
- Certified by Bureau of Indian Standards (BIS).

25 YEARS WARRANTY | ABSORBS LIGHT IMMEDIATELY | REDUCES CARBON EMISSION | PERFORMS EVEN IN LOW-LIGHT | MADE TO LAST | CERTIFIED BY Bureau of Indian Standards

SOLAR PANEL ELECTRICAL AND MECHANICAL CHARACTERISTICS

Sl.No.	Model Name	Panel 110	Panel 165	Panel 335
1	Wattage (Wp)	110 Wp	165 Wp	335 Wp
2	Module Efficiency	Up to 16.6%	Up to 16.2%	Up to 17.0%
3	Operating Voltage	12 Volt	12 Volt	24 Volt
4	Panel Technology	Polycrystalline	Polycrystalline	Polycrystalline
5	Voltage at Max Power, Vmp (V)	18.4	18.75	36.8
6	Current at Max Power, Imp (A)	6.0	8.53	8.97
7	Open Circuit Voltage, Voc (V)	22.78	22.8	45.3
8	Short Circuit Current, Isc (A)	6.4	9.1	9.52
9	Number of Cells	36	36	72
10	Maximum System Voltage (VDC)	1000 Volt	1000 Volt	1500 Volt
11	Space Requirement	7.1 sq. ft.	10.6 sq. ft.	20.8 sq. ft.
12	Manufacturer Warranty	5 years on Manufacturing Defects	5 years on Manufacturing Defects	10 years on Manufacturing Defects
13	Performance Warranty	25 years	25 years	25 years
14	Weight	7.5 kg	10.6 kg	22 kg
15	Length X Width X Thickness (L X W X T) mm	995 X 665 X 34	1485 X 665 X 34	1960 X 990 X 35

SOLAR PANEL ELECTRICAL AND MECHANICAL CHARACTERISTICS

ELECTRICAL DATA		
Module	540 W	550 W
Type	24 V	24 V
Peak Power Watts (Pmax)	540	545
Maximum Power Voltage (Vmp)	41.86	42.45V
Maximum Power Current (Imp) (A)	12.91	12.85
Open-circuit Voltage (Voc)	49.78	49.45
Short circuit Voltage (Isc) (A)	13.53	13.51
Maximum System Voltage (V)	1500 V	1500 V
Module Efficiency (%)	20.94%	21.10%
Operating Temperature (°C)	-40 to 85	-40 to 85
Maximum Series Fuse Rating	25A	25A
MECHANICAL DATA		
WP	540 W	545 W
Cell Type	Monoperc Half cut DCR	Monoperc Half cut
Cell Arrangement	144 (12x6/12x6)	144 (12x6/12x6)
Dimensions (L *D* H)	2278 x 1133 x 40	2278 x 1133 x 40
Weight [kg]	28.6	28.6
Cable (mm)	4mm² & 400 mm	4mm² & 400 mm
Area (m²)	2.58	2.58
Front Cover	ARC coated low iron tempered glass (3.2 mm thick)	Low iron tempered glass (3.2 mm thick)
Frame Material	Anodized aluminium alloy (6005, temper T6, silver color)	Anodized aluminium alloy (6063, temper T5, silver color)
Junction Box	IP 68	IP 68
TEMPERATURE CHARACTERISTICS		
Specification	Data	Data
Temperature Co-efficient (Pmax)	-0.33%0C	-0.33%°C
Temperature Co-efficient (Voc)	-0.24% 0C	-0.24% °C
Temperature Co-efficient (Isc)	0.02%0C	0.03%°C
Nominal Operating Cell Temperature	45±20C	45±2°C

DISCLAIMER: We undertake to repair this PV Module (270wp and above) free of cost for a period of 10 years from the date of purchase against any manufacturing defects and the performance warranty is not less than 90% output at the end of 10 years and 80% at the end of 30 years from the date of purchase.

2. SOLAR OFF-GRID HYBRID SOLAR INVERTER

V-Guard's solar off-grid systems with batteries are made to work effectively and last for years to come. Leading-edge technology has enabled us to make this product combination function impressively and smoothly for a very long time. Designed with utmost attention to detail and functionality, they will generate enough power throughout the years. The battery capacity can meet many requirements, even during winter when there is generally much less sunlight.

These product combinations can be classified into two series: Solsmart Series and Nextgen Series based on their different offerings and uses.

2.1 SOLSMART SERIES

V-Guard Smart Series of Solar Hybrid Solar Inverter is an innovation marvel of the solar industry. The V-Guard Smart Solar Inverter Series has many advanced features that you can control through your mobile phone with the V-Guard Smart app.

SOLAR OFF-GRID HYBRID SOLAR INVERTER

SOLSMART 1250

Capacity	: 800 VA/640 W
Input Voltage Range	: Nor:- 90 – 290 V / UPS:- 180 – 260 V / Eqp :- 140 – 290 V
Output Waveform	: Pure Sine wave
Compatible Battery	: 12 V, 80 AH to 230 AH
Max. Panel Capacity	: 25 VOC, 800 Wp, 40 A
Connectivity	: Bluetooth/Wi-Fi
Application	: LED TV (up to 140 cm), Fan, CFL, Tube light, EESL LED Bulb, Mixer (up to 500 Watts), Cooler (up to 300 Watts) etc.

SOLSMART 1450

Capacity	: 1000 VA/800 W
Input Voltage Range	: Nor:- 90 – 290 V / UPS:- 180 – 260 V / Eqp :- 140 – 290 V
Output Waveform	: Pure Sine wave
Compatible Battery	: 12 V, 80 AH to 230 AH
Max. Panel Capacity	: 25 VOC, 800 Wp,40 A
Connectivity	: Bluetooth/Wi-Fi
Application	: LED TV (up to 140 cm), Fan, CFL, Tube light, EESL LED Bulb, Inverter Fridge (up to 300 L), 0.5Hp self-prime Pump, Cooler (up to 300 Watt), Mixer (up to 750 watts), Kitchen Chimney etc.

SOLSMART 1750

Capacity	: 1450 VA/1160 W
Input Voltage Range	: Nor:- 90 – 290 V / UPS:- 180 – 260 V / Eqp :- 140 – 290 V
Output Waveform	: Pure Sine wave
Compatible Battery	: 24 V, 80 AH to 230 AH
Max. Panel Capacity	: 42-50 VOC, 1320 Wp, 25A
Connectivity	: Bluetooth/Wi-Fi
Application	: LED TV (up to 140 cm), Fan, CFL, Tube light, EESL LED Bulb, Mixer, Cooler, Fridge etc.

Wi-Fi & BLUETOOTH CONNECTIVITY

VOICE CONTROL

IoT CLOUD INFRASTRUCTURE FOR ENHANCED APP EXPERIENCE

SUITABLE FOR ALL WEATHER CONDITIONS

SOLSMART 2750

Capacity	:	2200 VA/1750 W
Input Voltage Range	:	Nor:- 90 – 290 V / UPS:- 180 – 260 V / Eqp :- 140 – 290 V
Output Waveform	:	Sine wave
Compatible Battery	:	24V, 100 AH to 250 AH
Max. Panel Capacity	:	35-50 VOC, 1620 Wp
Connectivity	:	Bluetooth/Wi-Fi
Application	:	Fan, CFL, Tube Light, EESL LED Bulb, TV, Iron Box, Refrigerator, Cooler, Mixer Grinder, Self prime Pump set -1 Hp, Geyser - 1 kW, Inverter AC - 0.75 Ton, Semi-Automatic Washing Machine (up to 1200 W), Oxygen Concentrator 10-15 L.
Net Weight	:	19.8 Kg

SOLSMART 3750

Capacity	:	3200 VA/2550 W
Input Voltage Range	:	NOR: 90-290 V / EQP: 140-260 V / UPS: 180-260 V
Output Waveform	:	Sine Wave
Compatible Battery	:	12 V, 80 Ah to 230 Ah, Lead Acid (3 Nos.)
Max. Panel Capacity	:	60 to 85 VOC, 2160 Wp
Application	:	Fan, CFL, Tube Light, EESL LED Bulb, TV, Iron box, Refrigerator, Cooler, Mixer Grinder, Pump set - 0.75Hp, Geyser - 1.5 kW, Dishwasher 2 kW, Induction Cooktop -1.2 kW, Inverter AC - 1.5 Ton, Automatic Washing Machine (up to 1600 W), Oxygen Concentrator 10-15 L.

SOLSMART 4750

Capacity	:	4200 VA/3350 W
Input Voltage Range	:	Nor:- 90 – 290 V / UPS:- 180 – 260 V / Eqp :- 140 – 290 V
Output Waveform	:	Sine wave
Compatible Battery	:	48V, 100 AH to 250 AH
Max. Panel Capacity	:	70-100 VOC, 3300 Wp
Connectivity	:	Bluetooth/Wi-Fi
Application	:	Fan, CFL, Tube Light, EESL LED Bulb, TV, Iron Box, Refrigerator, Cooler, Mixer Grinder, Pump set - 1.5 Hp*, Geyser - 2 kW, Dishwasher 2 kW, Induction Cooktop - 1.5 kW, Inverter AC - 1.5 Ton, Automatic Washing Machine (up to 2500 W), Oxygen Concentrator 10-15 L.
Net Weight	:	30 K

SOLSMART 6750

Capacity	:	5600VA / 4500W
Input Voltage Range	:	Nor:- 90-290V/UPS-180-260V/EQP:140-260V
Output Waveform	:	Sine wave
Compatible Battery	:	96V,135 to 230 AH
Max. Panel Capacity	:	150 - 165 VOC,5000 Wp
Connectivity	:	Bluetooth/Wi-Fi
Application	:	Fan, CFL, Tube Light, EESL LED Bulb, TV, Iron box, Cooler, Refrigerator, Mixer Grinder, Desktop Computer, Laser Printer, Playstation, Oxygen Concentrator (upto 10 - 15L)., Pump set - 1Hp / Pressure pump, Geyser - 2 kW, Dishwasher - 2kW, Induction Cooktop - 2kW, Inverter AC - upto 2 Ton, Automatic Washing Machine - upto 2500W.
Net Weight	:	60 K

SOLSMART 8750

Capacity	:	7500VA / 6000W
Input Voltage Range	:	Nor:- 90-290V/UPS-180-260V/EQP:140-260V
Output Waveform	:	Sine wave
Compatible Battery	:	120V,135 to 230 AH
Max. Panel Capacity	:	180 - 200 VOC,6600 Wp
Connectivity	:	Bluetooth/Wi-Fi
Application	:	Fan, CFL, Tube Light, EESL LED Bulb, TV, Iron box, Cooler, Refrigerator, Mixer Grinder, Desktop Computer, Laser Printer, Playstation, Oxygen Concentrator (upto 10 - 15L)., Pump set - 1Hp / Pressure pump, Geyser - 2 kW, Dishwasher - 2kW, Induction Cooktop - 2kW, Inverter AC - upto 2 Ton, Automatic Washing Machine - upto 2500W.
Net Weight	:	60 K

Wi-Fi & BLUETOOTH CONNECTIVITY | **VOICE CONTROL** | **IoT CLOUD INFRASTRUCTURE FOR ENHANCED APP EXPERIENCE** | **SUITABLE FOR ALL WEATHER CONDITIONS**

**Free installation applicable only for Synergy Smart and Solsmart Series (monitoring app, solar inverter and battery).

2.4 NEXTGEN PRO SERIES SOLAR HYBRID INVERTERS

The Nextgen Series consists of the true Solar UPS with inbuilt Solar Charger suitable for 500-600 W solar panels and can run appliances like juicer/mixer/grinder etc. These models produce Square Wave output and has two type charging current: Power Saver Max. and Normal Mode to utilise panel power effectively.

NEXTGEN PRO 900

Capacity	: 750 VA/600 W
Input Voltage Range	: NOR: 80-290 V/UPS: 180-260 V
Output Waveform	: Pseudo Sine Wave
Compatible Battery	: 12 V, 80 Ah to 230 Ah, Lead Acid (1 No.)
Max. Panel Capacity	: 25 VOC, 500 Wp
Application	: Fan, CFL, Tube Light, EESL LED Bulbs, Mixer (up to 450 W), Room Cooler (upto 180 W), LED TV (up to 109 cm).

NEXTGEN PRO 1200

Capacity	: 900 VA/720 W
Input Voltage Range	: NOR: 80-290 V/UPS: 180-260 V
Output Waveform	: Pseudo Sine Wave
Compatible Battery	: 12 V, 80 Ah to 230 Ah, Lead Acid (1 No.)
Max. Panel Capacity	: 25 VOC, 550 Wp
Application	: Fan, CFL, Tube Light, EESL LED Bulbs, Mixer (up to 600 W), Room Cooler (up to 250 W), LED TV (up to 124 cm)

NEXTGEN PRO 1400

Capacity	: 1100 VA/880 W
Input Voltage Range	: NOR: 80-290 V/UPS: 180-260 V
Output Waveform	: Pseudo Sine Wave
Compatible Battery	: 12 V, 80 Ah to 230 Ah, Lead Acid (1 No.)
Max. Panel Capacity	: 25 VOC, 640 W
Application	: Fan, CFL, Tube Light, EESL LED Bulbs, Mixer (up to 900 W), Room Cooler (up to 250 W), LED TV (up to 140 cm)

RUNS APPLIANCES LIKE MIXER GRINDERS, ROOM COOLERS

SOLAR + GRID CHARGING WITH SOLAR PRIORITY

CHARGES BATTERY SUPER FASTLY & POWERFULLY

BATTERY WATER TOPPING REMINDER

BATTERY GRAVITY BUILDER

*Free installation includes App training, panel & battery installation only. Civil works, lifting charges, earthing, electrical wiring etc. will be done by customers or dealers.

3.1 SOLSMART 1500 MPPT 12V

Sl. No	Specification	Values
1	Power Rating (VA / W)	1000VA / 800W
2	Nominal Output Voltage at No Load in Normal Mode, (Before Solar Connected)	240V ± 5VAC
3	Nominal Output Voltage at No Load in Power Saver Mode	220V ± 5VAC
4	Nominal Output Voltage at No Load in UPS Mode	230V ± 5VAC
5	Nominal Output Voltage at No Load in High Performance Mode(Select through mobile APP.)	240V ± 5VAC
6	Output Waveform (Backup Mode)	Pure Sinewave
7	Output Frequency (Backup Mode)	50Hz ± 0.5Hz (In Normal / UPS Mode)
8	Normal Mode Mains Input Range in system ON Mode	90V - 290VAC + 10V, 40Hz - 57Hz
9	UPS Mode Mains Input Range in System ON Mode	180V - 260VAC + 6V, 46Hz - 54Hz
10	EQP Mode Mains Input Range in System ON Mode	140V - 260VAC + 10V, 46Hz - 54Hz
11	Output Voltage (ON Mains Mode)	Same as Input Voltage
12	UPS Mode Transfer Time in System ON Mode	UPS mode < 10mSec
13	Nominal Voltage, Recommended Battery	12V, 80Ah to 230Ah, Lead Acid (1 No. Only) / Lithium battery compatible.
14	Charging Current in Normal Charging Mode at 230V	10A ± 1.5A DC (Thru Charging Selection Switch)
15	Charging Current in High Charging Mode at 230V	15A ± 1.5A DC (Thru Charging Selection Switch)
16	Protections in Backup & Mains Mode	Input mains voltage low / high cut off, Input mains frequency low / high cut off, Over temperature, Battery over charging, Feedback open, Drain and feed back wire reverse
17	Generator Compatibility	Provided
18	Warranty	24 Months
19	Solar PV Maximum Voltage	50V
20	Solar PV Maximum Current	20A ± 2.0A
21	Solar PV Maximum Wattage	1000W
22	Applications	Fan, EESL LED Bulb, CFL, Tube Light, Desktop Computer,DeskJet Printer, Playstation, Oxygen Concentrator - 5L.LED TV (Upto 55"), Mixer (Upto 750W), Room Cooler ,(Upto 250W), Inverter Refrigerator (Upto 320 L),Sound bar / Speaker system, 0.75 HP Monoblock Self Prime Pump, Kitchen Chimney (Upto 1200 m3/hr),2 Wheeler EV charger(Upto 350W).

3.2 SOLSMART 2500 MPPT 24V

Sl. No	Specification	Values
1	Power Rating (VA / W)	2000VA / 1600W
2	Nominal Output Voltage at No Load in Normal Mode, (Before Solar Connected)	240V ± 5VAC
	Nominal Output Voltage at No Load in UPS Mode at 24V DC	230V ± 5VAC
	Nominal Output Voltage at No Load Power Saver Max Mode at 24V DC	220V ± 5VAC
	Nominal Output Voltage at No Load in EQUIPMENT Mode at 24V DC	230V ± 5VAC
	Nominal Output Voltage at No Load in High Performance Mode (Select through mobile APP.)	240V ± 5VAC
6	Output Waveform (Backup Mode)	Pure Sinewave
7	Output Frequency (Backup Mode)	50Hz ± 0.5Hz (In Normal / UPS Mode)
8	Normal Mode Mains Input Range in system ON Mode	90V - 290VAC± 10V, 40Hz - 57Hz
9	UPS Mode Mains Input Range in System ON Mode	180V - 260VAC + 6V, 46Hz - 54Hz
10	EQP Mode Mains Input Range in System ON Mode	140V - 260VAC ±10V, 46Hz - 54Hz
11	Output Voltage (ON Mains Mode)	Same as Input Voltage
12	UPS Mode Transfer Time in System ON Mode	UPS mode < 10mSec
13	Nominal Voltage, Recommended Battery	25.6V, 80Ah to 165Ah, Li-Ion (1 No) / 12V, 80Ah to 230Ah, Lead Acid (2 No. Only)
14	Charging Current in Normal Charging Mode at 230V (For Tubular, Flat plate & Local Battery)	12A ± 1.5A DC (Thru Charging Selection Switch)
15	Charging Current in High Charging Mode at 230V(For Tubular, Flat plate & Local Battery)	17A ± 1.5A DC (Thru Charging Selection Switch)
16	Protections in Backup & Mains Mode	Input mains voltage low / high cut off, Input mains frequency low / high cut off, Over temperature, Battery over charging, Feedback open, Drain and feed back wire reverse
17	Generator Compatibility	Provided
18	Warranty	24 Months
19	Solar PV Maximum Voltage	110V
20	Solar MPPT Output Current	65A Max
21	Solar PV Maximum Wattage	2200Wp
22	Applications	Fan, CFL, Tube Light, EESL LED Bulb, LED TV (Upto 65"), Mixer (Upto 1000W**), Room Cooler / Desert Cooler (Upto 90Litre / 300W), Geyser (Upto 1kW),Inverter AC (Upto 1Ton), Inverter Refrigerator (Upto 600 Litres), Sound bar / Speaker System, 1Hp Submersible pump,, Kitchen Chimney (Upto 1200m3/hr), Desktop Computer, DeskJet Printer, Playstation,Oxygen Concentrator-10-15L. EV charger for Car & 2 wheeler(Upto 900W).

3.3 VGS 5500 MPPT 48V

Sl. No	Specification	Values
1	Model Capacity	5350VA
2	Nominal Battery Voltage	48V
AC MAINS MODE		
3	I/P voltage range(Normal Mode)	100V to 290V±10V AC
4	I/P voltage range(UPS Mode)	180V to 270V±10V AC
5	Change Over time maximum(UPS Mode)	≤10mSec
6	Change Over time maximum(Normal Mode)	≤20mSec
7	Charging Current (HC)(Default)	24±1A
8	Boost Charging Voltage per battery	Tubular Battery :14.4±0.2VDC(Default)
		SMF Battery:13.8±0.2VDC
9	Float Charging Voltage per battery	13.7±0.2VDC(Default)
10	Battery Quantity 12V 100Ah-200Ah	4
Battery Backup Mode		
11	Output wave shape	Pure sine wave
12	Output voltage@No load	230V±7 V AC
13	Output Frequency	50Hz±1Hz
14	Battery Low Alarm(VDC)Per Battery (Default)	10.8±0.2VDC
15	Battery Low Cut(VDC)Per Battery (Default)	10.6±0.2VDC
Solar Charger Controller		
16	Solar Charger controller type	MPPT type
17	Solar Battery Charging Current(Default)	40Amp
18	Protection Class	IP 20
19	Alarms	0.5 Sec beep in every 2 seconds- 5 Times
		0.5 Sec beep in every 2 minutes
20	LCD Display	Mains ON, Battery Voltage , Solar Current on load, Solar Current on battery , Time, Solar Available , Solar parameter (special menu), Output load in %, Battery Charging/Discharging (Bar graph), Solar KWH Used, Solar Status , Output Voltage
Solar Charge Controller With Real Time Clock		
21	Charge Controller Type	SINGLE INPUT - INTERLEAVED MPPT
22	Max PV input Power	4900-5360 Watt
23	Max Solar Input Voltage range (Vmpp)	68V-150V
24	Max Solar DC Input Voltage (Voc)	195V
25	Solar Battery Charging Current (settable)	"40 Amps.(default) Setable from 5 to 50 Amps for Battery"
26	Max. Solar Input Current	40 Amp
PROTECTIONS		
27	Over Load Protection with Alarm	Over Load Shut Down After 6 Auto Retries
28	Over Load Shut Down Reset	Through ON/OFF Switch or Mains
29	Battery Low Alarm	10.8± 0.2V (per Battery)
30	Battery Low Protection	Battery Low Shut Down After 4 Auto Retries
31	Battery Low Shut Down Reset	Through ON/OFF Switch , Mains or Solar
32	Over Temperatrure Protection With Alarm	should be OK(95 ± 5 °C);
33	Short Circuit @ Mains Mode	Mains MCB trip
34	Short Circuit Protection (Battery Mode)	Yes
35	Short Circuit Retry (Battery Mode)	One
36	Short Circuit Reset (Battery Mode)	Through ON/OFF Switch or Mains
37	Mains MCB Trip	Functional
38	P.V. Reverse Protection	Available
39	Protections Shows on display	Battery Low , Over load, Over temperature, O/P Short circuit, Mains MCB/Fuse Trip, PV Reverse

3.4 VGS 7500 MPPT 96V

Sl. No	Specification	Values
1	Model Capacity	75000VA
2	Nominal Battery Voltage	96V
AC MAINS MODE		
3	I/P voltage range(Normal Mode)	100V to 290V±10V AC
4	I/P voltage range(UPS Mode)	180V to 270V±10V AC
5	Change Over time maximum(UPS Mode)	≤10mSec
6	Change Over time maximum(Normal Mode)	≤20mSec
7	Charging Current (HC)(Default)	16±1A
8	Boost Charging Voltage per battery	Tubular Battery :14.4±0.2VDC(Default)
		SMF Battery:13.8±0.2VDC
9	Float Charging Voltage per battery	13.7±0.2VDC(Default)
10	Battery Quantity 12V 100Ah-200Ah	8
Battery Backup Mode		
11	Output wave shape	Pure sine wave
12	Output voltage@No load	230V±7 V AC
13	Output Frequency	50Hz±1Hz
14	Battery Low Alarm(VDC)Per Battery (Default)	10.8±0.2VDC
15	Battery Low Cut(VDC)Per Battery (Default)	10.6±0.2VDC
Solar Charger Controller		
16	Solar Charger controller type	MPPT type
17	Solar Battery Charging Current(Default)	40Amp
18	Protection Class	IP 20
19	Alarms	0.5 Sec beep in every 2 seconds- 5 Times
		0.5 Sec beep in every 2 minutes
20	LCD Display	Mains ON, Battery Voltage , Solar Current on load, Solar Current on battery , Time, Solar Available , Solar parameter (special menu), Output load in %, Battery Charging/Discharging (Bar graph), Solar KWH Used, Solar Status , Output Voltage
Solar Charge Controller With Real Time Clock		
21	Solar Charge Controller	MPPT CHARGE CONTROLLER (84A)
22	Charge Controller Type	SINGLE INPUT INTERLEAVED MPPT
23	Max PV input Power	7900-8650 Watt
24	Max Solar Input Voltage range (Vmpp)	136-340V
25	Max Solar DC Input Voltage (Voc)	400V
26	Solar Battery Charging Current (settable)	40 Amps.(default) Setable from 5 to 50 Amps for Battery
27	Solar Input Current	30A
PROTECTIONS		
28	Over Load Protection with Alarm	Over Load Shut Down After 6 Auto Retries
29	Over Load Shut Down Reset	Through ON/OFF Switch or Mains
30	Battery Low Alarm	10.8± 0.2V (per Battery)
31	Battery Low Protection	Battery Low Shut Down After 4 Auto Retries
32	Battery Low Shut Down Reset	Through ON/OFF Switch , Mains or Solar
33	Over Temperatrure Protection With Alarm	should be OK (95 ± 5 °C);
34	Short Circuit @ Mains Mode	Mains MCB trip
35	Short Circuit Protection (Battery Mode)	yes
36	Short Circuit Retry (Battery Mode)	One
37	Short Circuit Reset (Battery Mode)	Through ON/OFF Switch or Mains
38	Mains MCB Trip	Functional
39	P.V. REVERSE PROTECTION WITH ALARM	Available
40	Protections Shows on display	Battery Low , Over load, Over temperature, O/P Short circuit, Mains MCB/Fuse Trip, PV Reverse

3.5 VGS 10000 MPPT 120V

Sl. No	Specification	Values
1	Model Capacity	10KVA
2	Nominal Battery Voltage	120V
AC MAINS MODE		
3	I/P voltage range(Normal Mode)	100V to 280V±10V AC
4	I/P voltage range(UPS Mode)	180V to 260V±10V AC
5	Change Over time maximum(UPS Mode)	≤20mSec
6	Change Over time maximum(Normal Mode)	≤40mSec
7	Charging Current (HC)(Default)	20±1A
8	Boost Charging Voltage per battery	Tubular Battery :14.4±0.2VDC(Default)
		SMF Battery:13.8±0.2VDC
9	Float Charging Voltage per battery	13.7±0.2VDC(Default)
10	Battery Quantity 12V 100Ah-200Ah	10
Battery Backup Mode		
11	Output wave shape	Pure sine wave
12	Output voltage@No load	230V±7 V AC
13	Output Frequency	50Hz±1Hz
14	Battery Low Alarm(VDC)Per Battery (Default)	10.6±0.2VDC
15	Battery Low Cut(VDC)Per Battery (Default)	10.4±0.2VDC
Solar Charger Controller		
16	Solar Charger controller type	MPPT type
17	Solar Battery Charging Current(Default)	40Amp
18	Protection Class	IP 20
19	Alarms	0.5 Sec beep in every 2 seconds- 5 Times
		0.5 Sec beep in every 2 minutes
20	LCD Display	Mains ON, Battery Voltage , Solar Current on load, Solar Current on battery , Time, Solar Available , Solar parameter (special menu), Output load in %, Battery Charging/Discharging (Bar graph), Solar KWH Used, Solar Status , Output Voltage
Solar Charge Controller With Real Time Clock		
21	Solar Charge Controller	MPPT CHARGE CONTROLLER (83.5A)
22	Charge Controller Type	SINGLE INPUT-INTERLEAVED MPPT
23	Max PV input Power	9850-11550 Watt
24	Max Solar Input Voltage range (Vmpp)	170-340V
25	Max Solar DC Input Voltage (Voc)	400V
26	Solar Battery Charging Current (settable)	"40 Amps.(default) Setable from 5 to 50 Amps for Battery"
27	Max. Solar Input Current	40A
PROTECTIONS		
28	Over Load Protection with Alarm	Over Load Shut Down After 6 Auto Retries
29	Over Load Shut Down Reset	Through ON/OFF Switch or Mains
30	Battery Low Alarm	10.8± 0.2V (per Battery)
31	Battery Low Protection	Battery Low Shut Down After 4 Auto Retries
32	Battery Low Shut Down Reset	Through ON/OFF Switch , Mains or Solar
33	Over Temperatrure Protection With Alarm	should be OK (90 ± 5 °C);
34	Short Circuit @ Mains Mode	Mains MCB trip
35	Short Circuit Protection (Battery Mode)	yes
36	Short Circuit Retry (Battery Mode)	One
37	Short Circuit Reset (Battery Mode)	Through ON/OFF Switch or Mains
38	Mains MCB Trip	Functional
39	P.V. REVERSE PROTECTION WITH ALARM	Available
40	Protections Shows on display	Battery Low , Over load, Over temperature, O/P Short circuit, Mains MCB/Fuse Trip, PV Reverse

4. SOLAR CHARGE CONTROLLER

SPECIFICATIONS OF 10A PWM SOLAR CHARGE CONTROLLER	
Parameters	**Description**
Model	SCC 12-24V/10A
Display indications	LCD
Rated Battery Voltage	12/24V
Rated charging current	10A
Max. PV voltage	PV <25 V (12V), PV <50 V (24V)
Max. PV input power	130W(12V) / 260W(24V)
Rated discharge current	10A
Battery types	Lead-acid battery,Ternary lithium battery & Lithium iron phosphate battery.
Stand by current	<10mA
Operating temperature (0C)	* - 35 ~ +60
USB output	2 USB output ,(5V, 2A Max.)
Size(mm)	133 x 70 x 35
Weight (g)	132

SPECIFICATIONS OF 20A PWM SOLAR CHARGE CONTROLLER	
Parameters	**Description**
Model	SCC 12-24V/20A
Display indications	LCD
Rated Battery Voltage	12/24V
Rated charging current	20A
Max. PV voltage	PV <25 V (12V), PV <50 V (24V)
Max. PV input power	260W(12V) / 520W(24V)
Rated discharge current	10A
Battery types	Lead-acid battery,Ternary lithium battery & Lithium iron phosphate battery.
Stand by current	<10mA
Operating temperature (0C)	* - 35 ~ +60
USB output	2 USB output ,(5V, 2A Max.)
Size(mm)	133 x 70 x 35
Weight (g)	132

5. SOLAR INVERTER BATTERIES

V-GUARD SOLAR INVERTER BATTERIES

V-Guard Solar Tubular Battery is one of the best quality solar batteries available in the market. V-Guard batteries are manufactured in top-class battery factory with sophisticated & imported machines. V-Guard Battery has special antimony selenium alloy with spines casted in high pressure die casting machine to ensure high cyclic life and use of high purity lead ensures very low self-discharge and it requires very low maintenance.

Strict Manufacturing process controls, usage of high purity raw materials and special paste formulation results in battery to deliver a larger amount of consistent, reliable power, increased efficiency and life span. V-Guard Solar battery has better charge acceptance which will help in faster charging.

SPST15060-150 Ah C10

72 MONTHS WARRANTY

SPST665-152 Ah COMPATIBLE-C10

60 MONTHS WARRANTY

SPST20036-200 Ah C10

60 MONTHS WARRANTY

SPST20060-200 Ah C10

72 MONTHS WARRANTY

SPST10060-100 Ah C10

90 MONTHS WARRANTY

SPST4036-40 Ah C10

60 MONTHS WARRANTY

SPST7536-75 Ah C10

60 MONTHS WARRANTY

SALIENT FEATURES

- Specially designed for Solar Photo Voltaic application.
- High Pressure (>100 bar) Casted Positive Spines - free from blow holes and finer grain structure.
- Excellent performance in wide ambient conditions.
- Ready to use.
- Most suitable and reliable in deep cyclic application.
- Better performance in partial state of charge.
- Rugged construction of Tubular Positive Plates ensure longer life & better performance.
- Least gas generation and low maintenance.
- Less internal resistance.
- Faster charging as it has better charge acceptance.
- V-Guard Solar Battery meets IS16270 & IEC 61427 specification.

SL. NO.	MODEL	BATTERY LENGTH (±3 MM)	BATTERY WIDTH (±3 MM)	BATTERY HEIGHT (±3 MM)	BATTERY FILLED WEIGHT (KG±5%)	GROSS WEIGHT (KG±5%)	ACID VOLUME (±2L)	SPECIFIC GRAVITY OF ELECTROLYTE AT FULL CHARGE (G/CC)	MULTI-COLOURED CARTON	DIMENSION OF CARTON (±3 MM)	STANDARD WARRANTY	PRO-RATED WARRANTY
1	SPST15060	505 mm	190 mm	415 mm	57 kg	58.5 kg	20.4 L	1.245 ± 0.005	Yes	530 mm x 215 mm x 480 mm (L X B X H)	60 months	12 months
2	SPST665	505 mm	190 mm	415 mm	54 kg	56 kg	20 L	1.245 ± 0.005	Yes	530 mm x 215 mm x 480 mm (L x B x H)	36 months	24 months
3	SPST20036	505 mm	190 mm	415 mm	63 kg	64.5 kg	21 L	1.245 ± 0.005	Yes	530 mm x 215 mm x 480 mm (L x B x H)	36 months	24 months
4	SPST20060	505 mm	190 mm	415 mm	65 kg	66 kg	19 L	1.245 ± 0.005	Yes	530 mm x 215 mm x 480 mm (L X B X H)	60 months	12 months
2	SPST4036	412 mm	174 mm	240 mm	22 kg	22.8 kg	7.8 L	1.245 ± 0.005	Yes	425 mm x 190 mm x 265 mm (L X B X H)	36 months	24 months
3	SPST7536	412 mm	176 mm	280 mm	29.5 kg	30.3 kg	10.2 L	1.245 ± 0.005	Yes	425 mm x 190 mm x 310 mm (L X B X H)	36 months	24 months
4	SPST1006	505 mm	190 mm	415 mm	52.5 kg	54 kg	21.5 L	1.245 ± 0.005	Yes	520 mm x 205 mm x 470 mm (L X B X H)	60 months	30 months

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