

# Experience the magic of the sun

V-Guard Solar Power Systems



ON-GRID  
SOLAR  
ROOFTOP  
SYSTEM



SOLAR  
OFF-GRID  
POWER  
SYSTEM



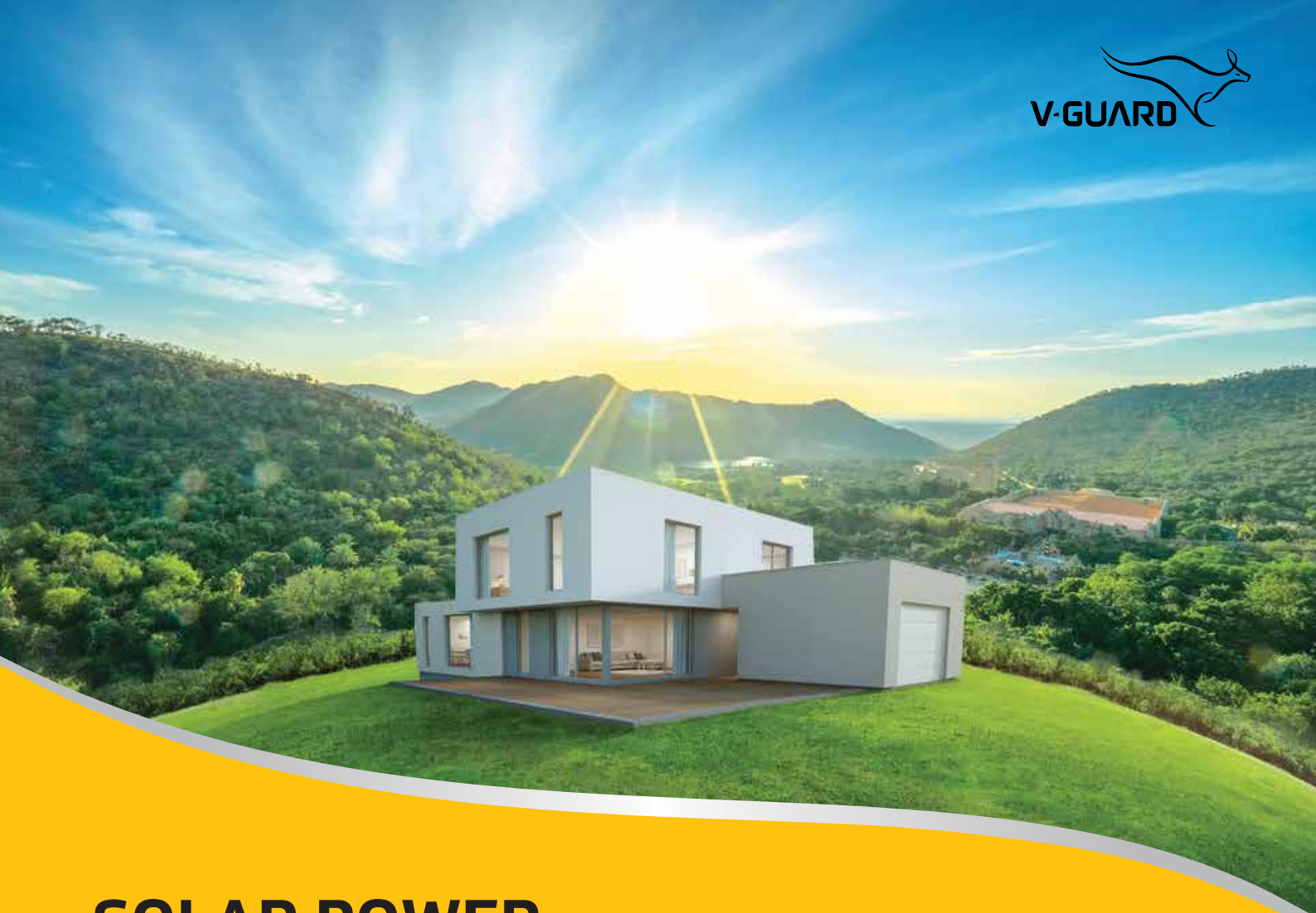
V-GUARD 



  
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:**

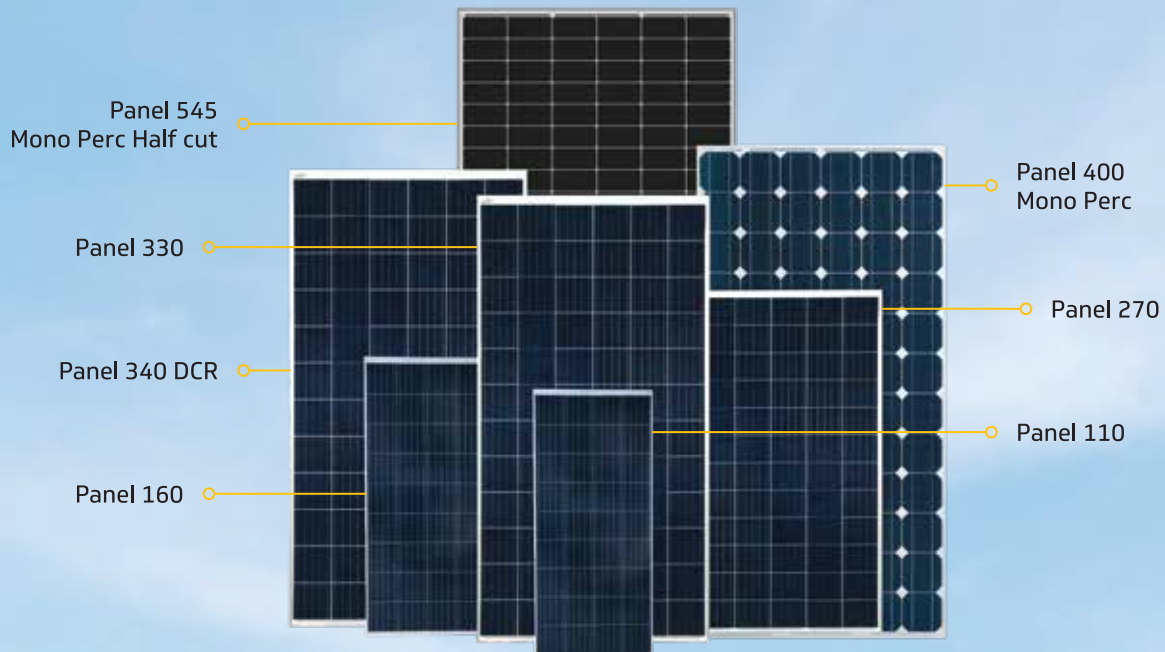
We undertake to repair this PV Module free of cost for a period of 25\* years from the date of purchase against any manufacturing defects and the performance warranty is not less than 90% output at the end of 10 years and 80% at the end of 25 years from the date of purchase. \*\*Manufacturer warranty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



## SOLAR PANEL ELECTRICAL AND MECHANICAL CHARACTERISTICS

Sl.No.	Model Name	Panel 110	Panel 160	Panel 270	Panel 330
1	Wattage (Wp)	110 Wp	160 Wp	270 Wp	330 Wp
2	Module Efficiency	Up to 16.6%	Up to 16.2%	Up to 16.6%	Up to 17.0%
3	Operating Voltage	12 Volt	12 Volt	24 Volt	24 Volt
4	Panel Technology	Polycrystalline	Polycrystalline	Polycrystalline	Polycrystalline
5	Voltage at Max Power, Vmp (V)	18.4	18.75	31.3	36.8
6	Current at Max Power, Imp (A)	6.0	8.53	8.63	8.97
7	Open Circuit Voltage, Voc (V)	22.78	22.8	38.35	45.3
8	Short Circuit Current, Isc (A)	6.4	9.1	9.2	9.52
9	Number of Cells	36	36	60	72
10	Maximum System Voltage (VDC)	1000 Volt	1000 Volt	1500 Volt	1500 Volt
11	Space Requirement	7.1 sq. ft.	10.6 sq. ft.	17.4 sq. ft.	20.8 sq. ft.
12	Manufacturer Warranty	5 years on Manufacturing Defects	5 years on Manufacturing Defects	10 years on Manufacturing Defects	10 years on Manufacturing Defects
13	Performance Warranty	25 years	25 years	25 years	25 years
14	Weight	7.5 kg	10.6 kg	18 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	1640 X 990 X 35	1960 X 990 X 35

## SOLAR PANEL ELECTRICAL AND MECHANICAL CHARACTERISTICS

ELECTRICAL DATA				
Module	340 W	400 W	540 W	545 W
Type	24 V	24 V	24 V	24 V
Peak Power Watts (Pmax)	340	400	540	545
Maximum Power Voltage (Vmp)	39.41	41.18	41.86	42.45V
Maximum Power Current (Imp) (A)	8.63	9.7	12.91	12.85
Open-circuit Voltage (Voc)	45.94	48.67	49.78	49.45
Short circuit Voltage (Isc) (A)	9.12	10.13	13.53	13.51
Maximum System Voltage (V)	1500 V	1500 V	1500 V	1500 V
Module Efficiency (%)	17.12%	Up to 21.10%	20.94%	21.10%
Operating Temperature (°C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Maximum Series Fuse Rating	15/A	15A	25A	25A
MECHANICAL DATA				
WP	340 W	400 W	540 W	545 W
Cell Type	Multicrystalline	Mono Crystalline - PERC	Monoperc Half cut DCR	Monoperc Half cut
Cell Arrangement	72 cells (6 x 12)	72 cells (6 x 12)	144 (12x6/12x6)	144 (12x6/12x6)
Dimensions (L *D* H)	1985 x 1000 x 35	1985 x 1000 x 35	2278 x 1133 x 40	2278 x 1133 x 40
Weight [kg]	22.5	22.5	28.6	28.6
Cable (mm)	1200	1200	4mm <sup>2</sup> & 400 mm	4mm <sup>2</sup> & 400 mm
Area (m <sup>2</sup> )	1.98	1.98	2.58	2.58
Front Cover	3.2 mm ARC Glass	3.2 mm Anti Reflective Coated Glass	ARC coated low iron tempered glass (3.2 mm thick)	Low iron tempered glass (3.2 mm thick)
Frame Material	Anodized Aluminium Alloy	Anodized Aluminium Alloy	Anodized aluminium alloy (6005, temper T6, silver color)	Anodized aluminium alloy (6063, temper T5, silver color)
Junction Box	IP 68	IP 68	IP 68	IP 68
TEMPERATURE CHARACTERISTICS				
Specification	Data	Data	Data	Data
Temperature Co-efficient (Pmax)	-0.38%°C	-0.38%°C	-0.33%°C	-0.33%°C
Temperature Co-efficient (Voc)	-0.34% °C	-0.31% °C	-0.24% °C	-0.24% °C
Temperature Co-efficient (Isc)	0.05%°C	0.05%°C	0.02%°C	0.03%°C
Nominal Operating Cell Temperature	45±2°C	45±2°C	45±2°C	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 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  
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SUITABLE FOR ALL  
WEATHER CONDITIONS

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

## 2.2 SOLSMART SOLAR SERIES

### SOLAR OFF-GRID SYSTEM WITH BATTERY & PANEL

Staying true to its name, Synergy Smart is supremely smart, one impressive feature after another. This series produces Sine Wave output resulting in smooth and easy operations.



#### 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.

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 1250 Solar B15060-1N P160-1N	SolSMART 1250x1	SPST15060x1	Panel 160W x 1
SOLSMART 1250 B665-1N P160-1N	SolSMART 1250x1	SPST665x1	Panel 160W x 1



#### 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.

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 1450 Solar B20036-1N P160-1N	SolSMART 1450x1	SPST20036x1	Panel 160W x 1
SOLSMART 1450 Solar B15060-1N P160-1N	SolSMART 1450x1	SPST15060x1	Panel 160W x 1
SOLSMART 1450 B665-1N P160-1N	SolSMART 1450x1	SPST665x1	Panel 160W x 1



#### 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.

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 1750 SOLAR B665-2N P330-1N	SolSMART 1750x1	SPST665x1	Panel 330Wx1
SOLSMART 1750 SOLAR B15060-2N P330-1N	SolSMART 1750x1	SPST15060x1	Panel 330Wx1
SOLSMART 1750 SOLAR B20036-2N P330-1N	SolSMART 1750x1	SPST20036x1	Panel 330Wx1

# SOLSMART SERIES COMBOS ACCSOSORIES DETAILS



SL.NO.	MODEL	INV PUC	BATTERY	PANEL	ACCESSORY & STAND	**FREE APP AND BATTERY INSTALLATION	PANEL STAND	CABLE DETAILS PROCESSED AS CONNECTORS WITH MC4 CONNECTOR CONNECTED	NO. OF SETS	INTERCONNECTING CABLES	QUANTITY	MC4 CONNECTORS	MC4Y CONNECTORS
1	SolSMART 2750 Solar Eco	2200Va - 1No	Spst15060 X2n	330W - 1N	Na	Yes	Na	Na	Na	Na	Na	Na	Na
2	SolSMART 2750 Solar Standard	2200Va - 1No	Spst15060 X2n	330W - 2N	Yes	Yes	1N	Wire Red - 4 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 4 Sq.mm, 15 Meters With Mc4 Connector	1	Na	Na	Yes	1
3	SolSMART 2750 Solar Delux	2000VA - 1NO	SPST15060 X2N	330W - 4N	Yes	Yes	2N	Wire Red - 6 Sq.mm, 15 Meters With Mc4 Connector , Wire Black - 6 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	2	Yes	3
4	SolSMART 3750 Solar Eco	3200VA - 1NO	Spst15060 X3n	330W - 2N	Na	Yes	Na	Na	Na	Na	Na	Na	Na
5	SolSMART 3750 Solar Standard	3200VA - 1NO	SPST15060 X3N	330W - 2N	Yes	Yes	1N	Wire Red - 4 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 4 Sq.mm, 15 Meters With Mc4 Connector	1	Na	Na	Yes	Na
6	SolSMART 3750 Solar Delux	3200VA - 1NO	SPST15060 X3N	330W - 4N	Yes	Yes	2N	Wire Red - 4 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 4 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	2	Yes	1
7	SolSMART 3750 Solar Supreme +	3200VA - 1NO	SPST15060 X3N	330W - 8N	Yes	Yes	4N	Wire Red - 10 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 10 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	4	Yes	2
8	SolSMART 4750 Solar Eco	4200VA - 1NO	SPST15060 X4N	330W - 2N	NA	Yes	Na	Na	Na	Na	Na	Na	Na
9	SolSMART 4750 Solar Standard	4200VA - 1NO	SPST15060 X4N	330W - 4N	Yes	Yes	2N	Wire Red - 4 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 4 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	2N	Yes	1
10	SolSMART 4750 Solar Delux	4200VA - 1NO	Spst15060 X4n	330W - 6N	Yes	Yes	3N	Wire Red - 6 Sq.mm, 15 Meters With Mc4 Connector Wire Black - 6 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	4N	Yes	2
11	SolSMART 4750 Solar Supreme +	4200VA - 1NO	Spst15060 X4n	330W - 10N	Yes	Yes	5N	Wire Red - 10 Sq.mm, 15 Meters With Mc4 Connector , Wire Black - 10 Sq.mm, 15 Meters With Mc4 Connector	1	Interlink Connectors - 4 Sq.mm	6N	Yes	3

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

## 2.3 SOLSMART COMBO SERIES SOLAR OFF-GRID SYSTEM WITH BATTERY & PANEL



### SOLSMART 2750

Capacity	: 2000 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

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 2750 SOLAR B20036-2N P400MP-2N	SolSMART 2750 x 1	SPST20036x2	Panel 400MP x 2
SOLSMART 2750 SOLAR B15060-2N P400MP-2N	SolSMART 2750 x 1	SPST15060x2	Panel 400MP x 2
SOLSMART 2750 SOLAR B665-2N P400MP-2N	SolSMART 2750 x 1	SPST665x2	Panel 400MP x 2



### 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.

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 3750 SOLAR B20036-3N P400MP-2N	SolSMART 3750 x 1	SPST20036x3	Panel 400MP x 2
SOLSMART 3750 SOLAR B15060-3N P400MP-2N	SolSMART 3750 x 1	SPST15060x3	Panel 400MP x 2
SOLSMART 3750 SOLAR B665-3N P400MP-2N	SolSMART 3750 x 1	SPST665x3	Panel 400MP x 2



### 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

MATERIAL DESCRIPTION	ELECTRONICS	BATTERY	PANEL
SOLSMART 4750 SOLAR B20036-4N P400MP-2N	SolSMART 4750 x 1	SPST15060x4	Panel 400MP x 2
SOLSMART 4750 SOLAR B15060-4N P400MP-2N	SolSMART 4750 x 1	SPST15060x4	Panel 400MP x 2
SOLSMART 4750 SOLAR B665-4N P400MP-2N	SolSMART 4750 x 1	SPST665x4	Panel 400MP x 2

## 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.

## 2.5 NEXTGEN PRO SERIES COMBO SOLAR OFF-GRID SYSTEM WITH BATTERY AND PANEL

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).

MODEL	MODEL DESCRIPTION			
	SOLAR P.C.U	SOLAR BATTERY-C10	PANEL	STAND & WIRE
NEXTGEN PRO 900 B665-1N P110-1N	NEXTGEN PRO 900X1	SPST665X1	110 W x 1	NA
NEXTGEN PRO 900 SOLAR B15060-1N P110-1N	NEXTGEN PRO 900X1	SPST15060X1	110 W x 1	NA
NEXTGEN PRO 900 SOLAR B15060-1N P160-1N	NEXTGEN PRO 900X1	SPST15060X1	160 W x 1	NA
NEXTGEN PRO 900 ECO	NEXTGEN PRO 900X1	SPST665X1	160 W x 1	NA

### 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)

MODEL	MODEL DESCRIPTION			
	SOLAR P.C.U	SOLAR BATTERY-C10	PANEL	STAND & WIRE
NEXTGEN PRO 1200 SOLAR B15060-1N P160-1N	NEXTGEN PRO 1200X1	SPST15060X1	160 W x 1	NA
NEXTGEN PRO 1200 SOLAR B15060-1N P110-1N	NEXTGEN PRO 1200X1	SPST15060X1	110 W x 1	NA
NEXTGEN PRO 1200 ECO	NEXTGEN PRO 1200X1	SPST665X1	160 W x 1	NA
NEXTGEN PRO 1200 SOLAR B20036-1N P160-1N	NEXTGEN PRO 1200X1	SPST20036X1	160 W x 1	NA
NEXTGEN PRO 1200 B665-1N P110-1N	NEXTGEN PRO 1200X1	SPST665X1	110 W x 1	NA

### 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)

MODEL	MODEL DESCRIPTION			
	SOLAR P.C.U	SOLAR BATTERY-C10	PANEL	STAND & WIRE
NEXTGEN PRO 1400 SOLAR B20036-1N P160-1N	NEXTGEN PRO 1400X1	SPST20036X1	160 W x 1	NA
NEXTGEN PRO 1400 SOLAR B15060-1N P160-1N	NEXTGEN PRO 1400X1	SPST15060X1	160 W x 1	NA
NEXTGEN PRO 1400 ECO	NEXTGEN PRO 1400X1	SPST665X1	160 W x 1	NA



**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. SOLSMART 1500 MPPT 12V



	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)
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).



## 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

## 3.1 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.



### 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





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