

# ALL IN ONE SOLAR SYSTEM

RESIDENTIAL OFF GRID
PHOTOVOLTAIC SOLAR SYSTEM KIT











#### **Product Description**

Total electrical independence starts here. Sunpal Power has carefully designed and engineered all of our pre-packaged off-grid solar power systems to be faster and easier to install. Our Off-Grid solar kits produce zero emissions, are noiseless, and quipped with all-in-one packaging solution for quick and easy installation.

Standard Grid-tie systems will not provide electricity directly to your house during a power outage due to safety regulations(anti-islanding) even if the solar modules are producing DC current. Our Off-Grid systems are independent of the standard utility grid,and can typically deliver the equivalent expectaions of the traditional grid.

Whether you will be using an off-grid solar system for your remote cabin, your place of business, or your full-time residence, Sunpal Power has an off grid solution that can fit almost any installation requirement. Sunpal Power's Off-grid kits have the capability to be expanded if future energy storage is required.

#### **Product Benefits**

- Become completely energy independent
- Reduce the burning of fossil fuels for a healthier environment
- Eliminate the problems of grid blackouts

#### **Common Application**

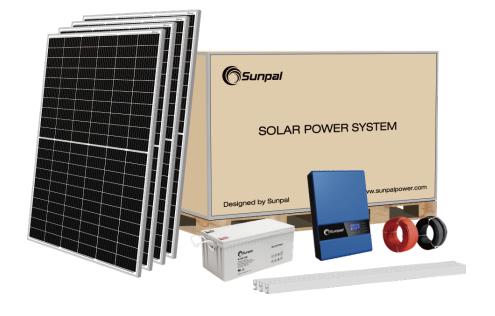
- Installation sites where bringing in the electricity from the grid is too expensive or difficult
- Locations where liquid fuel costs are too high or difficult to maintain
- Those looking to be completely independent from the grid
- Those who cannot afford to lose power or have power outages

## RESIDENTIAL OFF-GRIND

## **PV Kits**

### Include

- Solar modules
- Off-Grid inverter/charger
- Custom mounting system
- Battery bank
- Main disconnect box
- PV,battery bank & ground wiring harnesses
- Wire managerment kits





Total Number of Boxes

PRODUCT MODEL		SP1KW-OFF	SP2KW-OFF	SP3KW-OFF	SP5KW-OFF
V System Size N	ominal (Inverter Power) (kWp)	1	2	3	5
	CIFICATIONS (*Mono)				
Power (W)				40	
Vmp (V)		34.2 41.1			
Voc (V)		10.6			
sc (A)				94	
Dimensions (L x W x H) (mm)		1698*1004*35			
PV Module weight (kg)		18.7			
Certifications		CE / TUV (IEC 61215 & IEC 61730) / UL (UL61730)			
	/ modules also available up on request		027 107 (120 01210 0112		
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NVERTER SPECIF	FICATIONS				
overter Continuos Power (W)		1000	2000	3000	5000
Peak Power (W)		2000	4000	6000	10000
justable Model			MPPT+Inverter / AC+Inv	verter / MPPT+AC+Inverter	
C Voltage (V)				(Adjustable)	
AC Frequency (Hz)		50 / 60 (Adjustable)			
Battery Voltage (V)		12	24	24	48
1PPT Charge Current (A)		25	50	50	80
V Input Power (W)		≤500	≤1800	≤1800	≤4500
V Voltage Range (V)		20	30	30	60
AC Charge Current (A)		25	15	15	15
laximum Charge	Current (A)	65	55	55	75
Wave Form		Pure Sine Wave  10 ms (For Personal Computers); 20 ms (For Home Appliances)			
ypical Transfer Time (Ms)			· · · · · · · · · · · · · · · · · · ·		
Dimensions (W x H x D) (mm)		95*240*316	100*272*385	100*272*385	130*295*455
nverter Weight (k	(9)	5	7	7	11
	PRECIFICATIONS				
BATTERY BANK S	PECIFICATIONS			10.10/01/1	
attery Voltage (V)		Lead Acid Gel (VRLA)			
Battery Voltage (V) Battery Bank Voltage (V)		10	10	12	40
		12	12	24	48
Battery Capacity (Ah)		202		200	400
Battery Bank Capacity (Ah) Battery Bank Power - Total (Wh)		200	200	200	400
Battery Bank Power - Total (Wh)		2400	2400	4800	19200
Battery Bank Power - 50% DOD (Wh)		1200	1200	2400	9600
	ns (L x W x H) (mm)			240 x 224	
Battery Weight (kg) Full Cycles (50% DOD)		60			
				500	-
Total Batteries - *storage can be increased		2	2	4	8
Connection				eries	
Certifications			CE / RU / ISO 14	001 / OHSAS 18001	
205					
BOS Main Disconnect Boy(or Breakers)				05	
Main Disconnect Box(or Breakers)  *PV Wire Harness - 4mm² (m)		100	200	es 200	300
*PV Wire Harness - 4mm² (m) *Ground Wire - 4mm² (m)		100	200	200	300
Extra wire is avail		IU	20	20	30
EVELO ANILE IS GAQII	asis ap request				
SYSTEM LAYOUT					
Number of Module	es	1	2	4	9
Number of Inverte	ers			1	
V Array Surface	Area (m²)	1.7	3.4	6.8	15.3
V Array Weight (	(kg)	18.7	37.4	74.8	168.3
V Module	No. of PV Modules / String	1	1	2	3
String	Total Strings	1	2	2	3
-	String Voc (V)	41.1	41.1	82.2	123.3
Configuration	String Vmp (V)	34.2	34.2	68.4	102.6
500VDC	String Imp (A)	9.94	9.94	9.94	9.94
PRODUCTION EST	TIMATES (kWh AC)				
*Projectd Yearly Output at 4 PSH / Day		1.2	2.3	4.6	10.4
*Projectd Yearly Output at 5 PSH / Day		1.4	2.9	5.8	13.0
*Projectd Yearly Output at 6 PSH / Day		1.7	3.5	6.9	15.6
*Based on 85% system efficiency (formula = DC Power x Peak Sun					
SYSTEM OPTIONS					
Monitoring Device	9		WiFi/	RS485	
PV Module Type		Monocrystalline(Poly also available upon request)			
Mounting System Types		Metal Roof, Asphalt Shingle, Tile Roof, Tin Roof, Flat Concrete			
AC Back Up Input		Utility Grid / Power Generator			
Battery			12V Gel / 2V Gel / Tubula	r Gel (OPzV) / Lithium Ion	
SHIPPING					
V Kit Weight (kg	3)	120	160	463.4	696.5
PV Kit Shipping Size		1.7 x 0.45 x 1	1.7 x 0.45 x 1	1.7 x 0.6 x 1	1.7 x 0.75 x 1
Total Number of Boxes		1	1	2	2

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