SHYAM

SHPS-500

Smart Hybrid Power System: Integrated Telecom Grade Smart Power System

OVERVIEW

VNL's Smart Hybrid Power System (SHPS) is an integrated, telecom-grade power system suitable for both solar and mains operations. Packaged in industry-standard, rack-based installation, it is designed to operate both indoors and outdoors, with no need for shelter and air conditioning.

Our power system has an IP enabled unit that intelligently monitors and regulates charging/discharging of batteries and can be managed remotely. With a capacity to load power up to 500W, it extends alarms and control of external devices to central OMC.

Serves a variety of market segments including:

Rural and Remote Communities usually deprived of mobile services due to accessibility challenges

Remote Areas like off-shore oil fields, and sparsely populated communities usually deprived of mobile services due to lack of grid power

Low ARPU Areas where average revenue per user is too low to justify for infrastructure maintenance and power expenses

Telecom Enterprises which require a low-cost power solution with centralised monitoring system

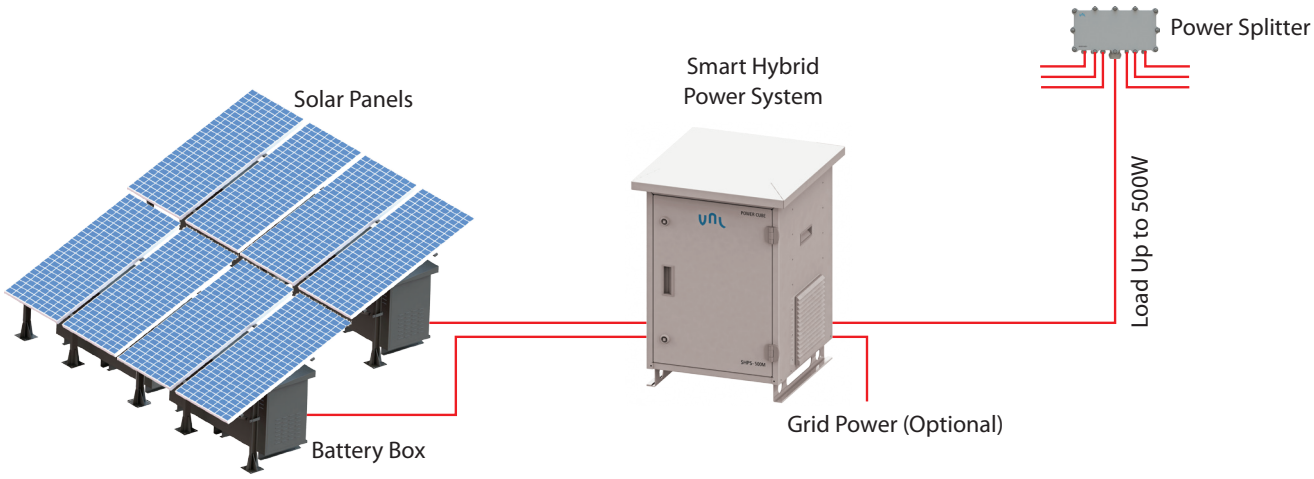
Smart Hybrid Power System

BENEFITS

- **Protection against short circuit, overload, high voltage and reverse battery connection**
- **Integrated fire detection**
- **Intelligent monitoring of critical operational parameters**
- **External alarm & control extension to central OMC**
- **Management over IP**
- **Designed for outdoors; works without air conditioning**

HIGHLIGHTS

- *Simple Installation - Plug and Play*
- *Local and Central Fault Reporting*
- *Enhanced Battery Life with Temperature Compensated Charging and Protection Against Overcharge & Deep Discharge*
- *Remote Software Management*
- *Enhanced Service Availability with Redundant Design*



Application Diagram : SHPS-500

Related Products: SHPS-200E, SSPS-500, SSPS-200

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SHPS-500
SPECIFICATIONS

SYSTEM	
Type	Outdoor
Power Modules	Dual, Redundant, Hot-Swappable
Dimensions (HxWxD)	Approx. 600 x 455 x 325 mm
Weight / Volume	22 Kg Approx/ 88.7 L
No. of Solar Panels Supported	24
Solar Panel Rating	Upto 300 W

AC INPUT	
Voltage	90VAC to 270VAC Nominal
Frequency	48-52 Hz / 60 Hz
Peak Input AC Power	1750 VA
Rectifier Efficiency	> 94%
Short Circuit Protection	Yes
Under Voltage & Over Voltage Protection	Yes

DC INPUT	
Solar Input Ports	4
Solar Input Current per Port	32A Max.
Solar Input Voltage	57 V Max.
Battery Ports	2
Battery Voltage	56.4 V Max.
Battery Current per Port	80A Max.

DC OUTPUT	
DC Output Port	2 (1 Pre Configured LVD + 1 Configurable LVD)
DC Output Voltage	±48V (44.4 to 56.4V)
Current Rating	10A Max.

SMPS (ECU)	
Modules	2
Rated Input AC Power per Module	1500 VA
Ouput Voltage	42 - 58.4V Max.
Output Current per Module	25A Max.
Protection per Module	Over Load, Under Voltage, Short Circuit

SMPS (ECU)	
LED Indications	AC In, Fan Fail, Load Status, SMPS Fault
Thermal Shut Down	Yes

USER INTERFACE	
RS485 Port	1 x Isolated Half Duplex
10/100 Mbps Standard Ethernet Port	5 x Standard RJ45
10/100 Mbps Standard Ethernet Switch with Configurable 48V PoE	1 PoE + 1 Optical (Optional)
1 AUX Output Ports	2A, 230V Potential Free Relay
2 AUX Input Ports	Optically Isolated, Up to 15V in, 10mA
LED Indications	Power System Status
Alarm & Indications	Interfaces to OMC, Alarm and Display Unit over Ethernet for Alarm & Indicators Display and System Info.

POWER SPLITTER	
Type	6 Way, Passive
Output - 6 Port	18 Amp/60 V per Port
Input - Single Port	18 Amp/60 V
Water and Dust Protection	IP 65

ENVIRONMENTAL & SAFETY	
Temperature Range (Full Performance)	-15° C to 55° C (5° F to 131° F)
Storage Temperature	-20° C to 60° C (-4° F to 140° F)
Relative Humidity	15% to 100%
Safety	IEC 60950
EMI/EMC	Complies with Class A of EN 55022, IEC61000-4-2 for ESD IEC61000-4-3 for Radiated RF Immunity IEC61000-4-4 for EFT IEC61000-4-5-04 for Surge Immunity IEC 61000-4-6 for Conducted RF Immunity
Ingres Protection Level	Battery Cabinet: IEC 60529 Standard, IP 34/44 Level IP55 (IP65 Option Available)
Mechanical	ETSI EN 300 019-1-2 Class 2.3 Public Transportation QM 333cat B2

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CORPORATEHEADQUARTERS

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