

WorldGSM™ PowerCube 500

TELECOM GRADE HYBRID POWER SYSTEM

- Optimized for Solar and AC Operations
- Remotely Managed
- Outdoor Design, No Additional Shelter Required
- +/- 48V Supply Voltage



WorldGSM™ PowerCube 500

DETAILS

OVERVIEW

PowerCube 500 is a compact, integrated and telcom grade power system, suitable with both solar and mains operations. It comes in industry standard rack based installation.

The system can intelligently monitor and regulate charging/ discharging of batteries. The unit is IP enabled and remotely managed.

It can be used to power load up to 1500 W. To meet the mission critical requirements power output from multiple power cubes can be paralleled to provide N+1 configurations.

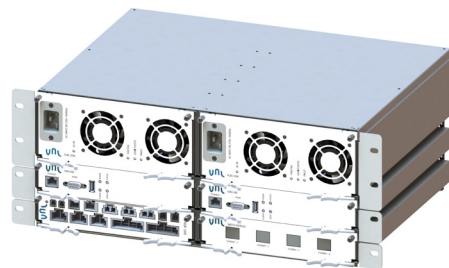
It can extend alarms & control of external devices to central OMC.

FEATURES

- Fault detection and recovery for carrier grade performance
- Protection against short circuit, overload and over voltage
- Intelligent monitoring of critical operational parameters.
- Smart charging & discharging
- Works without Air conditioning
- Passive cooling for Solar operations
- External Alarm & control extension to central OMC
- Management over IP

HIGHLIGHTS

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



PowerCube 500: Power Module

WorldGSM™ PowerCube 500

SPECIFICATIONS

SYSTEM	
Type	Outdoor
Power Modules	Dual, Redundant, Hot-Swappable
Processor Redundancy	Dual Controller Card
HA Scheme	Active

AC INPUT	
Voltage	90VAC to 300VAC Nominal
Frequency	48 Hz to 60 Hz
Peak input AC Power	5,000VA
Under Voltage & Over Voltage Protection	Yes

DC INPUT	
Solar Input Ports	4
Solar Input Current per Port	32A Max.
Solar Input Voltage	90V Max.
Battery Ports	2
Battery Voltage	56.4 V Max.
Battery Current per Port	80A Max.

DC OUTPUT	
DC Output Port	1
DC Output Voltage	±48V (44.4 to 56.4V)
Current Rating	18A Max.

SMPS	
Modules	2
Rated input AC Power per Module	2500 VA
Output Voltage	42 - 58.4V Max.
Output Current per Module	40A Max.
LED Indications	AC In Fan Fail Load Status SMPS Fault

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SPECIFICATIONS

USER INTERFACE	
RS485 Port	2 x Isolated Full Duplex Up to 230400 Baud
RS232 Port	–
10/100 Mbps Standard Ethernet Port	2 x Standard RJ45
10/100 Mbps Standard Ethernet Switch with Configurable 48 V PoE	4 Port
AUX Output Ports: 3 No's	2A, 230V Potential Free Relay Contacts
AUX Input Ports: 2 No's	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.

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, IP44 Level
	IP55 (IP65 Option Available)
Mechanical	ETSI EN 300 019-1-2 Class 2.3 Public Transportation QM 333cat B2

ABOUT VNL

VNL makes WorldGSM™, a complete GSM and Broadband Solution that helps mobile operators reach rural markets profitably. It is completely solar powered and optimized for rural markets. For the first time, mobile operators can build profitable businesses serving low-ARPU users in rural and remote communities.

The microtelecom revolution is ready to begin and VNL is leading the charge.

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