Overview

The OceanWorks UPS-3000 Uninterruptable Power Supply provides a reliable power source for a wide variety of sub sea applications. The UPS-3000 builds on proven designs previously deployed and qualified for 25 year life with a 5 to 10 year battery maintenance cycle. The system is designed to provide maximum assurance of power delivery by using multiple redundant elements. The UPS-3000 includes the ability to charge batteries subsea. The system uses commercially available lead acid batteries with intelligent monitoring and charging electronics.

Application

- Environmental Baselines
- Oil Field Monitoring
- Autonomous Fluid Injection
- Peak Load Shaving (Load Leveling)
- UPS applications for subsea sensors or systems

Specifications

Input

- Input range 300VDC to 400VDC, nominal 375VDC
- Over voltage and transient protected
- Communications options (select on build)
  - 1000BaseLX SM fiber optic Gigabit Ethernet
  - 100BaseT Copper Ethernet
- Wet-mate connector standard

Output

- 375VDC Buffered, 15.5Amp, 6kW
- Wet-mate connectors standard
**UPS - 3000SC**

**Specifications**

**Energy Capacities**
- Oil filled, pressure compensated AGM Lead Acid cells
- Three 50kWh independent battery strings, fully redundant, providing 150kWh start of life capacity
- 100kWh available after 5 years supporting 30 full charge / discharge cycles per year
- 70% capacity available after 12 months if deployed without input charging power

**Charging**
- 24 Hours minimum charge time, actual charge time depends on available power

**Communications & Telemetry**
- Telnet command interface
- UDP hotel data interface (at selectable rates up to 10Hz) SNTP time stamped
- Per pod, voltage, current

**Standard Testing**
- Pressure boundary hydro-static test
- 120 hour operation salt water immersion test

**Environment**
- 3000msw operating depth
- -20°C to +50°C Transport
- -3°C to +20°C Operational

**Options**
- Custom interfaces and connectors
- Input voltages up-to 10,000VDC
- Custom Output voltages
- Extended burn-in testing optional
- Optical Gigabit communication links
- Hub interface for serial connection of UPS modules

**Scientific & Environmental**

**Mechanical**
- 6m x 2.4m x 1.4m half height ISO container
- 13600kg in air weight
- 100% titanium pressure vessel with dual o-ring seals
- Vibration qualified to IEC60068-2-64, Category 2

**Reliability**
- 20+ year design life on 5 year maintenance service
- Class ISO8 Clean-room assembly (pressure vessels)
- 50,000 Hrs MTBF (MIL-HDBK-217) at 25°C