**SHARC SV3**

**Powered by Wave and Solar Energy**
The SHARC SV3 uses both wave and stored solar energy for forward propulsion, allowing it to travel tens of thousands of miles, collect data in the most demanding conditions, and deliver this data in real time.

**Adaptable Power**
AMPS, the Adaptive Modular Power System is designed to accommodate power hungry payloads and support a wide array of sensors and missions.

**Data Center at Sea**
With powerful computational capabilities for real-time onboard processing of large volumes of data at sea, the SHARC SV3 can transmit “just the answer” back to shore, representing a big step forward in unmanned ocean monitoring and exploration.
## SHARC SV3: Basic specifications

### GENERAL
- **Vehicle configuration**: Sub & Float joined by 4m (13ft) tether
- **Dimensions**:
  - Float: 290cm x 67cm (114in x 26in)
  - Sub: 21cm x 190cm (8in x 75in)
  - Wings: 143cm wide (56in)
- **Weight**: 122kg (270lb)
- **Endurance**: Operate for years at sea (with regularly scheduled maintenance)
- **Water speed**: SS1: 1.0kts; SS4: 1.7kts
- **Depth rating**: Continuous wash and spray
- **Observability**: Silent propulsion system
- **Transportation & shipping**: Air freight compatible

### PAYLOAD
- **Architecture**: Standard mechanical, electrical & software Modular Payload Unit (MPU) architecture for easy integration and configurability
- **Base integration**:
  - Water speed sensor
  - AIS receiver
  - Airmar 200WX weather station
  - Wave data
- **Payload ports**:
  - Float: 4
  - 8-pin 5/8” wet mateable connector
  - 13.2V, 3A, RS232/422/485, GPS, PPS
- **High Voltage payload ports**:
  - Float: 1
  - 6-Pin 5/8” wet mateable connector
  - 48V, 3A, RS232/422/485
- **Expansion ports**:
  - Float: 4; Sub: 1
  - 12-pin wet mateable connector
  - 14-22V, 10A, RS 232/485, 10/100 Ethernet
- **Max. discrete payloads**: 7 (MPUs in Float)
- **Max. payload weight (float)**: 45kg (100lb)
- **Max. payload volume (float)**: 93L (3.3ft³)
- **Peak payload power**: 400W

### SAFETY
- **Emergency location**: Shore-activated light (option)
- **Health sensors**: Pressure, temperature & leak sensors
- **Battery compliance**: Batteries isolated from each other
- **Transportation & shipping**: Automatic charge/discharge cut-off (for temperature and/or voltage)

### NAVIGATION
- **Heading**: Solid state magnetometer
- **GPS**: 12 channel WAAS capable
- **Accuracy**: 3m radius CEP50
- **Station keeping**: 40m radius CEPR90
  - (SS3: current <0.5kts)

### OPERATION
- **Mission control**: Chart-based GUI
- **Status monitoring**: Waypoint & course generation
- **Autonomous navigation**: Programmable inclusion/exclusion zones
- **Follow course and hold/loop**
- **Station keeping at target**

### POWER
- **Propulsion**: Conversion of wave energy into thrust
- **Battery**: 980 Wh reusable Li-Ion standard increments (980 Wh) up to 7.84kWh
- **Solar power**: 170W (peak)

### COMMUNICATIONS
- **Over-the-horizon**: DoD-provisioned Iridium® 9602 RUDICS (option)
  - Cellular (option)
  - Radio modem (option)
- **Local**: 802.11g WiFi

All specifications are accurate at time of printing and are subject to change without prior notice.