Key Features:

- High reliability, Rugged Design
- Unique Sealing Technology
- Simple Plug-in Modules – requires only Power and Serial Communications
- 2-Bladed & 3-Bladed Prop Options
- Full Speed Controls
- Series rated from 375 to 9,000 Watts
- Direct Drive Reliability (no gearbox)
- RS485 – CANopen – Optional Protocols available
- Modules rated upto 750M as standard with full depth modules available

Marine Propulsion Solutions – Subsea Group introduces a series of AUV Electric Propulsion Thrusters... design as 2 bladed or 3 bladed propeller options with/without prop guard with designs breaking new grounds in thrust, low weight yet ruggedly built with enhanced reliability.

Subsea Brushless DC Electric Propulsors are designed for AUV's in standard 9 inch (228.6mm) to 21 inch (533.4mm) Propeller Diameter options. Very fast response times are assured with...... "Silent & Vibration Free Operation"....

The SubSea DC Electric Drive Module incorporates all the power electronics and control building blocks required to precisely control the dc permanent magnet, brushless thruster motor. Each section of the drive has been carefully engineered for utility, ruggedness, and performance in a wide range of operating conditions. The Control Modules are normally mounted and designed as an integral part of the Main Propulsor Module

Available with +/- 10V analog or RS485 closed loop speed or torque control. Units rated to 750m as standard depth of operation.... other depths available. Built with hard anodized 6061-T6 aluminum housings with optional construction in 316 stainless steel or 6A14V titanium options. Operating voltages available in 150vdc, 180vdc or 300vdc (others optional).
Marine Propulsion Solutions – Subsea Group

Brushless DC AUV Propulsion Thrusters

<table>
<thead>
<tr>
<th>Model</th>
<th>Prop Diameter</th>
<th>Thruster Power</th>
<th>Prop RPM</th>
<th>Developed Thrust (Kgs-f)</th>
<th>Voltage Options</th>
<th>Control Options</th>
<th>Control Power Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9TS</td>
<td>9 inch 228.6 mm</td>
<td>375 watts</td>
<td>575</td>
<td>10 kgs-f</td>
<td>48vdc to 300 vdc options</td>
<td>+/- 10V analog speed control or RS485 and CANbus options</td>
<td>12/24 Vdc</td>
</tr>
<tr>
<td>A12TS</td>
<td>12 inch 304.8 mm</td>
<td>750 watts</td>
<td>475</td>
<td>20 kgs-f</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A18TS</td>
<td>18 inch 457.2 mm</td>
<td>1200 watts</td>
<td>900</td>
<td>30 kgs-f</td>
<td>150 Vdc, 180 Vdc or 300 Vdc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1800 watts</td>
<td>800</td>
<td>45 kgs-f</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>2500 watts</td>
<td>785</td>
<td>65 kgs-f</td>
<td></td>
<td></td>
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<tr>
<td>A21TS</td>
<td>20 inch 508.0 mm</td>
<td>4500 watts</td>
<td>750</td>
<td>115 kgs-f</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>6000 watts</td>
<td>700</td>
<td>155 kgs-f</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9000 watts</td>
<td>600</td>
<td>220 kgs-f</td>
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</tr>
</tbody>
</table>

Higher Power options, special configurations and voltages offered – please contact MPS

MPS SubSea – offers a unique "Series" of AUV Propulsion Thrusters, designed as off-the-shelf Propulsion Units providing the AUV builder, a "major building block" for efficient and reliable propulsion.

The AUV Propulsion Thrusters utilizes a very efficient thruster assembly, and controllers mounted in a lightweight aluminum Housing. To control the thruster and have a feedback of its working factors you need to select a communication protocol. There are three options CAN bus, RS485, and analog. CAN bus and RS485 are bidirectional and mostly used for applications where noise and reliability are important operational factors.

With these options, you can have closed loop control of the thruster and continuously monitor vital factors of thruster health including motor temperature, motor RPM and rated current. Analogue option is one-way communication between thruster and controller. By a simple +/-10v, you can control the thruster.

The AUV Modular APM is complete with the following major components.

- A Standard Complete Modular designed unit
- Main AUV Propulsor
- Electronic Control Package for simplified integration of Propulsion, Control and Communication.
- Subsea Connectors

A Modular design approach for the AUV manufacturer offering the basic building block...

Leave Propulsion and Maneuverability to the experts... and use your expertise and imagination in creating the additional building blocks required for Shallow and Deep Water operations into the 21st Century.

Dual Propeller – Counter Rotating Propellers AUV Propulsion Thruster Options

Subsea AUV Propulsion Thrusters