



# AUV Electric Propulsion SubSea Modules

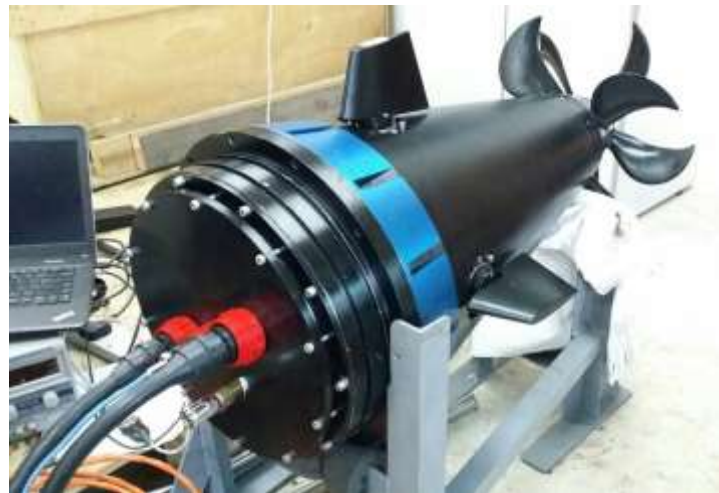
## Key Features:

- High reliability, Rugged Design
- Unique Sealing Technology
- Simple Plug-in Modules – requires only Power and Serial Communications
- Single & Dual Prop/Contra Rotating Propulsion Units
- Full Speed & Individual Fin Controls
- Series rated from 375 to 6,000 Watts
- Direct Drive Reliability (no gearbox)
- RS485 – CANopen – Optional Protocols available
- Modules rated upto 600M as standard with full depth modules available



Marine Propulsion Solutions – Subsea Group introduces a series of AUV Electric Propulsion & Manoeuvrable Modules... design in a single propeller and Dual /Contra Rotation Module 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) Modules. The Contra – Rotational design assures that no gyroscopic moments are transferred to the vehicle. 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

***Silent.... Dynamically Balanced.... and free of Vibration...***



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## Marine Propulsion Solutions – Subsea Group Brushless DC AUV Propulsion Modules

Model	Module Diameter	Thruster Power Options	Prop RPM	Developed Thrust	Control Fins "Quad" Total Ft <sup>2</sup>	Module Power Options	Control Power Required
<b>A9PM</b>	9 inch 228.6 mm	375 watts	575	32 lbs-f	As required by vehicle body design  Each fin individually controlled	24/48 Vdc	12/24 Vdc
		560 watts	500	45 lbs-f		24/48 Vdc	
<b>A12PM</b>	12 inch 304.8 mm	600 watts	475	48 lbs-f		48 Vdc	
		900 watts	450	75 lbs-f		48 Vdc	
<b>A18PM</b>	18 inch 457.2 mm	1200 watts	425	100 lbs-f		48/72 Vdc	
		1800 watts	400	145 lbs-f		48/72 Vdc	
		2500 watts	385	205 lbs-f		48/72 Vdc	
<b>A21PM</b>	21 inch 533.4 mm	3750 watts	325	300 lbs-f		48/72/140	
		4500 watts	315	365 lbs-f		48/72/140	
		6000 watts	300	485 lbs-f		48/72/140	

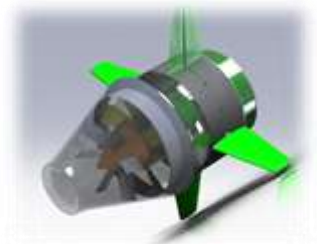
Higher Power options, special configurations and voltages offered – please contact MPS

**MPS SubSea – offers a unique "Series" of AUV Propulsion / Fin and Position Modules, designed as off-the-shelf Propulsion, Fin Control, providing the AUV builder, a "major building block" for maneuverability, position keeping and/or SubSea Dynamic Positioning capabilities.**

The **AUV APM Module** utilizes a very efficient thruster assembly, arrangement of Fins *"quad configuration"* and controllers mounted in a lightweight aluminum (carbon-fiber composite is available) Module.

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

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



**Optional Pumpjet Propulsion Modules**

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

### .... The APM Module ....

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 Module

Controllers (ECU) Boards are offered for full speed control functions & incorporated inside the Module. The Fin Actuator Assembly & control electronics are housed within the oil filled, pressure compensated housing

