



Brushless DC Electric SubSea Thrusters

Marine Propulsion Solutions – Subsea Group introduces a series of Brushless DC Subsea Thrusters rated from ½ to 25Kw breaking new grounds in thrust, low weight yet ruggedly built with enhanced reliability.

Subsea Electric Propulsors are designed for AUV's, ROV's and Manned Submersibles. This design is unique in that typical propulsors are prone to water entering or oil leaking through the propeller shaft seals. The MPS Subsea Propulsor design eliminates this problem by using an internal epoxy protected stator assembly isolating the rotating sealed components.... Water cannot reach the stator windings or electronics through the shaft seals.



All models feature Brushless DC Permanent Magnet rare earth motors for maximum reliability and power. Standard voltages are shown in the table with optional voltages as requested by the customer. For some models the Power & Control electronics housed within the motor casing for maximum reliability and simplified installation..... all models utilize a sensor feedback for motor rpm and direction control.

For operating depths greater than 750m all electronics must be housed within a one (1) atmosphere housing designed and built for depth of operation. MPS offers housings designed in aluminum, stainless steel or titanium upto 6000M ocean depths as standard. Housing are complete with Power and Communication subsea connectors of our or client design and manufacture. Also available optional serial communications to a customer furnished control systems.

Control Options available are:

- SCE- **A** - Main Power, 12Vdc control power, +- 10V speed control (standard Supply)
- SCE- **B** - Main Power, RS/485, +-10V speed control
- SCE- **C** - Main Power, RS/485, CANopen



Key Features:

- High reliability, Rugged Design
- Unique Sealing Technology
- Continued Operation in the event of seal failure
- Forward / Reverse Thrust within a 10% band
- Various Voltage Options from 48 to 600 Vdc
- Series from 1/2 up to 20 Kw in our standard SSE series
- Direct Drive Reliability (no gearbox)
- Lightweight Design
- Drive Electronics
- Various Connector Options



Marine Propulsion Solutions Subsea Group

Singapore / Batam Offices

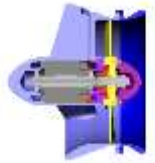
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Marine Propulsion Solutions – Subsea Group

SSE Series Brushless DC Thrusters and Accessories

Specifications

Model	Power Range		Standard Inputs		Bollard Thrust		Weight (Kg)	
	Hp	Kw	Volts	Amps	Lbs-f	Kgs-f	Air	Wet
SSE025	.25	.28	48	6.7			3.2	2.3
SSE050	.50	.38	120	3.7	23.5	10.7	8.5	5.9
SSE100	1.0	.75	240	3.7	42.5	19.3	10.5	7.9
SSE200	2.0	1.49	240	7.3	85.0	38.6	16.5	11.2
SSE300	3.0	2.24	240	11.0	150.0	68.2	18.5	13.9
SSE500	5.0	3.73	260	16.8	215.0	97.0	24.0	16.5
SSE800	8.0	5.97	260	27.0	340.0	154.5	34.5	24.0
SSE1000	10.0	7.46	320	27.4	425.0	193.2	42.6	30.1
SSE1200	12.0	8.95	320	33.0	510.0	231.8	48.5	33.0
SSE1500	15.0	11.19	360	36.6	637.5	290.0	60.5	42.0
SSE2000	20.0	14.92	400	43.9	850.0	386.0	72.0	52.5
SSE2500	25.0	18.65	600	36.7	1,065.0	485.0	85.0	62.8



Full Ocean Depth oil filled / Pressure Compensated – Specifications subject to actual operating conditions

All Models feature an aluminum, hard anodized Propeller, designed for bi-directional rotation with Kort nozzles for high bollard thrust & open water efficiency. Clockwise & counterclockwise rotation propellers available for all models.

Direct e-motor drives with no planetary gear reduction units resulting in "Silent" and "Reliable" operation with lightweight & compact designs at competitive pricing. Custom configurations include alternate voltages, subsea connectors, power ratings, mountings & depth ratings, etc.

One Atmosphere Pressure DRIVE ELECTRONICS MODULES – rated up to 6,000M

Electric Subsea Thruster System Assessoris

	<p>Pressure compensators are used in all subsea hydraulic systems to negate the effects of pressure differential at depth. The compensation maintains a constant <i>slightly</i> higher oil pressure within the hydraulic system, regardless of depth. It also provides the initial head pressure the hydraulic pump requires for startup without cavitation. Typically around 12 PSI. The design of the compensator ensures this slight over-pressure is maintained for all water depths, from surface to full ocean depth.</p>
	<p>Control Systems - The Motor Controller is a high-performance custom servo thruster drive, developed to meet requirements of Marine & Subsea markets. It has been specially designed for BLDC servo thruster motor control on thrusters and electric propulsion systems onboard Auv's, Rov's or manned submersibles and can deliver power and control from 300 watts upto 25Kw continuous power.....Ultra-high efficiency for undersea operation</p>
	<p>Marine Propulsion Solutions – Subsea, specializes in submersible pressure vessels, instrumentation housings, junction boxes, underwater camera housings, underwater housings, subsea housings and other subsea enclosures and accessories.</p> <p>Our cans/bottles have connector interfaces and are used extensively with Remotely Operated Vehicles (ROVs), Autonomous Underwater Vehicles (AUVs) and for many other applications in the Oil and Gas Industry, Defense, Research, Environmental Monitoring and Offshore Renewables.</p>

Subsea Thruster & Propulsion Systems

