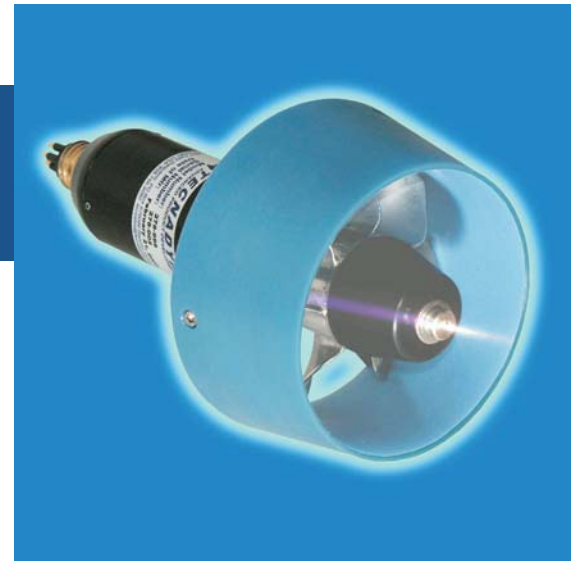


MODEL 300 DC BRUSHLESS THRUSTERS



Proven in the world's harshest subsea environments, Tecnadyne's thrusters have been at the forefront of propulsion technology for over 20 years. Though a new addition to the Tecnadyne thruster line, over 300 units of the Model 300 thruster have already been delivered. A 1/3hp thruster developing 8kg forward thrust, the Model 300 is ideally suited for small ROV's, AUV's and other subsea applications.

As with all Tecnadyne thrusters, the propeller of the Model 300 is magnetically coupled. With this design, a magnet array in the hub of the propeller is driven by a matching magnet array attached to the drive motor. By eliminating the rotating drive shaft and shaft seals that always seem to leak over time, the Model 300 achieves extremely high reliability. Additionally, the magnetic coupling will ratchet if overloaded, preventing damage caused by objects jammed in the propeller. And since the water lubricated propeller bearings are external to the pressure housing, they can be easily replaced in several minutes.

Employing a high RPM, low inertia DC brushless motor, coupled to a 6/1 ratio planetary gearset, the Model 300 delivers maximum reliability, high efficiency and high power in an extremely compact, lightweight and easy to maintain package. The stainless steel propeller, available in both right and left hand rotations, combined with a custom designed Kort nozzle, give the Model 300 extremely high Bollard thrust and open water efficiency.

For depths to 850 meters, the power and control electronics are housed within the hard anodized aluminum motor casing, greatly simplifying the installation and electrical interface. For full ocean depth rating, the electronics are installed in a remote, one atmosphere housing (either the customers housing or one supplied by Tecnadyne) and the thruster is oil filled for pressure tolerance.

The Model 300 is available for operation at voltages from 24vdc to 330vdc (150vdc standard) supplied by a well filtered battery bank, rectified and filtered AC or a DC power supply. In addition to the main power, the thruster requires isolated 12vdc instrumentation power and a +/-5v analog speed and direction control signal. Alternately, a full servo RS232 or RS485 input controller is available but this must be installed in a remote, one atmosphere housing. Please refer to the Tecnadyne website for detailed installation and interface instructions.

The standard depth rating of the Model 300 is 850 meters -- oil filled, full ocean depth is an available option. Customer specified subsea connectors and cables, stainless steel or titanium housings and custom mountings are also available.

MODEL 300 SPECIFICATIONS

Bollard Output

18lbf (8.2kg) forward
8lbf (3.6kg) reverse
w/ either right hand or
left hand stainless steel
propeller

Input

150vdc, 3.1A power
(475 watts at alternate
voltages)
+12v, 200mA isolated
instrumentation power
+/-5v analog speed
command

Weight

2.2lb (1.0kg) in air
1.6lb (0.7kg) in water

Depth Rating

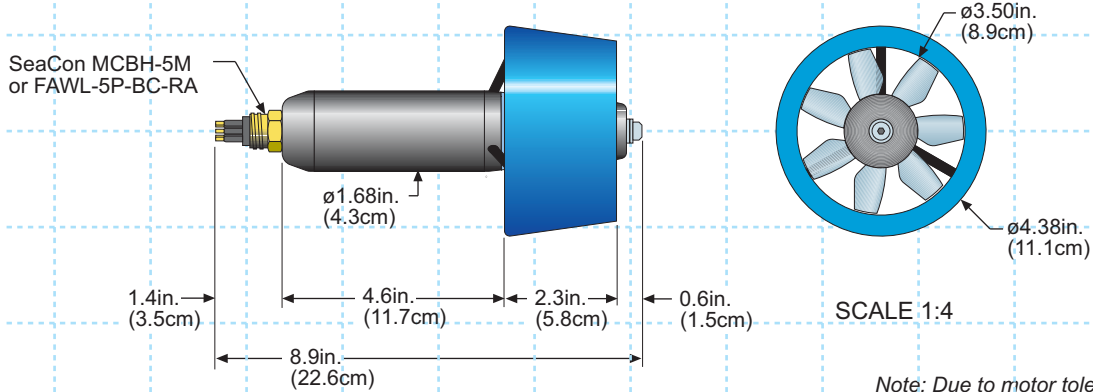
2,800ft (850m) standard
full ocean depth (oil
filled) optional

(1,000m & greater depth subject to
US Govt. export approval)

MODEL 300 DC BRUSHLESS THRUSTERS

Part Number: 300 -

- (24-28vdc) 024
 - (48-55vdc) 048
 - (68-75vdc) 070
 - (85-95vdc) 090
 - (100-110vdc) 105
 - (145-165vdc) 150
 - (200-220vdc) 210
 - (250-280vdc) 260
- 0850 (850m depth)
 - OFRE (oil filled remote electronics)
- M (SeaCon MCBH-5M)
 - F (SeaCon FAWL-5P-BC-RA)
 - Ln (SeaCon LMG-6FS w/ cable of n meters)
 - Mn (SeaCon LMG-6MP w/ cable of n meters)
 - X (Customer specified connector)



Note: Due to motor tolerances, voltage required to achieve rated Bollard thrust can vary +/-5%

Specifications subject to change without notice

