

MODEL 1060 DC BRUSHLESS THRUSTERS

The newly introduced Model 1060 is the first in a new line of high efficiency, low noise thruster motors being introduced by Tecnadyne. Long regarded as the world leader in remote, subsea propulsion, Tecnadyne has delivered over 4,000 thruster motors to customers worldwide. And with the Model 1060, Tecnadyne is responding to the increasing demand for ultra quiet propulsion for AUV's, ROV's and manned submersibles.



The high precision investment cast stainless steel propeller of the Model 1060 is magnetically coupled using a design perfected by Tecnadyne. 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 1060 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 the field in less than two minutes.

Employing a direct drive DC brushless motor that has been optimized for high efficiency and low noise, the Model 1060 delivers exceptional reliability and high power in an extremely compact, lightweight and easy to maintain package. The stainless steel propellers are available in both RH and LH rotation for torque balancing. The custom designed propeller and Kort nozzle combine to give the Model 1020 extremely high Bollard thrust and open water efficiency.

For depths to 1,500 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 customer's housing or one supplied by Tecnadyne) and the thruster is oil filled and pressure compensated.

The Model 1060 is currently available for operation at voltages of 150vdc and 300vdc 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 an isolated +/-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 1060 is 850 meters. 1,500 meters and full ocean depth with remote one atmosphere electronics are optional. Remote electronics options include the extremely compact Tecnadyne controller module or larger, full servo brushless or sensorless units. Customer specified subsea connectors and cables, stainless steel or titanium housings and custom mountings are also available.

MODEL 1060 SPECIFICATIONS

Bollard Output

105lbf (47.7kg) forward
65lbf (29.5kg) reverse

Input

300vdc, 9A power
(2.7 kW at alternate
voltages)
+/-5v analog speed
command

Weight

13.5lb (6.14kg) in air
10.1lb (4.6kg) in water

Depth Rating

2,800ft (850m) standard,
5,000ft (1,500m) &
full ocean depth (oil
filled) optional

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

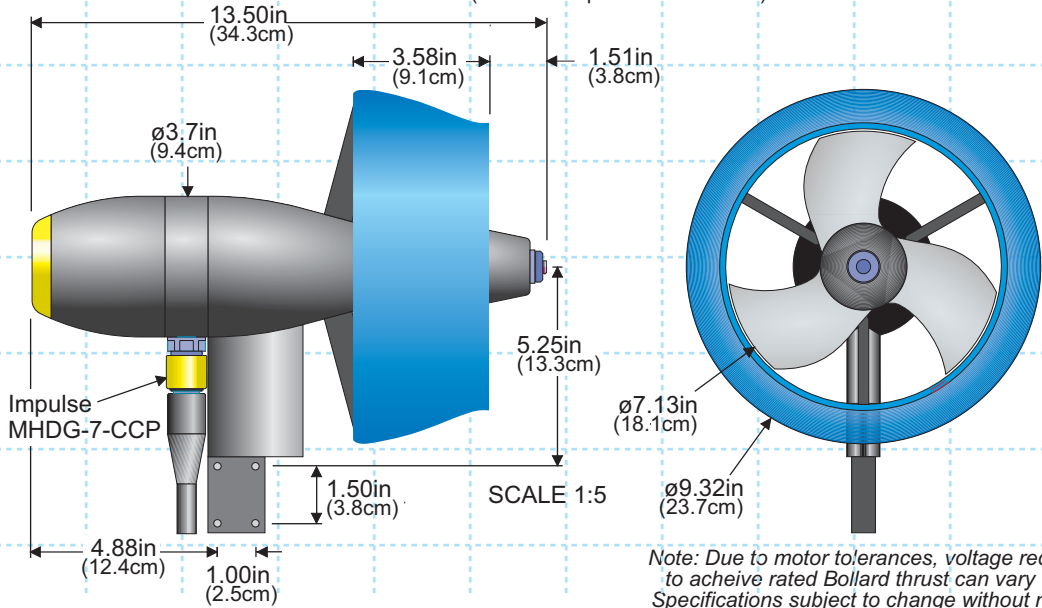
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Part Number: 1060 -

(145-160vdc) 150
(250-300vdc) 260

0850 (850m depth)
1500 (1500m depth)
OFRE (oil filled remote electronics)

Mn (Impulse MHDG-8-CCP w/ cable length 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

