

UNDERWATER THRUSTER

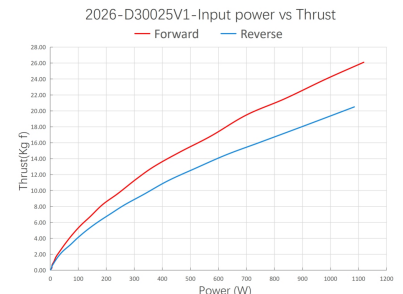
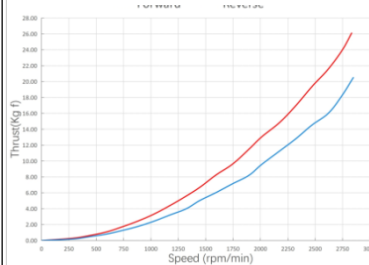
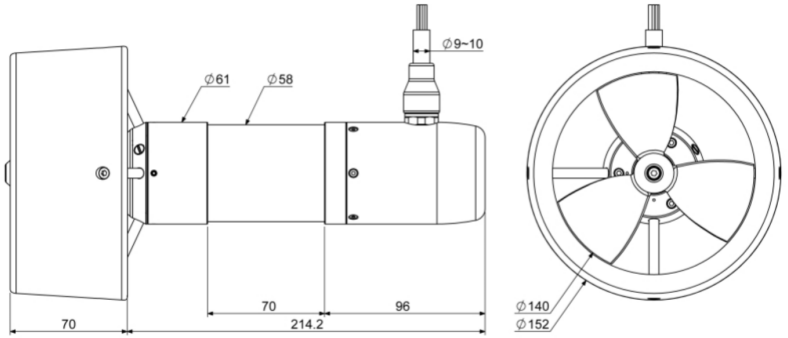
D30025



Parameter Introduction

- Motor type: Internal rotor brushless motor
- Operating Voltage: 300 VDC (Supports wide voltage range: 280 V to 350 V)
- Rated thrust: Front 25 Kg / Rear 20 Kg
- Rated power: 1050 W
- Rated speed: 2750 rpm
- Working water depth: ≤ 300 m
- Control signal: CAN throttle
- Communication method: CAN bus (provides communication protocols)
- Feedback data: Speed, current, temperature, drive board status, fault code
- Drive type: Built-in FOC drive
- Protection mechanisms: Overcurrent, overheating, undervoltage, locked rotor
- Sealing method: Bidirectional hydraulic balanced rotary seal (Maintenance interval: 1000 hours of cumulative operating time or 1 year, depending on the propeller's operational condition)
- Shell material: Aluminum-magnesium alloy
- Propeller material: Aluminum alloy/316L stainless steel (customizable)
- Propeller configuration: CW/CCW
- Flow guide cover material: POM
- Cable material: TPU (polyether polyurethane)
- Cable specifications: Outer diameter 9 mm, length 1.2 m
Inner core: 2x2.5 mm² + 2x2x22AWG
- Temperature: Storage: -10°C to 40°C; Working: -5°C to 37°C
- Cable weight: Net weight 3485 g, weight in water 2295 g

Unit: mm (millimeters)



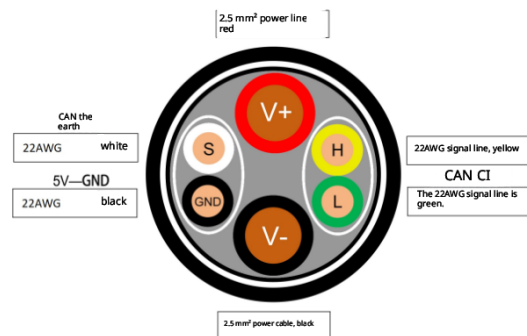
Wiring Definition and Control

This product is shipped with the wires exposed at the terminal connections.

- Number of conductors: 6 + 1 core
- Power Line Group: Red V+, Black V-
- Case shielding ground: Black fine line
- CAN shielded area: white thin line
- CAN bus group: Yellow H, Green L
- Shield layer group: Silver-white circular marker (connected to the chassis)
- Precautions for shielding layer wiring: It must connect to the 5V GND supply of the main controller.

Control Precautions:

- When controlling via the CAN bus, it is recommended to connect the thin white wire to the host's CAN ground terminal to effectively prevent interference.
- The cable's shielding mesh (connected to the housing) should be connected to the main controller's 5V GND terminal for enhanced interference resistance.



User Instructions, Storage, and Transportation

Read carefully to avoid non-standard usage that may result in policy cancellation.

- For user-installed port connectors, the following precautions apply: The connector socket body must be made of "naval copper" or "aluminum alloy"; 316L stainless steel is strictly prohibited as it may cause galvanic corrosion, thereby reducing the propeller's insulation rating and potentially leading to electrical leakage.
- Do not use the device under overvoltage conditions or with reversed polarity connections, as this may cause the propulsion unit to burn out.
- The underwater propeller is specifically designed for subaquatic use and must be fully submerged during operation to ensure efficient heat dissipation.
- After continuous operation exceeding 1000 hours, maintenance must be performed (including paid replacement of the original factory-made dynamic seal assembly). Failure to replace it promptly may result in water leakage or motor burnout; once damaged or leaking, the motor cannot be maintained.
- Do not operate in air or highly turbid sediment. Continuous idle operation in air should not exceed 10 seconds to prevent seal damage, water ingress, or motor burnout due to poor motor heat dissipation.
- The maximum operating water depth must not exceed 300 m; otherwise, the propeller will fail.
- Do not reverse for extended periods to prevent propeller failure.
- For enhanced after-sales service and a superior product experience, both the flow guide cover and propeller of this product are replaceable spare parts available for purchase.
- This product is a high-speed rotating power device equipped with blades. During operation, the propeller must be kept away from any foreign objects or body parts.
- The device body is constructed from aluminum-magnesium alloy. After each use, it should be rinsed with clean water to extend its service life.
- For the cable section, avoid excessive bending to prevent internal breakage of the conductor.
- The wiring of the underwater propeller must comply with the "Wiring Specifications"; failure to do so may damage the propeller's drive circuit.
- It should be stored in a cool, dry, and well-ventilated location, protected from direct sunlight, and kept away from fire and high temperatures.
- If the underwater propeller has been stored for an extended period in sub-zero, icy conditions, it should first be thawed at room temperature before use.
- During transportation, the maximum temperature of underwater propellers must remain below 50°C, and they must not be subjected to heavy loads during transit.

Both functional and intriguing; craftsmanship is refined in the heart.