

UNDERWATER THRUSTER

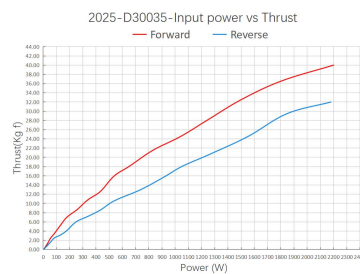
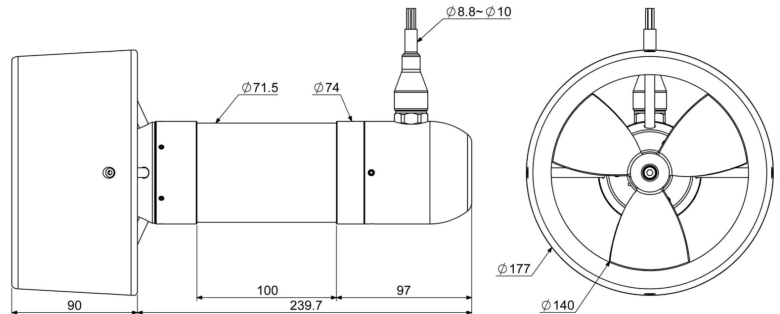
D30035



Parameter Introduction

- Motor type: Internal rotor brushless motor
- Operating voltage: 300 VDC (supports a wide voltage range of 280 V to 350 V)
- Rated thrust: Front 35 Kg/Back 28 Kg
- Rated power: 1650 W
- Rated speed: 2800 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: Aerospace aluminum alloy
- Propeller configuration: CW/CCW
- Flow guide cover material: POM
- Cable material: TPU (polyether polyurethane)
- Cable specifications: Outer diameter 8.8 mm, length 1.2 m
Core: 2x2.5 mm² + 2x2x22 AWG
- Temperature: Storage: -10°C to 40°C; Working: -5°C to 37°C
- Weight including cable: Net weight 5100 g, Weight in water 3600 g

Unit: mm (millimeters)



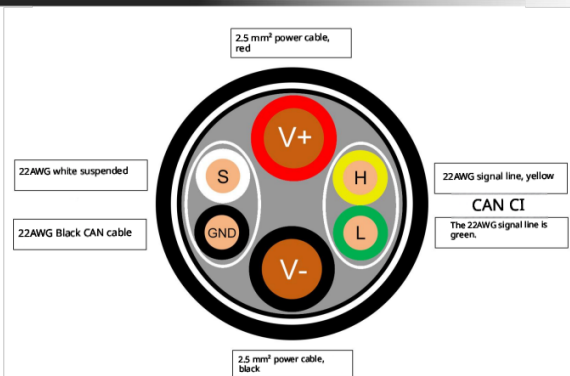
Wiring Definition and Control

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-
- CAN shielded ground: black fine line
- CAN bus group: Yellow H, Green L
- Shield layer group: Silver circle marker
- 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 black wire to the host's CAN ground terminal to effectively prevent interference.
- It is recommended to connect the cable's shielding mesh to the main controller's 5V GND terminal for enhanced interference resistance.



Usage Precautions, Storage, and Transportation

- Do not use beyond the rated voltage to avoid damaging the propeller.
- The underwater propeller is specifically designed for subaquatic use and must be fully submerged during operation to ensure efficient heat dissipation.
- Do not operate in air or highly turbid sedimentary environments. **Continuous operation in air shall not exceed 10 seconds** to prevent seal damage, water ingress, or motor burnout due to inadequate 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.
- 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; a burned-out motor cannot be repaired.
- To enhance after-sales service and product experience, the air deflector and propeller of this product are replaceable spare parts available for a fee.
- This product is a high-speed rotating power device equipped with blades; during operation, the propeller must be kept away from any part of your body or objects.
- The aircraft body is made of stainless steel and has passed extensive salt spray testing, ensuring its durability in seawater environments.
- 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 Definition"; 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; mastery lies in the artisan's heart.