

**HOT**



## Front Control

With Tiller

|                                              | Front Control                              | With Tiller               |
|----------------------------------------------|--------------------------------------------|---------------------------|
| Rated Voltage/Current                        | 48 V / 32 A                                |                           |
| Input Voltage Range                          | 40 V — 69 VDC                              |                           |
| Rated Power                                  | 1.5 kW                                     |                           |
| Thrust                                       | 45 Kg                                      |                           |
| Full Load Speed(Forward)                     | 1200 rpm                                   |                           |
| Control                                      | Steering + Control Box                     | Tiller                    |
| Net Weight                                   | 16 Kg (Without Battery)                    | 16.5 Kg (Without Battery) |
| Length x Width x Height(mm)                  | 1028 x 240 x 1259 mm (Long Shaft)          |                           |
|                                              | 1028 x 240 x 1134 mm (Short Shaft)         |                           |
| Shaft Length(mm)                             | 750 mm (Long Shaft) / 625 mm (Short Shaft) |                           |
| Angle of Lifting                             | 8°, 15°, 22°, 29°, 73°                     |                           |
| Max Lifting Angle                            | 73°                                        |                           |
| Communication                                | CAN BUS                                    |                           |
| Propeller Diameter                           | 291 mm                                     |                           |
| Operating Temperature<br>Storage Temperature | -10℃ ~ 40℃ / -20℃ ~ 60℃                    |                           |

# Product Features

## Powerful Performance

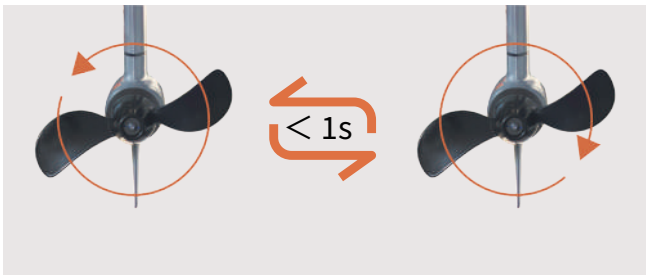
### High Power Density

- 50% smaller in size than competitors, with a power output of 1500W—representing a 50% power increase compared to rivals.
- Ultra-high torque for quick startup and robust power when advancing against currents.



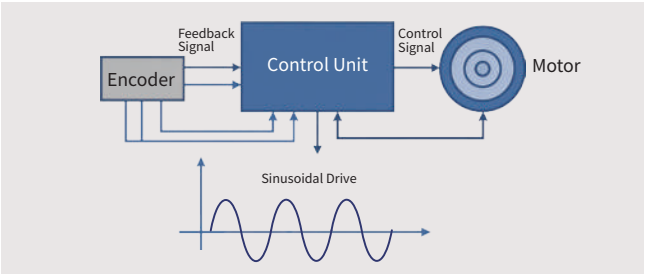
### Rapid Response

- Achieves full-speed forward-reverse switching in just 1 second.
- 10x faster response speed than traditional sensorless drives.
- High-load startup at low speed – fully supported.



### High-Efficiency & Low-Noise Drive

- Encoder Feedback & Sensorless Vector Sine Wave Drive.
- Motor efficiency increased by 20%, with vibration and noise reduced by 40%.



### Superior High-Efficiency Power Transmission

- Direct motor-propeller connection (no reducer required) → 20%+ higher propulsion efficiency than traditional designs.



## Product Quality Assurance

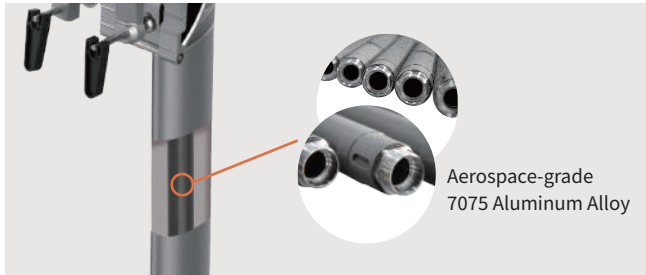
### Deep-Sea Grade Sealing Technology

- Magnetic Coupling Technology enables the conversion of dynamic sealing to static sealing.
- Validated under 11,000-meter ultra-high pressure, completely eliminating leakage



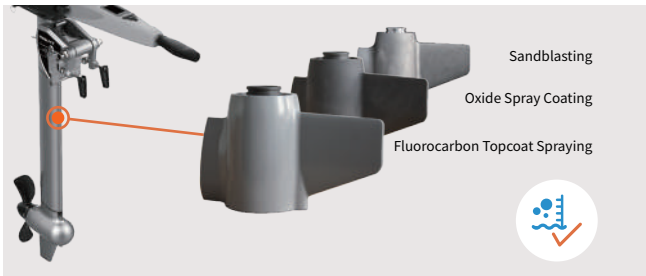
### Aerospace-Grade Structural Strength

- The load-bearing rod is made of aerospace-grade 7075 aluminum alloy with hard anodizing treatment.
- The wall thickness is 50% thicker than competitors' products, and the overall strength is 4 times higher.



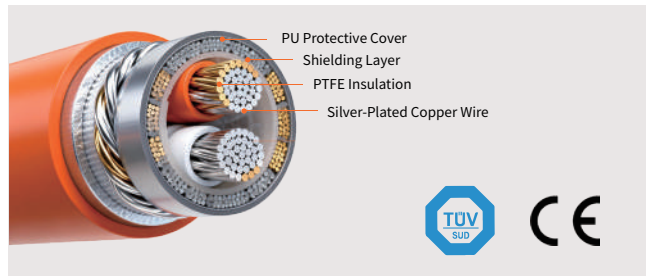
### Highly Effective Anti-Corrosion Performance

- 3-Layer Proprietary Anti-Corrosion
- 10x+ vs Traditional Coating.



### High-Quality Accessories and Authoritative Certifications

- STP + PU Sheath + PTFE Silver-Plated Cable – Low Loss, 50%+ Longer Service Life.
- TÜV SÜD CE Certified (Stringent) • 10+ Year Design Life



# Product Features

## Innovation & Design

### Kill Switch with Pigtail Line

- Designed with increased magnetic attraction and an anti-skid feature.



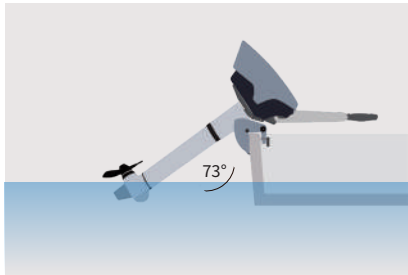
### High-Definition (HD) LCD Screen

- Display all dynamic data of the thruster in a concise and clear manner.



### Increased Tilt Angle

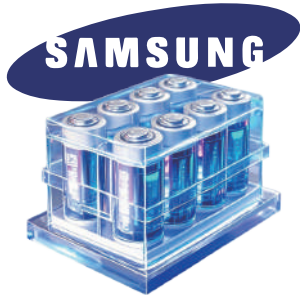
- Increasing the tilt angles to 73° reduces the outboard motor hitting the water during sailing, thereby preventing speed loss.



## 48V External Battery



- Using Samsung cylindrical cells, its safety and reliability are superior to those of traditional polymer pouch batteries.
- The battery features intelligent communication with the VCU, and its multi-scenario protection logic extends battery life by over 50%.
- Dual-end pre-charge protection design ensures arc-free plugging and extends the service life of both the battery and connectors.



| Battery                                                                               |        | Runtime (Full-Speed) | Runtime (Half-Speed) |
|---------------------------------------------------------------------------------------|--------|----------------------|----------------------|
|  | 1200Wh | 1 hr                 | 2 hrs                |
|                                                                                       | 2000Wh | 1.5 hrs              | 3 hrs                |
|  | 5120Wh | 4 hrs                | 8 hrs                |

## Application Cases

