P150ESC-48V Underwater Thruster — Technical Specification

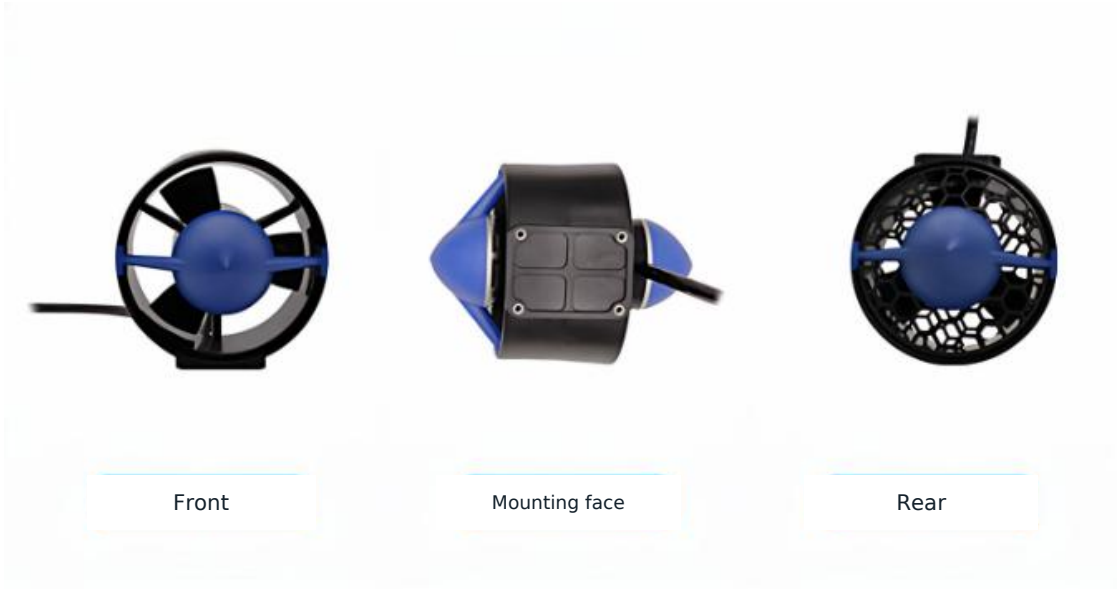


Company	AQUROV ROBOTICS
Document	P150ESC-48V Underwater Thruster Technical Specification
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1. Product application

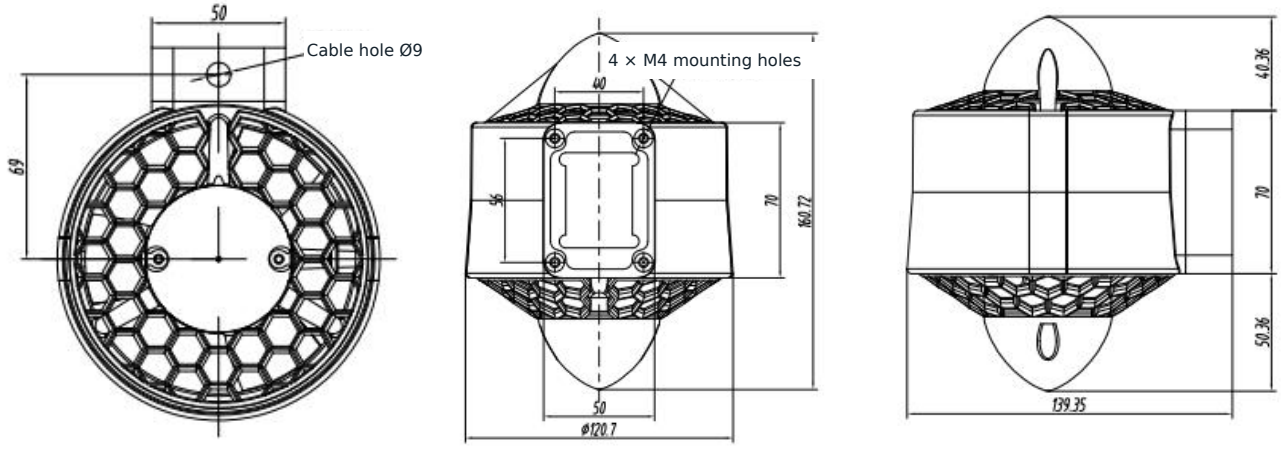
The P150ESC-48V underwater thruster is designed for underwater robots, uncrewed vessels and other submerged equipment. Its screwless quick-release design permits replacement of the propeller and the optional weed screen without removing the thruster mounting base. The open, water-tolerant motor uses materials selected for seawater exposure.

2. Product views



Front | Mounting face | Rear

3. Dimensioned views



4. Mechanical specifications

Model	P150ESC-48V		
Overall size	121 × 161 × 140 mm	Cable length	>90 mm
Propeller diameter	100 mm	Mounting-hole spacing	56 × 40 mm
Weight in air	≈650 g	Cable diameter	≈8.5 mm

5. Performance specifications

Max. forward / reverse thrust @ 48 V	15.2 / 14.32 kgf
Max. forward / reverse thrust @ 36 V	13.6 / 11.12 kgf

* Values depend on the ESC used to drive the thruster.

6. Electrical specifications

Operating voltage	48 V	Max. current @ 36 V	40 A
Motor Kv (no load)	244	Max. speed @ 36 V	8785 rpm
Max. current @ 48 V	40 A	Max. torque	3.6 N·m
Max. no-load speed @ 48 V	11716 rpm	Max. power (48 V)	2000 W

MOT-P150-48V / MOT-P150ESC-48V · Without Screen					
Left rotation			Right rotation		
Pulse width	Thrust (kgf)	Current (A)	Pulse width	Thrust (kgf)	Current (A)
1388	1.92	2	1534	1.92	2
1357	4.4	6	1562	4.16	6
1339	6	10	1580	6.08	10
1320	8	16	1599	8.24	16
1302	9.52	22	1615	10.08	22
1292	10.4	26	1624	11.12	26
1282	12	30	1632	11.76	30
1272	13.2	34	1642	13.68	34
1268	13.92	36	1647	13.84	36
1263	14.8	38	1651	14.08	38
1259	15.2	40	1656	14.32	40

MOT-P150-36V / MOT-P150ESC-36V · Without Screen					
Left rotation			Right rotation		
Pulse width	Thrust (kgf)	Current (A)	Pulse width	Thrust (kgf)	Current (A)
1374	1.52	2	1550	1.36	2
1335	3.76	6	1584	3.04	6
1322	4.72	8	1596	3.76	8
1312	5.52	10	1607	4.56	10
1301	6.32	12	1615	5.2	12
1277	8.32	18	1639	6.88	18
1264	9.44	22	1651	7.84	22
1251	10.24	26	1663	8.72	26
1238	11.2	30	1674	9.52	30
1233	11.6	32	1679	10.08	32
1221	12.56	36	1691	10.88	36
1217	13.36	38	1696	11.04	38
1213	13.6	40	1702	11.12	40

* With a screen fitted, thrust may fall by nearly half and current may rise slightly. A screen on one side may reduce thrust by approximately 1/2.