

ORBIT Series

ORBIT 15-30-B8 P20

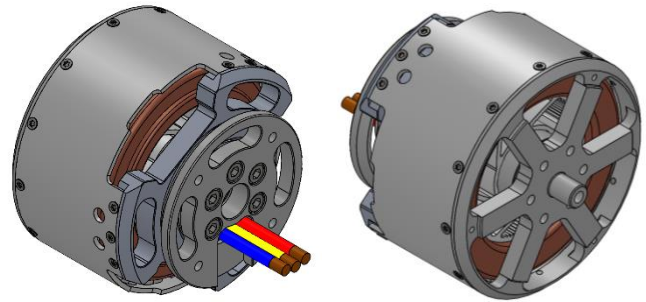
Outrunner BLDC motor

Overview

The ORBIT 15 is from our family of weight optimized outrunner BLDC motors and has been specifically designed for the most demanding applications, including uncrewed systems and aerospace.

Features

- Ultra-light housing for weight sensitive applications
- Increased robustness through three bearing design, adding additional support to housing
- Useful for applications with high torque requirements
- Designed for use with sensorless ESCs



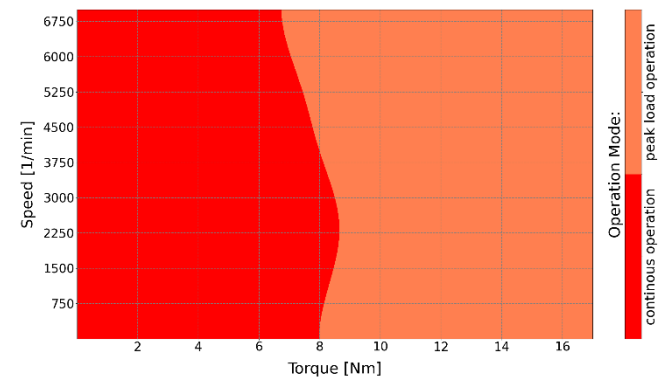
Specifications

Part number	03-049.030.00-000-045	
Peak output power	9	kW
Peak torque (max. 5s)	17	Nm
Max. speed	7,000	rpm
Voltage range	15-50	V
Speed constant (kV)	139	rpm/V
Diameter	103	mm
Length	74.5	mm
Weight	1,590	g
Phase cable length	100	mm
Recommended phase cable extension	8	mm ²
	8	AWG
Mounting	Back	
Direction of rotation	Both	
Cooling	Air cooled	
Ambient temperature range	-20 to +60	°C
Number of poles	20	
Number of windings	8	
Peak thrust	40 kg with 32x10.6" prop	

Complementary Products

- Sensorless third party ESCs (e.g. Hargrave/APD or Allocortech)

Heatmap



Note: Assuming 25°C ambient temperature and 10 m/s airflow.

Options & Customization

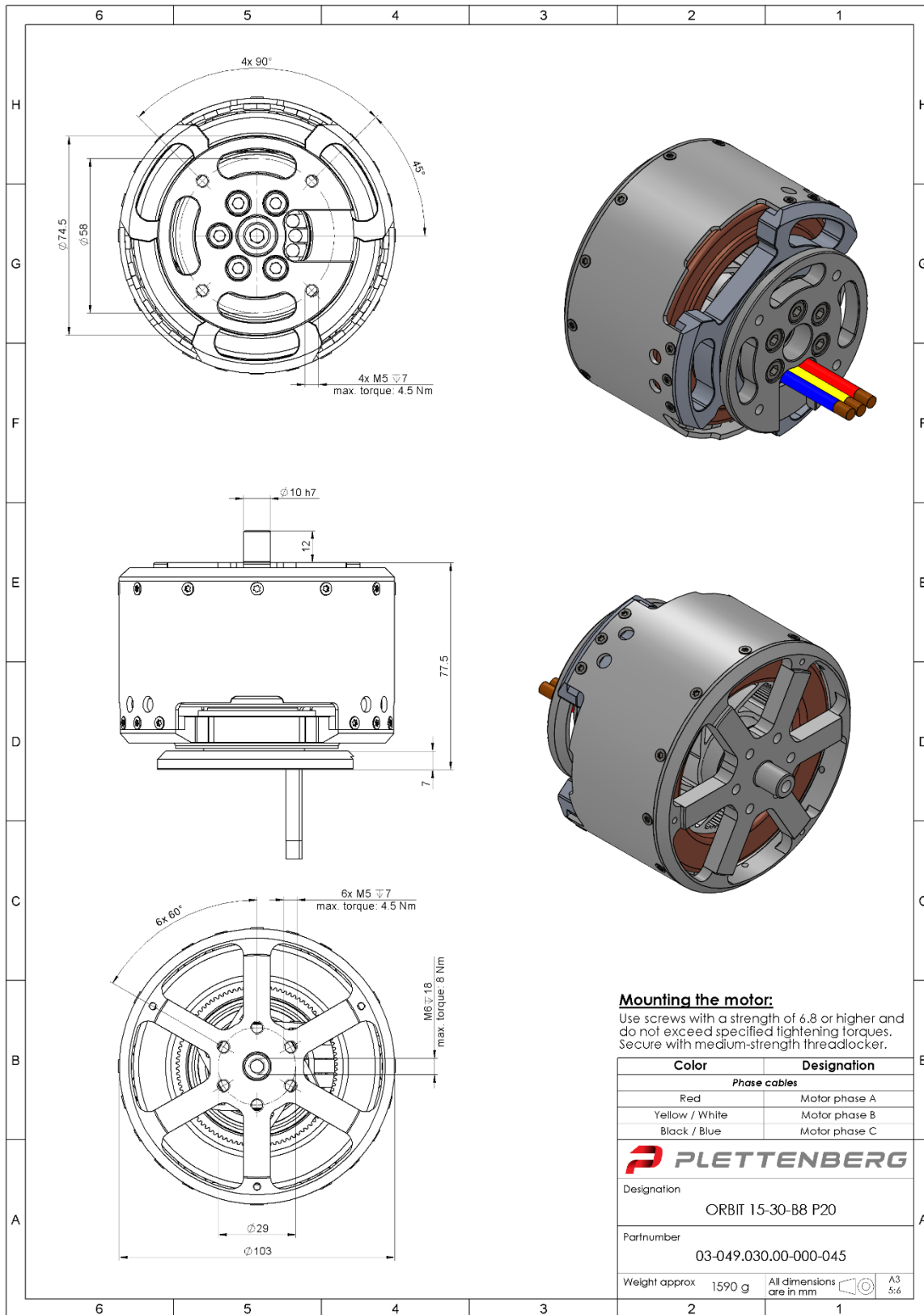
- Custom winding/kV versions
- MTBF/S report
- Mechanical customization or frameless kits
- Propeller study
- Corrosion protection version
- Position and temperature sensors



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Mounting the motor:

Use screws with a strength of 6.8 or higher and do not exceed specified tightening torques. Secure with medium-strength threadlocker.

Color	Designation
<i>Phase cables</i>	
Red	Motor phase A
Yellow / White	Motor phase B
Black / Blue	Motor phase C

PLETTENBERG	
Designation	ORBIT 15-30-B8 P20
Partnumber	03-049.030.00-000-045
Weight approx	1590 g
All dimensions are in mm	A3 5:6

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