

ADVANCE Series

ADVANCE 5-50-B6 P20

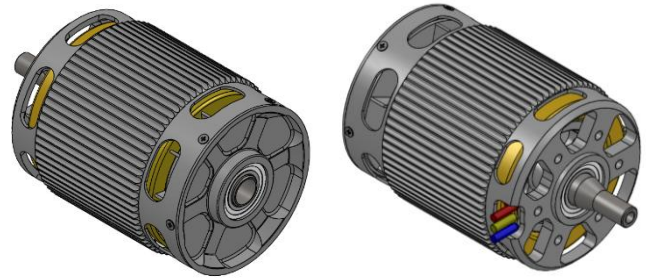
Inrunner BLDC motor with open housing

Overview

The ADVANCE 5 is from our family of weight optimized inrunner BLDC motors and has been designed for a wide range of mission critical applications.

Features

- Ultra-light housing for weight sensitive applications
- Integrated fan, providing superior cooling even in airflow constrained applications
- Designed for use with sensorless ESCs
- High torque density



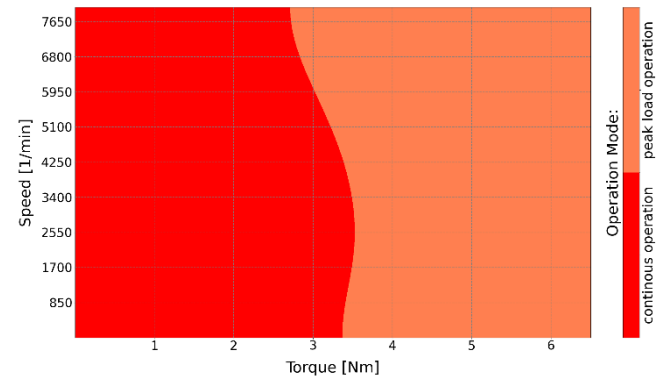
Specifications

Part number	02-029.050.00-000-051	
Peak output power	5	kW
Peak torque (max. 5s)	6.5	Nm
Max. speed	8,000	rpm
Voltage range	15-40	V
Speed constant (kV)	210	rpm/V
Diameter	68	mm
Length	85	mm
Weight	820	g
Phase cable length	100	mm
Recommended phase cable extension	6	mm ²
	10	AWG
Protection class	IP20	
Mounting	Front	
Direction of rotation	Both	
Cooling	Air cooled	
Ambient temperature range	-20 to +60	°C
Max. temperature ⁽¹⁾		
Winding	120	°C
Rotor	120	°C
Number of poles	20	
Number of windings	6	
Phase resistance ⁽²⁾	21	mΩ
Phase inductance ⁽²⁾	28	μH
Peak thrust	21 kg with 24x8.1" prop	

Complementary Products

- Plettenberg gold connectors: GC6-00 / GC6-90

Heatmap



Note: Assuming 25°C ambient temperature at MSL.

Options & Customization

- Custom winding/kV versions
- MTBF/S report
- Mechanical customization or frameless kits
- Propeller study
- Corrosion protection version
- Removal of integrated fan

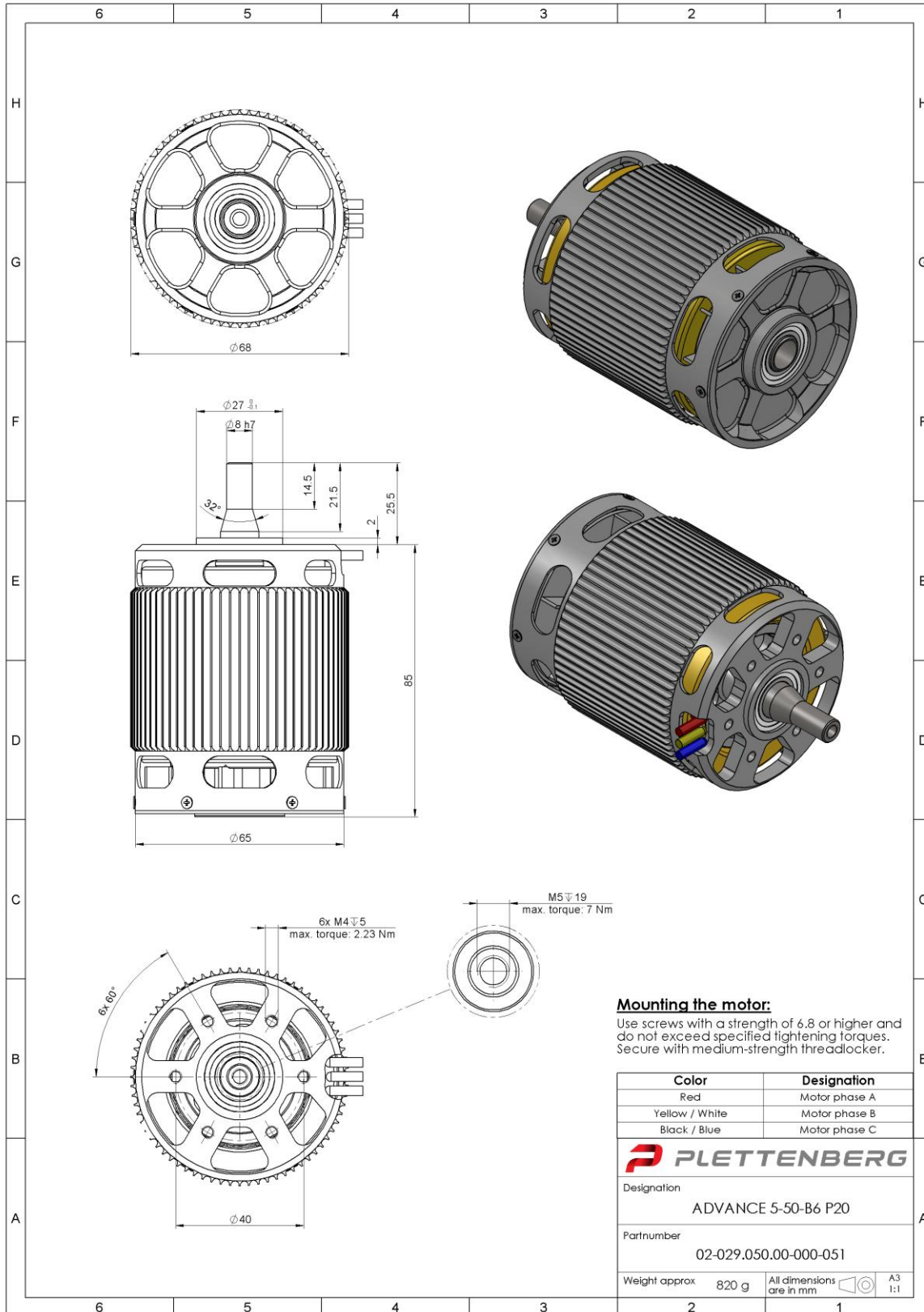
Notes:

- (1) Absolute maximum continuous temperature levels, which must not be exceeded
- (2) Phase-to-phase value



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