

ADVANCE Series

ADVANCE 1-30-B20 P14

Inrunner BLDC motor with open housing

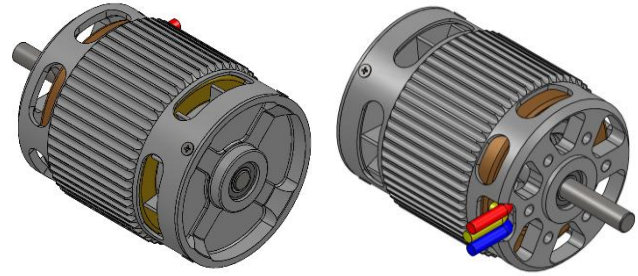


Overview

The ADVANCE 1 is from our family of weight optimized inrunner BLDC motors and has been designed for a wide range of mission critical applications.

Features

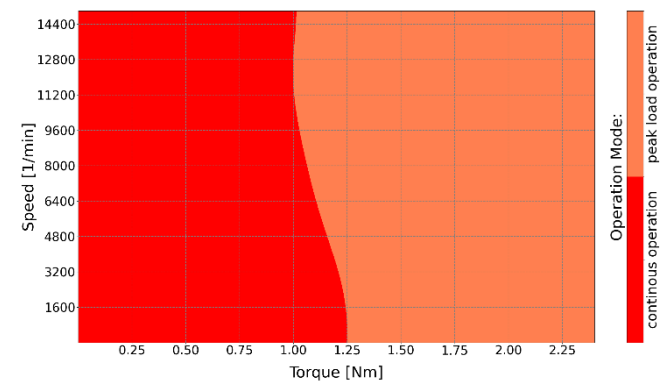
- Ultra-light housing for weight sensitive applications
- Integrated fan, providing superior cooling even in airflow constrained applications
- Designed for use with sensorless ESCs
- High torque density



Specifications

Part number	02-045.030.00-000-022	
Peak output power	2	kW
Peak torque (max. 5s)	2.4	Nm
Max. speed	15,000	rpm
Voltage range	20-60	V
Speed constant (kV)	255	rpm/V
Diameter	55	mm
Length	64	mm
Weight	420	g
Phase cable length	100	mm
Recommended phase cable extension	1.5	mm ²
	16	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	14	
Number of windings	20	
Phase resistance ⁽²⁾	77	mΩ
Phase inductance ⁽²⁾	60	μH
Peak thrust	10 kg with 18x6" prop	

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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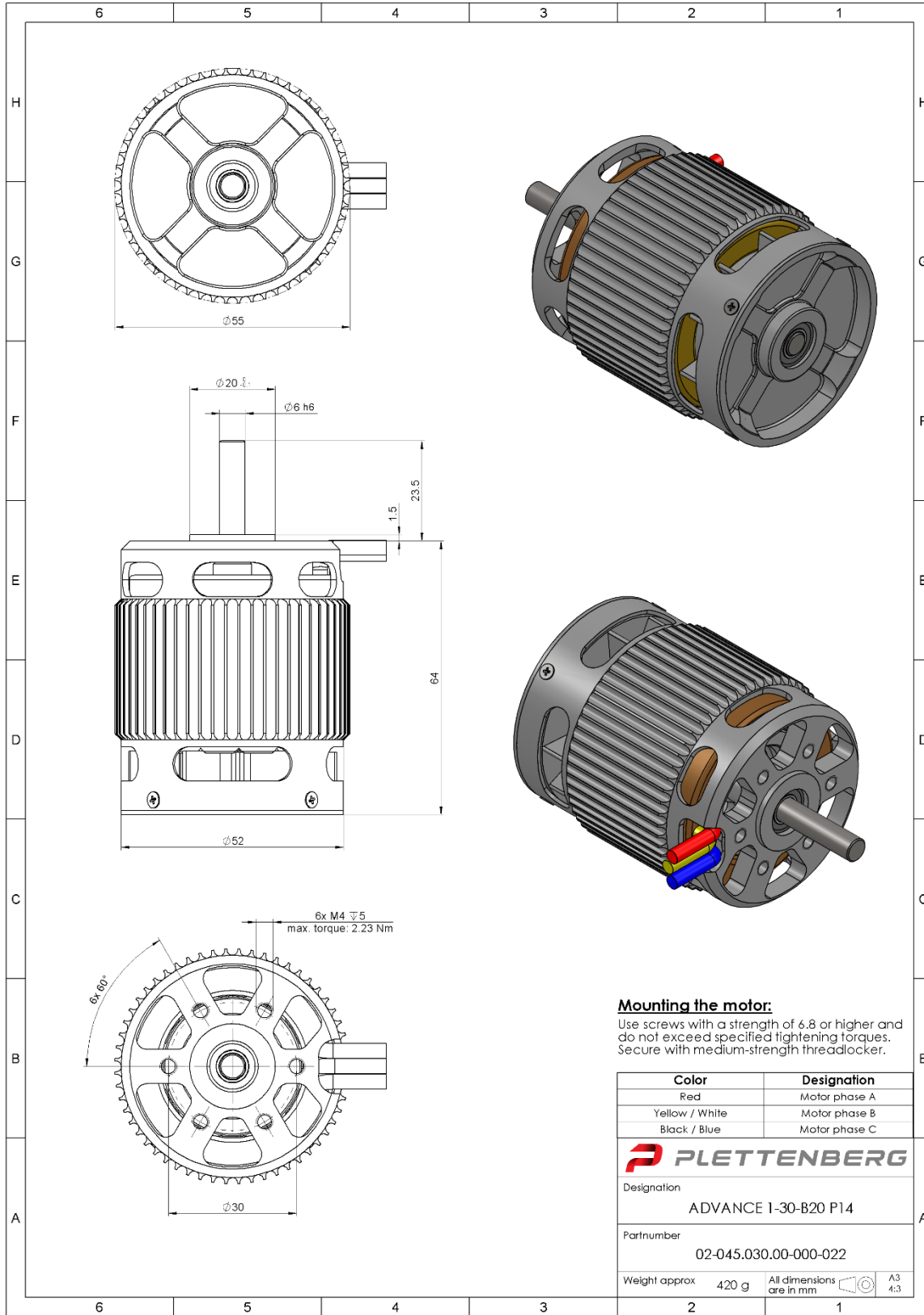


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