

# **Himax EPF56 RTR Ducted Fan**

## **1. INTRODUCTION**

The EPF56 ducted fan unit represents a simple method of getting started in electric ducted fan model flying. It's high performance makes it an ideal choice for use in medium to fast model jets weighing about 400 to 800 g. The removable intake ring enables the ducted fan to be installed inside the model or mounted externally; at external mounting, it improves the unit's efficiency.

The rotor of the EPF56 is dynamically balanced at the factory, which means that you can install and use it immediately after purchase; the difficult task of balancing the rotor is not required.

## **2. SPECIFICATION**

Rotor Ø: 56 mm, 2.20"

Overall Length: 98.5mm, 3.88"

Unit O.D.: 58.7mm, 2.31"

Inlet ring O.D.: 69.3 mm, 2.73"

Weight: 95 g, 3.4 oz w/o inlet ring, 100g, 3.5 oz with inlet ring

No. of rotor blades / stator blades: 7 / 4

Max. rotational speed: 40,000 rpm

Motor: Himax HA2025-4200 Custom

Battery: 3S LiPo, do not use more than 3S LiPo or 9 NiXX cells!

Current: 20 Amp

Input power: approx. 200 Watts

Thrust: approx. 500 g, 1.1 lbs

## **3. SAFETY NOTES**

The EPF56 ducted fan unit is designed exclusively for use in modeling. Improper or incompetent usage may result in very serious personal injury.

- Read the entire instructions before connecting the battery,
- Before running the unit, remove all loose, lightweight objects from the area around the ducted fan's intake, as these could be ingested and wreck the impeller. Do not run the unit with the model standing on grass,
- Keep your clothing and your extremities (fingers etc.) well clear of the rotor when it is spinning,
- Do not stand in front of the ducted fan unit when it is running, nor in line with it,
- Switch the motor off immediately if you detect vibration, and eliminate the cause of the problem before running it again.
- Never exceed the unit's stated maximum rpm!
- Ensure that the motor is adequately cooled, and do not obstruct air circulation around the unit

### **Maintenance:**

Brushless motors are almost maintenance free, so minimal care is required for long life. Keep the motor clean free of dust and dirt, especially the bearings. Dirty bearings wear quickly. Lubricate the bearings regularly with light oil. Do not immerse the motor in water, or solvents. Do not bend the wires excessively and secure wires to prevent breakage due to fatigue from vibration. Always use balanced impellers to reduce loads on bearings, to reduce noise, and reduce stress on the airframe.

### **Warranty & Service:**

Himax motors have a two year limited warranty to the original owner, excluding gearboxes. All motors are guaranteed to be free from manufacturing defects within two years of date of purchase. Not covered under warranty is crash damage, customer abuse, improper use, or overheating.

Warranty claims should be handled directly with Maxx Products, 815 Oakwood Rd, Unit D, Lake Zurich, IL 60047. Be sure to include contact information and a description of the problem including which ESC, battery, and prop was being used. Return shipping for repair estimates must be prepaid.

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