Himax Brushless Outrider Motor
HC4240-770

Himax Brushless motors are manufactured to high standards for the discerning motorist. Designed for lightweight, high efficiency, high torque, and reliability, Himax Outrider motors are sure to make today's racing controlled models perform. Please read the entire manual very carefully to ensure proper installation and manu- nance. The HC4240-770 motor is made for medium size models weighing up to 4.3 for 30 Speed, up to 6.2 for aerodynamic flight and up to 8 for leisurely flight.

Accessories (included):
1. Prop Adapter
2. Female 3.5mm connector
3. Motor Mounting Screws
4. Motor Mount Kit
5. 4 Cell Keys

Features:
High Efficiency - High Power - High Torque - Lightweight - Replacement for 35-52 size engines

Specifications:
Weight: 20g (7oz). Motor only
Max Power: 8000 (This is dependent on factors)
Max RPM: 12,000 RPM
Direct Drive: 1:7
Length: 50mm (2")
Shaft Diameter: 3.5mm (1/8")
Mount Screw Thread: M5, 5 mm max depth on 25 mm (1") circle
Minimum Case Temperature: 65°C
(EA0)

Electrical Specifications:
HC4240-770 Ka = 710, Rm = 0.5, λm = 1.24-0.10V

Recommended Accessories:
60 or 75amp Brushless Speed Control
3-45 Lithium Polymer battery, capable of 50-60 Amps

Reading the Chart
A graph represents the HC4240-770 oper- ating range. Current ratings are noted on the maximum Ka values. The suggested props are not a recommendation for any specific airplane or flying style. Graphs do give a range of props to work with as all values of current and Ka will not be affected. The chart shows APC Electric Series propellers. First, approximate the operating volt- age which is about 6-8 volts per Lithium cell. As an example we are using a 36x36 turn. To achieve 10.8V, link the 18 turn 2.5x per Lithium cell. All props are approximations. Using a 15x15 prop this will drop approx- imately 43% This will cause the helicopter to have more than one full throttle continuous flight. If a 18x18 prop were used, the current would increase but allow 15 second bursts of full throttle with the proper power off line to allow the motor to cool.

Choosing a power system: Power system can be chosen based on the type of flying ex- ecuted in the model weight and voltage. Generally one should have 20 watts per Volts. Take off the ground output approximately 50%. Aerodynamic and good climb performance, 1900watts. Anything more than 1500watts will result in excellent performance. Based on the weight of the model and the flying desired, the power required can be calculated. See the voltage of the battery being used. It is best to use a closed voltage of about 95% of nominal. Now calculate the required. From the chart, pick a motor at the voltage of the system to be used and find the prop that will pull the current required.

Propeller selection:
Use the chart to select propeller selection. It is a starting point and we recommend selecting several props on the model to find the best performing prop. Eventually you will choose the correct prop by experimenting. A 30 model will use a prop very different than a model intended to fly very fast. Propellers are selected by diameter (D)/ratio to 5.0 or less, like 15x12 or 15x11. Most sport models will use 12x8 or 14x8. A model P/D will vary from 150-350. Models are agreed to fly at high speed or have other special requirements will use props of P/D up to 27.5. No of blades should be available from the 0.5 Prop to 50, but they have limited top speed. Highest limit is 20 blades. Blades of 10 or 20 P/D props. Propulsion or speed and acceleration is limited.

Warranty:
Himax motors have a two year limited warranty on the original owner; excluding gearboxs. All motors are guaranteed to be free from manufacturing defects in material and workmanship for a period of two years from date of purchase. Not covered under warranty is crash damage, customer abuse, gear box failure, use outside of specifications, damage to any component due to use of wrong ESC, or damage from electric overload, misuse, or mistreatment. If possible visit www.himax.com to obtain a service form.

This is Himax’s policy in need of service should be sent to Maxx Products, 8105 Oak Ridge Blvd, Unit D, Lake Zurich, IL, 60047. Please include a complete explanation of the problem. Return shipping for repair estimates must be pre-paid.