



Formulas

To Calculate Approximate Running Time:

Battery Amp Hour (Ah) Rating times 85%, divided by motor amp draw, equals approximate running time.

$$\frac{120 \times .85}{30 \text{ amps}} = 3.4 \text{ hours}$$

$$\frac{120 \times .85}{5 \text{ amps}} = 20.4 \text{ hours}$$

To Calculate Approximate Speed in Miles Per Hour:

Prop pitch (4"), times motor RPM (1540), times 85% (slip factor), divided by 12 (inches in 1 foot), times 60 (minutes in an hour), divided by 5280 (feet in 1 mile), equals speed in MPH. **Note:** Using a higher thrust motor will not give you a higher top speed.

$$\frac{4 \times 1540 \times 0.85}{12} \times \frac{60}{5280} = 4.95 \text{ MPH}$$

To Calculate Approximate Horsepower:

Motor amp draw times voltage equals wattage.

Wattage divided by 746 (Watts in 1 hp) equals approximate horsepower.

$$\frac{45 \times 24}{746} = 1.45 \text{ hp}$$

$$\frac{37 \times 36}{746} = 1.79 \text{ hp}$$