

Let's talk Motors!

NOTE!!

- 1) About 750 watts is 1 Horsepower.
- 2) A watt is Voltage X Amps

Ok what does that mean?

A Saito 1.80 or YS 1.40 is about 2.7 HP (2,000 watts) as a reference point.

A Hacker C 50 14 XL pulls about 60 AMPS @ 40 Volts is 2,400 Watts. (3.2 HP!) Now we don't get 100% efficiency, so let's plug in 85% X 2,400 watts is 2.72 HP, but the prop is more efficient than a normal glow prop so we will get some efficiency back....

A Hacker 50 13 XL can turn a 22 X 10 inch prop and pull well over 20 lbs of thrust.

Now remember, a WATT is a WATT is a WATT

So when looking at other brands and models of electric motors, check to see what the WATT Rating is (Volts X Amps). For aerobatic models such as DPM 25% models, you want to turn a big prop. Usually 20 to 22 inch diameter. You want high thrust for aerobatics, not speed. Large diameter, like on a helicopter, means lowers speed, but high thrust, conversely, small diameter is used for speed. Check with the manufacturer!

To turn a big prop, you will need one of two styles of brushless motor; a high RPM motor connected to a reduction gear drive, or an "outrunner". It would seem, at time of press, a conventional brushless with a gear drive is system of choice on 25% aerobatic models, and an outrunner style seems to be the choice on small models. This may be due to the lower costs of a simpler outrunner, but shop around, there are a lot of good products to chose from!

