

ELECTRIC MOTOR TEST DATA SHEET rev2 27/03/21 (model wing span changed)

Date of Test 02/03/21		Motor Details											
Make	Size	Watts	Kv Factor										
Max4	PPI 2847 2 pole	260	2100										
Test Rig Components													
Battery # Cells		Esc Amps	Watt Meter		Rev Meter								
3s 11.1v 2200 mAHr		30A Cont	150A		Not Used								
See note 1 below													
Test Data Results													
Prop Size	Make	Thrust (Grams)		Amps		Watts							
		25%/50%/75%/100%		25%/50%/75%/100%		25%/50%/75%/100%							
5.25x4.75	APC	50	155	520	570	1.25	5.0	16.5	20.0	17.5	60	180	220
Model Details													
Name		Size(span inches)		Weight(Kg)		Type		Motor Size					
Vulcan B2		49"		1.6 Kg		Delta		2x PPI 2847					
Comments/conclusions													
<p>This test has been carried out specifically to test the complete power train for this model. And to determine if sufficient thrust can be developed by both motors for take off.</p> <p>Based on the above data, the combined thrust of both motors is 1.140 Kg. The model weight is 1.6Kg. Giving a thrust/weight ratio of $1.140/1.6 = 0.71:1.0$. This should be sufficient to take off from ground and sustain flight.</p> <p>Note 1 A further test was carried out using a 4s battery, but proved to exceed the ESC and motor limits at 50 % and was therefore discontinued</p>													