



DESIGN FOR
FPV COMPETITION
RETURNER R5-2306 MOTOR



01 Optimized design of magnetic circuits adopting strong N52H magnet



02 Perfect dynamic performance and efficiency of exercise

03 7075 aluminum alloy, good mechanical properties, good abrasion resistant, high strength.



04 With the newest bearing with higher RPM---Japanese EZO bearing.



Brother Hobby
RETURNER R5-2306 MOTOR

RV2400KV(2000KV) / CONFIGURATION: 120° / 1P / NO. OF CELLS: 10 / MAGNET: N52H ARC MAGNETS / WIRE AWG: 28AWG
SHAFT: STAINLESS ALLOY HOLLOW SHAFT / STEEL / 2.0MM DIAMETER / BEARING: JAPAN EZO 6x 4 x 5mm / BASE CASTING: AL 7075
BEARING: JAPAN EZO 6x 4 x 5mm / BASE CASTING: AL 7075
BELL CAP: AL 7075 (COLOR: ANODIZED COLOR)

BrotherHobby R5 2306-2400kv Test Data

Tested KV: 2400kv
Weight: 29g
Stator: 23mm x 6mm

Test Environment:

XRotor 40A ESC
Timing: Med-high
Dither: 7
PWM: Damped Light

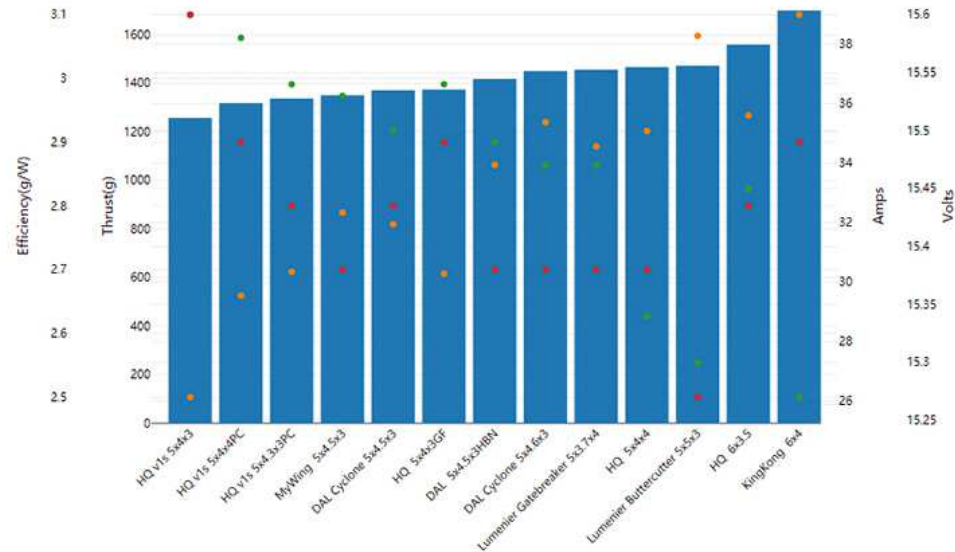
Venom 60A Power Supply
2Farad Caps x2 in Series

Custom Datalogger

TI TivaC Launchpad
Allegro ACS758-200B
Voltage Divider
EagleTree eRPM Sensor
Custom Thrust Stand w/ HX711
4 ms logging rate

Atmospheric Data (Typical)

Barometric pressure: 29-30 in
Ambient Temperature: 70-74 deg F
Humidity: 50-60%



100%	Thrust (g)		Current (A)		Voltage		High RPM Pass			Efficiency	
Prop Tested:	Max(g)	Avg Max(g)*	Max (A)	Avg Max(A)*	Avg Min(V)*	Max(V)	Max	Min	Avg Max*	Watts	G/W
HQ v1s 5x4x3	1270	1256	127.79	26.07	15.60	16.14	33094	29970	31542	407	3.1
HQ v1s 5x4x4PC	1337	1317	123.46	29.54	15.58	16.13	31628	28860	30301	460	2.9
HQ v1s 5x4.3x3PC	1352	1336	127.90	30.30	15.54	16.14	31512	29556	30133	471	2.8
MyWing 5x4.5x3	1365	1351	139.38	32.31	15.53	16.13	30181	27384	29213	502	2.7
DAL Cyclone 5x4.5x3	1383	1372	121.19	31.95	15.50	16.14	30943	28288	29533	495	2.8
HQ 5x4x3GF	1385	1374	122.49	30.32	15.54	16.14	30832	29658	30035	471	2.9
DAL 5x4.5x3HBN	1430	1420	133.53	33.96	15.49	16.12	29455	26536	28590	526	2.7
DAL Cyclone 5x4.6x3	1461	1449	114.15	35.28	15.47	16.12	29354	27739	28193	546	2.7
Lumenier Gatebreaker 5x3.7x4	1468	1455	143.28	34.49	15.47	16.13	29354	27829	28492	534	2.7
HQ 5x4x4	1481	1465	131.80	34.99	15.34	16.12	29154	27384	28266	537	2.7
Lumenier Buttercutter 5x5x3	1485	1471	108.41	38.17	15.30	16.13	28666	26785	27296	584	2.5
HQ 6x3.5	1575	1558	114.04	35.55	15.46	16.13	29154	26292	28041	549	2.8
KingKong 6x4	1720	1693	113.50	38.83	15.28	16.12	27739	26292	26913	593	2.9

