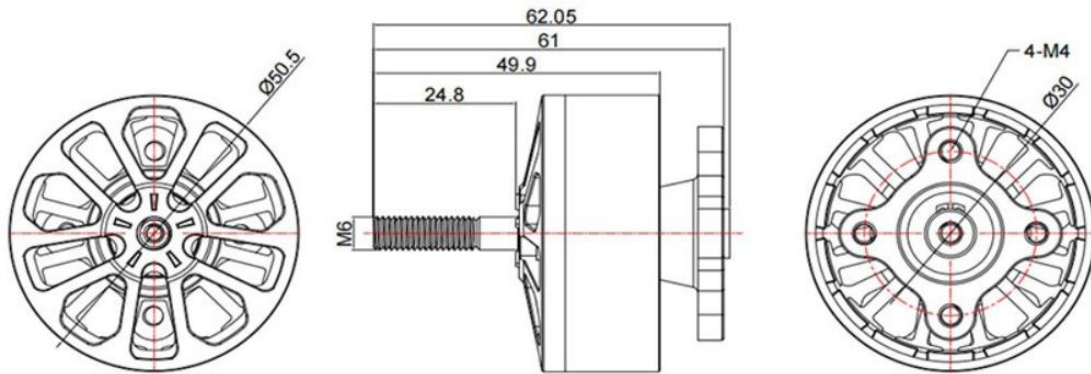


4312-380KV

HIGH-PERFORMANCE BRUSHLESS MOTOR

Application: 15Inch FPV Long Range

ENGINEERING DRAWING OVERVIEW



Specification	Value
Stator Diameter	Ø50.5 mm
Total Height	62.05 mm
Shaft Thread	M3
Mounting Pattern	30×30 mm (4-M4)

BASIC PARAMETERS

Parameter	Value
KV Value	380
Configuration (Slots/Poles)	12N14P
Shaft Diameter	6 mm
Silicone Wire	16#
Motor Weight (including cable)	175 g
Phase Terminal Resistance (including cable)	43.5 mΩ
Working Voltage	8S-12S (Lipo)

Parameter	Value
No-Load Current (10V)	1.55 A
Maximum Power	3949.4 W
Maximum Current	84.16 A

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PERFORMANCE TEST DATA (8S VOLTAGE)

Propeller: 13x7.5x3three-blade propeller-8S

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10	32.01	0.135	1081.3	0.03613	4.3	8.39
20	32.00	0.618	2167.5	0.19761	19.8	9.99
30	31.98	1.608	3128.3	0.4593	51.4	8.93
40	31.95	3.249	4009.5	0.79942	103.8	7.70
50	31.91	5.657	4823.7	1.23223	180.5	6.83
60	31.85	9.861	5792.7	1.92834	314.1	6.14
70	31.75	14.885	6566.9	2.63653	472.6	5.58
80	31.61	21.159	7279.3	3.3787	668.9	5.05
90	31.47	28.248	7913.4	4.07096	889.0	4.58
100	31.26	38.203	8602.8	4.92008	1194.3	4.12

Propeller: HQ 13×8×3 three-blade propeller-8S

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10	33.64	0.187	1178.0	0.04906	6.3	7.83
20	33.61	1.076	2475.6	0.25999	36.2	7.19

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
30	33.57	2.439	3560.0	0.62514	81.9	7.64
40	33.50	4.539	4488.0	1.07114	152.1	7.05
50	33.38	8.323	5545.7	1.72789	277.8	6.22
60	33.25	13.006	6425.8	2.36669	432.4	5.47
70	33.02	19.525	7307.6	3.10779	644.8	4.82
80	32.78	27.530	8109.6	3.88993	902.3	4.31
90	32.48	37.056	8842.2	4.67408	1203.4	3.88
100	32.14	47.729	9480.6	5.42419	1533.9	3.54

Propeller: 13×7.5×3 three-blade propeller – 12S

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10	50.31	0.398	1937.4	0.10387	20.0	5.20
20	50.26	1.426	3673.5	0.46243	71.7	6.46
30	50.18	3.214	5110.5	1.01851	161.3	6.32
40	50.03	7.029	6699.1	1.95862	351.7	5.57
50	49.78	12.179	8006.1	2.92916	606.3	4.83
60	49.43	20.129	9370.6	4.21838	995.0	4.24
70	48.98	30.282	10557.9	5.44369	1483.1	3.67
80	48.50	41.705	11546.7	6.62916	2022.5	3.28
90	47.89	55.782	12396.4	7.70056	2671.2	2.88
100	47.28	70.997	13075.2	8.61033	3356.6	2.57

Propeller: HQ 13×8×3 three-blade propeller-12S

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10	50.38	0.475	1903.7	0.13629	23.9	5.70
20	50.32	1.811	3576.2	0.64610	91.1	7.09
30	50.21	4.126	4945.6	1.33789	207.2	6.46
40	50.00	9.073	6477.1	2.40846	453.7	5.31
50	49.70	15.614	7701.8	3.47378	776.0	4.48
60	49.28	25.333	8898.9	4.73040	1248.4	3.79
70	48.75	37.300	9885.4	5.90319	1818.5	3.25
80	48.18	51.499	10644.9	6.94036	2481.1	2.80
90	47.53	67.674	11142.3	7.69064	3216.6	2.39
100	46.93	84.163	11428.5	8.13321	3949.4	2.06

* Technical specifications are based on manufacturer's lab environment testing. Actual performance may vary.