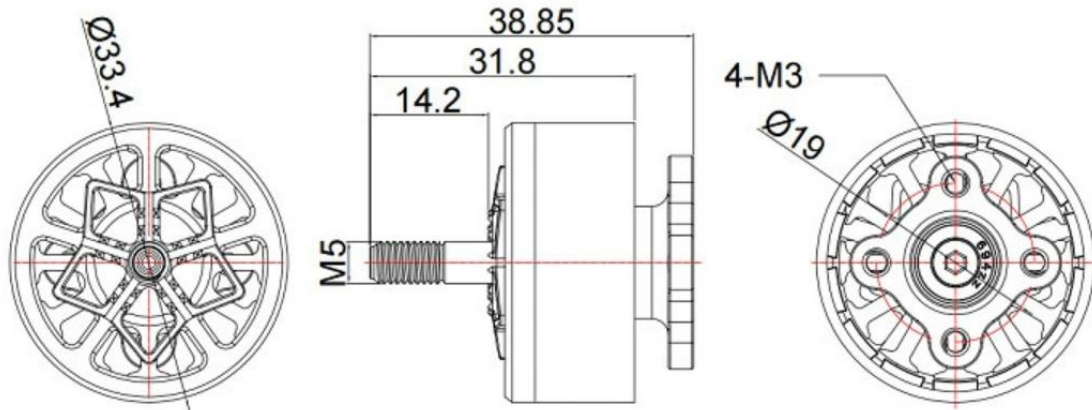


# 2810-900KV

## HIGH-PERFORMANCE BRUSHLESS MOTOR

Application: 8-Inch FPV Long Range

### ENGINEERING DRAWING OVERVIEW



Specification	Value
Stator Diameter	Ø28.0 mm
Total Height	38.85 mm
Shaft Thread	M5
Mounting Pattern	16×16 mm (4-M3)

### BASIC PARAMETERS

Parameter	Value
KV Value	900
Configuration (Slots/Poles)	12N14P
Shaft Diameter	5 mm
Silicone Wire	18#
Motor Weight (including cable)	70 g
Phase Terminal Resistance (including cable)	69 mΩ

Parameter	Value
Working Voltage	6S (Lipo)
No-Load Current (10V)	0.9 A
Maximum Power	971.7 W
Maximum Current	40.64 A

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## **PERFORMANCE TEST DATA (6S VOLTAGE)**

### **Propeller: 8×5×3 3-Blade**

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10%	25.28	0.10	1565	16.34	2.55	6.40
20%	25.27	0.58	3885	115.13	14.68	7.84
30%	25.24	1.70	5979	297.03	42.78	6.94
40%	25.18	3.65	7843	545.00	91.86	5.93
50%	25.09	6.77	9651	861.38	169.78	5.07
60%	24.95	11.37	11383	1241.70	283.56	4.38
70%	24.75	17.55	12972	1665.98	434.36	3.84
80%	24.51	24.61	14256	2063.34	603.09	3.42
90%	24.22	33.11	15407	2464.50	801.95	3.07
<b>100%</b>	<b>23.99</b>	<b>38.68</b>	<b>15959</b>	<b>2697.25</b>	<b>928.03</b>	<b>2.91</b>

### **Propeller: GEMFAN8046 3-Blade**

Throttle (%)	Voltage (V)	Current (A)	Speed (RPM)	Thrust (gf)	Power (W)	Efficiency (gf/W)
10%	25.29	0.10	1569	13.17	2.53	5.21
20%	25.27	0.54	3908	94.26	13.62	6.92

<b>Throttle (%)</b>	<b>Voltage (V)</b>	<b>Current (A)</b>	<b>Speed (RPM)</b>	<b>Thrust (gf)</b>	<b>Power (W)</b>	<b>Efficiency (gf/W)</b>
30%	25.25	1.53	6088	254.23	38.66	6.58
40%	25.20	3.16	8001	475.43	79.63	5.97
50%	25.12	5.69	9890	755.99	142.98	5.29
60%	25.01	9.47	11793	1099.81	236.82	4.64
70%	24.84	14.47	13543	1462.12	359.41	4.07
80%	24.65	20.18	15045	1809.96	497.51	3.64
90%	24.41	27.27	16464	2240.24	665.56	3.37
<b>100%</b>	<b>24.21</b>	<b>32.18</b>	<b>17260</b>	<b>2523.23</b>	<b>779.10</b>	<b>3.24</b>

### **Propeller: HQ 8×4.5×3 3-Blade**

<b>Throttle (%)</b>	<b>Voltage (V)</b>	<b>Current (A)</b>	<b>Speed (RPM)</b>	<b>Thrust (gf)</b>	<b>Power (W)</b>	<b>Efficiency (gf/W)</b>
10%	25.29	0.11	1554	19.97	2.76	7.24
20%	25.27	0.63	3852	136.29	15.89	8.57
30%	25.24	1.84	5844	335.78	46.37	7.24
40%	25.18	4.04	7728	617.97	101.75	6.07
50%	25.07	7.48	9491	970.00	187.57	5.17
60%	24.92	12.41	11163	1368.96	309.13	4.43
70%	24.71	18.94	12706	1801.73	468.06	3.85
80%	24.45	26.37	13954	2204.08	644.72	3.42
90%	24.16	35.06	15037	2592.75	846.95	3.06
<b>100%</b>	<b>23.91</b>	<b>40.64</b>	<b>15543</b>	<b>2789.00</b>	<b>971.70</b>	<b>2.87</b>

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