

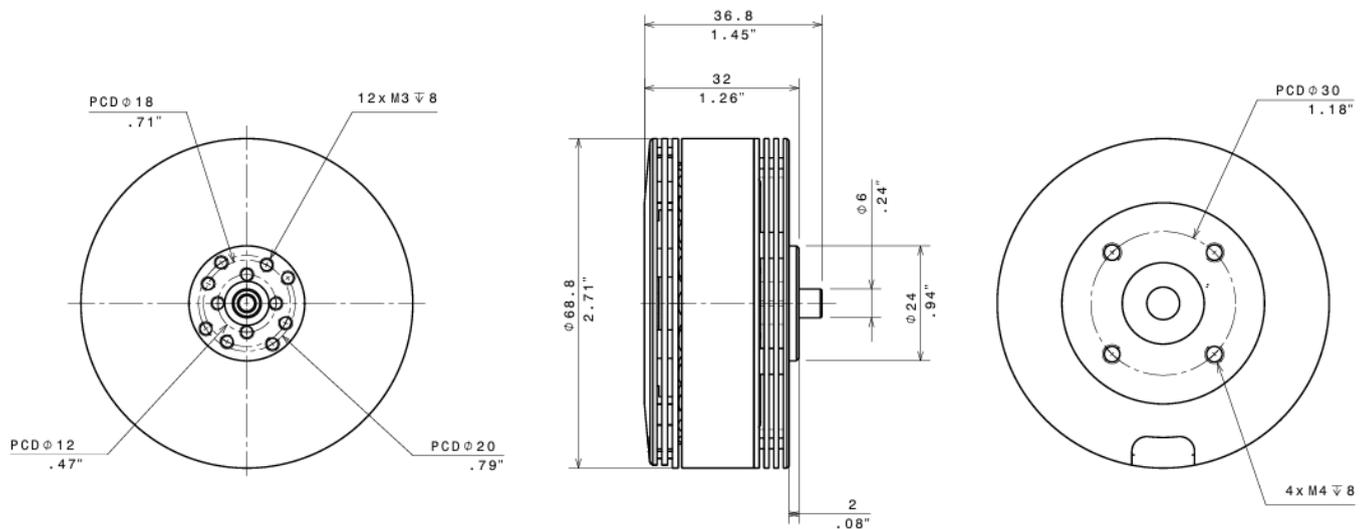
# 6010 PRO

## 430 KV

### MOTOR SPECIFICATIONS

Kv (Motor Velocity Constant)	430 RPM/V
Kt (Motor Torque Constant)	0.028 Nm/A @ 4860 RPM
Maximum Continuous Current*	41A [180s]
Maximum Continuous Power*	965 W [180s]
Power Density	4.02 W/g [Rated], 7.71 W/g [Maximum]
Voltage Range	22V - 25V [ 6S LiPo]
I <sub>o</sub> (24@V)	3.4A [24@V]
Inductance per phase (Winding Inductance)	0.013 [ ≈0.03] mH
R <sub>ph</sub> (Wind Resistance per phase)	0.03 [ ≈0.03] Ω
Stator Poles	24S
Magnetic Poles	28P
Bearings	Dual 626-2Z Sealed
Stick Out Shaft Diameter	ø 4.8 mm
Motor Diameter	ø 68.8 mm
Motor Length	32 mm
Motor Weight	240 g ± 10 g
Mount Pattern @ 90 deg	12 X M3 @ PCD ø 12 mm, ø 18 mm, ø 20 mm with ↓ 8 mm
Compatible Propeller Size	15 " inch to 18 " inch
Propeller Mount Pattern	4 X M4 @ PCD ø 30 mm ↓ 8 mm

### 2D CAD



Note: Specifications and drawings may be revised without notice. Vector Technics assumes no liability for reliance on unverified data. All Dimensions in millimeters [mm]

## 6010 PRO 430 KV - TEST DATA

**Note:** The test data provided below is subject to environmental and testing conditions, including but not limited to temperature, humidity, altitude, and the equipment used. Results may vary depending on specific testing parameters and conditions.

<b>Propeller</b>	SR 18 x 6.1 CF_FX			<b>Power Supply / Battery</b>	TB - 22000mAh 6S	
<b>ESC</b>	HW 80 A 6S			<b>Environmental Temp:</b>	29 ° C	<b>Cross-winds:</b> Moderate
<b>Test Date:</b>	27-08-2024	<b>Humidity:</b>	67 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	24.1	2.2	2485	546	0.12	53.0	10.3	56 ° C [@70% 10 min Constant]
1400 - 40	23.9	5.6	3496	1150	0.26	133.8	8.6	
1500 - 50	23.7	11.1	4427	1918	0.42	263.1	7.3	
1600 - 60	23.4	17.8	5141	2659	0.58	416.5	6.4	
1700 - 70	23	27.1	5882	3476	0.75	623.3	5.6	
1800 - 80	22.5	38.3	6533	4308	0.93	861.8	5.0	60 ° C [Maximum]
1900 - 90	22	50.5	7073	5037	1.08	1111.0	4.5	
1950 - 95	21.8	55.7	7225	5331	1.15	1214.3	4.4	
2000 - 100	21.8	55.3	7240	5326	1.14	1205.5	4.4	

<b>Propeller</b>	SR 20 x 6 CF_FX			<b>Power Supply / Battery</b>	TB - 22000mAh 6S	
<b>ESC</b>	HW 80 A 6S			<b>Environmental Temp:</b>	29 ° C	<b>Cross-winds:</b> Moderate
<b>Test Date:</b>	27-08-2024	<b>Humidity:</b>	67 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	24.7	3	2370	826	0.21	74.1	11.1	75 ° C [@70% 10 min Constant]
1400 - 40	24.5	8.2	3343	1726	0.43	200.9	8.6	
1500 - 50	24.2	16.5	4210	2779	0.67	399.3	7.0	
1600 - 60	23.8	26.2	4847	3706	0.88	623.6	5.9	
1700 - 70	23.4	37.8	5396	4576	1.08	884.5	5.2	
1800 - 80	22.8	53.1	5900	5472	1.3	1210.7	4.5	81 ° C [Maximum]
1900 - 90	22.2	68.4	6315	6191	1.46	1518.5	4.1	
1950 - 95	21.9	74.9	6430	6490	1.52	1640.3	4.0	
2000 - 100	21.9	74.9	6417	6484	1.54	1640.3	4.0	

<b>Propeller</b>	SR 22 x 6.6 CF_FX			<b>Power Supply / Battery</b>	TB - 22000mAh 6S	
<b>ESC</b>	HW 80 A 6S			<b>Environmental Temp:</b>	29 ° C	<b>Cross-winds:</b> Moderate
<b>Test Date:</b>	27-08-2024	<b>Humidity:</b>	67 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	24.7	5.2	2551	1241	0.33	128.4	9.7	84 ° C [@70% 10 min Constant]
1400 - 40	24.5	10.9	3261	2105	0.54	267.1	7.9	
1500 - 50	24.2	18	3870	2931	0.74	435.6	6.7	
1600 - 60	23.8	28.8	4430	3916	0.97	685.4	5.7	
1700 - 70	23.2	41.6	4860	4834	1.18	965.1	5.0	
1800 - 80	22.7	54.7	5196	5578	1.35	1241.7	4.5	92 ° C [Maximum]
1900 - 90	22.2	69	5488	6310	1.51	1531.8	4.1	
1950 - 95	21.9	76	5640	6495	1.57	1664.4	3.9	
2000 - 100	21.6	85.7	5858	6930	1.69	1851.1	3.7	

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