

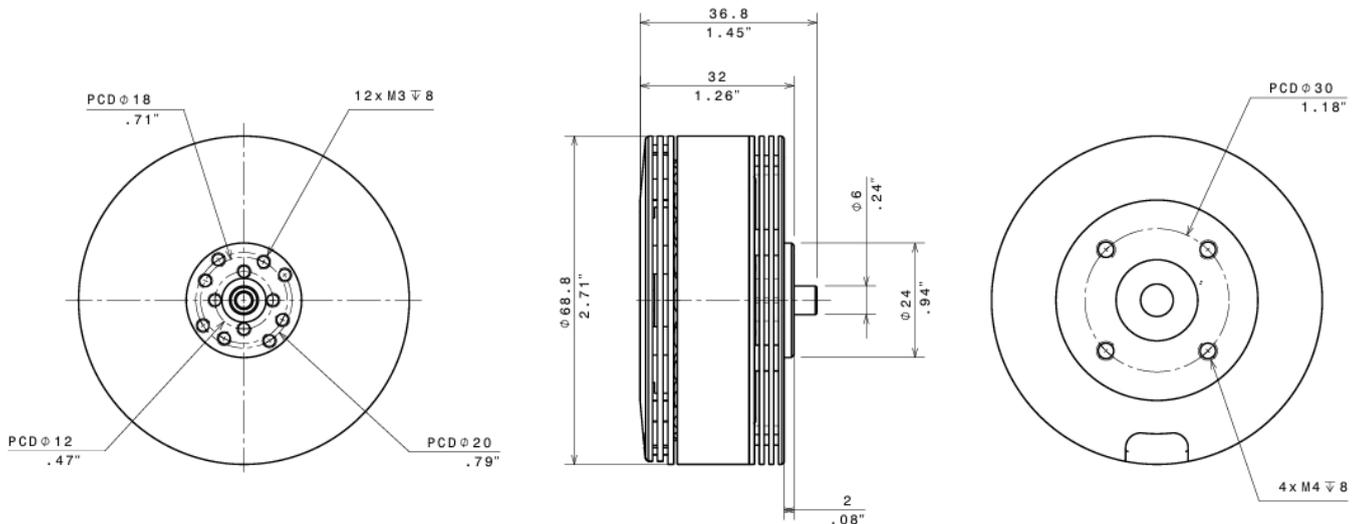
# 6010 PRO

## 160 KV

### MOTOR SPECIFICATIONS

Kv (Motor Velocity Constant)	160 RPM/V
Kt (Motor Torque Constant)	0.029 Nm/A @ 4250 RPM
Maximum Continuous Current*	20A (180s)
Maximum Continuous Power*	910W (180s)
Power Density	3.79 W/g (Rated), 7.13 W/g (Maximum)
Voltage Range	44V - 50V ( 12S LiPo)
I <sub>o</sub> (48@V)	1.2A (48@V)
Inductance per phase (Winding Inductance)	0.102 [ ≈0.03] mH
R <sub>ph</sub> (Wind Resistance per phase)	0.138 [ ≈0.03] Ω
Stator Poles	24S
Magnetic Poles	28P
Bearings	Dual 626-2Z Sealed
Stick Out Shaft Diameter	∅ 4.8 mm
Motor Diameter	∅ 68.8 mm
Motor Length	32 mm
Motor Weight	240 g ± 10 g
Mount Pattern @ 90 deg	12 X M3 @ PCD ∅ 12 mm, ∅ 18 mm, ∅ 20 mm with ↓ 8 mm
Compatible Propeller Size	20 " inch to 23 " inch
Propeller Mount Pattern	4 X M4 @ PCD ∅ 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 160 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>	TM 2009 CFRP_FP			<b>Power Supply / Battery</b>	2 x TB - 22000 mAh 12S	
<b>ESC</b>	TM 60A12S			<b>Environmental Temp:</b>	28 ° C	<b>Cross-winds:</b> Moderate
<b>Test Date:</b>	16-04-2025	<b>Humidity:</b>	58 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	50.1	1	2200	640	0.19	48.7	13.1	43 ° C [@70% 10 min Constant]
1400 - 40	50	2.3	2946	1164	0.33	114.2	10.2	
1500 - 50	49.8	4.4	3718	1827	0.48	218.5	8.4	
1600 - 60	49.6	6.9	4322	2539	0.65	340.4	7.5	
1700 - 70	49.4	10.2	4938	3370	0.83	505.4	6.7	
1800 - 80	49.2	14.1	5515	4081	1.03	692.8	5.9	48 ° C [Maximum]
1900 - 90	48.8	19	6090	4956	1.22	928.6	5.3	
1950 - 95	48.6	22.8	6415	5618	1.38	1107.2	5.1	
2000 - 100	48.6	22.5	6423	5605	1.35	1095.7	5.1	

<b>Propeller</b>	KDE 21 x 7.3 CF_FP			<b>Power Supply / Battery</b>	2 x TB - 22000 mAh 12S	
<b>ESC</b>	TM FLAME 60A 12S			<b>Environmental Temp:</b>	28 ° C	<b>Cross-winds:</b> Mild
<b>Test Date:</b>	21-11-2024	<b>Humidity:</b>	43 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.4	1.5	2148	830	0.24	74.1	11.2	56 ° C [@70% 10 min Constant]
1400 - 40	49.3	3.3	2857	1555	0.43	162.7	9.6	
1500 - 50	49.1	6.5	3550	2499	0.67	319.2	7.8	
1600 - 60	48.8	10.4	4128	3429	0.91	507.5	6.8	
1700 - 70	48.5	14.9	4607	4253	1.15	722.7	5.9	
1800 - 80	48.1	21.3	5085	5219	1.41	1024.5	5.1	60 ° C [Maximum]
1900 - 90	47.7	29.3	5488	6130	1.63	1397.6	4.4	
1950 - 95	47.4	34.6	5696	6591	1.75	1640.0	4.0	
2000 - 100	47.4	34.3	5698	6536	1.74	1625.8	4.0	

<b>Propeller</b>	TM 22 x 6.6 CF_FX			<b>Power Supply / Battery</b>	2 x TB - 22000 mAh 12S	
<b>ESC</b>	HW 80A 12S			<b>Environmental Temp:</b>	28 ° C	<b>Cross-winds:</b> Mild
<b>Test Date:</b>	21-11-2024	<b>Humidity:</b>	43 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.4	0.9	1862	621	0.17	44.5	14.0	55 ° C [@70% 10 min Constant]
1400 - 40	49.3	2.3	2557	1217	0.31	113.4	10.7	
1500 - 50	49.1	5.1	3391	2192	0.56	250.4	8.8	
1600 - 60	48.9	8.9	4094	3159	0.81	435.2	7.3	
1700 - 70	48.5	14	4670	4264	1.08	679.0	6.3	
1800 - 80	48.1	20.4	5217	5406	1.37	981.2	5.5	59 ° C [Maximum]
1900 - 90	47.6	28.4	5733	6416	1.63	1351.8	4.7	
1950 - 95	47.5	30.7	5822	6704	1.7	1458.3	4.6	
2000 - 100	47.5	31.4	5785	6778	1.75	1491.5	4.5	

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<b>Propeller</b>	VT 2308 CFRP_FP			<b>Power Supply / Battery</b>	2 x TB - 22000 mAh 12S		
<b>ESC</b>	HW 80A 12S			<b>Environmental Temp:</b>	30 ° C		
<b>Test Date:</b>	21-11-2024	<b>Humidity:</b>	39 %	<b>Cross-winds:</b> Mild			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.2	1.4	1781	796	0.27	68.9	11.6	74 ° C [@70% 10 min Constant]
1400 - 40	49	3.1	2360	1477	0.46	151.9	9.7	
1500 - 50	48.8	7.6	3182	2748	0.85	370.9	7.4	
1600 - 60	48.2	12.3	3695	3704	1.11	592.9	6.2	
1700 - 70	47.9	19	4250	4777	1.41	910.1	5.2	
1800 - 80	47.3	28.2	4643	5685	1.68	1333.9	4.3	80 ° C [Maximum]
1900 - 90	46.7	37.5	4891	6113	1.82	1751.3	3.5	
1950 - 95	46.6	38.2	4966	6198	1.84	1780.1	3.5	
2000 - 100	46.7	36.7	4983	6176	1.84	1713.9	3.6	

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