

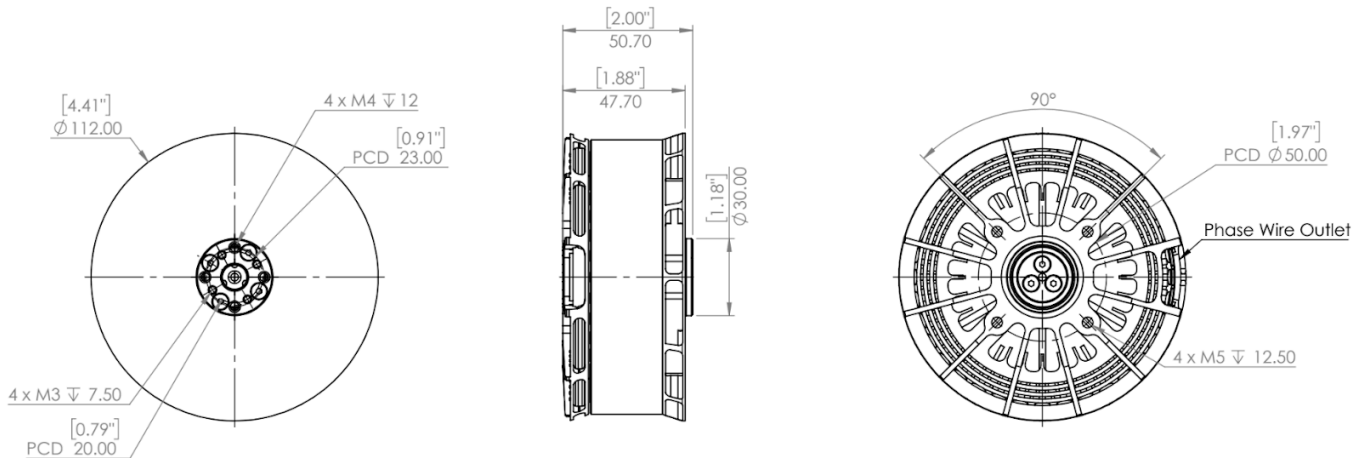
10020 PRO

150 KV

MOTOR SPECIFICATIONS

Kv (Motor Velocity Constant)	150 RPM/V
Kt (Motor Torque Constant)	0.0851 Nm/A @ 4170 RPM
Maximum Continuous Current*	75 A (180s)
Maximum Continuous Power*	3532 W (180s)
Power Density	3.96 W/g [Rated], 7.38 W/g [Maximum]
Voltage Range	44V - 52V [12S LiPo]
I _o (48@V)	10A (48@V)
Inductance per phase (Winding Inductance)	0.0103 [≈0.03] mH
R _{ph} (Wind Resistance per phase)	0.01 [≈0.03] Ω
Stator Poles	36S
Magnetic Poles	42P
Bearings	Dual 6902-2Z Sealed
Stick Out Shaft Diameter	∅ 30 mm
Motor Diameter	∅ 112 mm
Motor Length	47.7 mm
Motor Weight	860 g ± 2%
Mount Pattern @ 90 deg	4 X M5 @ PCD ∅ 50 mm ↓ 12.5 mm
Compatible Propeller Size	30 " inch to 34 " inch
Propeller Mount Pattern	4 X M3 @ PCD ∅ 20 mm ↓ 7.5 mm , 4 X M4 @ PCD ∅ 23 mm ↓ 12 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]

10020 PRO 150 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.

Propeller	MZ 30 x 10 CF_FX			Power Supply / Battery	2 x TB - 22000 mAh 12S	
ESC	TM 200A 12S FLAME			Environmental Temp:	31 ° C	Cross-winds: Moderate
Test Date:	27-05-2025	Humidity:	83 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.9	8.7	2095	3575	1.32	434.1	8.2	62 ° C [@70% 10 min Constant]
1400 - 40	49.6	15.4	2650	5465	1.98	763.8	7.2	
1500 - 50	49	29.1	3300	8962	3.2	1425.9	6.3	
1600 - 60	48.2	45.2	3789	11777	4.38	2178.6	5.4	
1700 - 70	47.3	63.6	4179	14602	5.55	3008.3	4.9	
1800 - 80	46.4	83.3	4556	16917	6.48	3865.1	4.4	
1900 - 90	45.1	109.8	4893	19934	7.67	4952.0	4.0	65 ° C [Maximum]
1950 - 95	44.5	121.6	5029	21140	8.1	5411.2	3.9	
2000 - 100	43.8	135.7	5153	22103	8.64	5943.7	3.7	

Propeller	TM 30 x 10.5 CF_FX			Power Supply / Battery	2 x TB - 22000 mAh 12S	
ESC	TM 200A 12S FLAME			Environmental Temp:	31 ° C	Cross-winds: Moderate
Test Date:	27-05-2025	Humidity:	83 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	50	8.7	2130	3471	1.27	435.0	8.0	60 ° C [@70% 10 min Constant]
1400 - 40	49.7	15.4	2664	5496	1.99	765.4	7.2	
1500 - 50	49.1	27.8	3277	8637	3.07	1365.0	6.3	
1600 - 60	48.4	43.2	3823	11590	4.16	2090.9	5.5	
1700 - 70	47.7	60.1	4218	14244	5.22	2866.8	5.0	
1800 - 80	46.6	80.8	4612	16973	6.31	3765.3	4.5	
1900 - 90	45.6	103.3	5032	19113	7.17	4710.5	4.1	63 ° C [Maximum]
1950 - 95	45	114.8	5162	20467	7.63	5166.0	4.0	
2000 - 100	44.4	128.2	5311	21686	8.08	5692.1	3.8	

Propeller	NW 30 CF_FX			Power Supply / Battery	2 x TB - 22000 mAh 12S	
ESC	TM 200A 12S FLAME			Environmental Temp:	31 ° C	Cross-winds: Moderate
Test Date:	27-05-2025	Humidity:	83 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.4	8.4	2098	3153	1.2	263.5	7.5	59 ° C [@70% 10 min Constant]
1400 - 40	49.5	15.8	2713	5282	1.94	550.9	6.8	
1500 - 50	49	26.3	3303	7645	2.82	974.9	5.9	
1600 - 60	48.3	39.5	3818	10263	3.72	1486.6	5.4	
1700 - 70	47.6	54.4	4270	12755	4.59	2051.4	4.9	
1800 - 80	46.7	72.3	4692	14996	5.55	2725.6	4.4	
1900 - 90	45.6	95.5	5136	17527	6.15	3499.6	4.0	63 ° C [Maximum]
1950 - 95	45.1	103	5275	18151	6.73	3715.7	3.9	
2000 - 100	44.5	115.7	5442	19252	7.23	4118.2	3.7	

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10020 PRO 150 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.

Propeller	NW 32 CF_FX			Power Supply / Battery	2 x TB - 22000 mAh 12S	
ESC	TM 200A 12S FLAME			Environmental Temp:	31 ° C	Cross-winds: Moderate
Test Date:	27-05-2025	Humidity:	83 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.4	10.2	2014	4051	1.63	503.9	8.0	65 ° C [@70% 10 min Constant]
1400 - 40	48.9	19.4	2527	6739	2.68	948.7	7.1	
1500 - 50	48.3	33.4	3108	9998	3.86	1613.2	6.2	
1600 - 60	47.4	52.9	3609	13424	5.23	2507.5	5.4	
1700 - 70	46.3	73.7	3971	16340	6.48	3412.3	4.8	
1800 - 80	45.3	94.4	4320	18789	7.43	4276.3	4.4	70 ° C [Maximum]
1900 - 90	43.9	122.4	4626	21740	8.61	5373.4	4.0	
1950 - 95	43.2	135.8	4739	22759	9.07	5866.6	3.9	
2000 - 100	42.5	149.5	4855	23838	9.49	6353.8	3.8	

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Propeller	NW 30 CF_FX			Power Supply / Battery	EP 40000mAh 14S	
ESC	TM 200A 14S			Environmental Temp:	25 ° C	Cross-winds: Mild
Test Date:	01-12-2025	Humidity:	85 %			

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	57.64	10.1	2333	3840	1.612	582.4	6.5	° C [@70% 10 min Constant]
1400 - 40	57.21	20.6	3108	6621	2.751	1178.5	5.6	
1500 - 50	56.63	34.22	3737	9782	3.911	1938.0	5.0	
1600 - 60	55.95	49.77	4310	13170	4.986	2784.4	4.7	
1700 - 70	55.03	70.41	4831	16858	6.204	3874.8	4.3	
1800 - 80	54.01	93.99	5334	19745	7.384	5076.2	3.8	00 ° C [Maximum]
1900 - 90	52.85	121.24	5812	22002	8.608	6407.5	3.4	
1950 - 95	52.27	134.17	5965	23152	9.171	7013.0	3.3	
2000 - 100	51.58	152.25	6209	24004	9.798	7852.9	3.0	

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