

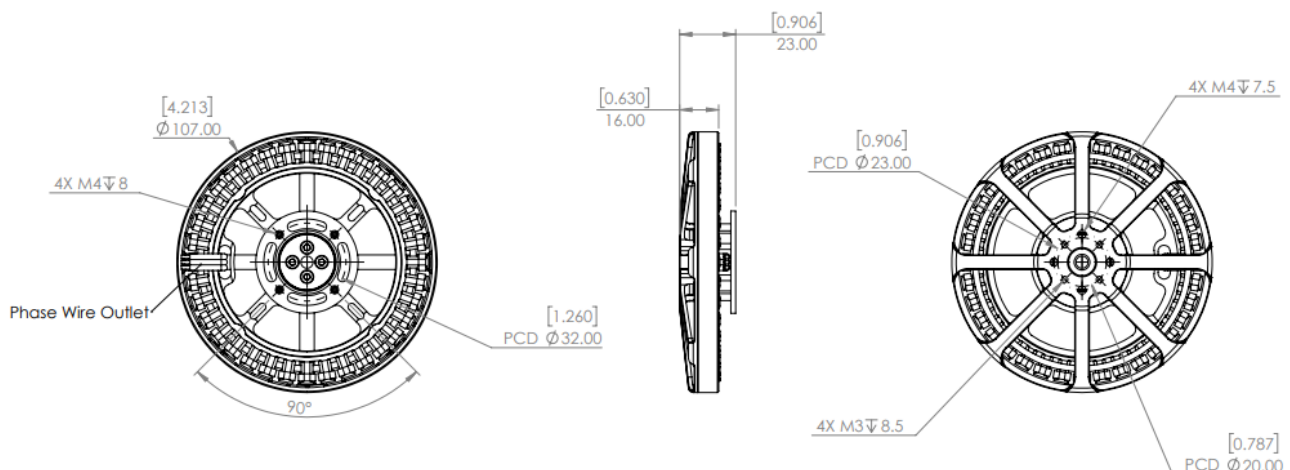
10005 SL

90 KV

MOTOR SPECIFICATIONS

Kv (Motor Velocity Constant)	90 RPM/V
Kt (Motor Torque Constant)	0.1468 Nm/A @ 2542 RPM
Maximum Continuous Current*	12.69 A [180s]
Maximum Continuous Power*	626.3 W [180s]
Power Density	2.26 W/g [Rated], 4.84 W/g [Maximum]
Voltage Range	44V - 50V [12S LiPo]
I _o (XX@V)	0.96 A [48@V]
Inductance per phase (Winding Inductance)	0.182 [$\approx$ 0.03] mH
R _{ph} (Wind Resistance per phase)	0.183 [$\approx$ 0.03] Ω
Stator Poles	36S
Magnetic Poles	40P
Bearings	Single 61803- 2z Sealed
Stick Out Shaft Diameter	$\varnothing$ 0 mm
Motor Diameter	$\varnothing$ 107 mm
Motor Length	23 mm
Motor Weight	277 g $\pm$ 2 g
Mount Pattern @ 90 deg	4 X M4 @ PCD $\varnothing$ 23 mm $\downarrow$ 7.5 mm
Compatible Propeller Size	30 " inch to 32 " inch
Propeller Mount Pattern	4 X M4 @ PCD $\varnothing$ 32 mm $\downarrow$ 8 mm

2D CAD



Note: Specifications and drawings may be revised without notice. Vector Technics assumes no liability for reliance on unverified data.

10005 SL 90 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	30 x 10.5 CF_FX					
ESC	60A 12S			Power Supply / Battery	2 X HWB - 22000 mAh 6S	
Test Date:	03-01-2026	Humidity:	45 %	Environmental Temp:	29 ° C	Cross-winds: Mild

PWM - Throttle%	Voltage	Current (A)	RPM	Thrust (g)	Torque (N*m)	Electrical Power (W)	Efficiency	Temp (Celcius)
1300 - 30	49.93	2.14	1407	1306	0.562	106.9	12.2	90 ° C [@70% 10 min Constant]
1400 - 40	49.85	3.74	1703	1967	0.837	186.4	10.6	
1500 - 50	49.72	6.02	2006	2753	1.153	299.3	9.2	
1600 - 60	49.54	9.26	2304	3642	1.515	458.7	7.9	
1700 - 70	49.35	12.69	2542	4489	1.864	626.3	7.2	
1800 - 80	49.14	16.69	2774	5500	2.21	820.2	6.7	121 ° C [Maximum]
1900 - 90	48.91	21.42	2974	6465	2.589	1047.7	6.2	
1950 - 95	48.8	23.76	3083	6865	2.737	1159.5	5.9	
2000 - 100	48.62	27.62	3229	7500	2.994	1342.9	5.6	

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