

# VL1032 Propulsion System Specifications

VL1032propulsion system is recommended for (4 arms) VTOL

with a take-off weight of 50~55 kg.

## 一、Parameters

Motor Parameters	Item No.	VL1032
	KV (RPM/V)	180
	Voltage (V)	12S
	Idle Current (A/10V)	≤4.6
	Idle RPM (RPM/10V)	1920±10%
	Interphase Resistance (mΩ/25℃)	6.5±10%
	Max. Current (A)	200
	Three-phase Wires (mm)	Enameled wire-150±5
	Encoder Wire (mm) (Measured from the center of the motor)	Shielded Wire - Black-24AWG-5C-210 ±10mm-M6 aviation connector
	Ingress protection	IPX5
	Motor Weight (g)	1090 (incl. wires) ±15
	Ambient Temperature (℃)	-30 ~ 55
	Temperature Monitoring	Thermistor (optional as per FC)
	Item No.	V200A
	Throttle Range (us)	1100-1940 (Fixed)

ESC Parameters	Protocol	DRONECAN/UVACAN
	Control Methods	PWM/CAN
	Propeller Locking Method	Electronic
	Max. Voltage (V)	60
	Max. Continuous Current (A)	120 (Under certain heat dissipation conditions)
	Max. Current (A/10s)	220 (Under certain heat dissipation conditions)
	Ambient Temperature (°C)	-30 ~ 65
	Ambient Humidity (%)	15 ~ 85
	Storage Temperature (°C)	-40 ~ 65
	Storage Humidity (%)	15 ~ 85
	Standby Power Consumption (mA)	≤50
	Throttle Response Speed (ms)	300
	Throttle Refresh Frequency (Hz)	50~500
	Input Cables (mm)	Silicone wire - red/black-12AWG-1200±10
	Output Cables (mm)	Silicone wire - orange-14AWG-250±10
	Signal wires (mm)	Shielded cable - Black-OD4.2-5C-800±10 -JP-3P*2-Black blank white - Green yellow gray
	Encoder wires (mm)	Shielded wire - black-24AWG-5C-450±10 -M6 aviation connector
	Length (mm)	127±1.5
	Width (mm)	56±1.5

	Height (mm)	32.8±1.5
	Weight (g)	495±10
<div>Propeller</div> <div>Parameters</div>	Item No.	G30
	Item No. (mm)	762
	Weight (g)	97±5

## 二、Test report

<b>VL1032 KV180+V200A+G30</b>						Ambient temperature	25°C
Throttle	Voltage (V)	Current (A)	Power (W)	RPM (RPM)	Torque (N·m)	Thrust (g)	Efficiency (g/W)
40	45.00	15.95	717.57	2627.80	2.04	5977	8.33
42	44.95	18.31	823.01	2754.30	2.25	6656	8.09
44	44.90	20.85	935.97	2881.20	2.48	7338	7.84
46	44.86	23.50	1053.96	3009.00	2.69	7960	7.56
48	44.81	26.50	1187.68	3130.80	2.94	8696	7.32
50	44.78	29.72	1330.95	3248.70	3.19	9420	7.08
52	44.75	33.02	1477.81	3369.00	3.43	10124	6.85
54	44.71	36.81	1645.71	3482.60	3.71	10979	6.67
56	44.66	40.50	1808.89	3596.30	3.96	11696	6.47
58	44.61	44.62	1990.41	3705.80	4.24	12520	6.30
60	44.55	48.96	2180.95	3813.00	4.51	13324	6.11
62	44.49	53.52	2380.88	3917.80	4.79	14151	5.94
64	44.43	58.12	2582.45	4021.00	5.07	14906	5.78
66	44.36	63.00	2794.74	4120.20	5.35	15696	5.61
68	44.31	68.11	3017.86	4220.20	5.62	16490	5.46
70	44.25	73.31	3244.35	4317.80	5.90	17241	5.32

80	44.11	103.16	4549.89	4762.80	7.33	21279	4.68
90	44.63	140.00	6247.87	5157.10	8.76	25317	4.05
100	43.32	192.07	8320.62	5519.00	10.21	29275	3.52

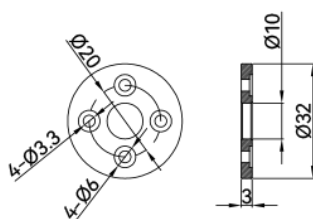
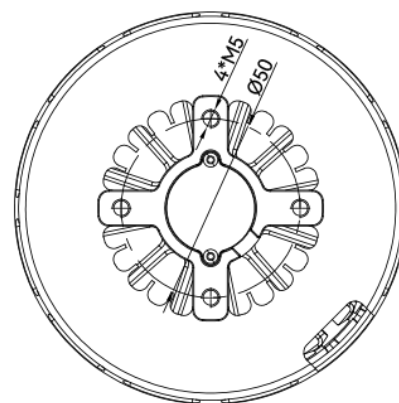
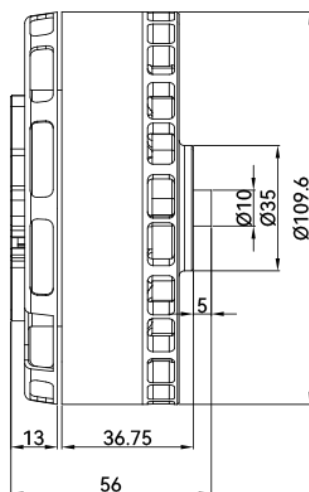
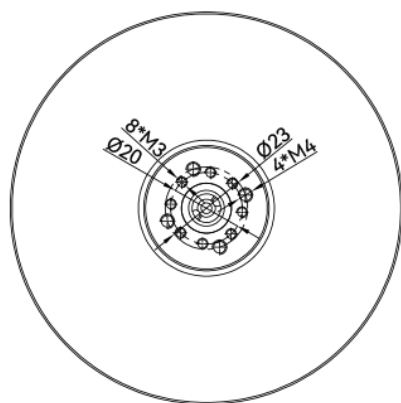
<b>VL1032 KV180+V200A+G30</b>						Ambient temperature	25°C
Throttle	Voltage (V)	Current (A)	Power (W)	RPM (RPM)	Torque (N·m)	Thrust (g)	Efficiency (g/W)
40	50.49	20.02	1010.67	2966.80	2.61	7686	7.61
42	50.45	23.03	1161.86	3106.80	2.90	8540	7.35
44	50.41	26.11	1316.18	3244.00	3.16	9311	7.07
46	50.37	29.60	1490.87	3380.80	3.46	10181	6.83
48	50.32	33.33	1676.91	3512.20	3.76	11078	6.61
50	50.27	37.34	1877.10	3640.60	4.07	12003	6.39
52	50.21	41.44	2080.70	3767.90	4.37	12854	6.18
54	50.15	45.93	2302.96	3890.80	4.69	13784	5.99
56	50.08	50.66	2537.05	4010.30	5.01	14711	5.80
58	49.99	55.84	2791.25	4131.10	5.36	15689	5.62
60	49.94	61.00	3046.04	4244.40	5.67	16654	5.47
62	49.88	66.40	3311.83	4356.60	6.00	17561	5.30
64	49.80	71.95	3583.28	4465.10	6.32	18478	5.16

66	49.74	77.78	3869.04	4569.80	6.65	19373	5.01
68	49.69	84.05	4175.99	4669.20	6.99	20350	4.87
70	49.65	90.37	4486.88	4766.60	7.31	21251	4.74
80	49.49	125.79	6225.24	5213.40	8.93	25745	4.14
90	49.52	170.12	8423.34	5588.00	10.46	29924	3.55
100	48.51	201.10	9755.96	5728.50	11.11	31766	3.26

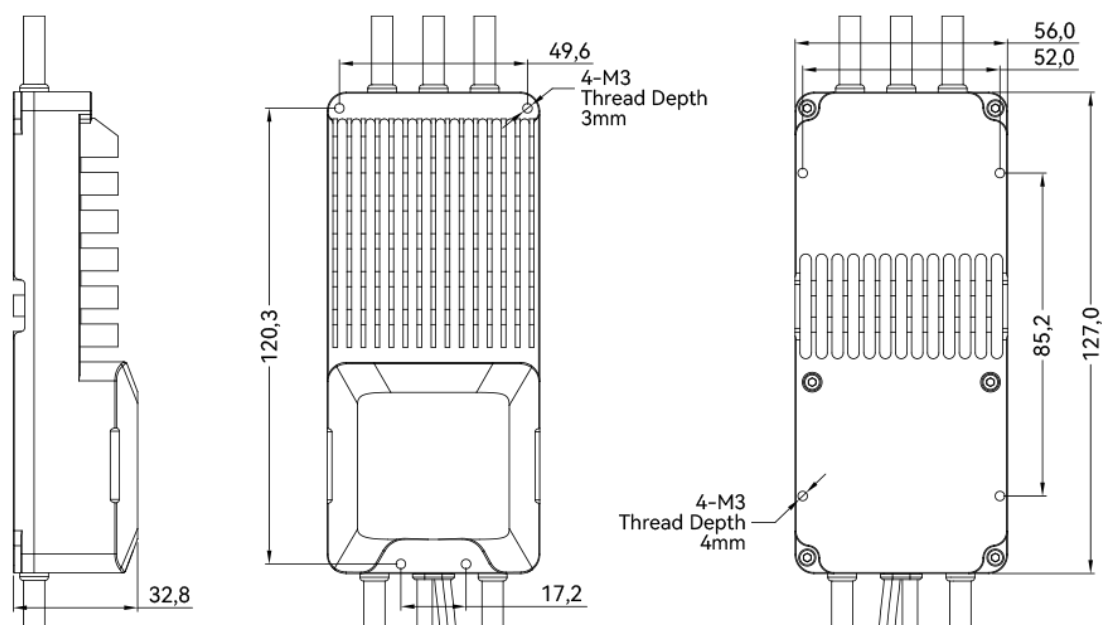
The above data are measured by the professional bench of the laboratory for reference

for model selection only.

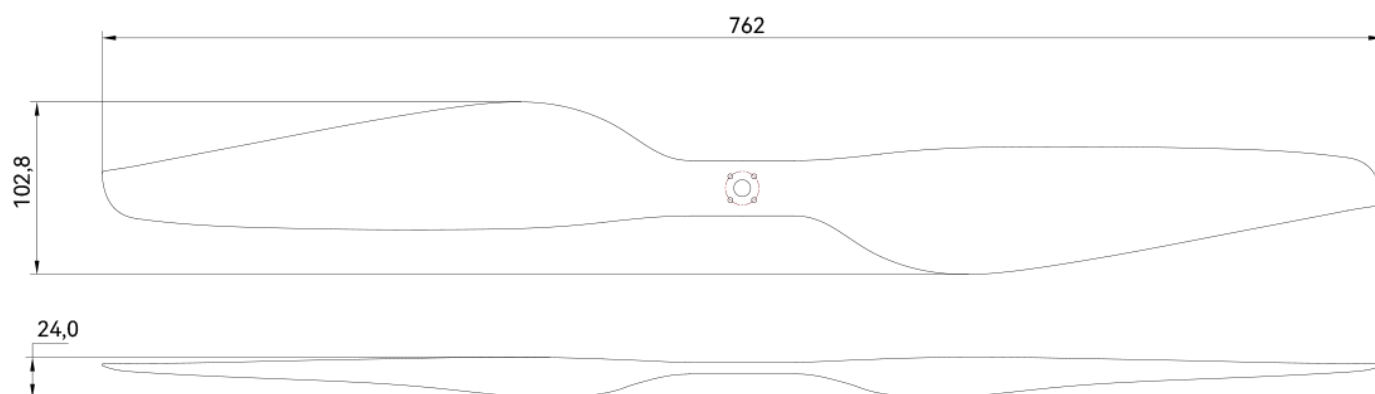
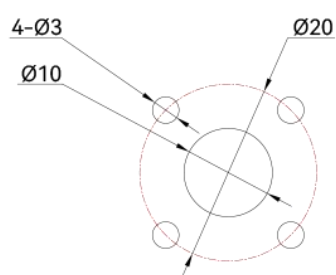
### 三、 Drawings (mm)



【MOTOR】



【ESC】



【PROPELLER】