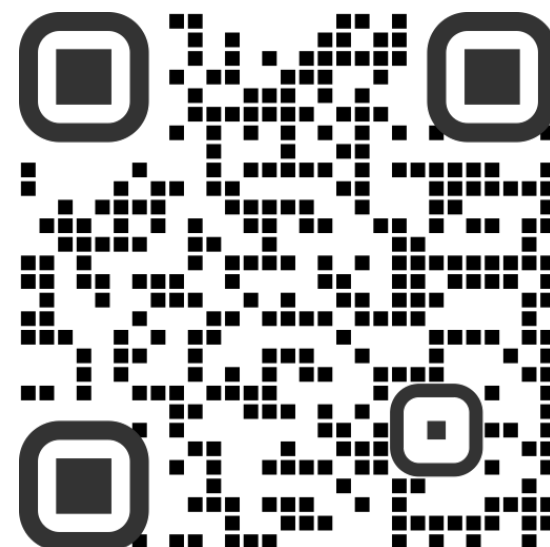




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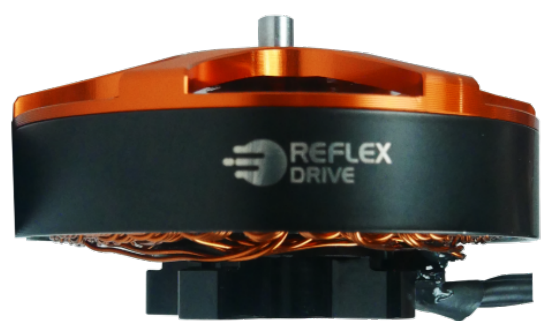
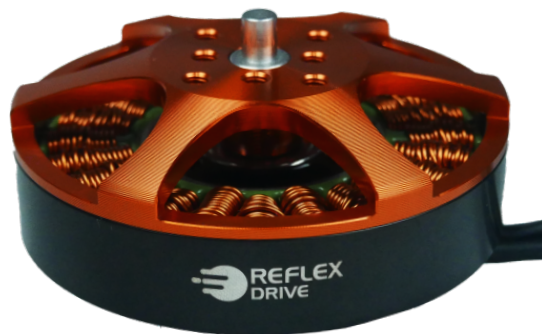
BLDC MOTORS
ELECTRONIC SPEED CONTROLLERS
PROPELLERS
INTEGRATED PROPULSION UNITS
CAPACITOR BANKS
POWER DISTRIBUTION BOARDS



**STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR**

RD5008 KV370

UAV BLDC MOTOR



RD5008 KV370 Specifications

Motor Type	Outrunner
KV Rating	370 KV
Maximum Thrust	4.2 KG
No of Slots / Magnet Poles	24/28
No load Current	1.5A
Motor Efficiency	90.99%
Weight (Including Cable)	135 grams
Voltage Range	6S
Maximum Current (15 Sec)	51A
Maximum Power (15 Sec)	1224W
Motor Diameter	55.6mm
Motor Length	27mm
Motor Torque Constant (gm.cm/A)	294.15
Cable Type / Length	15 AWG / 80mm
Copper wire Temperature Rating	90 °C
Winding material	100 % Copper
IP Rating	IP34
Maximum Operating Temperature of the Magnet	150 °C
Recommended Propeller	17*60 (Folding)

PERFORMANCE DATA

TEST SETUP :

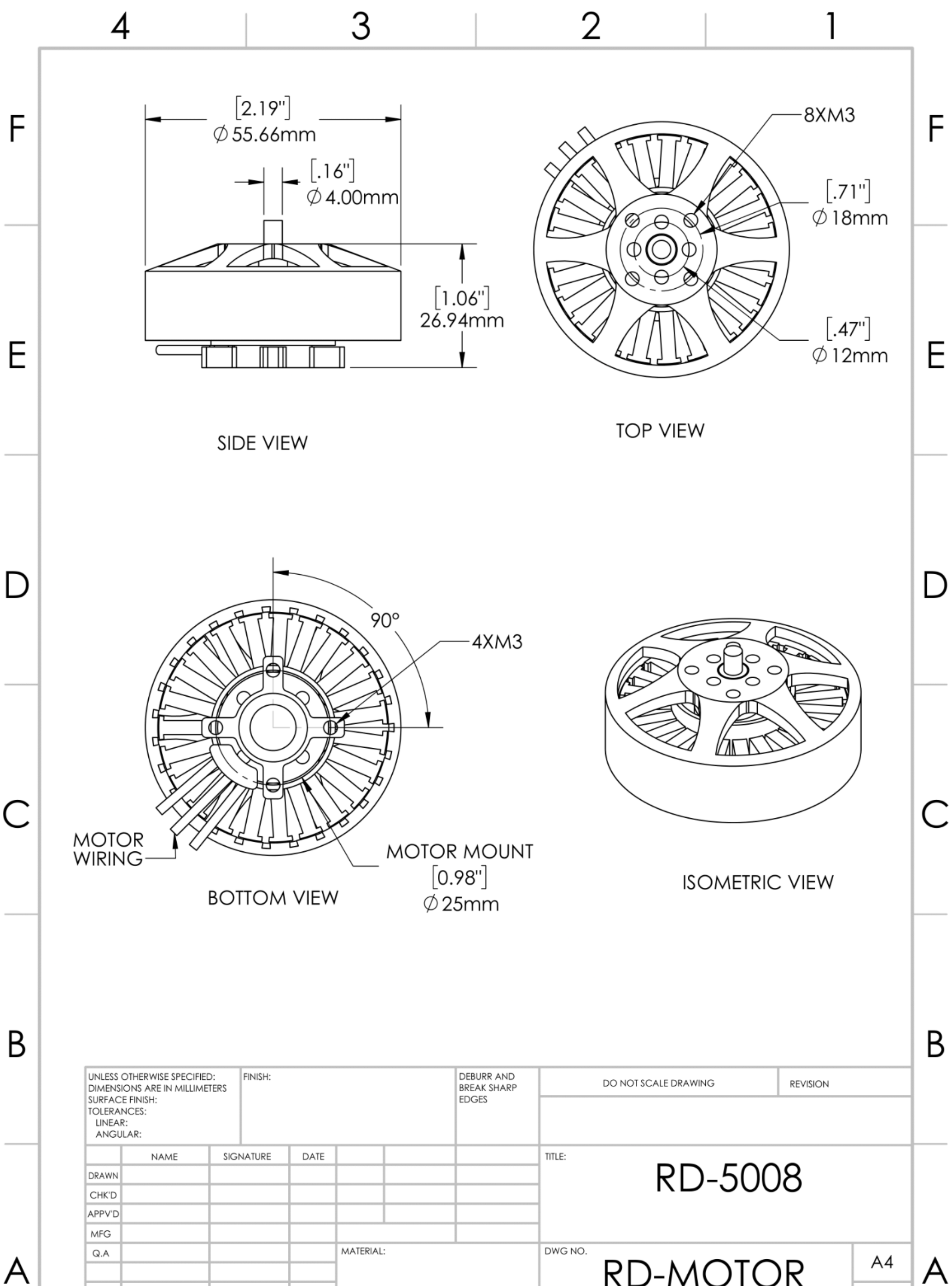
Motor: RD5008 KV370
ESC : **RD-T-TZ-080-06-E-BTC**
Operational Temperature: -20 °C~ 85°C

Voltage	Propeller	Throttle (%)	Thrust (g)	Ampere (A)	Power (W)	Efficiency (g/W)
24V (6S)	17*60	50%	1840	10.6	254.4	7.23
		60%	2290	14.1	338.4	6.75
		70%	2670	17.4	417.6	6.39
		85%	3380	25.3	607.2	5.57
		100%	4280	36.3	871.2	4.91

Multicopter design recommendations with RD5008:

Recommended Propeller: 1760 Folding or similar.
Recommended ESC: **RD-T-TZ-080-06-E-BTC** or similar.

- **Quad-copter:**
 - Maximum take-off weight for the drone: 7.62 KG
- **Hex-copter:**
 - Maximum take-off weight for the drone: 11.78 KG
- **Oct-copter:**
 - Maximum take-off weight for the drone: 15.42 KG



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH:

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

	NAME	SIGNATURE	DATE		
DRAWN					
CHK'D					
APPV'D					
MFG					
Q.A					
			MATERIAL:		
			WEIGHT: 137 grams		

TITLE:

RD-5008

DWG NO.

RD-MOTOR

A4

SCALE:1:1

SHEET 2 OF 2