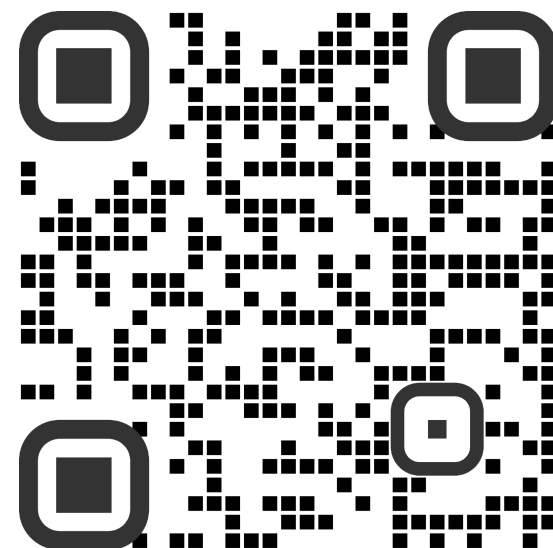




Your Partner In UAV Electronics

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



**STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR**

RD-M-X6.1 UAV BLDC MOTOR



RD-M-X6.1 (6215)	Specifications
Motor Type	Outrunner
KV Rating	175 KV
Maximum Thrust	9.4 KG
Stator Poles / Magnet Poles	24 / 28
No load current	1.7A
Motor Efficiency	93.57%
Weight (Including Cable)	355 grams
Voltage Range	44.4 V (12S LIPO - 4.2V/ pc)
Peak Current (30 Sec)	54 A
Peak Power (30 Sec)	2400 W
Motor Diameter	70 mm
Motor Length	50 mm
Shaft Diameter (Internal)	4 mm
Magnet Temperature Rating	150 °C
Cable Type / Length	16AWG / 100mm
Copper wire Temperature Rating	150 °C
Winding material	100% Copper
IP Rating	IP34
Maximum Operating Temperature	60 °C
Recommended Propeller	23*88 (Folding)

PERFORMANCE DATA

TEST SETUP :

Motor:

RD-M-X6.1

ESC :

RD-X-FC-060-12-E-BTC

Operating Temperature:

-20 °C ~ 60 °C

Voltage	Propeller	Throttle (%)	Thrust (g)	Ampere (A)	Power (W)	Efficiency (g/W)
44.4V (12S)	23*88	50%	3170	7.8	346	9.15
		60%	4710	14.2	630	7.47
		70%	6570	22.6	1003	6.55
		85%	9310	40.7	1807	5.15
		100%	9460	45.1	2002	4.73

- **Multicopter design recommendations with RD-M-X6.1**

Recommended Propeller: **23*88** (Folding)

Recommended ESC: **RD-X-FC-060-12-E-BTC** or similar

- **Quad-copter:**

- Maximum take-off weight for the drone: 16 KG

- **Hex-copter:**

- Maximum take-off weight for the drone: 25 KG

- **Oct-copter:**

- Maximum take-off weight for the drone: 33 KG

Test Video: [ESC 112 - RD:M:X6.1 - 12S - 50A.mp4](#)

