REFLEX® DRIVE

MADE IN INDIA

INTEGRATED PROPULSION UNIT

RD R9 IPU

PRELIMINARY DATASHEET - SUBJECT TO CHANGE



FOC

Field oriented control

REFLEX® DRIVE

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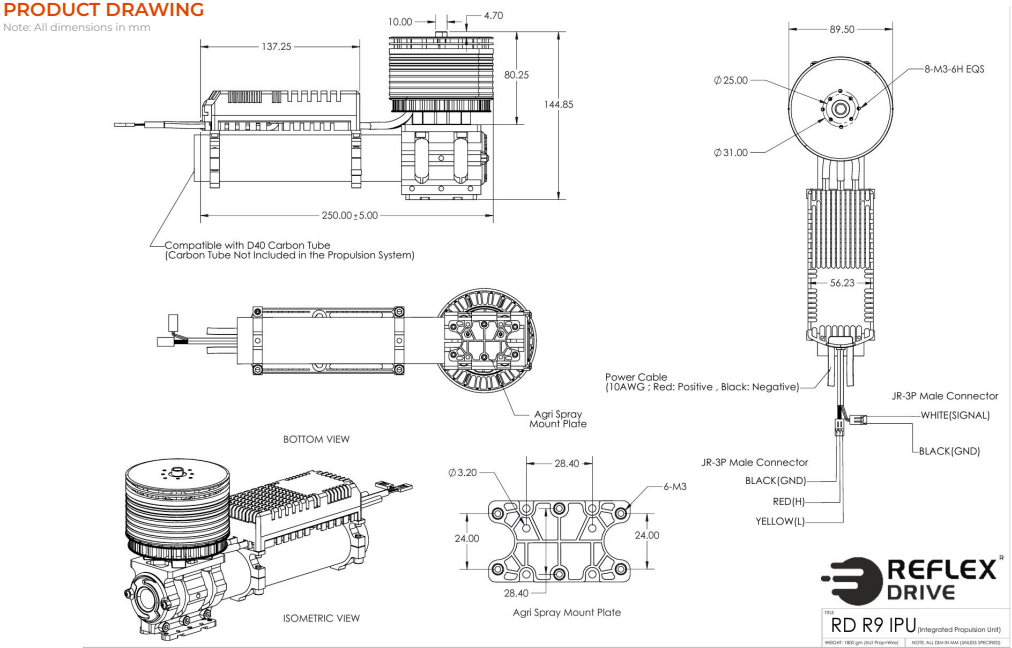
RD R9 IPU

INTEGRATED PROPULSION UNIT

- R9 IPU is a high-performance Integrated Propulsion Unit (IPU) specifically designed for drone applications.
- This all-in-one solution features a fully enclosed Electronic Speed Controller (ESC), ensuring optimal protection and reliability in demanding environments.
- The R9 IPU combines advanced propulsion technology with robust design, making it ideal for precision surveillance, payload, agriculture, crop monitoring, and spraying tasks.

PRODUCT DRAWING

Note: All dimensions in mm



BASIC PARAMETER

Product name	RD R9 IPU
Country of Origin	India
Throttle signal frequency	50-450Hz
Weight (incl. propeller & wire)	1800 gm
Dimension (mm)	250 x 89.50 x 145
Arm tube compatibility	D40 carbon tube (not included)
Maximum Thrust	23 kg
Recommended take-off weight	TBD
Max. Power	5600W (12S)
Operating Temperature	-20~65°C
Compliant	TBD
Certification	TBD

ESC	A-Series FOC 150A
Voltage Range	6S-12S LiPo
Max. Input Current	150A peak (<30 s), 75A continuous
PWM Range	1050-1950us
BEC	No
PWM Input Signal	TBD
Communication Protocol	PWM, CAN
Telemetry (over CAN)	Voltage, Current, Temperature, Motor RPM, Fault status

ESC	A-Series FOC 150A
Power Leads (AWG & Length)	10AWG
ESC Signal Control lead	JR-3P (White signal, Black GND)
ESC Telemetry lead	JR-3P (Yellow L, Red H, Black GND)
Protection/Warning	TBD

MOTOR	RD 8030
Motor KV Rating	160KV
Stator Poles / Magnet Poles	TBD
Motor Dimension	Ø90mm x 81mm
Recommended Propeller	TBD

Safe Operating Notes

1. Ensure adequate air flow for ESC and motor cooling during continuous high-load operation.
2. Actual Performance may vary depending on altitude, ambient temperature , air density, propeller type, air flow conditions, and installation configuration.
3. Do not exceed rated voltage, current, and throttle limits. Exceeding limits may cause overheating or permanent damage
4. It is recommended to maintain a 20-30% safety margin below maximum tested values for reliable long term operation
5. Ensure all electrical connections (battery, motor, and signal wires) are properly secured and insulated. Loose or poor connections may cause voltage fluctuations, overheating, or malfunction of the ESC.

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