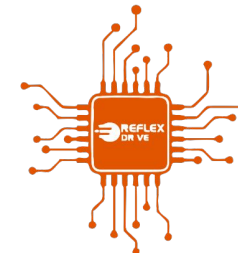
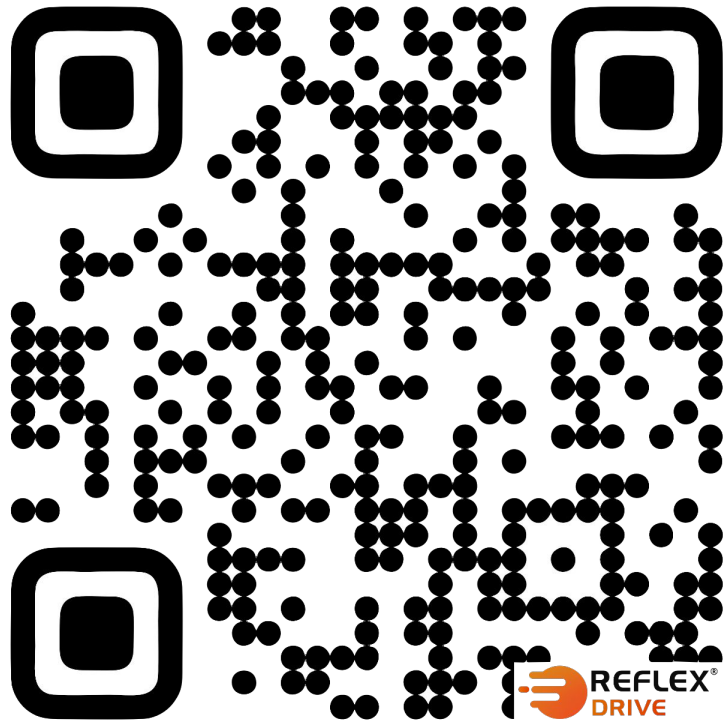


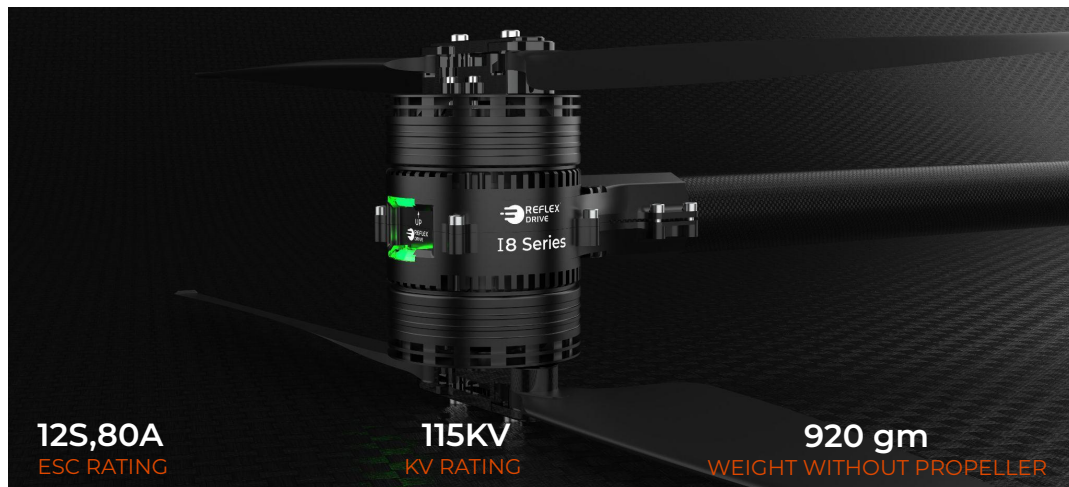


MADE IN INDIA 

COAXIAL PROPULSION UNIT RD I8 Series CPU



FOC
Field oriented control



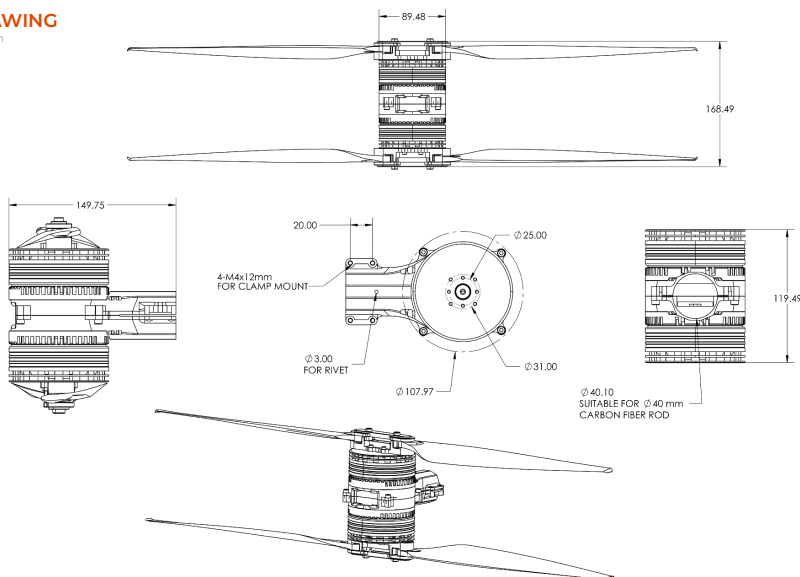
RD I8 Series CPU

COAXIAL PROPULSION UNIT

- Integrated dual 8015 motor coaxial propulsion system with advanced RD FOC ESC.
- Delivers thrust with high efficiency and optimized power-to-weight performance.
- Engineered with enhanced thermal management for superior cooling during continuous heavy-load operation.

PRODUCT DRAWING

Note: All dimensions in mm



BASIC PARAMETER

Product name	RD I8 series cpu	ESC	
Country of Origin	India	Power Leads (AWG & Length)	12AWG, 200°C & 1 mtr.
Compliant	IPC Class 2	ESC Signal Control lead	22 AWG, 2-wire JR (W-B)
Throttle signal frequency	50-450Hz	ESC Telemetry lead	22 AWG, 2-wire JR (R-B)
Weight (without propeller)	920 gm	Protection/Warning	Overcurrent Protection
Total weight (incl.propeller)	1200 gm		Over temperature Indication
Arm tube dia (OD)	40 mm		Low Voltage Protection
operating Temperature	-20~50°C		Throttle Loss Protection
			Stall Protection
ESC		MOTOR	
Voltage Range	6S-12S (24V-58V) LiPo	Motor KV Rating	115KV
Max. Input Current	80A (180 sec) with airflow	Stator Poles / Magnet Poles	24/2
PWM Range	1050-1950us	Motor Dimension	Ø89.50mm x 48.55mm
BEC	No	Recommended Propeller	3011(Foldable)
PWM Input Signal	3.3V-5V	Safe Operating Notes	
Telemetry (over CAN)	Voltage, Current, Temperature, Motor RPM, Fault status	1. Ensure adequate air flow for ESC and motor cooling during continuous high-load operation.	
Communication Protocol	PWM, CAN	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.	

RD I8 series cpu

COAXIAL PROPULSION UNIT

RD I8 Coaxial Performance Test

Test	Steady State Test	Date:-	25/05/26
ESC	I Series	Max Current	90A
Motor	RD 8015	Thermal Conductivity	Enclosure
Propeller	HW 3011	Power Supply	Battery
Motor pole	36	Signal input	CAN Throttle
Temp Tool	Thermocouple	Room Temp & Humidity	34.5°C & 55%
Voltage	49.61	Motor kv	115kv
Throttle Range	1050 - 1950		

				Motor 1	Motor 2	
PWM	Current (A)	Power (V)	Voltage (V)	Telemetry RPM	Telemetry RPM	Coaxial Body Temp.
1050	0.15	7	49.61	0	0	40.1°C
1100	0.28	14	49.59	0	0	40.1°C
1150	0.43	21	49.59	396	408	40.1°C
1200	0.56	27	49.58	450	450	40.1°C
1250	0.95	47	49.54	696	690	40.1°C
1300	1.88	93	49.49	942	936	40.1°C
1350	3.23	160	49.42	1188	1182	40.1°C
1400	5.37	264	49.20	1434	1428	40.1°C
1450	8.22	403	49.00	1674	1680	40.1°C
1500	12.05	587	48.70	1926	1914	40.1°C
1550	17.26	834	48.34	2178	2166	40.1°C
1600	23.56	1126	47.82	2424	2418	40.1°C
1650	32.02	1513	47.25	2670	2664	40.2°C
1700	42.20	1959	46.41	2916	2910	40.3°C
1750	56.65	2528	45.41	3162	3156	40.5°C
1800	72.98	3241	44.11	3396	3408	40.7°C
1850	90.08	3870	42.96	3528	3648	40.9°C
1900	90.50	3875	42.81	3516	3642	41.2°C
1950	90.03	3843	42.69	3504	3630	42.1°C
AFTER TURN OFF POWER SUPPLY						56°C

DESCRIPTION OF LIGHT COLOR STATUS

Flashing of LED	Indication	Recommended Action
1 short flash	Over-Voltage detected	Change the battery (Ensure voltage is below 63V).
2 short flash	Under-Voltage detected	Replace or change the battery (Ensure voltage is above 18V).
1 long flash	Throttle signal lost	Verify signal wire connection to the flight controller. Ensure remote controller and flight controller are powered on. Check the resistance of the black and white wires, if short circuit is found, contact the after-sales support.
1 long flash + 1 short flash	Throttle not at to zero position	Occurs during motor rotation. Inspect aircraft battery and wiring. Check for any short circuit in the system.
1 long flash + 2 short flash	Mosfet temperature is too high (above 110°C).	Allow the power system cool completely, then restart.
2 long flash + 1 short flash	ESC short-circuit	Inspect motor condition carefully. contact after sales service if issue continuous.
1 long flash + 4 short flash	Stall protection activated	Check motor for foreign objects and remove them before operation.

NOTE: LED color is configurable through CAN as per given list.

DESCRIPTION OF WARNING TONE

Trouble	Warning Tone	Possible cause	Solution
ESC can not start the motor	" Beep-beep-beep....." (rapid beeping)	The throttle stick is not at the lowest position or the throttle range setting is too small.	Move the throttle stick to the lowest position or re-calibrate the throttle range.
ESC can not start the motor	" Beep....Beep.....Beep....." (2-second interval)	No output signal from the throttle channel of the receiver.	Check whether the transmitter and receiver are properly bound. Also check the throttle wire is correctly connected to the receiver channel.

■ GREEN
 ■ RED
 ■ BLUE
 ■ WHITE
 ■ YELLOW
 ■ Purple
 ■ CYAN
 OFF LED OFF