GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION
DRONE DIRECTORATE

TYPE CERTIFICATE

No.: T09240000027

This certificate, issued to ***M/s RFLY INNOVATIONS PRIVATE LIMITED*** certifies that the Unmanned Aircraft System

"RFLY-AGRI XL10"

its technical specifications and operating limitations for which are contained in Datasheet No ***T09240000027*** *dated* ***2nd September, 2024*** *is of proper design, material, specification, construction and performance for safe operation based on the recommendation of* ***TQ Cert Services Private Limited*** *as required by the Certification Scheme for Unmanned Aircraft Systems notified by the Ministry of Civil Aviation vide S.O. 347(E) dated the 26th of January, 2022.*

This Type Certificate is issued under the provision of Rule 8 and Rule 9 (3) of the Drone Rules 2021.

This certificate shall remain valid until suspended or cancelled.

Date: 2nd September, 2024 **Director General of Civil Aviation**

This document is digitally signed and generated and hence, no physical signature required

Technical Specifications Of M/S RFLY INNOVATIONS PRIVATE LIMITED's UAS Model RFLY-AGRI XL10

Manufacturer Name	RFLY INNOVATIONS PRIVATE LIMITED
Address	NO. 43, 648/17, T.V.K STREET, PADUR, CHENNAI , Kanchipuram , TAMIL NADU , 603103 , INDIA
UAS Model Name	RFLY-AGRI XL10
Description	RFLY-AGRI XL10 is a small class Quadcopter-Rotorcraft RPAS UAS Having A Tank Of Filling Capacity Of 10L For Agrochemical Spraying with centrifugal nozzle
UAS Details	
Category/Sub-Category	rotorcraft (RPAS)
Class	SMALL
Maximum all-up-weight(including payload) in kg	24.9
Overall dimensions (l x b x h) in mm	1765.0 x 1765.0 x 385.0
Payload Details	
Details of each Compatible Payload (including Manufacturer Name, Payload Specifications with Model No., Intended Applications)	Sprayer with tank having maximum 10L Liquid filling Capacity
Variable Load/Consumables (Like fluid etc., if any)	Sprayer payload :-10Ltrs Liquid for spraying
Power plant Details	
Engine details (Manufacturer details, Model No.)	NA , NA
Engine/Motor	Eagle Power PM90 BLDC Motor
Power Rating	1942 watts
No. of Engines/ Motors	4
Total fuel capacity (kg)/ Battery capacity (mAh)	16000.0 mAh
Propeller details (Diameter, Max RPM)	Diameter - 29 inches , Pitch - 10 , Max RPM - 4410
Equipment Details	
GNSS	Available
Autonomous Flight Termination System or Return Home (RH)	Not Available||Available
Flashing anti-collision strobe lights	Not Available
RFID and GSM SIM Card	RFID- Not Available||GSM SIM Card- Not Available

Flight control Module	Available
SSR transponder (Mode ‘C’ or ‘S’) or ADS-B OUT equipment (if applicable)	Not Available||Not Available
Barometric equipment (with capability for remote sub-scale setting) (if applicable)	Not Available
Geo-fencing Capability	Available
Detect and Avoid Capability (if applicable)	Available
Remote Pilot Station	
Ground Control Station Model No.	RFLY-AGRI ASSISTANT GCS Software
GCS App. Version	V 1.5.2.4
C2 Link	
Equipment details	SKYDROID H12
Frequency Band	2.402- 2.480 GHz & 5.745-5.825 GHz
ETA issued by WPC Wing, DoT	Details- ETA –1758/2017-RLO(SR)/1516 dated 23rd March, 2023
Performance Details	
Maximum Endurance (hr/m)	12 minutes
Maximum Range (in km)	1 Km
Maximum Speed (in m/s)	10.0 m/sec
Maximum Height attainable/ Maximum Ceiling Height (in ft)	98.42 ft
Operating Altitude (in ft)	98.42 ft
Operational Envelope	VLOS | Day
Engine limits (Maximum RPM) / Max. Battery Temperature (in deg C)	60.0 deg C
Propeller limits (Maximum)	Max RPM: 4410
Documents / Manuals	
Manufacturer’s Operating Manual (as applicable)	RFLY- AGRI XL10 UAS FLIGHT MANUAL Ver. 3 dated 18th June, 2024
Manufacturer’s Maintenance guidelines (as applicable)	RFLY-AGRI XL 10 MAINTENANCE MANUAL Ver. 2 dated 18th June, 2024
Maintenance Inspection Schedule/Overhaul interval	RFLY-AGRI XL 10 MAINTENANCE MANUAL Ver. 2 dated 18th June, 2024
Maintenance Log Book	UAS MAINTENANCE LOG Ver. 1 dated 26th April, 2024
Flight Log Book	UAS LOG BOOK Ver. 1 dated 18th June, 2024

User Guide/ Self Explanatory Information Booklet for end users	RFLY- AGRI XL10 UAS USER MANUAL Ver. 3 dated 18th June, 2024
Intended Applications	
Intended Applications	Agrochemical spraying for Agriculture purpose

Limitations & Conditions to RFLY INNOVATIONS PRIVATE LIMITED for manufacturing of UAS Model RFLY-AGRI XL10

1. **M/ s RFLY Innovation Pvt Ltd, Chennai** , henceforth referred as manufacturer in this documents shall comply with the applicable Rules, Regulations & Requirements issued from time to time. The manufacturer shall comply with mandatory safety features (if any) as and when mandated by Ministry of Civil Aviation/DGCA.

2. Design documents and manuals submitted shall be frozen and controlled. Any changes effecting to the Type Certificate/ Datasheet, the manufacturer shall approach through Authorised Testing Entity for up- dation of the Type Certificate/ Data Sheet issued there under.

3. Manufacture shall be responsible for all UAS Model "**RFLY- AGRI XL10**" produced by them conforms to this type certificate & datasheet and shall issue a certificate of conformity for each UAS produced.

4. Manufacturer shall ensure that their UAS is not tampered at the time of sale and also at the time of maintenance. Manufacturer shall monitor the same and notified to DGCA as and when required.

5. Manufacturer shall maintain list of their vendors, bill of materials, inventory of UAS including buyer details with configurations sold to them etc. and access to the same shall be provided to DGCA during surveillance and as & when requested for. It shall be the responsibility of the manufacturer to ensure that their UAS are sold to bonafide customers.

6. Manufacturer shall ensure that operations is restricted to Visual Line of Sight, for day operations only and within the operations/ performance limitations specified in the frozen manuals.

7. Manufacturer shall affix fireproof plate for indicating UIN, Manufacturer's name, model no. and serial no. in all the UAS manufactured before it is transferred to the buyer.

8. Manufacturer shall intimate DGCA about any violations, defects, faults, malfunctions, incidents and accidents involving the subject UAS model quarterly and as when sought for.

9. UAS model " RFLY-AGRI XL10 " can be used for intended applications only. Manufacturer shall ensure that the drone is flown away (30m) from uninvolved people and not flown over the crowd/ uninvolved people. The manufacturer shall be responsible for enduring applicable conditions and educate end users accordingly.

10. Manufacturer shall be responsible for rights related to design and development of the UAS model "RFLY-AGRI XL10" and DGCA shall not be party to any dispute arising due to proprietary right
issues.

11. Manufacturer shall abide by the IT Act 2000 and any subsequent revision.

12. In case of violation of any of the above mentioned conditions and/ or operating requirements & restrictions specified in this Type Certificate, penal action shall be initiated in line with the Drone Rules, 2021 and other Rules/ Regulations issued from time to time.