

GOVERNMENT OF INDIA DIRECTORATE GENERAL OF CIVIL AVIATION DRONE DIRECTORATE

TYPE CERTIFICATE

No.: T082300000T

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

"AG 365S"

its technical specifications and operating limitations for which are contained in Datasheet No **T082300000T** dated **31st August, 2023** is of proper design, material, specification, construction and performance for safe operation based on the recommendation of <u>UL INDIA PRIVATE LIMITED</u> 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: 31st August, 2023

Director General of Civil Aviation

Technical Specifications Of M/S MARUT DRONETECH PRIVATE LIMITED's UAS Model AG 365S

Manufacturer Name	MARUT DRONETECH PRIVATE LIMITED
Address	Door no 2-53/23/2/1, T- Hub Foundation, Himalaya Block- D, IIIT, GACHIBOWLI, Ranga Reddy, Telangana, , K.V.Rangareddy , TELANGANA , 500032 , INDIA
UAS Model Name	AG 365S
Description	AG 365S is a Hexacopter battery-operated Rotorcraft Category small class UAS having a sprayer and broadcaster payload with the tank capacity of 10 Litres / 10 kg.
UAS [Details
Category/Sub-Category	rotorcraft (RPAS)
Class	SMALL
Maximum all-up-weight(including payload) in kg	24.9
Overall dimensions (I x b x h) in mm	1932.0 x 1750.0 x 580.0
Payload	I Details
Details of each Compatible Payload (including Manufacturer Name, Payload Specifications with Model No., Intended Applications)	Configuration 1: Sprayer with 10Ltrs/kg liquid capacity tank Configuration 2: Spreader payload for granules spreading with 9Kg tank capacity
Variable Load/Consumables (Like fluid etc., if any)	Configuration 1: Sprayer payload :-10Ltrs Liquid for spraying Configuration 2: Granules Broadcasting payload:- 9Kg seed capacity
Power pla	int Details
Engine details (Manufacturer details, Model No.)	N/A , N/A
Engine/Motor	BLDC MOTORS
Power Rating	1750 watts
No. of Engines/ Motors	6
Total fuel capacity (kg)/ Battery capacity (mAh)	16000.0 mAh
Propeller details (Diameter, Max RPM)	Diameter - 23 inches , Pitch - 8.8 , Max RPM - 6400
Equipme	nt Details
GNSS	Available

Autonomous Flight Termination System or Return Home (RH)	Available Available	
Flashing anti-collision strobe lights	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.	AeroGCS KEA	
GCS App. Version	V2.2	
C2	Link	
Equipment details	T12	
Frequency Band	2.42 - 2.48 GHz	
ETA issued by WPC Wing, DoT	Details- ETA-SD-20190702917 dated 25th July, 2019	
Performar	nce Details	
Maximum Endurance (hr/m)	22 minutes	
Maximum Range (in km)	1 Km	
Maximum Speed (in m/s)	15.0 m/sec	
Maximum Height attainable/ Maximum Ceiling Height (in ft)	328.1 ft	
Operating Altitude (in ft)	328.1 ft	
Operational Envelope	VLOS Day	
Engine limits (Maximum RPM) / Max. Battery Temperature (in deg C)	55.0 deg C	
Propeller limits (Maximum)	6400 RPM	
Documents / Manuals		
Manufacturer's Operating Manual (as applicable)	AG 365S Flight Manual Ver. Rev-8 dated 18th August, 2023	
Manufacturer's Maintenance guidelines (as applicable)	AG 365S Maintenance Manual Ver. Rev-9 dated 17th August, 2023	

Maintenance Inspection Schedule/Overhaul interval	AG 365S Maintenance Manual Ver. Rev-9 dated 17th August, 2023	
Maintenance Log Book	AG 365S Log Book Ver. Rev-2 dated 18th August, 2023	
Flight Log Book	AG 365S Log Book Ver. Rev-2 dated 18th August, 2023	
User Guide/ Self Explanatory Information Booklet for end users	AG 365S Drone User Manual Ver. Version 1.0 dated 18th August, 2023	
Intended Applications		
Intended Applications	AG 365S is a multipurpose agriculture UAS mainly used for agrochemical Spraying, Granules Broadcasting and remote pilot training.	

Limitations & Conditions to MARUT DRONETECH PRIVATE LIMITED for manufacturing of UAS Model AG 365S

1. **M/s. Marut Dronetech Pvt Ltd, Hyderabad**, 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 "**AG 365S**" 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 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. Manufacturer shall be responsible for rights related to design and development of the UAS model "**AG 365S**" and DGCA shall not be party to any dispute arising due to proprietary right issues.

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

11. 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.