



**GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION
DRONE DIRECTORATE**

TYPE CERTIFICATE
No.: T12230000019

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

"SYENA-H10i"

*its technical specifications and operating limitations for which are contained in Datasheet No **T12230000019** dated **1st December, 2023** is of proper design, material, specification, construction and performance for safe operation based on the recommendation of **UL INDIA 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: 1st December, 2023

Director General of Civil Aviation

**Technical Specifications Of M/S THANOS TECHNOLOGIES PRIVATE LIMITED's UAS
Model SYENA-H10i**

Manufacturer Name	THANOS TECHNOLOGIES PRIVATE LIMITED
Address	Flat No.101, Gayatri Nest, Municipal No.2-48/46/ GN/101 , Telecom Nagar, Gachibowli, Hyderabad - 500032 , K.V.Rangareddy , TELANGANA , 500032 , INDIA
UAS Model Name	SYENA-H10i
Description	SYENA-H10i is a hexacopter battery operated Rotorcraft Category Medium class UAS having a spraying payload with the tank capacity of 10 Litres having flat jet nozzle or centrifugal nozzle.
UAS Details	
Category/Sub-Category	rotorcraft (RPAS)
Class	MEDIUM
Maximum all-up-weight(including payload) in kg	30.3
Overall dimensions (l x b x h) in mm	2390.0 x 2170.0 x 655.0
Payload Details	
Details of each Compatible Payload (including Manufacturer Name, Payload Specifications with Model No., Intended Applications)	Sprayer With 10Kg/ltrs Liquid Capacity Tank with Flat and Centrifugal Nozzle
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	Hobbywing wing X8 Motor
Power Rating	2406 watts
No. of Engines/ Motors	6
Total fuel capacity (kg)/ Battery capacity (mAh)	25200.0 mAh
Propeller details (Diameter, Max RPM)	Diameter - 30 inches , Pitch - 11 , Max RPM - 3799
Equipment Details	
GNSS	Available
Autonomous Flight Termination System or Return Home (RH)	Available Available
Flashing anti-collision strobe lights	Not Available
RFID and GSM SIM Card	RFID- Not Available GSM SIM Card- 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.	Aero GCS Green
GCS App. Version	Version 1.39
C2 Link	
Equipment details	MK15
Frequency Band	2.412 - 2.472 GHz
ETA issued by WPC Wing, DoT	Details- ETA-SD-20210806179 dated 20th September, 2021
Performance Details	
Maximum Endurance (hr/m)	22 minutes
Maximum Range (in km)	1.5 Km
Maximum Speed (in m/s)	10.0 m/sec
Maximum Height attainable/ Maximum Ceiling Height (in ft)	400.0 ft
Operating Altitude (in ft)	400.0 ft
Operational Envelope	VLOS Day
Engine limits (Maximum RPM) / Max. Battery Temperature (in deg C)	50.0 deg C
Propeller limits (Maximum)	3799 RPM
Documents / Manuals	
Manufacturer's Operating Manual (as applicable)	SYENA-H10i Flight Manual Ver. Version 1.1 dated 14th November, 2023
Manufacturer's Maintenance guidelines (as applicable)	SYENA-H10i Maintenance Manual Ver. Version 1.2 dated 24th November, 2023
Maintenance Inspection Schedule/Overhaul interval	SYENA-H10i Maintenance Manual Ver. Version 1.2 dated 24th November, 2023
Maintenance Log Book	SYENA-H10i RPA Log Book Ver. Version 1.2 dated 26th November, 2023
Flight Log Book	SYENA-H10i RPA Log Book Ver. Version 1.2 dated 26th November, 2023

User Guide/ Self Explanatory Information Booklet for end users	SYENA-H10i Flight Manual Ver. Version 1.1 dated 14th November, 2023
Intended Applications	
Intended Applications	Agriculture Spraying and Remote pilot training

Limitations & Conditions to THANOS TECHNOLOGIES PRIVATE LIMITED for
manufacturing of UAS Model SYENA-H10i

1. **M/ s Thanos Technologies 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/ Data sheet, the manufacturer shall approach through Authorised Testing Entity for updation of the Type Certificate/Data Sheet issued there under.
3. Manufacturer shall be responsible for all UAS Model “ **SYENA- H10i** ” produced by them conforms to this type certificate & data sheet 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 & 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. **SYENA-H10i 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 educating end users accordingly.**
10. Manufacturer shall be responsible for rights related to design and development of the UAS model “**SYENA- H10i**” 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 applicable Rules issued from time to time.