



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

**TYPE CERTIFICATE**  
No.: T0524000001R

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

**"SHAKTI"**

*its technical specifications and operating limitations for which are contained in Datasheet No **T0524000001R** dated **14th May, 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: 14th May, 2024**

**Director General of Civil Aviation**

**Technical Specifications Of M/S AEROCAPITA DYNAMICS PRIVATE LIMITED's UAS Model  
SHAKTI**

Manufacturer Name	AEROCAPITA DYNAMICS PRIVATE LIMITED
Address	Ultimate plaza-2, First floor, kolar road, 24, mandakini colony, Bhopal, Madhya Pradesh-462042 , Bhopal , MADHYA PRADESH , 462042 , INDIA
UAS Model Name	SHAKTI
Description	Shakti is a Rotorcraft (Hexa-copter) having a spray system with maximum allowed capacity of 10 liters tank for Agrochemicals Spraying.
<b>UAS Details</b>	
Category/Sub-Category	rotorcraft (RPAS)
Class	MEDIUM
Maximum all-up-weight(including payload) in kg	29.4
Overall dimensions (l x b x h) in mm	2040.0 x 1845.0 x 576.0
<b>Payload Details</b>	
Details of each Compatible Payload (including Manufacturer Name, Payload Specifications with Model No., Intended Applications)	Sprayer tank with maximum allowed capacity of 10liters for sparing Agrochemicals
Variable Load/Consumables (Like fluid etc., if any)	10 Liter of Agrochemicals spraying for agricultural purposes.
<b>Power plant Details</b>	
Engine details (Manufacturer details, Model No.)	NA , NA
Engine/Motor	Hobbywing X6Plus BLDC Motor
Power Rating	3024 watts
No. of Engines/ Motors	6
Total fuel capacity (kg)/ Battery capacity (mAh)	22000.0 mAh
Propeller details (Diameter, Max RPM)	Diameter - 24 inches , Pitch - 8.0 , Max RPM - 5442
<b>Equipment Details</b>	
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- 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
<b>Remote Pilot Station</b>	
Ground Control Station Model No.	Android Smartphone with AeroGCS Green Application
GCS App. Version	V1.39
<b>C2 Link</b>	
Equipment details	SkyDroid T12
Frequency Band	865 MHz - 867 MHz
ETA issued by WPC Wing, DoT	Details- ETA-SD-20210704767 Dated 05/08/2021
<b>Performance Details</b>	
Maximum Endurance (hr/m)	14 minutes
Maximum Range (in km)	0.5 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)	55.0 deg C
Propeller limits (Maximum)	5442
<b>Documents / Manuals</b>	
Manufacturer's Operating Manual (as applicable)	SHAKTI Flight Manual Ver. V1.4 dated 6th May, 2024
Manufacturer's Maintenance guidelines (as applicable)	SHAKTI Maintenance Manual Ver. V1.5 dated 6th May, 2024
Maintenance Inspection Schedule/Overhaul interval	SHAKTI Maintenance Manual Ver. V1.5 dated 6th May, 2024
Maintenance Log Book	SHAKTI Maintenance Logbook Ver. V1.0 dated 29th December, 2023
Flight Log Book	SHAKTI Flight Logbook Ver. V1.1 dated 10th January, 2024

User Guide/ Self Explanatory Information Booklet for end users	SHAKTI Flight Manual Ver. V1.4 dated 6th May, 2024
<b>Intended Applications</b>	
Intended Applications	Agrochemical spraying for agricultural purposes

**Limitations & Conditions to AEROCAPITA DYNAMICS PRIVATE LIMITED for manufacturing of UAS Model SHAKTI**

1. **M/s Aerocapita Dynamics Private Limited, Bhopal** 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 “**SHAKTI**” 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 & 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 “SHAKTI” 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.**
10. The manufacturer shall be responsible for ensuring applicable conditions and educate end users accordingly.
11. Manufacturer shall be responsible for rights related to design and development of the UAS model “**SHAKTI**” and DGCA shall not be party to any dispute arising due to proprietary right issues.
12. Manufacturer shall abide by the IT Act 2000 and any subsequent revision.
13. 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.