

SIRIUS 50 H6 HEXACOPTER



FIFTY KILOGRAMS, ZERO COMPROMISE.

The SIRIUS 50 H6 is a heavy-lift industrial hexacopter designed to transport up to 50 kg of payload while maintaining the reliability, endurance and operational redundancy required for demanding professional missions. It addresses a wide range of applications including aerial logistics, agriculture, emergency response, infrastructure support and industrial operations.

Built on the same technological foundations as the SIRIUS family, the platform was developed as a true multi-mission UAV. A single airframe can be rapidly configured for cargo transport, agricultural spraying, seed spreading, LiDAR surveying, ISR operations, medical logistics or winch-based deployment, allowing operators to adapt to changing mission requirements without factory intervention.

Compatible with Mission Planner, QGroundControl, MAVLink and DroneCAN, the SIRIUS 50 H6 integrates XAP proprietary technologies including advanced battery management, encrypted telemetry, embedded geocaging and sovereign IoT connectivity. Designed, assembled and maintained by XAP, it shares the same software environment, telemetry infrastructure and maintenance philosophy as the entire SIRIUS range, simplifying fleet management and reducing operational costs.

POWER — PRECISION — PAYLOAD.

INDUSTRIAL HEAVY-LIFT, ENGINEERED IN FRANCE.

INDUSTRY-STANDARD ECOSYSTEM:

Native MAVLink, ArduPilot Copter, Mission Planner and QGroundControl compatibility ensures immediate deployment within existing UAV fleets.

50 KG PAYLOAD CAPACITY:

Industrial lifting capability suitable for logistics, agriculture, emergency response and critical infrastructure operations.

HEXACOPTER REDUNDANCY:

Six high-thrust propulsion units delivering up to 600 N each, combined with mechanical fuse arms for enhanced operational safety.

PLURI-MISSION FRAME:

Rapid field conversion between cargo transport, spraying, LiDAR, ISR and scientific payload configurations.

EXTENDED HOVER ENDURANCE:

Mission-grade endurance supporting long-duration operations, aerial logistics and persistent monitoring tasks.

FULL MASTERY OF CRITICAL TECHNOLOGIES:

Flight controller, battery management systems, telemetry, geocaging and operational infrastructure designed and maintained by XAP.

UNIFIED MCO PHILOSOPHY:

One operator training program, one maintenance chain and one software ecosystem across the entire SIRIUS family.

STANDARD PAYLOAD OPTIONS

Inspections & ISR	High-density LiDAR systems Multispectral and hyperspectral cameras Stabilized ISR turret payloads High-resolution thermal cameras Long-range optical zoom systems
Environmental & Scientific Missions	Industrial gas monitoring systems Radiological sensors / Spectrometers Acoustic sonar modules Multi-parameter environmental payloads

STANDARD PAYLOAD OPTIONS

Transport & Delivery	Cargo bay up to 50 kg Heavy-duty cargo hook Medical transport container Parachute delivery system Controlled lowering winch (50 kg / 30 m)
Agricultural Operations	40 L spraying system 50 kg seed and fertilizer spreader Biological control deployment modules



► DRONES: XAP SIRIUS 50 H6 HEXACOPTER

FLYING AUTONOMY - NO PAYLOAD

Hover Endurance	51 minutes
Cruise Endurance (80 km/h)	18 minutes
Cruise range	24,5 km

FLYING AUTONOMY - 50 KG PAYLOAD

Hover Endurance	21 minutes
Cruise Endurance (80 km/h)	11 minutes
Cruise range	15 km

TECHNICAL SPECIFICATIONS

Configuration	Hexacopter (6 motors / 6 arms)
Payload Capacity	50 kg
Empty Mass	65 kg
Maximum Take-Off Mass (MTOM)	115 kg
Total Thrust Capacity	342 kg
Propeller Diameter	Up to 56"
Maximum Thrust per Motor	600 N @ 1.4 m
Battery Voltage (Max)	100V DC
Battery Current (Max)	TBD
Battery Configuration	Dual battery, hot-swap compatible
Optional Tethered Supply	400V DC => 80V DC (max)
Protocols	MAVLink, DroneCAN
Connectivity	4G LTE, Wi-Fi, Ethernet
Optional interoperability	STANAG 4586
Positioning	Multi-Constellation GNSS + RTK

MECHANICS

Frame Material	High-pressure aero-qualified forged isotropic carbon fiber
Arms	Foldable twill carbon fiber
Arm Protection	Mechanical fuse per arm
Folded Dimensions	3 100 × 900 × 800 mm
Rotor Span	4 600 mm
Internal Payload Volume	6 L upper bay + 6 L lower bay
Operating Temperature	-20 °C to +50 °C
Wind Resistance	≥ 12 m/s

SAFETY FEATURES

Main Kill-Switch	cf. XAP Remote drone circuit breaker
Circuit breaker power Switching Capacity	150 A continuous / 300 A peak
Auto Detection	Shock, abnormal motion, anti-flip
Embedded Geocaging	Independent multi-zone module
Parachute System	Yes
Remote Shutdown	Optional via 4G or drone remote
EMC Architecture	Segmented industrial buses
Telemetry Frequency	20 Hz
Cloud Infrastructure	Sovereign French IoT server
Security	Encrypted communications, certificate per drone
Regulatory Target	EASA SORA – Heavy-Lift C6 Category

AVAILABLE OPTIONS

External sensors	on demand
LiDar	on demand
Additional cameras	on demand
Specific actuator integration	on demand

REFERENCES

PFI021	XAP SIRIUS 50 H6 HEXACOPTER
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