

Design Dossier

EX-1 Type (sample)

[Example Aero \(sample\)](#)

The type

Type	EX-1 Type (sample)
Model line	Survey quad
Design frozen	2026-06-02
Status	active
Serials built	2
Service bulletins	1

A sample type: every name is fictional, and the performance figures were computed by the physics engine from the frozen parameters when this document was rendered.

The design below was frozen as this type's baseline. Editing any source build afterwards does not change it; these are the approved parameters and the performance computed from them on the day of freezing.

Declaration of compliance

The manufacturer's own declaration, requirement by requirement, with the evidence cited and the signature that made it. This document reports the declaration; it does not make it.

Requirements	6
Signed met	4
Not applicable	1
Open	1

Category	Requirement	Status	Signed	Evidence
Structure	Airframe withstands limit loads at maximum gross weight without permanent deformation.	met	Jordan Case, 2026-06-20	Static load test EXA-LT-3
Propulsion	Thrust-to-weight at maximum gross weight is at least 1.8 : 1.	met	Jordan Case, 2026-06-20	Calibrated hover, flight 41
Electrical	Every ESC operates inside its continuous current rating in hover and cruise.	met	Alex Sample, 2026-06-21	Builder power analysis
Electrical	Avionics remain powered through a motor-bus brownout.	met	Alex Sample, 2026-06-21	Bench brownout test
Software	Geofence and return-to-home verified on the shipped firmware build.	open	-	
Documentation	Ballistic recovery installation guidance.	n/a	Jordan Case, 2026-06-22	No recovery system fitted

Production conformity, per serial

Serial	Result	Inspected	Notes
EXA-0001	conforming	Alex Sample, 2026-06-24	
EXA-0002	conforming	Alex Sample, 2026-07-08	Prop lot substituted, same part number

Frozen design parameters

Parameter	Value
airframe	quad_x
battery mah	6200.00
battery s	6.00
mass frame g	620.00
motor kv	700.00
prop diameter in	13.00

Performance at freeze

Measure	Value
auw g	2377.00
cruise min	28.94
hover min	30.66
twr	2.84

The serialized fleet

Serial	Name	Registration	Status	Flights	Hours
EXA-0001	EX-1 Kestrel	EX-REG-001	active	61	22:22
EXA-0002	EX-2 Harrier	EX-REG-002	active	38	13:18

Service bulletins

SB-2026-01 - Arm bolt torque re-check

Severity	mandatory
Issued	2026-07-02
Due	2026-08-01
Standing	closed - all serials complied

Re-torque all four arm bolts after the first ten flight hours; early production lots left the anaerobic compound under-cured.

Aircraft	Order	Status	Action taken
EX-1 Kestrel	#101	done	Re-torqued, witness marked
EX-2 Harrier	#102	done	Re-torqued, witness marked

Verification

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