



TYPE-CERTIFICATE DATA SHEET

N°EASA.A.661

for
INTEGRAL

Type Certificate Holder
AURA AERO

Aéroport Toulouse Francazal,
135 avenue du Comminges
31270 Cugnaux
France

For models: INTEGRAL R



Intentionally left blank



SECTION A: INTEGRAL R	5
A.I.General	5
1. Type/ Model/ Variant	5
2. Airworthiness Category	5
3.a. Type Certificate Holder	5
3.b. Manufacturer	5
4. EASA Type Certification Application Date	5
5. State of Design Authority	5
6. State of Design Authority Type Certificate Date	5
7. EASA Type Certification Date	5
A.II.EASA Certification Basis	5
1. Reference Date for determining the applicable requirements	5
2. Airworthiness Requirements	5
3. Special Conditions	5
4. Exemptions	5
5. (Reserved) Deviations	6
6. Equivalent Safety Findings	6
7. Environmental Protection	6
A.III. Technical Characteristics and Operational Limitations	7
1. Type Design Definition	7
2. Description	7
3. Equipment	7
4. Dimensions	7
5. Engine	7
6. Load factors	7
7. Propeller	7
8. Fluids	7
9. Fluid capacities	7
10. Air Speeds (Indicated)	8
11. Flight Envelope	8
12. Approved Operations Capability	8
13. Maximum Masses	8
14. Centre of Gravity Range	8
15. Datum	8
16. Control surface deflection	8
17. Levelling Means	8
18. Minimum Flight Crew	8
19. Maximum Passenger Seating Capacity	8
20. Baggage/ Cargo Compartments	8
21. Wheels and Tyres	8



22. (Reserved)	8
A.IV. Operating and Service Instructions	9
1. Flight Manual	9
2. Maintenance Manual	9
3. Instructions for Continued Airworthiness	9
4. Structural Repair Manual	9
5. Weight and Balance Manual	9
6. Illustrated Parts Catalogue	9
A.V. Notes	10
SECTION ADMINISTRATIVE	11
I. Acronyms & Abbreviations	11
II. Type Certificate Holder Record	12
III. Change Record	12



SECTION A: INTEGRAL R

A.I. General

1. Type/ Model/ Variant	
1.1 Type	INTEGRAL
1.2 Model	INTEGRAL R
1.3 Variant	None
2. Airworthiness Category	CS-23, Normal category
3.a. Type Certificate Holder	AURA AERO Aéroport Toulouse Francazal, 135 avenue du Comminges 31270 Cugnaux France
3.b. Manufacturer	AURA AERO Aéroport Toulouse Francazal, 135 avenue du Comminges 31270 Cugnaux France
4. EASA Type Certification Application Date	12 March 2019
5. State of Design Authority	EASA
6. State of Design Authority Type Certificate Date	N/A
7. EASA Type Certification Date	18 December 2024

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	12 March 2019
2. Airworthiness Requirements	EASA CS-23, Certification Specifications for Normal Category Aeroplanes, Amdt. 5, dated 29 March 2017
3. Special Conditions	None
4. Exemptions	None
5. (Reserved) Deviations	None
6. Equivalent Safety Findings	None
7. Environmental Protection	see TCDSN EASA.A.661



A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: I0000015.A001.00, INTEGRAL R TYPE DESIGN DEFINITION, issue E or later approved issue
2. Description: Two seat, side by side configuration, aerobatic airplane, low wing, with fixed main gear in tail-wheel configuration, structure made of wood reinforced with carbon, single reciprocating engine and tractor propeller.
3. Equipment: Refer to Section 03-00-04 of the Aircraft Maintenance Manual, latest approved issue
4. Dimensions:

Wing span	8.78 m / 28.80 ft
Height	2.48 m / 8.14 ft
Length	7.26 m / 23.82 ft
Wing area	9.97 m ² / 107.32 ft ²
5. Engine
 - 5.1. Model Lycoming AEIO-390-A3B6
 - 5.2 Type Certificate EASA.IM.E.097
 - 5.3 Limitations Refer to the latest version of TCDS EASA.IM.E.097
6. Load factors

BC Category:	+5 g / -3 g	at MTOW 1005 kg
A2 Category (double seat):	+6 g / -4 g	at MTOW 910 kg
A1 Category (single seat):	+6 g / -4 g	at MTOW 795 kg
7. Propeller
 - 7.1 Model MT-Propeller MTV-15-B-C / C-193-25
 - 7.2 Type Certificate EASA.P.098
 - 7.3 Number of blades 2
 - 7.4 Diameter 1 930 mm / 76 in
 - 7.5 Sense of Rotation clockwise, seen from pilot's point of view
8. Fluids
 - 8.1 Fuel Refer to applicable AFM section.
 - 8.2 Oil Refer to applicable AFM section.
 - 8.3 Coolant N/A
9. Fluid capacities
 - 9.1 Fuel

Total capacity:	169 l / 44.7 US gal
Usable capacity:	150 l / 39.7 US gal
Usable capacity for aerobatics:	70 l / 15.5 US gal



9.2 Oil

Max. sump capacity: 7.6 l / 8 US qts.

Min. sump capacity: 3.5 l / 4 US qts. *)

*) max +15°/-20° pitch, no aerobatics

9.3 Coolant system capacity N/A

9.4 Smoke Oil N/A

10. Air Speeds (Indicated)

V_S – Stall Speed: BC Category: 114 km/h / 62 kts

A1/A2 Category: 114 km/h / 62 kts

V_A – Manoeuvring Speed: BC Category: 278 km/h / 150 kts

A1/A2 Category: 294 km/h / 159 kts

V_{NO} – Max. Structural Cruising speed: BC Category: 294 km/h / 159 kts

A1/A2 Category: 294 km/h / 159 kts

V_{NE} – Never Exceed Speed 330 km/h / 178 kts

11. Flight Envelope

Max. operating altitude above MSL: 3 810 m / 12 500 ft

12. Approved Operations Capability

VFR-Day

13. Maximum Masses

Maximum take-off & landing: BC Category: 1005 kg / 2215 lbs

A2 Category: 910 kg / 2006 lbs

A1 Category: 795 kg / 1753 lbs

14. Centre of Gravity Range

Maximum Forward CG: BC Category: 24% WRC - 798 mm

A1/A2 Category: 24% WRC - 798 mm

Maximum Rearward CG: BC Category: 32% WRC - 896 mm

A1/A2 Category: 30.5% WRC - 875 mm

15. Datum

Firewall



16. Control surface deflections

Aileron:	+20° (down) / -24° (up)
Elevator:	+23° (down) / -20° (up)
Rudder:	± 20°
Elevator trim tab:	+5 (down)/- 19° (up)

17. Levelling Means

Fuselage Upper Flange

18. Minimum Flight Crew

1 pilot

19. Maximum Passenger Seating Capacity

1 Passenger

20. Baggage/ Cargo Compartments

Max. mass in baggage compartment:

30 kg / 66 lbs

The baggage compartment must be empty for aerobatics.

See AFM for further information.

21. Wheels and Tyres

Main Wheel Tyre Size:	5.00-5", 8-ply
Tail Wheel Tyre Size:	6"

22. (Reserved)



A.IV. Operating and Service Instructions

1. Flight Manual

I0100018.A001.01	Aircraft Flight Manual (AFM)	issue A or later EASA approved issue
------------------	------------------------------	--------------------------------------

2. Maintenance Manual

I0100019.A001.01	Aircraft Maintenance Manual (AMM)	issue A or later approved issue
------------------	-----------------------------------	---------------------------------

3. Instructions for Continued Airworthiness

I0100025.A001.01	Instructions for Continued Airworthiness (ICA)	issue A, or later approved issue
------------------	--	----------------------------------

4. Structural Repair Manual

N/A

5. Weight and Balance Manual

Section VI of AFM

6. Illustrated Parts Catalogue

N/A



A.V. Notes

1. Lifetime limited to 5 000 hours until the completion of the Fatigue testing.
2. Black or dark blue paints are prohibited on control surfaces.
3. For AMC used to comply with CS-23 amendment 5 see the “Explanatory Note No.: TCDS EASA.A.661” document published along with this TCDS on EASA website.



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

°	Degree plane angle
°C	Degrees Celsius / Centigrade
°F	Degrees Fahrenheit
AEPS	Aircraft Emergency Parachute System
AFM	Airplane Flight Manual
Amdt.	Amendment
AMM	Airplane Maintenance Manual
CHT	Cylinder Head Temperature
CRI	Certification Review Item
CS	Certification Specifications
CG	Center of Gravity
EASA	European Union Aviation Safety Agency
ft	Feet; 1 foot = 0.3048 m
ft ²	Square feet; 1 ft ² = 0.093 m ²
g	Acceleration (9.81 m/s ²)
IAS	Knots Indicated Airspeed
in. or ″	Inch; 1″ = 25.4 mm
kts	Knots
kg	Kilogrammes
kIAS	Knots Indicated Airspeed
km/h	Kilometre per hour; 1 km/h = 0,54 knots
l	Liter
lb	Pound; 1 Pound = 0.4536 kg
lbs	Pounds
m	Meter; 1 m = 3.2808 ft
m ²	Square meter; 1 m ² = 10.764 ft ²
max.	Maximum
min.	Minimum
mm	Millimeters
MSL	Mean Sea Level
MTOW	Maximum Take-Off Weight
N/A	Not Applicable
POH	Pilot's Operating Handbook
RPM	Revolutions per minute
TCDNS	Type Certificate Data Sheet Noise
US gal.	US Gallon (3.785 liters)
US qts	quarts = ¼ gallon = 0.95 litre
VFR	Visual Flight Rules
V _{NE}	Never Exceed Speed
V _{NO}	Maximum structural cruising speed
V _A	Maximum manoeuvring speed
WRC	Wing Root Chord



II. Type Certificate Holder Record

AURA AERO
Aéroport Toulouse Francazal,
135 avenue du Comminges
31270 Cugnaux
France

III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	18-DEC-2024	Initial Issue	Initial Issue, 18-DEC-2024

-END-

