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# TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.633

**for**  
ELIXIR

**Type Certificate Holder**  
ELIXIR AIRCRAFT

Rue de Jura  
17000 La Rochelle  
France

For models:    Elixir



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## **SECTION A – ELIXIR**

### **A.I. General**

1. Type/ Model/ Variant

1.1 Type: ELIXIR

1.2 Model: Elixir

2. Airworthiness Category: CS-23, Normal category

3. Manufacturer: ELIXIR AIRCRAFT  
Rue de Jura  
17000 La Rochelle  
France

4. EASA Type Certification Application Date: May 17<sup>th</sup>, 2017

7. EASA Type Certification Date: March 20<sup>th</sup>, 2020

### **A.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements: May 2016

2. Airworthiness Requirements: CS-23 [Certification Specifications for Normal, Utility, Aerobatic and Commuter Category Aeroplanes] Amdt. 5, dated March 29<sup>th</sup>, 2017  
CS-ACNS, Issue 4, dated 05 April 2022

**in addition, for aircraft modified by Elixir Aircraft  
modification MOD-2023-14:**

CS-23 [Certification Specifications for Normal, Utility, Aerobatic and Commuter Category Aeroplanes] Amdt. 6, dated March 8<sup>th</sup>, 2023, Sections 23.2100, 23.2105, 23.2110, 23.2115, 23.2120, 23.2125, 23.2130, 23.2135, 23.2140, 23.2145, 23.2150, 23.2155, 23.2160, 23.2165, 23.2170, 23.2200, 23.2210, 23.2215, 23.2220, 23.2225, 23.2230, 23.2235, 23.2240, 23.2245, 23.2250, 23.2255, 23.2260, 23.2265, 23.2270, 23.2300, 23.2305, 23.2340, 23.2400, 23.2445, 23.2500, 23.2510, 23.2530, 23.2535, 23.2610, 23.2615, 23.2620, 23.2625

3. Special Conditions: None

4. Exemptions: None

5. (Reserved) Deviations: None

6. Equivalent Safety Findings: None



7. Environmental Protection: See TCDSN EASA.A.633.

### **A.III. Technical Characteristics and Operational Limitations**

1. Type Design Definition : ELIXIR Master Document List LXR-AI-REC-DOC-MASTER  
DOCUMENT LIST.R02 or later approved revision.

2. Description:

The airplane is a side-by-side two-seater. It has a partially elliptical cantilever low wing configuration with flaps and ailerons. The tail has a T configuration. The tricycle landing gear is fixed.

3. Equipment: The aeroplane is equipped with an airframe parachute.

4. Dimensions:

Wing span	8.54 m
Height	1.90 m
Length	6.06 m
Wing area	7.9 m <sup>2</sup>

**When modified by Elixir Aircraft modification MOD-2023-14**

Wing span	8.94 m
Height	1.90 m
Length	6.06 m
Wing area	8.24 m <sup>2</sup>

5. Engine:

5.1. Model:	ROTAX 912 iSc3 Sport
5.2 Type Certificate:	EASA.E.121
5.3 Limitations:	Refer to TCDS No. E.121.

6. Load factors:

Flaps up n	+4
Flaps up n	-2
Flaps down n	+2
Flaps down n	0

7. Propeller:

7.1 Model:	MTV-34-1-A/156-203
7.2 Type Certificate:	EASA.P.049
7.3 Number of blades:	3
7.4 Diameter:	1.56 m (61,4 in)
7.5 Sense of Rotation:	Clockwise (pilot's view)



8. Fluids:

- 8.1 Fuel: Refer to applicable AFM Section 2 – Limitations.  
8.2 Oil: Refer to applicable AFM Section 2 – Limitations.  
8.3 Coolant: Refer to applicable AFM Section 2 – Limitations.

9. Fluid capacities:

- 9.1 Fuel: Total capacity ..... 104 L  
Usable capacity ..... 100 L  
9.2 Oil: Min. sump capacity ..... 3.05 L  
Max. sump capacity ..... 3.5 L  
9.3 Coolant system capacity: ..... 2.5L

10. Air Speeds (indicated):

- $V_{SO}$  ..... 85 km/h (46 KIAS)  
 $V_S$  ..... 113 km/h (59 KIAS)  
 $V_{FE}$  ..... 164 km/h (88 KIAS)  
 $V_A$  ..... 224 km/h (121 KIAS)  
 $V_C$  ..... 244 km/h (131 KIAS)  
 $V_{NE}$  ..... 290 km/h (156 KIAS)

**When modified by Elixir Aircraft modification MOD-2023-14**

- $V_{SO}$  ..... 87 km/h (47 KIAS)  
 $V_S$  ..... 110 km/h (59 KIAS)  
 $V_{FE}$  ..... 164 km/h (88 KIAS)  
 $V_A$  ..... 228 km/h (123 KIAS)  
 $V_C$  ..... 251 km/h (136 KIAS)  
 $V_{NE}$  ..... 290 km/h (156 KIAS)

Note: IAS = CAS + 2 km/h on the whole flight envelope and flap settings.

11. Flight Envelope:

Max. operating altitude above MSL: 16 000 ft (4877 m)

12. Approved Operations Capability:

Day VFR / Night VFR

13. Maximum Masses:

Max. Takeoff mass is 630 kg (1389 lbs)

**When modified by Elixir Aircraft modification MOD-2023-14**

Max. Takeoff mass is 700kg (1543 lbs)



- |   |   |
|---|---|
| 14. Centre of Gravity Range:            | Refer to applicable AFM   |
| 15. Datum:                              | The datum line is the firewall.                                 |
| 16. Control surface deflections:        | Refer to AMM.   |
| 17. Levelling Means:                    | Refer to AMM.   |
| 18. Minimum Flight Crew:                | One (1) pilot.  |
| 19. Maximum Passenger Seating Capacity: | One (1) passenger.  |
| 20. Baggage/ Cargo Compartments:        | At the back of the seats, weight limitation: Refer to AFM.      |
| 21. Wheels and Tyres:                   | Main wheel size ..... 5.00-5<br>Nose wheel size ..... 11x4.00-5 |
| 22. (Reserved)                          |   |



#### **A.IV. Operating and Service Instructions**

- |                       |   |
|-----------------------|---|
| 1. Flight Manual      | Refer to Service Information Letter LXR-AI-REC-DOC-SIL-633-004 – LIST OF TECHNICAL DOCUMENTATION. |
| 2. Maintenance Manual | Refer to Service Information Letter LXR-AI-REC-DOC-SIL-633-004 – LIST OF TECHNICAL DOCUMENTATION. |

#### **A.V. Notes**

**Note 1 :** Structure is qualified up to 54°C (129.2°F). Operation of the aircraft with structure temperatures (composite) above 54°C (129.2°F) is not permitted.

**Note 2:** In order to show the compliance with the CS-23, Amdt. 5, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:

- 2.1 - SC-ELA.2015-01 [Lithium battery installations] Issue 1
- 2.2 - SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2
- 2.3 - AMC-D23.0865-02 [Fire protection – Attachment of Engine Mount to composite Structure]
- 2.4 - ASTM F2316-12 [Aircraft Emergency Parachute System]
- 2.5 - CRI E-53 [Fuel pumps]
- 2.6 – M-TS-0000470 [Replacement of Halon based fire extinguisher]

#### **In addition, when modified by Elixir Aircraft modification MOD-2023-14**

In order to show the compliance with the CS-23, Amdt. 6, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:

- 2.7 - M-TS-0000573 [Enhanced Stall Characteristics, Stall characteristics, stall warning and spins]
- 2.8 - M-TS-0000583 [CS-VLA aircraft with stalling speed in landing configuration above 45kts]

**Note 3 :** When modified by Elixir Aircraft modification MOD-2023-14 the Elixir model is designated „Elixir B“ into the approved documentation.





## **SECTION ADMINISTRATIVE**

### **I. Acronyms & Abbreviations**

AFM	Airplane Flight Manual
Amdt.	Amendment
AMM	Airplane Maintenance Manual
EASA	European Aviation Safety Agency
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise

### **II. Type Certificate Holder Record**

ELIXIR AIRCRAFT since March 20<sup>th</sup>, 2020

### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>TC Issue No. &amp; Date</b>
01	20 March 2020	Initial Issue	Issue 01, 20 March 2020
02	22 February 2022	Update of manufacturer address, change of propeller model, increase of MTOM, update of air speeds, removal of note on post TC items, addition of structural temperature limitation. Editorial updates.	Issue 02, 25 May 2021
03	06 July 2022	Editorial clarification of Certification Basis	/
04	23 March 2023	Addition of night VFR capability Editorial changes	/
05	16 October 2023	Editorial change of the §A.III.8 - Fluids Update of section §A.IV "Operating and Service Instructions", page 6	/
06	18 July 2025	Editorial changes Addition of aircraft modified by Elixir Aircraft modification MOD-2023-14 Addition of Note 2 and Note 3 §A.V	/

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