

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A00078CE
Revision 0
EXTRA NG
December 9, 2020

TYPE CERTIFICATE DATA SHEET No. A00078CE

This Data Sheet which is a part of Type Certificate No. A00078CE prescribes conditions and limitations under which the product for which the Type Certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Extra Aerobatic Aircraft GmbH
Kirchstraße 158
D-46514 Schermbeck
Germany

Type Certificate Holder Record -/-

I. Model EXTRA NG (Acrobatic Category), Approved December 9, 2020

Engines One Textron Lycoming AEIO-580-B1A (FAA TCDS E00004NY)

Fuel Avgas 100 or 100LL minimum grade aviation gasoline

Engine Limits Maximum take-off and maximum continuous: 315 SHP/2700 RPM
Maximum take-off and maximum continuous: 306 SHP/2600 RPM
(See NOTE 5 for compliance with noise requirements)

Propeller and Propeller Limits

MT Propeller	MTV-9-B-C/C198-25; FAA TCDS P24NE	MTV-14-B-C/C190-130; FAA TCDS P3BO
No. of Blades:	3	4
Diameter	77.95 ± 0.20 in. (1980 mm ± 5 mm)	74.80 ± 0.20 in. (1900 mm ± 5 mm)
Low Pitch	9.5° ± 0.2°	9° ± 0.2°
High Pitch	34° ± 1°	34° - 1°
Pitch Radius at	29.13 in. (74 cm)	27.95 in (71 cm)

Airspeed Limits (KCAS) Acrobatic Cat.
Vne 220 kt
Vno 158 kt
Va 158kt

Center of Gravity (C.G.) Range Takeoff, flight and landing: All Weights
Forward C.G. (aft of datum) 25.04 in (636 mm)
Rear C.G. (aft of datum) 31.69 in (805 mm)

Empty Weight (C.G.) Range None

Maximum Weight 1808 lbs (820 kg) - Acrobatic Category (Single seat operation/Acro I)
1984 lbs (900 kg) - Acrobatic Category (Double seat operation/Acro II)
2095 lbs (950 kg) - Acrobatic Category (Double seat operation/Acro III)

Maximum Landing Weight 1989 lbs (902 kg) - Acrobatic Category (Acro I / Acro II / Acro III)

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<u>Empty Weight</u>	1499 lbs (680 kg) - Acrobatic Category (Single seat operation/Acro I) 1526 lbs (692 kg) - Acrobatic Category (Double seat operation/Acro II) 1636 lbs (742 kg) - Acrobatic Category (Double seat operation/Acro III)		
<u>Minimum Crew</u>	1 pilot (Rear seat)		
<u>Number of Seats</u>	2 (41.3 in and 80.7 in aft of datum)		
<u>Maximum Baggage</u>	44 lbs (20kg) total in baggage area behind pilot's seat at 108.3 in (2750mm) aft of datum; Carriage of baggage prohibited during aerobatic maneuvers		
<u>Fuel Capacity</u>	Total capacity: 51.8 gal. (196 liters) - AUX tanks (LH and RH wing tanks; 15.85 gal. [60 liters] each): 31.7 gal. (120 liters); Moment arm: 18.1 in (0.46 m) - Center tank: 16.4 gal. (62 liters); Moment arm: 7.9 in (0.20 m) - Acro tank: 3.5 gal. (13.5 liters); Moment arm: 3.9 in (0.10 m) Usable fuel in the system: 51.0 gal. (193 liters) Unusable fuel in the system: 0.8 gal. (3 liters) Usable fuel in the Center/Acro tanks: 19.3 gal. (73 liters) Unusable fuel in the Center/Acro tanks: 0.6 gal. (2.5 liters) (See NOTE 1 for data on weight and balance.)		
<u>Oil Capacity</u>	Minimum sump capacity 2.25 gal. (8.5 liters) Maximum sump capacity 4 gal. (15 liters) at 23.4 in in front of datum (See NOTE 1 for data on weight and balance)		
<u>Smoke Oil Capacity</u>	Total capacity: 9.6 gal. (36.5 liters) - Center oil tank: 6.1 gal. (23 liters); Moment arm: 7.9 in (0.20 m) - Acro oil tank: 3.5 gal. (13.5 liters); Moment arm: 3.9 in (0.10 m) (See NOTE 1 for data on weight and balance)		
<u>Maximum Operational Altitude</u>	10000 ft (3048 m)		
<u>Control Surface Movements</u>	Aileron	30°±2° upward	30°±2° downward
	Elevator	25°-2° upward	25°-2° downward
	Trim tab	35°±2° upward	35°±2° downward
	Rudder	30°±2° left	30°±2° right
<u>DATA PERTINENT TO ALL MODELS.</u>			
<u>Datum.</u>	Plane of Firewall.		
<u>Leveling Means.</u>	Horizontal area of cockpit canopy frame.		
<u>Serial Numbers Eligible.</u>	Each individual aircraft manufactured under this type certificate must be accompanied by an Export Certificate of Airworthiness as noted below under "Import Requirements" when an application for a U.S. airworthiness certificate is made. Model EXTRA NG serial number NG001 and on (airplanes manufactured by Extra Flugzeugproduktions- und Vertriebs- GmbH)		
<u>Import Requirements</u>	For aircraft produced in Germany, the FAA can issue a U.S. airworthiness certificate based on a Luftfahrt Bundesamt (LBA) Export Certificate of Airworthiness (Export C of A). The Export C of A should contain the following statement, "The [insert aircraft MODEL] covered by this certificate conforms to		

the type design approved under U.S. Type Certificate Number A00078CE, and is found to be in a condition for safe operation.”

Certification Basis

Model EXTRA NG: TC Application Date: July 2nd, 2019

Part 23 of Title 14 of the Code of Federal Regulations effective February 1, 1965, as amended by Amendments 23-1 through 23-62; Including a specific Means of Compliance to Section 23.2145; Amdt. 23-64; Static Lateral Stability in lieu of Part 23, Amdt. 23-62, Section 23.177(d)(1)

Part 36 of Title 14 of the Code of Federal Regulations effective December 1, 1969, as amended by Amendments 36-1 through 36-31

Part 34 of Title 14 of the Code of Federal Regulations effective December 1, 1969, as amended by Amendments 34-1 through 34-5A

Equivalent Level of Safety as follows:

- (a) AT01075CE-A-F-3: 14 CFR Section 23.207, Stall Warning
- (b) AT01075CE-A-F-4: 14 CFR Section 23.777(d), Powerplant Controls Location
- (c) AT01075CE-A-F-4: 14 CFR Section 23.781(b), Throttle Control Shape
- (d) AT01075CE-A-G-9: 14 CFR Part 23, Amendment 23-62 Error Document

Special Conditions: None

Approved for VFR-day only. Flight in known icing prohibited.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.

In addition, the following items of equipment are required.

Model EXTRA NG:

Pilot's Operating Handbook and FAA approved Airplane Flight Manual dated December 8, 2020, Doc. No. EA-01701, or later EASA (on behalf of FAA) approved revision.

NOTE 1.

A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original airworthiness certification, and at all times thereafter. The certificated empty weight and corresponding center of gravity location must include full oil and unusable fuel.

NOTE 2.

Placards (Refer to Manufacturer's Specifications for a complete listing):
All required placards as listed in the approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3.

Instructions for Continued Airworthiness and Service Life Limited components are included in the Airplane Maintenance Manual Document No. EX-01702, Revision 2, 2nd Edition, dated November 6, 2020, or later approved revision. Revisions to the Airworthiness Limitations Section (ALS; AMM Chapter 04) must be approved by EASA on behalf of FAA.

NOTE 4.

Major structural repairs must be accomplished at FAA certified repair stations rated for composite aircraft structure work, in accordance with Extra repair methods approved by EASA and accepted by the FAA.

NOTE 5.

Compliance with the applicable noise requirements of the certification basis is demonstrated for an aircraft equipped with:

4-blade propeller MTV-14-B-C/C190-130 in combination with the exhaust

silencer system type Gomolzig EA300-606000; or

3-blade propeller MTV-9-B-C/C198-25 in combination with the exhaust silencer system type Gomolzig EA300-606000 and reduced maximum take-off engine rotational speed of 2600 RPM by Governor P-880-41 (pre-adjusted to max 2600RPM).

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